Oracle® Utilities Work and Asset Management

Volume 3

Compatible Units User Guide

Release 1.9.0.4.6

E26186-02

October 2012

ORACLE®

Oracle® Utilities Work and Asset Management Compatible Units User Guide for Release 1.9.0.4.6

Doc v1 rev.0 10/2/12

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Chapter 1
Overview

This User Guide discusses a concept rather than a subsystem. The Regulatory Account, Compatible Units, Compatible Structure, and Work Order Task modules encompass the functionally involved in the use of compatible units functionality in the system.

Your business practices will determine whether or not your organization uses compatible units, how they are used, and whether or not the functionality is activated when you log on to the system.

Compatible units are planning tools that identify assemblies of material items, such as power poles or transformers, with associated labor and equipment estimates. Using compatible units can assist your organization in compliance with the reporting requirements of the Federal Energy Regulatory Commission (FERC) and other regulatory agencies. The Compatible Structure module is used to group compatible units and to simplify the process of adding compatible units to work order tasks. The Regulatory Account module is used to track the costs that are associated to work on compatible units.

Compatible Units Configuration Checklist

The following components must be properly configured before compatible units functionality can be used. Please refer to the Configuration Guide for more details.

1. Set Compatible units business rules and code tables. Please refer to the configuration guide for more information.

2. Define Stock Items as CU Materials. Please refer to the configuration guide for more information.

   If your organization uses conductors, stock items for these may need to be defined as well. Refer to Planning Compatible Units for Conductors for more information.

3. Set Up Regulatory Accounts

4. Define Compatible Units

5. Define Compatible Structures

Chapter 2
Regulatory Account

Federal and state regulatory agencies may require your organization to report financial and operational information according to a uniform system of accounts, rather than the standard business accounts used elsewhere in the system. The Regulatory Account module provides a way of distributing costs against such a system of regulatory accounts, without having to derive them from the regular business accounts defined in the Account module.

Regulatory accounts support reporting of capital, maintenance and operational costs. Once usage codes and regulatory accounts are defined with associated account types and account treatments, you can set up Compatible Units records and plan work against these compatible units. After initial set up, work records that reference compatible units can be created, and the system applies the costs associated to the work to the regulatory accounts that are referenced. As part of the compatible units business process a great variety of regulatory work and requirements can be planned and tracked down to the work order task level.

Setting up Regulatory Accounts

You can use the Regulatory Account module to define the Federal Energy Regulatory Commission (FERC), Public Utility Commission (PUC) and Federal Communications Commission (FCC) accounts required by your organization, and associate them with the appropriate account treatments and usage codes. These accounts can then be referenced as compatible units are planned against Work Order Task records.

You can also define Regulatory Account records without usage codes for gathering costs that do not apply to compatible units.

The full process of setting up regulatory accounts involves the following steps:
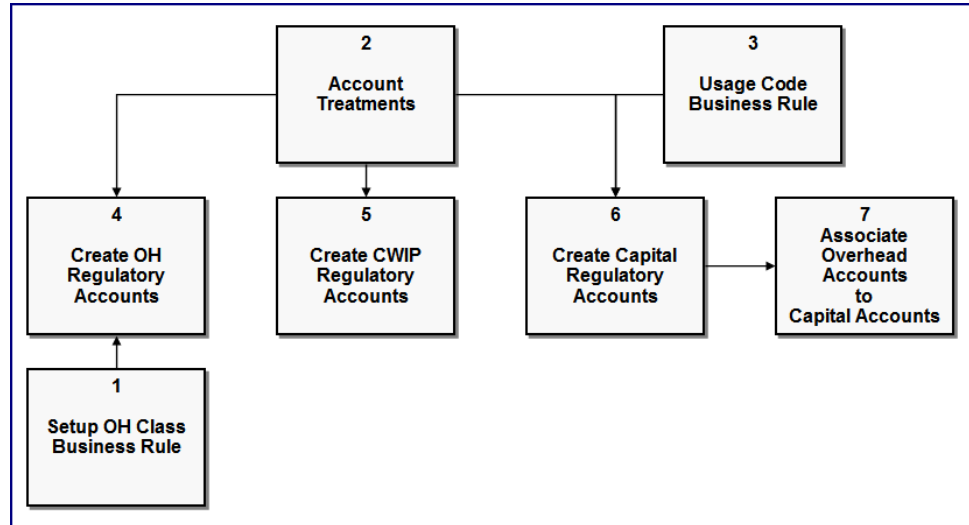
How to Set Up Regulatory Accounts

1. **Define Overhead Classes in the Regulatory Acct Overhead Class business rule.**
   The classes that you create here will define the groups of overhead costs that will accumulate over time. These costs should be distributed at the end of the monthly or annual period. Defined classes can pertain to Direct, Indirect or both overhead types.

   Applied type denotes the Expense Categories that should be marked up. ALL denotes all expense categories should get overhead mark up.

   Please refer to the Business Rules guide for more detailed descriptions of the rule keys.

2. **Define Usage Codes in the Regulatory Account Usage Codes business rule.**
   Usage codes identify broad cost categories, such as street lighting or overhead transmission. This rule defines codes that can be used to classify regular accounts by Account Type as well as to create a short cut reference to actual Regulatory Account. For example, DP is easier for a user to remember to choose for Distribution Poles, rather than an equivalent FERC account such as 100.2. The values established here are used in the list of values in the Usage Code field on the Regulatory Account module header.

   Each usage code is unique and includes a brief description, which may correspond to the regulatory title in the uniform system of accounts you are reporting against. Each usage code is also associated with an account type, either FERC (Federal Energy Regulatory Commission), PUC (Public Utilities Commission), or FCC (Federal Communications Commission).

3. **Review Account Treatments to use on the Regulatory Account.**
   The Accounting Treatment field on the Regulatory Account record allows you to choose from the following treatment types: Capital, Overhead, Work In Progress, Maintenance, and Operations.

   This discussion is related to Capital, Overhead, and Work In Progress, as Maintenance and Operations are more straightforward setups that do not depend on the establishment of additional accounts.

   Capital regulatory accounts are used to capture direct costs and allow for overhead distributions.

   Overhead Regulatory Accounts are the "buckets" of overhead to disburse to capital accounts at the end of a monthly or annual cycle.

The capital **Work In Progress Regulatory** (CWIP) Account is the "holding" account where all capital costs are incurred until the work is finished. When work is finished, the costs are moved from the CWIP account to the appropriate capital account.

Usage Codes are not used when the Accounting Treatment is Overhead or WIP.

4. **Create Overhead Regulatory Accounts.**
Create an overhead regulatory account first so that it can be referenced when the capital account is created. Set the Accounting Treatment to Overhead, enter the appropriate Overhead class, and leave the Usage Code and WIP Account Number blank. Set the status to Active and save.

When a capital account references an overhead class, all overhead accounts that reference the class are used on the capital account. Given this, you should be certain that the structure you create here, accurately represents all of the accounts that you want used whenever the Overhead class is referenced.

5. **Create CWIP Regulatory Accounts.**
If you want to distribute costs against one regulatory account while the work is underway and another account when the work is completed, identify a work in progress account. Create a WIP or capital WIP (CWIP) regulatory account before you create the capital account so that it can also be referenced when the capital account is created. Set the Accounting Treatment to Work In Progress and leave the Usage Code, Overhead Class, and WIP account number blank. Set the status to Active and save.

6. **Create Capital Regulatory Accounts.**
Create the Capital account by setting the Accounting Treatment to Capital, entering the appropriate Usage Code, and reference the WIP account number created in the previous step. It is used in work planning rather than the regulatory account. Leave the Overhead Class field blank. Do not set the status to Active until the account is associated to an overhead account.

7. **Associate Overhead Accounts to Capital Accounts.**
On the Capital account created in the previous step, select Overhead Accounts from the views list in the Regulatory Accounts module. This view is only used by the Indirect Overhead distribution process to distribute costs in period end processing.

Associate overhead accounts with the capital account by entering the appropriate Overhead Class in the designated field. The accounts related to the classes are shown in the bottom section of the screen. When a capital account references an overhead class, all overhead accounts with this class are distributed to the capital account.

This page does not establish the distribution percentage, just the fact that the capital account will receive indirect overhead allocations. The percentage is defined in the Regulatory Acct Overhead Class business rule.

8. **Activate the account.**
Set the status of the capital account to Active and save.

Regulatory Account Records

The following sections provide more detail into the elements found in Regulatory Account records.

The following fields are included:

Account Number - This number is not part of sequence numbering so you can enter any unique number. Typically, you will enter a number suggested by the uniform system of regulatory accounts you are reporting against.

Status - Valid statuses are Created, Active and Inactive. You cannot change the status from Active to Created or Inactive if the regulatory account is being used on an active Compatible Unit record.

Account Type - The Regulatory Account module supports three types of accounts, FERC (Federal Energy Regulatory Commission), PUC (Public Utilities Commission), or FCC (Federal Communications Commission). When creating a new record, you must select one of these three account types.

Account Treatment - Account treatments are used in compatible unit functionality to create cost categories such as capital, maintenance, overhead, or work in progress. Select the appropriate accounting treatment for this account from the list of values. Options are Capital, Maintenance, Overhead, and Work In Progress. If you select Overhead or Work In Progress as the account treatment, usage codes are not used.

Account Description - Enter a description to help identify the regulatory account. Depending on your business practices, you might use the detailed description from the uniform system of regulatory accounts you are reporting against.

Usage Code and Usage Code Description - Select the appropriate usage code. The usage code and code description are defined in the Regulatory Account Usage Codes business rule. The list of values for this field only shows usage codes associated with the chosen account type that are not already associated to a Regulatory Account record in Created or Active status with the same account treatment. You can only update the usage code when the account treatment is capital, maintenance, or operations.

Note: If you do not see a usage code that you expect to see listed, try selecting another account type.

Overhead Class - If overhead is selected as the account treatment, you can choose an overhead class from the list of values. Defined in the Regulatory Account Overhead Class business rule, overhead classes provide the ability to allocate overhead costs to the appropriate capital, maintenance and operations regulatory accounts for reporting purposes.

WIP Account Number - Work in progress accounts are used if you want to distribute costs against one regulatory account while the work is underway and another account when the work is completed. The list of values associated with this field only shows regulatory accounts that have the "Work in Progress" account treatment.

YTD Amounts - The system displays the current year to date committed, actual, and allocated amounts for this Regulatory Account record.

Last Year Amounts - The system displays the previous year's committed and actual amounts for this Regulatory Account record in these fields.

How to Create a Regulatory Account Record

Once your account types and usage codes are defined in the Regulatory Account Usage Codes Business Rule, the main Regulatory Accounting records can be created.

1. **Open the Regulatory Account module.**
2. **Click New.**
3. **Enter an account number and a description.**
   The account number is not part of sequence numbering and you can use any number format.
4. **Enter values in the Account Type, Account Treatment and Usage Code fields.**
5. **Enter an overhead class if applicable.**
6. **Indicate a work in progress account if applicable.**
7. **Click Save.**
8. **Set the status to Active.**
   If you need to make changes once the record is in Active status, you can set the status back to Created as long as the regulatory account is not being used on an active Compatible Unit record.
9. **Click Save.**
   After the system saves the record, you can continue to create additional records as necessary.

Regulatory Accounts on Work Order Records

You can associate regulatory accounts to work order tasks by either adding compatible units to the CU Worksheet or by updating the Regulatory Accounting view directly. When the Work Order Task record is in Planning, Approved, or Active status, the Regulatory Accounting view can be updated as long as no compatible units have been added. If it becomes necessary to add regulatory account information to a work order in Active status that already has regulatory account entries, you must first create a new task and add the regulatory account information to that task.

Once you add Compatible Unit records to the CU Worksheet, the system automatically populates the Regulatory Accounting view using a percentage split based on total compatible unit costs for the Task record. Records are inserted even if the percentage split equals zero. If necessary, you can change the system calculated distribution by selecting Update Distributions from the Actions list. You can also create an overhead task on Tasks that have no compatible units planned on the CU Worksheet.

Since each capital regulatory account must have at least one construction asset, the system automatically enters a construction asset line item in the Construction Asset view when a capital type account is entered.

If items are added to the task during work that are not accounted for by compatible units planned on the task, you can access the CU Reconciliation view when the Task record is in Finished status and allocate these additional costs to the appropriate compatible units as needed. When you do, the system recalculates the regulatory account distribution accordingly.

Regulatory Account Views

In addition to standard views, the module includes the following:

Period Costs

The upper section of the Period Costs view shows the accumulated totals for the committed and actual costs for each period.

The lower section shows the breakdown of the costs accumulated by expense code for the period selected in the top portion. The description displayed is defined in the Expense Codes business rule.

All data on the Period Costs view is system-maintained and cannot be modified.

Yearly Costs

The upper section of the Yearly Costs view shows the accumulated totals for committed, actual, allocated, and actual plus allocated costs for each year.

The lower section of the view shows the breakdown of the costs accumulated by expense code / overhead class for the year selected in the top portion. For direct charges, the Allocated Amount field is left blank and the Expense Code / Overhead Class field displays the expense category that was defined in the Expense Codes business rule. For all other charges, the Expense Code / Overhead Class field displays the overhead class and the Allocated Amount field contains the sum of the allocated amounts for the year for the overhead class.

All data on the Yearly Costs view is system-maintained and cannot be modified.

Work Orders

The upper section of the Work Orders view shows the accumulated totals of the actual costs for each work order task. The records are listed by work order number, then by task number.

The lower section shows a breakdown of the costs accumulated by transaction type for the work order task selected in the top portion.

Fixed Assets

Fixed assets are either constructed during the completion of work order tasks or are built by an outside supplier and handed over to your organization as they are completed. The system maintains accounting information on these assets in the Regulatory Account Fixed Assets view.

The upper portion of the Regulatory Accounts Fixed Assets view lists annual summary information for Fixed Assets referencing the Regulatory Account. The lower portion of the view lists date and cost information for all the Fixed Assets created during the year highlighted in the upper section. As you click Fixed Assets in the lower section to select them, the Asset Description field changes to show the description of the selected asset.

All of the information on the Fixed Assets view is system-maintained data and cannot be updated directly. See the section on Construction Assets for more information on creating Fixed Assets.

Overhead Accounts

The allocation of overhead charges to non-overhead regulatory accounts helps to provide a true cost of construction, maintenance and operations for reporting and capitalization purposes. The Overhead Accounts view is only available when the account treatment on the main Regulatory Account record is Capital, Maintenance, Operations or Work in Progress. The view is not available when the account treatment is Overhead.

Note: The Overhead Accounts view is not available when the account treatment for the main record is Overhead.

Overhead classes can only be added to this view when the Regulatory Account record is in Created status. When an Overhead account is added to the upper portion of the screen, the lower section displays all of the active overhead regulatory accounts that have the same account type as the current Regulatory Account record (as indicated on the main record). For example, a FERC type Regulatory Account record cannot have a PUC type Overhead account, so PUC types are not listed.

Once the record is set to Active status, this view is display only and cannot be modified.

Year End Processing

At the end of the year, batch processing allocates costs from the overhead regulatory accounts to the related non-overhead accounts (Capital, Maintenance, Operations, Work In Progress) based on the overhead class.

The amount allocated to each non-overhead account is based on the proportion of actual charges in the associated expense category incurred during the year for each account. For example, if there are two non-overhead accounts receiving allocations, one with $500 and the other with $1500 of actual charges, then the first will receive 25% of the allocation and the second would receive 75% of the allocation. The allocated amount is further broken down to the work order tasks that made up the actual costs in the non-overhead account.

Direct overhead costs from overhead tasks are distributed during the task's normal regulatory account distribution and are not included in year-end processing.

You can review the amounts allocated by opening the Yearly Cost view for the Regulatory Account record or the Cost Summary view for each Work Order Task record.

How to Set Up Year End Overhead Processing

1. **Open the End of Period Processing business rule.**
2. **Enter the appropriate value in the Overhead Year Last Processed rule key.**
   The next time the Year End Overhead Processing batch job runs, the system will update the Overhead Year Last Processed with the year just processed and set the Overhead Year Last Run date to the current date.

3. **Open the Job Manager module.**
4. **Select Create Job from the Actions list.**
5. **Specify the batch job, interval and next run date.**
6. **Click Save.**
   The system executes the batch job on the next run date. If the end date of the last accounting period of the year to be processed is in the past, the system calculates the overhead cost allocations and applies costs to regulatory accounts based on overhead class.

You can review the amounts allocated by opening the Yearly Cost view for the Regulatory Account record or the Cost Summary view for each Work Order Task record.

Allocating Overhead Costs

The allocation of overhead charges to non-overhead regulatory accounts helps to provide a more accurate cost of construction, maintenance and operations projects for reporting and capitalization purposes. By selecting an Overhead Class for regulatory accounts with non-overhead Account Treatments, you can associate those accounts with the appropriate overhead accounts. At the end of the year, batch processing allocates the overhead costs to the associated non-overhead accounts.

How to Allocate Overhead Costs to Non-Overhead Regulatory Accounts

1. **Open a Regulatory Account record that is in Created status.**
   The Overhead Accounts view is only available when the Account Treatment on the main Regulatory Account record is Capital, Maintenance, Operations or Work in Progress. The view is not available when the Account Treatment is Overhead.

2. **Select Overhead Accounts from the Views list.**
3. **Select an Overhead Class from the list of values.**
   As you select Overhead Classes, the system displays a list of active Overhead Regulatory Accounts in the lower section that have the same Account Type as the current record and have an Overhead Class specified in the upper section.

4. **Click Save.**

At the end of the year, batch processing allocates costs from the Overhead Regulatory Accounts to the related non-overhead accounts based on Overhead Class.

Setting Up Regulatory Accounting for Compatible Units

To set up regulatory accounts for compatible units you must complete three steps:

1. Build a CU with Material Estimates

2. Add Functions to the CU with Labor

3. Add Accounting Information to the CU.

How to Set Up Regulatory Accounting for a Compatible Unit

1. Build compatible units with material estimates.

For more specific information on how to create a compatible unit, please refer to the chapter entitled "Compatible Units."

Open the Compatible Units module and create a new compatible unit with the materials needed to build the unit.

Keep in mind the four grouping codes at the bottom of the top section of the page: Business Unit, Class, Equipment Group, and Size. Note that the last two codes, Equipment Group and Size are used for Dependent Materials with is discussed in another section.

The materials are priced based on the average of all average unit prices from all storerooms. Note that the "STOREROOM" parameter from the COMPATIBLE UNIT DEFAULTS Business Rule is not used to determine the unit price.

2. Add functions to the compatible units with labor.

A compatible unit function is used during the work estimating process to allow a designer to choose the correct level of effort for the work. For example, a "difficult" function might be required if the work is on a hillside or in unusual soil conditions. This is not directly related to Regulatory Accounting, but it must be entered on the work order when the plan is created and an account is selected.

The rates for the labor estimates come from the CRAFT RATES business rule.

Select Functions from the Views list to create functions and enter labor values. You MUST create at least one function for the estimating process to work.

It is possible to reference a function with zero hours.

Next select Labor from the Views list to enter general labor estimates for the compatible unit.

3. Add accounting information to the compatible unit.

Compatible units cannot be used on a work plan unless the accounting information is filled in correctly on the Accounting view of the Compatible Units record. Furthermore, the system references this information to determine when to create fixed assets (construction assets) for compatible units as they are added to work records (work order or work design). If compatible units are added to a CU Worksheet with the same combination of property unit and accounting treatment as entered on the Accounting view of a compatible unit, the system creates fixed assets in the construction asset view of the work record. These construction assets must be resolved as part of the work order closeout process.

Note that there is currently no validation on the property unit field.

Create the compatible unit relationship to the regulatory account by selecting Accounting from the views list and entering the usage code associated to the accounts that apply for this compatible unit. Place a check in the category for the account treatment that also applies to the regulatory accounts that should be applied.

The Work Order CU Worksheet requires you to enter a valid Usage Code and Accounting Treatment combination. This combination is then translated into a regulatory account and places on the work order task regulatory account cost summary.

Chapter 3
Compatible Units

Compatible units are planning tools that identify assemblies of material items, such as power poles or transformers, with associated labor and equipment estimates. Used primarily in the electronic, gas and water industries, compatible units provide consistency and standardization in the design and construction of capital projects. Using compatible units may also assist your organization in compliance with the reporting requirements of the Federal Energy Regulatory Commission (FERC) and other regulatory agencies.

It is also possible to define stock codes as conductors to be used with compatible units. When these types of compatible units are added to a work order, the system automatically completes the calculation to determine the length of conductor needed to complete the job.

Compatible Unit Records

Use the Compatible Units module, to define and document compatible units that are meaningful to your organization. Compatible Unit records can contain engineering drawings, listings of stock items comprising the unit, contractor bids, labor estimates and other costing information.

The Standard Drawing and other attachments included on the CU record are copied to work orders referencing the CU if the Copy to WO box is checked in the CU Attachments view.

Compatible Unit record

Note: Create records in the Compatible Unit module then reference them on a Work Design or Work Order Task.

The records defined in the Compatible Units module can be used in designing work orders for capital improvements, as well as maintenance of existing assets. You can also define compatible structures to specify larger assemblies of compatible units, compatible structures.

The following fields are included:

Compatible Unit ID - The Compatible Unit ID is the unique identifier for the Compatible Unit record.

Status - Status choices for compatible units are Created, Active, and Inactive.

If changes or additions are required to a Compatible Unit record in Active status, you must first set the status back to Created or Inactive before updating the record. When you do, the system verifies that the compatible unit is not cited on work order tasks in Planning, Approved or Active status. If any are found, the system warns that the compatible unit is being used on work orders that have not been completed and gives you the option of completing the status change or leaving the status unchanged.

Fields can be changed while the record is in Active status if the UPDATE ACTIVE CU/CS responsibility function is set for the user.

Description - A description is required for Compatible Unit records.

CU Type - This field is controlled by Code Table 1197. It provides a classification for the compatible unit.

Standard Drawing - This system-controlled field contains the Document ID for the attachment designated as the standard drawing for the Compatible Unit record. While the Compatible Unit record can have any number of attached documents and drawings, only one attachment can be specified as the standard drawing.

In order to change the standard drawing selection, select Attachments from the Views list and place a check in the Standard Drawing check box next to the Attachment ID you want to specify.

If a standard drawing is identified for the compatible unit, you can select View Standard Drawing from the Actions list to display the drawing.

The standard drawing and other attachments included on the Compatible Unit record are copied to work orders referencing the compatible unit if the Copy to WO box is checked in the Attachments view.

UOM - Select an appropriate unit of measure for the compatible unit from the list of values controlled by Code Table 23. The unit of measure is similar to unit of issue for a stock item and refers to the units used to describe the compatible unit. For example, if the compatible unit will typically be estimated in individual units, select EA (each) as the unit of measure.

Business Unit - Select the appropriate business unit from the selections defined by your organization in Code Table 225. Together with class and equipment group, the business unit is one of the values you can use to filter the list of available records selecting a compatible unit on the Work Order Task CU Worksheet view.

Class - Class categories for compatible units are defined by your organization and are linked to the business unit categories.

Equipment Group - Equipment groups are defined by your organization and are linked to the business unit and class.

Size - You can enter any size description meaningful for the compatible unit.

Material - The Material section in the lower part of the Compatible Unit record lists required stock items. You can move quickly to the Material section by selecting Material from the Views list.

Stock Code - The stock code identifies a particular part from the catalog. The list of values contains all active catalog items along with their description and unit of issue. Stock items that will be identified as CU materials may need specific configuration to work properly with CU functionality.

Description - When you select a stock code, the system provides the description .

Quantity - The quantity of the stock item required for of the compatible unit.

Unit - When you select a stock code, the system provides the unit of issue.

Unit Price - The system calculates the unit price by taking the average price of the stock code across all storerooms containing the stock code in Active status.

Total - The system calculates the total cost for the stock item when you save the record.

Material Total - The material total field (located at the bottom right of the table) sums the costs for all stock items referenced in the Material section.

How to Create a Compatible Unit Record

1. **Open the Compatible Unit module.**
2. **Click New.**
3. **Fill in the required fields.**
   At a minimum you must enter a description and a unit of measure.

4. **Select a business unit, class and equipment group as required.**
   Your organization can define the business units, class and equipment groups as appropriate for your business activities.

5. **Click Save.**
   The system creates the record and assigns the Compatible Unit ID if your system is set to create Compatible Unit ID numbers.

6. **Select a stock code for the first material item.**
   When you select the stock code, the system supplies the description and average unit price.

7. **Enter a quantity for the first material item.**
8. **Click Save.**
   The system calculates the total price and saves the item.

The system calculates the unit price by taking the average price of the Stock Code across all Storerooms containing the Stock Code.

9. **Repeat steps 6-8 for the next item.**
   Continue adding stock items until all the materials required for the compatible unit have been specified. Each time you save a new item, the system recalculates the material total estimate.

Compatible Units Views

The module includes the following views:

Dependent Materials

Certain materials on a compatible unit may be dependent on other compatible units included on the same work order. For example, the size and length of the bolts used to mount a cross arm compatible unit on a transmission pole compatible unit may depend on the size or type of pole being used. You can list the various alternative materials in the Dependent Materials view. Later, when you are planning the work order, you can then use this list to select which compatible units to include with a particular work project.

Note: An asterisk on the views list indicates that there may be other materials that you can use for the compatible unit.

Dependent Materials view

The fields on the Dependent Materials view duplicate those in the materials block in the lower section of the main record. You can list as many dependent materials as appropriate to describe the different installations where the compatible unit might be used. Depending on how your system is configured the system will likely add dependent materials to a work order task whenever a compatible unit with dependencies is referenced. You can also select Add Dependent Material from the Actions list.

When dependent material quantities are updated on the CU Location Worksheet or the CU Worksheet, the system updates the item quantity on the Task Items Worksheet with the difference between the new and old CU quantity times the item quantity of the dependent material on the compatible unit. If the resulting Item Quantity for the Dependent Material is zero, system deletes the Task Items Worksheet record.

Setting up Compatible Unit Dependent Materials
Configuring dependent materials for compatible units requires the following setup steps:

1. Set up CU Dependent Materials.

2. Create a Work Order Task.

3. Enter a CU on the CU Worksheet.

4. Enter another CU on the CU Worksheet.

How to Set Up Dependent Materials for a Compatible Unit
1. **Define dependent materials in the Compatible Unit record Dependent Materials view for a first compatible unit.**

First make sure that your compatible unit is set up with an Equipment Group and Size entered on the header. On the header for the first compatible unit that will be added to the work order, the Equipment Group and Size define the compatible unit as a transformer.

Continuing in this example, we add 4 dependant materials for the transformer by selecting Dependant Materials from the views list then entering values accordingly. Note the Equipment Group and Size for each.

The information entered on the Dependent Materials view in the Compatible Units module determines how associated material items from the storeroom are added to the work record when related compatible units are added. The Equipment Group and Size fields provide a cross reference to the same fields on the Compatible Units header.

When setting up dependent materials for an item, you are considering what special materials are needed when this compatible unit is used in conjunction with another compatible unit. The example used here is bolts (note the descriptions for the second and third lines in the example).

Since the length of the bolt is dependent upon the height of the pole, a wider pole will require a longer bolt. You cannot list the bolts on the main material page because you don't know which bolt to choose for the transformer until the pole is also added to the plan.

If a 25 foot pole is used, you need a 8 inch bolt. If a 45 foot pole is used, you need a 12 inch bolt.

Also note the last dependent material in this list, the Bracket Mounting Assembly. It has an equipment group of POLE and a blank size. This type of entry allows you to define a dependent material for the transformer when it is used on a plan with ANY compatible unit where equipment group is POLE, regardless of the value in the size field.

2. **Configure a second compatible unit.**
    The second compatible unit defines the equipment group and size for the pole that will be used with the transformer in our example. Notice that the Equipment Group and Size fields show the same values as the 12" bolt defined in the dependent materials view

How to Add Dependent Materials to a Work Record
1. **Create a work order task to be planned and then select CU Worksheet from the Views list.**
2. **Enter both compatible units on the CU Worksheet, the one for the pole and the one for the transformer.**
    Dependant materials aren't evaluated until there are two or more compatible units on the CU Worksheet.

3. **Select Items Worksheet from the Views list.**
    Once both of the compatible units are entered the Materials, Labor, and Equipment from the both compatible units are brought into the Work Order Task Items Worksheet.

    Since the transformer was set up to require two dependent materials if a 45 foot pole was used on the plan, the plan will require 12 inch bolts because of the equipment group and size combination and a mounting bracket because of the equipment group.

The dependent materials that were entered on the transformer were also copied to the work plan Items Worksheet. Note that the quantity is 10 which is what was defined on the dependent materials for the transformer.

When a compatible unit is added to the CU Worksheet causing dependent materials to be added, the quantities on the Items Worksheet are managed by the system. For example, if a quantity of 3 is compatible units is added to the CU Worksheet, all related dependent materials are multiplied by 3.

Updates to quantities on the CU Worksheet are also managed by the system ensuring that dependent materials quantities are adjust to reflect the new estimate.

Stock items are grouped on the Items Worksheet so adding dependent materials may have the affect of adjusting quantities on the item worksheet rather than the addition of new stock line items.

When compatible units are deleted from the CU Worksheet, dependent materials are also removed from the Items Worksheet.

Functions

Functions include planned activities defined for the compatible unit, estimates for the costs involved, as well as the conditions under which the activity is conducted. You may, for example, have one function for a normal installation of the compatible unit and another for a difficult installation.

Functions view

Function - The Function field contains the type of activity being performed, for example: install, remove, or transfer. Other functions can be defined in Code Table 233.

Difficulty - You can define several degrees of difficulty for the same function, for example, a normal installation and a difficult installation, but each function/difficulty combination must be unique. The list of values associated with the Difficulty field displays only selections that have not yet been associated with the function for this Compatible Unit record.

Manhours - The Manhours field contains an estimate of the number of hours required to complete the function. The system uses manhours and the labor rate from the Compatible Unit Defaults business rule to calculate the labor estimate for the function.

Standard Price - The standard price estimate is not calculated by the system. You can enter any price for the function that you want to use in bid quotations or planning documents.

Salvage Price - The salvage price is the estimated salvage value of the material used during the function, such as the value of the material on hand after the compatible unit is removed from service.

Include Material - Remove the check from the Include Material box if you do not want include the material total from the main record in the function estimate. By default, the Include Material box is checked.

Estimates - The Estimates section contains estimates for the function selected in the upper portion of the screen. The system provides the estimates as follows:

> **Labor** - Manhours multiplied by the labor rate defined in the Compatible Unit Defaults business rule.

> **Equipment** - The total cost of equipment associated with the function in the Equipment view.

> **Material** -The material total value from the main Compatible Unit record. If the Include Material check box is not checked, the material estimate value is zero.

> **Total** - The sum of the labor, equipment and material estimates for the selected function.

Business Rule Defaults - The Business Rule Defaults section displays the labor rate and crew size values from the Compatible Units Defaults business rule. These values can only be modified in the Business Rule module.

How to Define a Function for a Compatible Unit Record

1. **Open the appropriate Compatible Unit record.**
2. **Set the status to Created if necessary.**
   You cannot make modify Compatible Unit records that are in Active status.

3. **Select Function from the Views list.**
4. **Select a function and difficulty.**
   The list of values for the Difficulty field only shows difficulty levels not previously selected for the function.

5. **Enter the number of manhours estimated to complete the function.**
   The system divides the number you enter by the default crew size to calculate the duration of the function.

6. **Enter a standard and salvage price for the function if appropriate.**
   Neither price is calculated by the system. You can enter any price that you want to use in bid quotations or planning documents.

7. **Verify the setting of the Include Material check box.**
   Check the box to include material costs in the estimate, or remove the check if you do not want to include material costs.

8. **Click Save.**
   The system saves the Function record. If a default equipment type is defined in the Compatible Units Default business rule the system also saves an Equipment record as well.

Equipment

The Equipment view shows estimates of the equipment required for the selected function. When you create a Function record, the system automatically enters the first required equipment item based on the equipment type, quantity and hourly rate from the Compatible Unit Defaults Business Rule. The information that is automatically entered can be changed as needed. You can also enter additional items if necessary.

If no equipment type is defined in the Compatible Unit Defaults business rule, the system does not automatically create an Equipment record, but you can still insert any equipment records required for the function.

CU Description - The system populates the CU Description field with the description from the main record. This cannot be modified.

Requirement - This column shows the equipment that is required for the function. This includes all charge types defined in the Direct Charge Types business rule. When the required equipment is selected the system supplies the unit of measure and standard price.

Quantity - Whole numbers are entered here to indicate the amount of the equipment needed. If the system enters a quantity from the Compatible Unit business rule, it can be updated as needed.

Duration - The amount of time the equipment will be needed. When inserting default items, the system calculates duration by dividing the manhours by the crew size defined in the Compatible Unit Defaults business rule.

Unit of Measure - When you select the required equipment, the system populates the Unit of Measure field using the value from the Direct Charge Types business rule.

Standard Price - When the equipment requirement is entered the system populates the Standard Price field with the value defined in the Direct Charge Types business rule.

Total Cost - The system calculates the total cost by multiplying the quantity, duration, and standard price. The sum of the total costs for all required equipment types is displayed below the requirements list and also in the Estimates section on the Functions view.

Labor

When you create a Compatible Unit record, the system uses default information contained in business rules to create a quick estimate of labor requirements. You can enter additional information on the Labor view to develop a more accurate estimate of the labor requirements for particular compatible unit, function, and difficulty. Entering detailed information on Labor view can reduce or eliminate the need to modify the labor requirements inserted on the Work Order Task record when the CU is planned against a task.

The Labor view can only be updated when the Compatible Units record is in Created status.

Labor view

CU Description - The upper portion of the window contains the CU Description and cannot be updated.

People - Enter the number in the people required for the function in the People field.

Craft - Select a craft from the list of values controlled by the Craft Rates business rule. The list of values is filtered to show only crafts not already chosen for this function, difficulty and compatible unit.

Duration and Manhours - When either duration or manhours are entered, the system calculates the other value using the formula Manhours = People * Duration.

Hourly Rate - The system supplies the Hourly Rate from the Craft Rates business rule when you select the craft.

Total Cost - The system calculates the total cost by multiplying manhours by the hourly rate. The sum of the Total Costs for all required equipment types is displayed below the requirements list and also in the Estimates section on the Functions view.

Contractor Bids

You can use the Contractor Bids view to maintain a record of bids received from contractors for completing the function. The upper portion of the window identifies the function and includes the difficulty and manhours values from the Function view. The system calculates duration by dividing the manhours by the crew size defined in the Compatible Unit Defaults business rule.

The list of values for the Contractor field only shows vendors in Active status that have "contractor" entered as a characteristic type in the Characteristics view of the Vendor module.

Contractor Bids view

How to Record a Contractor Bid for a Compatible Unit
1. **Open the Compatible Unit record.**
2. **Set the status to Created if necessary.**
   You cannot modify Compatible Unit records in Active status.
3. **Select Contractor Bid from the Views list.**
4. **Enter a date for the bid.**
5. **Select the contractor from the list of values.**
6. **Enter the bid amount.**
7. **Check the Material and/or Labor check boxes if the bid includes material and/or labor costs.**
8. **Click Save.**

Accounting

Note: The information defined in this view determines if the record appears on the list of values when compatible units are referenced from elsewhere in the system.

The Accounting view provides a way of associating compatible units with usage codes and account treatments. Usage codes identify broad cost categories, such as street lighting or overhead transmission. Both usage codes and usage code descriptions are defined in the Regulatory Account Usage Codes business rule.

Note: Usage codes and regulatory accounts must be set up to use the accounting aspect of compatible units functionality. Usage codes are set in the Regulatory Account Usage Codes Business Rule.
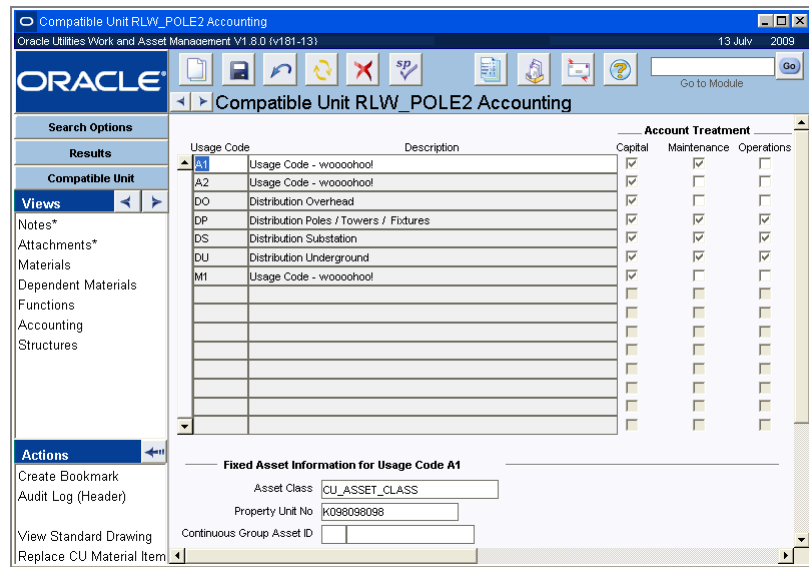
Compatible Units Accounting View

You must select at least one accounting treatment type for each usage code. Check the Accounting Treatment check boxes to indicate if the usage code can be used for capital projects, maintenance projects, operations or any combination of the three. Before you can use an account treatment/usage code combination, at least one active Regulatory Account record must exist with the specified usage code and account treatment.

If the account treatment is Capital, you must also reference an Asset Class.

You can also indicate a property unit number for the compatible unit if appropriate. Property units are used to identify fixed assets constructed on a work order.

You can only select group assets for the Continuous Group Asset ID field. Assets that are in "Depreciation only" status and that have a depreciation method of "Group" are selectable from the list of values for this field.

Structures View

In the Compatible Structure module, compatible units can be combined together to form larger units called compatible structures. The Structure view in the Compatible Units module lists all of the Compatible Structure records that include this compatible unit. If you need to modify the information displayed in this view, you must open the Compatible Structure module and make the necessary changes there.
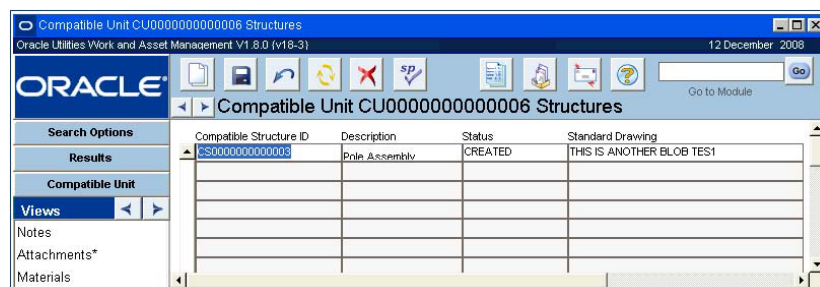
Structures view

Compatible Units Actions

In addition to standard actions, the following can be completed from within the module.

View Standard Drawing

If a standard drawing is identified for the compatible unit, you can select View Standard Drawing from the Actions list to display the drawing.

To change the standard drawing selection, open the Attachments view and check the Standard Drawing box for the Attachment ID you want to specify. Only one attachment can be identified as the standard drawing.

The standard drawing and other attachments included on the CU record are copied to Work Orders referencing the CU if the Copy to WO box is checked in the Attachments view.

Updating Compatible Unit Records

As parts become obsolete or new parts become available, you may need to update catalog items included on Compatible Unit records and the work records that reference those compatible units. While you can make such changes on each individual record, Oracle Utilities Work and Asset Management provides a special action to make global updates to all the records affected.

How to Update Compatible Unit Records Globally

Work Order Task records must be in Planning status to be updated by the Replace CU Material Item action. Compatible Unit records are updated regardless of their status.

1. **Open the Compatible Units module in the Resource subsystem.**
2. **Open one of the Compatible Unit records that needs updating.**
3. **Select Replace CU Material Item from the Actions list.**
   You must have Replace CU Material Item set in your responsibilities to have access to this action.

   The system opens a screen where you can specify the stock code for both the stock item you want to replace and the new stock item. In order to update existing work orders properly, you must also select a storeroom for the new stock code.

4. **Click Next.**
   When you click the Next button, the system displays a list of Compatible Unit, Work Order Task, and Benchmark Work Order records that will be impacted by the change.

   To see a listing of the specific records, click the arrow button for each record type. The system displays a listing of record IDs and descriptions.

5. **Click the OK button to update the records with the new part information.**

Replace CU Material Item

As parts become obsolete or unavailable, it may be necessary to update catalog items listed on Compatible Unit records and Work records referencing those compatible units. While you can make such changes on a record by record basis, the system provides a special action to make global updates to all records affected.

Note: If this action is not included on the actions list, you may not have REPLACE CU MATERIAL ITEM in your responsibility profile. Contact your system administrator to add this function.

Note: Work Order Task records must be in Planning status to be updated by the Replace CU Material Item action.

Select Replace CU Material Item from the Actions list to specify the stock code for both the stock item you want to replace and the new stock item. In order to properly update existing work orders, you must also specify a storeroom for the new stock item.

When you click the Next button, the system displays a listing of Compatible Unit, Work Order Task, and Benchmark Work Order records that will be impacted by the change. Click the arrow button for each record type to see a listing of the specific records that will be updated. Click the OK button to update the records with the new part information.

Copy to New Compatible Unit

You can select Copy to New Compatible Unit from the Actions list on the main record to create a copy of the Compatible Unit record you are currently viewing. The system prompts you to supply a Compatible Unit ID for the new record.

Note: If this action is not available, you may not have COPY TO NEW COMPATIBLE UNIT set in your responsibility profile. Contact your system administrator to add this function.

When you enter an ID number and click the OK button, the system inserts the new Compatible Unit record in Created status and displays a confirmation message.

Chapter 4
Compatible Structures

Compatible Units can be grouped together into larger units called compatible structures. Use compatible structures to define groups of compatible units that have related labor and equipment characteristics. These structures can the be referenced on work records as an easy way to link compatible units. They help provide consistency and standardization in the design and construction of capital projects and assist in compliance with certain Federal Energy Regulatory Commission (FERC) accounting and reporting requirements.

Compatible Structure Records

The records defined in the Compatible Units and Compatible Structures modules can be referenced from work order tasks and work designs when you are planning work for capital improvements, as well as maintenance of existing assets. Any accounts referenced through the usage codes entered in the Accounting view of the Compatible Units module are charged with the associated costs as work is completed.

Compatible Structure record

The following fields are included:

Compatible Structure - The Compatible Structure ID is the unique identifier for the Compatible Structure record.

Status - Status choices for compatible units are Created, Active, and Inactive.

If changes or additions are required to a Compatible Structure record in Active status, you must first set the status back to Created or Inactive before updating the record. When you do, the system verifies that the compatible unit is not cited on work order tasks in Planning, Approved or Active status. If any are found, the system warns that the compatible unit is being used on

work orders that have not been completed and gives you the option of completing the status change or leaving the status unchanged.

Fields can be changed while the record is in Active status if the UPDATE ACTIVE CU/CS responsibility function is set for the user.

Description - A description is required on Compatible Structure records.

Standard Drawing - This system-controlled field contains the Document ID for the attachment designated as the standard drawing for the Compatible Structure record. While a compatible structure can have any number of attached documents and drawings, only one attachment can be specified as the standard drawing.

In order to change the standard drawing selection, open the Attachment view and place a check in the Standard Drawing check box for the Attachment ID you want to specify.

If a standard drawing is identified for the compatible unit, you can select View Standard Drawing from the Actions list to display the standard drawing.

Business Unit - Select the appropriate business unit from the selections defined by your organization in Code Table 225.

Class - Class categories are defined by your organization and are linked to the business unit.

Equipment Group - Equipment groups are defined by your organization and are linked to the business unit and class.

Size - You can enter any size description meaningful for the compatible structure.

Units - The Unit section in the lower part of the Compatible Structure record contains a listing of the compatible units that are required for the structure.

>   **Usage Code** - Usage codes identify broad cost categories, such as street lighting or transmission. Usages codes are associated with compatible units in the Accounting view of the Compatible Units module.

>   **Compatible Unit** - This column shows the IDs for the compatible units that comprise the structure. The list of values includes all compatible units that are in Active status and have the selected usage code.

>   **Description** - When you select the compatible unit, the system provides the description from the Compatible Unit record.

>   **Quantity** - The number of the specified compatible unit required for of the compatible structure.

>   **Unit** - When you select a compatible unit, the system provides the unit of measure from the Compatible Unit record.

Note: Please note that you cannot include a compatible unit that references a conductor type stock item.

How to Create a Compatible Structure Record

Before a compatible unit can be included on a Compatibles Structure record, the corresponding record must be defined in the Compatible Unit module.

1.   **Open the Compatible Structure module.**
2.   **Click New.**
3.   **Enter a unique record ID in the Compatible Structure field.**
4.   **Enter a description.**
5.   **Enter a reference to a standard drawing document if applicable.**

To change the standard drawing selection, open the Attachment view and check the standard drawing box for the Attachment ID you want to specify. Later, you can select View Standard Drawing from the Actions list to display the standard drawing.

6. **Select a business unit and class.**
    The values for these fields are determined by your organization based on your business practices.

7. **Select an equipment group from the list of values.**
    The equipment groups available depend on the business unit and class that were selected.

8. **Enter any size description meaningful for the compatible structure.**
9. **Click Save.**
10. **At the lower portion of the screen enter the compatible units that should be included in the structure that you are creating.**
    You must enter a value in the Usage Code field before the system will provide a list of choices for the Compatible Unit field. Then the list of values only shows active compatible units that include the selected usage code. Usage codes are entered in the Accounting view of the Compatible unit record.

11. **Click the Save icon after each entry.**
12. **Once the entries are complete set the record status to Active.**
13. **Click Save.**
    The compatible structure can now be referenced from other records.

Chapter 5

Compatible Units on Work Order Tasks

If your organization has configured the system to use compatible units and you have the appropriate responsibility functions in your user profile, the Work Order Task module includes the additional functionality discussed in this chapter.

Compatible Units Views

Compatible units are used on work order tasks to plan work for capital improvements and maintenance projects. The tools used in the Work Order Task module to manage compatible units include the CU Worksheet, the Add Structures Wizard, the Regulatory Accounting view, the CU Reconciliation view, and the Construction Assets view. Each of these tools allows you to enter and manage the compatible units needed for your work order task.

Cost Summary
When the system is configured for compatible units, the cost summary view displays a separate grid in the lower section of the screen containing overhead cost information.

The following fields are included:

Overhead Class - Overhead class types are defined in the Regulatory Account Overhead Class Type business rule. The overhead class provides the ability to allocate overhead costs to the appropriate capital, maintenance and operations regulatory accounts.

Original Estimate - The system calculates the grand total original estimate by multiplying the original estimates from the upper portion of the screen that have the same expense category as the Overhead Class record's applied expense category by the estimated overhead percentage defined in the Regulatory Account Overhead Class business rule.

Actual - The system calculates the grand total actual value by multiplying the appropriate actual amounts from the upper portion of the screen by the estimated overhead percentage defined in the Regulatory Account Overhead Class business rule.

Allocation - The overhead cost allocation is calculated as the sum of the allocation amounts from the Regulatory Account Overhead Cost records with the same overhead class and work order task.

Direct Allocation - The overhead cost totals resulting from actual work performed for the work order and not from year end processing calculations.

Original Estimate - The original estimate is the sum of the total original estimate from the upper and lower portions of the view.

Actual - The sum of the total actual amounts from the upper and lower portions of the screen.

Actual + Allocation - This field shows the sum of the actual from the upper portion of the screen and the total allocations from the lower portion of the screen.

CU Location (List)

Note: You must have the Show CU Locations functional responsibility, in addition to Show CU on WO, in your user profile to access the CU Location views.

Planning compatible units for a particular location is the highest level of planning for work order task compatible units. The CU Location (List) view provides a quick way of reviewing all locations defined for the Work Order Task record. If you do not wish to plan CUs by location, you can enter the CU requirements directly on the CU Worksheet.

When you select a line to highlight a location in the CU Location (List) view and then select Location Worksheet from the Views list, the Location Worksheet opens showing CUs planned for that location.

CU Location (Detail)

Use the CU Location (Detail) view to define site locations if you want to plan compatible unit usage by locations. You can then build a list of compatible units for the location on the Location Worksheet.

Note: You must have the Show CU Locations functional responsibility, in addition to Show CU on WO, in your user profile to access the CU Location views. If you do not wish to plan CUs by location, you can enter the CU requirements directly on the CU Worksheet.

All Compatible Units and their associated details added to the Location Worksheet will cascade down to the Compatible Units Worksheet and all associated details.

The following fields are included:

Location - Enter a unique Location ID if your system is not configured to generate one automatically.

Description - Describe the location clearly enough so that it can be recognized from the list of other locations identified on the work order task. You can define locations in anyway that is meaningful for your operations. For example, you may want to define the locations to correspond with new fixed assets to be completed as part of the work being planned.

Location and Structure Type - A one word description or name identifies the location. The structure type provides additional identifying information.

Description - Enter a description of the location in this field.

Source - The source field provides a list of all locations already identified in work design. You can select one of these, or enter a new value to identify the location source.

Distance and Distance Units - Enter the number describing a dimension for the location and units, if applicable.

Latitude and Longitude - Use these fields to indicate the latitude and longitude position of the location.

Overhead and Underground - Check the box that applies to the location. Only one can be checked.

Note: Slack is not factored into the calculation if the Underground check box is checked.

Location Worksheet

Note: If you are not planning CU requirements by location, enter the CUs directly on the CU Worksheet.

Note: You must have the Show CU Locations functional responsibility, in addition to Show CU on WO, in your user profile to access the CU Location views.

The Location Unit Worksheet view allows designers to use compatible units to plan material, labor and other requirements for work at a particular location.

Field descriptions for the Location Worksheet are similar to those for the CU Worksheet, with the exception that all of the compatible units listed are planned for the single location identified in the Location field.

The No. of Runs field only applies to CUs which include conductors. Please refer to Planning Compatible Units for Conductors for more information.

All Compatible Units added to the Location Worksheet are cascaded to the CU Worksheet. If the same Compatible Unit exists on multiple Location Worksheets, all material, labor and other charges are to be accumulated on a single row on the CU Worksheet. If a Compatible Unit is deleted from the Location Worksheet all values must be in turn removed or quantities reduced from the CU Worksheet. If a Discount is applied to a compatible unit, the discount amount is spread evenly to each Location Worksheet where the Compatible Unit exists.

The amounts displayed are based on the average unit price for the material from all the storerooms that stock that material.

You can use the CU Selection Criteria section at the bottom of the screen to filter the list of available compatible units by Business Unit, Class, Equipment Type, or Size. All of the selection fields are optional and the only the ones that you populate are used to filter the list of values.

How to Add Compatible Units to a Location Worksheet

1. **Open the appropriate Work Order Task record.**
2. **Select or create the appropriate CU Location.**
   You can insert new locations on the CU Location (Detail) view to create locations.

3. **Select Location Worksheet from the Views list.**
4. **Select appropriate values in the CU Selection fields.**
   The values you enter are used to filter the list of available Compatible Unit records. If you want to use the same criteria for future searches, select Save Location Selection Criteria from the Actions list after you enter the appropriate values.

5. **Select the compatible unit.**
   The list of values includes all Compatible Unit records in Active status associated with the selection criteria you entered. When you select the Compatible Unit ID, the system supplies the description and unit of measure.

6. **Enter an estimated quantity.**
7. **Select the function and difficulty.**
   You can select any function and difficulty defined for the compatible unit in the Compatible Units module.

8. **Select a usage code and account treatment.**
   If the usage code you select only has one account treatment allowed for the compatible unit, the system will enter the account treatment when you enter the usage code.

9. **Click Save.**
   When you save the record, the system calculates the estimate based on the quantity and the total estimate value for the function in the Compatible Units module. The system also populates the Items Worksheet with the stock items associated with the compatible unit.

When you have finished adding compatible units to the CU Worksheet, you can update the Contractor Contributed or Item Worksheet views as needed.

CU Worksheet

The Compatible Unit Worksheet view allows for the planning of work for major capital and maintenance projects using compatible units.

When you select a Compatible Unit ID, the system populates the Description and Unit of Measure fields. When you enter a quantity and select the function and difficulty, the system calculates the estimate based on information from the Compatible Unit module. Check the Standard Price box if you want to use the standard price from the Compatible Unit Function view for the estimate. The total amount is the sum of the estimates on the worksheet minus the total discount entered on the discount worksheet.

The CU Worksheet can only be updated when the Work Order record is in Planning status.

Since a large number of Compatible Unit records may be available for selection, a special CU Selection Criteria section is provided at the bottom of the screen. You can use these fields to filter the list of available compatible units by business unit, class, equipment type, or size.

CU Worksheet Field Descriptions

Description and Asset ID - The upper portion of the CU Worksheet contains the work order task description and asset data.

Compatible Unit and Description - You can select any active Compatible Unit record with the appropriate usage code. When you select a compatible unit ID from the list of values, the system provides the description from the Compatible Unit record. If a compatible unit has a usage code with a Property Unit number assigned in the Accounting view of the Compatible Units module, the words PROP UNIT appear at the beginning of the description. Knowing which compatible units have Property Units, and which ones do not, is important to planners when determining which compatible units have generated construction assets.

Estimated Quantity - When the task is in Planning status, enter the number of the compatible units required for the task. You can any number, including a fractional quantity of up to five decimal places.

Actual Quantity - When the task is changed from Planning to a higher status, the system copies the estimated quantity to the Actual Quantity field. After the task is finished, you can adjust the actual quantity as needed using the CU Reconciliation view.

UOM - The system provides the unit of measure when you select the compatible unit ID.

Function - The Function field contains is the type of activity being performed, for example install, remove, or transfer. You can select from a list of values showing the functions associated with the Compatible Unit record.

Difficulty - Several degrees of difficulty may be defined for the same function, for example, a normal installation and a difficult installation. You can select from a list of values showing the difficulty associated with the function for the Compatible Unit record.

Usage Code - Usage codes are defined in the Regulatory Account Usage Codes business rule. The list of values shows only codes associated with active Regulatory Account records.

Account Treatment - For regulatory accounting purposes, the system tracks compatible unit costs separately for capital, maintenance, and operational projects. The list of values shows the values allowed for the compatible unit and usage code selected. If only one account treatment is available for the compatible unit and usage code, the system populates this field automatically when the usage code is selected.

Estimate - The system provides the estimated cost from the Compatible Unit record when you select the compatible unit ID. This estimate is derived from the average unit price of the stock code across all storerooms where the stock code is active.

Standard Price - Check the Standard Price box if you want to use the standard price and not the estimated cost. The standard price is not calculated by the system but is defined on the Function view in the Compatible Unit module.

Subtotal - The subtotal is the sum of the estimated costs for the compatible units on the worksheet.

Discount - The Discount field contains the total discount, if any, from the Discount Worksheet view, expressed as a negative number. If you need to alter this number, you must make the changes on the Discount Worksheet.

Total - Total is the subtotal minus the discount.

How to Add Compatible Units to a CU Worksheet

When you are adding compatible units to a Work Order Task using the CU Worksheet, you may find that the process goes much faster if you begin by identifying appropriate compatible structures instead of the individual compatible units.

1. **Open or create the appropriate Work Order Task record.**
2. **Select CU Worksheet from the Views List.**
3. **Enter your selection criteria in the CU Selection Criteria section.**
   If you want to use the same criteria for future searches, select Save CU Selection Criteria from the Actions list after you enter the appropriate values.

   The values you enter are used to filter the list of available Compatible Unit records.

4. **Select the compatible unit.**
   The list of values includes all Compatible Unit records in Active status associated with the selection criteria you entered. When you select the Compatible Unit ID, the system supplies the description and unit of measure.

5. **Enter a value in the Estimated Quantity field.**
6. **Select values for the Function and Difficulty fields.**
   You can select any function and difficulty defined for the compatible unit in the Compatible Units module.

7. **Select a usage code and account treatment.**
   If the usage code you select only has one account treatment allowed for the compatible unit, the system automatically enters the account treatment when you enter the usage code.

8. **Check the Standard Price box if you want to use the standard price.**
9. **Click Save.**
   When you save the record, the system calculates the estimate based on the quantity and the total estimate value for the function in the Compatible Units module. The system also populates the items worksheet with the stock items associated with the compatible unit.

   When you have finished adding compatible units to the CU Worksheet, you can update the Contractor Contributed or Item Worksheet views as needed.

Contractor Supplied

Use the Contractor Supplied view to maintain a record of which compatible units listed on the CU Worksheet are provided entirely or in part by outside contractors.

When you select the Contractor ID, the system enters the contractor name and any existing bid amount carried over from the compatible unit. If needed, modify the contractor or bid amount

and check the appropriate boxes to indicate if the bid includes material and/or labor costs. The list of values for the Contractor ID shows all vendors in Active status with "Contractor" as a Characteristic type in the Characteristics view of the Vendor module.

The bid amount you enter is included in the original estimate on the Cost Summary view on the Work Order Task record. The portions of a compatible unit that are being provided by a contractor are not included on the CU Items Worksheet, or on the Material, Labor, or Other Requirements views.

Reconciling Contractor Supplied Compatible Units

If the CU Worksheet lists a quantity for a compatible unit that is different from what the contractor supplies, you can adjust the CU Worksheet quantity as needed.

Note: You must have the RECONCILE CUs function in your responsibility profile to access this action.

How to Reconcile Contractor Supplied Compatible Units

1. **Open the appropriate Work Order Task record.**
   The Task record must be in Finished status.

2. **Open the CU Worksheet view.**
3. **Select Reconcile CUs from the Actions list.**
   The Update Compatible Units Actual Quantity window opens.

4. **Select the compatible unit that you need to adjust.**
5. **Click the Next button.**
   The Reconcile Compatible Units window opens. Only the Actual Quantity field can be modified.

6. **Enter the actual quantity for the CU and click the Next button.**
   A new window opens confirming that the quantity has been updated.

7. **Click the Done button to return to the CU Worksheet.**
   You can also click the Add Another button to reconcile another CU on the same Worksheet.

Discount Worksheet

If the cost of a compatible unit is discounted because it's use is shared with an adjacent service or for some other reason, you can enter the discount on the Discount Worksheet view. The amounts displayed are based on the average unit price for the material from all the storerooms that stock that material.

Note: The system copies the total discount amount, not the discount for the individual compatible units, to the CU Worksheet.

The Discount Worksheet lists all compatible units included on the CU Worksheet. When you enter a discount percentage or a discount amount, the system calculates the other value and the total discounted price. When you save the Discount Worksheet, the system copies the discount total on the CU Worksheet and displays an asterisk next to Discount Worksheet in the Views list.

Description and Asset ID - The upper portion of the CU Worksheet contains the work order task description and asset data.

Compatible Unit, Description and Estimate - For each compatible unit on the WO Task, the table in the lower section of the Discount Worksheet view contains the ID, description and estimated price from the Compatible Unit record. You cannot update any of this information

directly. This estimate is derived from the average unit price of the stock code across all storerooms where the stock code is active.

Discount % and Discount - You can enter either a discount percentage or a discount amount. The system calculates the other value.

Total - The system calculates the total as the estimate price minus the discount amount.

Totals - Totals for the estimate, discount and total columns appear below the table at the bottom of the screen. The system copies the total discount amount to the CU Worksheet as a negative number.

How to Enter Discounts for Compatible Units

1. **Open the Discount Worksheet view for the appropriate WO Task.**
   The Discount Worksheet lists all Compatible Units included on the CU Worksheet.

2. **Enter either a Discount% or a Discount amount for the appropriate CU.**
   When you enter either a discount percentage or a discount amount, the system calculates the other value and the total discounted price.

   When you save the record, the system copies the total discount amount, not the discount for the individual CUs, to the CU Worksheet.

3. **Click Save.**
   When you save the Discount Worksheet, the system copies the discount total on the CU Worksheet and displays an asterisk next to Discount Worksheet in the Views list.

4. **Continue to enter discounts for the other CUs on the worksheet as necessary, saving the record after each discount has been entered.**

CU Reconciliation

The CU Reconciliation view contains a list of material items on finished or closed Work Order Task records that are not associated with compatible units on the CU Worksheet. These items may have been added as work was in progress or overlooked while the task was in planning status. The list may also include CU items where more or less of the planned quantity was used for work. By adjusting the actual quantities of compatible units used after work has finished, you can include these additional costs in your organization's regulatory accounting reports.

Note: The CU Reconciliation view can only be updated when the Work Order record is in Finished or Closed status.

Not all stock items are significant enough to be included in the reconciliation process. In order to keep the list of stock items to a minimum, only those items having the Reconcile to CU indicator checked in the Catalog module appear on the CU Reconciliation view.

When you highlight a stock code in the upper section of the window, you can use the fields in the lower section of the window to select a compatible unit to associate with the task. The Quantity field shows the actual amount - the planned amount of the item.

The list of values for the Compatible Unit field only lists Compatible Unit records containing the highlighted stock code. Click the List Materials button to open a listing of stock codes that are on the compatible unit. After you select an appropriate compatible unit, the system supplies the actual quantity needed to match the quantity of the stock code used. Enter appropriate function, difficulty, usage code and account treatment for the compatible unit and save the record.

Once reconciled, items no longer appear in the upper section of the window.

When a CU is reconciled, all of the Regulatory Account costs that were already distributed are automatically deleted from the display in this view, and the Regulatory Account splits are recalculated. The system adjusts the actual compatible unit quantity used and redistributes the regulatory accounting information accordingly.

When a CU is reconciled, the regulatory account splits are recalculated, the actual compatible unit quantity used is adjusted, and the costs that were originally displayed are removed from the CU Reconciliation view as well as the Regulatory Accounting view on the Work Order Task. After the regulatory account cost batch procedure runs the system displays the updated costs in the Regulatory Accounting view. These fields may remain blank until the batch process runs.

If your organization plans compatible units to particular CU locations, you can use the Location field to reconcile CUs to a particular location defined for the work order task.

How to Reconcile Items Not on the CU Worksheet

1. **Open the appropriate Work Order Task (Detail) view.**
2. **Select CU Reconciliation from the Views list.**
   The CU Reconciliation view opens.

   The upper section of the window contains a list of stock items charged against the task but not included on the compatible units planned for the task. This list cannot be updated and includes only stock items with the Reconcile to CU indicator checked in the catalog.

3. **Click the first stock code in the upper section of the window to select it.**
4. **Select a Compatible Unit to associate with the item.**
   Click the list of values button for the Compatible Unit field to display a list of compatible units containing the stock item. Then click the List Materials button to display the stock items and quantities associated with that compatible unit in the CU Material List. If several compatible units contain the stock item, review the materials list for each compatible unit to find the best fit with the stock items to be reconciled in the upper portion of the screen. If the compatible unit you select is already on the CU Worksheet, the Estimated Quantity field shows the quantity planned against the task.

5. **Enter the Actual Quantity to reflect the quantity of the stock code used.**
   The number you enter should include the Estimated Quantity (if any) plus the number of compatible units required to account for the stock items to be reconciled. To determine the number of compatible units required, divide the quantity to be reconciled in the upper portion of the screen by the quantity on the compatible unit. For example, if the quantity to be reconciled is six and the quantity on the compatible unit is two, three additional compatible units are required to reconcile the items. With an Estimated Quantity of two, you would enter an Actual Quantity of five.

6. **Select a Function, Usage Code, and Account Treatment for the compatible unit if necessary.**
   If the compatible unit is already on the CU Worksheet, the system populates these fields automatically.

7. **Click Save.**
   The system adjusts the Actual compatible unit quantity on the CU Worksheet and redistributes the Regulatory Accounting information. The system also refreshes the top portion of the CU Reconciliation, removing the items that have been reconciled.

8. **Repeat the above steps to reconcile as many items as necessary.**

Items Worksheet

The Items Worksheet view displays all material, labor and other required items associated with the compatible units listed on the CU Worksheet view.

The system automatically populates the Items Worksheet view when you add Compatible Unit records to the CU Worksheet and save the record. You can add new items and change any of the default items as necessary. The items worksheet can only be updated when the task is in Planning status.

Note: When the Work Order record is changed from Planning to a higher status; the system copies the items listed to the Material, Labor Requirements, and Other Requirements views as appropriate.

If a compatible unit is added to the CU Worksheet and it duplicates material, labor or other items. The system increases values in the quantity and duration fields accordingly. For example, if two compatible units each require the use of a crane for 4 hours, the items worksheet shows that one crane is required for 8 hours. If you want to resolve the duplication in some other way, you can edit the items worksheet directly.

When the Work Order record status is changed from Planning to Pending Approval, Approved or Active; the system copies the material, labor and other items on the items worksheet to the Work Order Task Material, Labor Requirements, and Other Requirements views. You can make subsequent changes on those views as needed, however, any such changes are not copied back to the items worksheet.

Type - The information on the Items Worksheet view varies slightly depending on whether the listed item is a Material (M type), Labor (L type) or Other (O type) item.

Item ID - The Item ID is the stock code for M type items, the crew name for L type items, and the equipment type for O type items. Regardless of the item type, the list of values for the Item ID field does not show items already included on the items worksheet.

Store - The system populates this field with the default storeroom from the Compatible Unit Defaults business rule when the stock item exists in the default storeroom. If the stock item does not exist in the default storeroom, the system searches for the stock item in all other active storerooms. If the stock item is found in another storeroom, the system enters that storeroom. If the stock item is found in more than one storeroom, the system does not enter a value but informs you that some material items on the Item Worksheet do not include a valid storeroom. You must then select a storeroom containing the item from the list of values. A storeroom is only required for M type items.

Description, Unit Price and Unit of Measure - If you enter or change an Item ID, the system updates the Description, Unit Price and Unit of Measure fields.

For L type items, the description and unit price are copied from the Craft Rates business rule. For O type items, the description, unit price and unit of measure are copied from the Direct Charges business rule.

Quantity - When adding items to the worksheet, the system multiplies the stock item quantity on the Compatible Unit record by the compatible unit quantity on the CU Worksheet. Quantity is the number of persons or items required. If two carpenters are required for eight hours each, the quantity is two.

Duration - Duration is required for L type items. You can enter fractional amounts using up to four decimal places. Duration is the amount of time each person or item is required. If two carpenters are required for eight hours each, the duration is eight.

Total - The system calculates the total cost for the item by multiplying quantity by unit price and by duration. If the unit price rate for carpenters is $50/hr., the total for two carpenters required for eight hours each is $800.

Regular - This column holds the expense codes for regular labor, material and other type charges.

Premium - This column holds the expense code for premium labor charges. Premium expense codes do not apply to material or other type charges.

Note: Settings in the Variable Expense Codes business rule determine if the Regular and Premium columns display and if they can be updated while the Work Order record is in Planning status.

How to Add an Item to the Items Worksheet

Follow similar steps to modify items automatically inserted by the system.

1. **Open the appropriate Work Order Task record.**
2. **Select Items Worksheet from the Views list.**
3. **Click New.**
4. **Select the appropriate Type for the item you are adding.**
   Select M (Material), L (Labor) or (O) Other. The information required on the worksheet varies slightly depending on the type you select.

5. **Select the appropriate Item ID.**
   Select either the stock code for M type items, the crew name for L type items, or the Equipment Type for O type items. Regardless of the Item Type, the list of values for the Item ID field does not show items already included on the items worksheet.

   When you enter or change an Item ID, the system updates the Description, Unit Price and Unit of Measure fields.

6. **Enter a Storeroom if required.**
   A Storeroom is required for M type items.

7. **Enter a quantity and duration, if required.**
   Quantity is required only for M type items. When adding items to the worksheet, the system multiplies the stock item quantity on the Compatible Unit record by the compatible unit quantity on the CU Worksheet. Quantity is the number of persons or items required. For example, if two carpenters are required for eight hours each, the quantity is two.

   Duration is required for L type items. You can enter fractional amounts using up to four decimal places. Duration is the amount of time each person or item is required. For example, if two carpenters are required for eight hours each, the duration is eight.

8. **Click Save.**

If compatible units are removed from the CU Worksheet, the system also removes the appropriate items from the items worksheet.

If compatible units that result in a duplication of material, labor or other items on the items worksheet are added to the CU Worksheet, the system increases the quantity or duration accordingly. For example, if two compatible units each require the use of a crane for 4 hours, the Items Worksheet view will show that one crane is required for 8 hours. If you want to resolve the duplication in some other way, you can edit the items worksheet.

Regulatory Accounting

Regulatory agencies may require your organization to report financial and operational information according to a uniform system of accounts, rather than the business accounts used elsewhere in the system. These accounts can be defined in the Regulatory Account module and referenced on Compatible Unit records.

You can associate regulatory accounts to a work order task by either adding compatible units to the CU Worksheet or by updating the Regulatory Accounting view directly. When the Work

Order Task record is in Planning, Approved, or Active status, the Regulatory Accounting view can be updated as long as no compatible units have been added. If it becomes necessary to add regulatory account information to a work order in Active status that already has regulatory account entries, you must first create a new task and add the regulatory account information to that task.

When you add compatible units to the CU Worksheet, the system automatically populates the Regulatory Accounting view using a percentage split based on total compatible unit costs for the task. Records are inserted even if the percentage split equals zero.

Update Distributions

If necessary, you can change the system calculated distribution by selecting Update Distributions from the Actions list. This action is basically a Regulatory Account override process to redistribute the percent split for the Regulatory Accounts added from the compatible units.

The Update Distributions action is only available when compatible units have been added to the compatible unit Worksheet, the CU Estimate is a value greater than zero, the Work Order is in Planning status, and you have the UPDATE REG ACCT DIST function responsibility in your User Profile.

You can also make adjustments by entering overhead account information directly on tasks that have no compatible units planned on the CU Worksheet.

CU Reconciliation

If items that are not accounted for by compatible units planned on the task are added during work, you can access the CU Reconciliation view when the task is in Finished status and allocate these additional costs to the appropriate compatible units as needed. When you do this, the system recalculates the regulatory account distribution accordingly.

Capital Regulatory Accounts

Since each capital regulatory account must have at least one construction asset, the system automatically enters a construction asset line items in the Construction Asset view when a capital type account is entered.

How to Update Regulatory Account Distributions

You can only update the account distribution directly when the task is in Planning status. If items are added later that are not accounted for by compatible units planned on the task, you can use the CU Reconciliation view to allocate these additional costs after the task is finished. When you do, the system recalculates the Regulatory Account distribution accordingly.

1. **Open the appropriate Work Order Task (Detail) view.**
2. **Select Regulatory Accounting from the Views list.**
3. **Select** Update Distributions **from the Actions list.**
   The Update Distributions window opens, showing the system calculated percent distribution and the last override percent (if any) for each regulatory account.

4. **Enter the distribution percentages you want to use in the Override column.**
   The total override percentages must equal 100%.

5. **Click the Override button.**
   The system saves the new Override information and displays a confirmation screen.

6. **Click the Done button to return to the Work Order Task record.**

How to Enter Regulatory Accounts on Tasks Without Using Compatible Units
1. **Open the appropriate Work Order Task (Detail) view.**

The Work Order Task record must be in Planning status and have no compatible units already planned on the CU Worksheet.

2. **Select Regulatory Accounting from the Views list.**
3. **Select an appropriate account and an override percent for that account.**
   Only regulatory accounts without usage codes appear on the list of values.

4. **Click Save.**
5. **Repeat Steps 4-5 as needed to include all appropriate accounts.**
   When the Work Order record is set to Pending Approval, Approved or Active status, the system checks to see that the override percent distribution equals 100% and displays costs accordingly.

How to Override Regulatory Account Distributions
1. **Open the appropriate Work Order Task (Detail) view.**
2. **Select Regulatory Accounting from the Views list.**
3. **Select Update Distributions from the Actions list.**
   When you select the action, the system opens the Update Distributions window showing the system calculated percent distribution and the last override percent (if any) for each regulatory account.

4. **Enter the override percentages you want to use.**
   The total override percentages must equal 100%.

5. **Click the Override button.**
   The system saves the new override information and displays a confirmation screen.

6. **Click the Done button to return to the Work Order Task record.**

Allocating Overhead Costs

Depending on your business practices, you may need to create an overhead cost "bucket" for tasks that do not have any compatible units planned.

How to Create a Task for Overhead
Follow similar steps to enter Regulatory Account information on any task that does not have compatible units planned on the CU Worksheet.

1. **Open the appropriate Work Order Task (Detail) view.**
   The Work Order Task must be in Planning Status.

2. **Create a new task record.**
   Since the task that you create is only used to capture costs, it should not have any compatible units or other materials planned.

3. **Select Regulatory Accounting from the Views list.**
4. **Select an Overhead Account and an Override Percent for that account.**
5. **Click Save.**
6. **Repeat Steps 4-5 as needed to include all appropriate accounts.**
   When the Work Order is set to Pending Approval, Approved or Active status, the system checks to see that the override percent distribution equals 100% and displays costs accordingly.

Construction Assets

Capital projects involve the construction of new fixed assets that become part of your organization's asset hierarchy. These assets might either be constructed by crews during the

completion of a work order task, or constructed by an outside contractor and contributed to your organization upon completion.

In both cases, you can plan for the new asset by creating a new Asset record in planning status. You can then use the Construction Asset view to identify new fixed assets being constructed on the task. The Construction Asset view provides a list of property unit numbers defined on the Compatible Unit Accounting view, and a means of assigning an Asset ID to those property units. As costs accumulate against the asset, the system records that information in the Fixed Asset view of the Regulatory Account module.

Note: When you change the work order status from Closed to Finished, the system calculates the value of each construction asset based on the total charges in the Regulatory Account record for the CU and sets the asset status to Active. Settings for the Allow Null Asset ID and Delay Construction Asset Valuation rule keys in the Work Order Processing business rule determine the processing involved in fixed asset valuation.

Item, Function and Compatible Unit - As you add or remove items from the CU Worksheet, the system inserts or removes items from the Construction Assets view. The Item, Function, Compatible Unit and Property Unit No. are maintained by the system and cannot be updated directly.

Action - Valid actions are Create, Retire and No Action. You must select an action before you can save the record. The list of available assets changes depending on the action selected.

Asset ID - Select an Asset ID from the list of values. If the action is Create, the list of values contains all Asset records in Planned status. If the action is Retire, the list of values contains all Asset records in Active status. The lists of values for both actions only include assets where the asset class is the same as the asset class defined on the compatible unit.

If the action is No Action, no list of values is supplied.

Date - Enter either the in service or the retirement date as appropriate. If you enter an in service date, the system copies the date to the Depreciation view in the Asset module.

Contributed - The system checks this box if the asset was created using the Add Customer Contributed action.

More Information - The fields at the bottom of the screen provide additional information about the compatible unit as it has been entered in the Location Worksheet or from the Asset ID associated to the CU. The Number of Units field indicates how many units in the compatible unit make up a group asset.

How to Create a Fixed Asset from a Work Order Task

1. **Create an Asset record.**
   Make sure that the record is in Planned status before moving on.

2. **Create a new Work Order record.**
   You do not have to reference the asset that you created in this step.

3. **Insert a capital compatible unit on the CU Worksheet for the first task.**
   As long as there is a property unit indicated on the compatible unit and the account treatment is capital, the system will automatically create a line in the Construction Assets view, and allow you to associate any Assets that are in Planning status to the work order task.
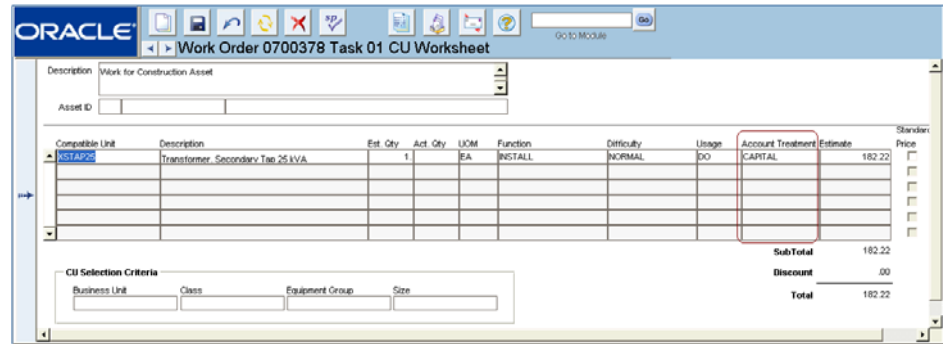
CU Worksheet Referencing a Capital CU

4. **Open the Construction Asset view.**
   The view includes a new line for the compatible unit number inserted on the CU Worksheet in the previous step.

5. **Select Create from the drop-down list in the Action field.**
   Click the down arrow to display the list of available actions and then click Create to select it. The valid actions are Create, Retire and No Action.

6. **Select the Asset ID of the asset created in step 1.**

7. **Enter an in service date for the asset.**
   The system uses the service date when tracking asset depreciation.

8. **Click Save.**
   When you change the work order status from Finished to Closed, the system verifies that each capital regulatory account on the task has at least one construction asset. The system then calculates the value of each construction asset based on the total charges in the Regulatory Account record for the CU and sets the asset status to Active.

How to Retire a Fixed Asset from a Work Order Task
1. **Create a new Work Order record.**
2. **Insert a capital compatible unit on the CU Worksheet for the first task.**
   You should insert the compatible unit with a Retire function and having an appropriate property unit and overhead class for the project you are planning.

3. **Open the Construction Asset view.**
4. **Select the Retire action.**
   Click the down arrow to display the list of available actions then click Retire to select it.

5. **Select the Asset ID of the asset you want to retire.**
   The list of values contains all assets in Active status.

6. **Click Save.**
   When you change the work order status to Active and then to Finished, the system changes the asset status to Inactive and enters the retirement date.

How to Add Contributed Assets using CU Information
You must have the ADD CUSTOMER CONTRIBUTED function in your responsibility profile to access this action.

1. **Create the asset record.**
   Make sure that the record is in Planned status before moving on.

2. **Open the appropriate Work Order Task record.**
   The task can be in any status other than Closed, Canceled or Rejected.

3. **Open the Construction Assets view.**

4. **Select Add Customer Contributed from the Actions list.**
    The Add Construction Asset from an Outside Source window opens.

5. **Select the Yes radio button.**

6. **Enter compatible unit information.**
    You can select a compatible unit, location, function, difficulty and usage code. If your organization plans compatible units to particular CU locations, you can enter a location defined for the work order task. When you select the compatible unit, the system supplies the CU unit of measure. You can enter a CU quantity using up to five decimal places.

7. **Click the Next button.**
    A new window opens asking if you want to create more than one asset.

8. **Select either the Yes or the No radio button.**

9. **Enter the required information.**
    If you are creating more than one asset, enter the quantity, the value of each asset, and the in service date. The system supplies an asset quantity based on the CU quantity, rounded up to the next whole number, but you can change that number if necessary.

    If you are creating a single asset, enter the Asset ID, asset value, and in service date.

10. **Click the Next button.**
    A confirmation screen opens containing the information you entered on the previous screens. You can click the Back button if you need to return to the previous screens and correct any of the information entered.

11. **Click the Done button.**
    The system inserts the record into the Construction Assets view and checks the Contributed check box. When the Work Order record is set to Closed status, the system changes the Asset record status from Planned to Active.

    If you click the Add Another button, the system inserts the records and returns to the first screen of the action where you can add additional assets.

How to Add a Contributed Asset without CU Information
1. **Create an asset record.**
    Make sure that the record is in Planned status before moving on.

2. **Open the appropriate Work Order Task record.**
    The task can be in any status other than Closed, Canceled or Rejected.

3. **Open the Construction Assets view.**
4. **Select Add Customer Contributed from the Actions list.**
    The Add Construction Asset from an Outside Source window opens.

5. **Select the No radio button.**
6. **Enter the required information.**
    You can select the property unit and regularity account from the lists of values.

7. **Click the Next button.**
    A new window opens asking if you want to create more than one asset.

8. **Select either the Yes or the No radio button.**
9. **Enter the required information.**
    If you are creating more than one asset, enter the quantity, the value of each asset, the value of each, and the in service date. If you are creating a single asset, enter the Asset ID, asset value, and in service date.

10. **Click the Next button.**
A confirmation screen opens containing the information you entered on the previous screens. You can click the Back button if you need to return to the previous screens and correct any of the information entered.

11. **Click the Done button.**
The system inserts the record into the Construction Assets view and checks the Contributed check box.

When the Work Order record is set to Closed status, the system changes the Asset record status from Planned to Active.

If you click the Add Another button, the system insert the records and returns to the first screen of the action where you can add additional assets.

Assigning Components to Construction Assets

When Assets are built they are often associated with components that are required to be tracked. For example, a pole may have a transformer, and although the pole does not need to be tracked as a serial numbered part, the transformer does. You can use the Material Disposition process to create a relationship between the pole and the transformer. In this scenario, the pole is defined as a construction asset within the system, and the transformer is a component.

Your organization must have Advanced Repairables Processing (Non-Components) turned on to use this functionality.

How to Assign a Component to a Construction Asset
Note that the following steps may not all be completed by the same person or during one sit down session with the application.

1. **Create a Work Order without an Asset ID on the header or task.**
The system can still complete this process if an Asset ID is added to the header, however, the appropriate process is to create the initial work order without an asset.

2. **Add a Compatible Unit with a Property Unit number and at least one Trackable Stock Code to the CU Location Worksheet or CU Worksheet.**
Construction Asset details are created in the Construction Asset view for each quantity of the CU's with Property Units added to the Worksheet.

3. **Have the Work Order Approved then set to Active status.**
4. **Create a Checkout Request for Work Order Task.**
5. **Issue the planned quantity for the trackable stock code and select a Component ID in "In Stores" status.**
The system automatically changes the status of the Component ID to "Pending Disposition" and creates a Material Disposition record with a line item in "Pending Disposition".

6. **Open the Construction Assets view on the Work Order created in Step 1 and add Asset IDs in "Planned" status to each row by selecting the Create action.**
7. **Navigate to the task Construction Asset view and select the Assign Component to Assets action.**
This action is only available if one of the construction assets is in pending disposition status. Clicking the action opens the Material Disposition record for the appropriate asset.

8. **Select Install Component to Planned Asset from the Actions list.**
You can also change the component item status from Pending Disposition to Installed.

A wizard appears with a list of values of Asset IDs from the Work Order Task Construction Asset view. If there are multiple assets to choose from or there was an asset entered on the work order header in step 1, the system allows you to choose which asset to use.

9. **Select an Asset ID from the list and click Finish.**
   The system sets the Component ID to Installed status and the Material Disposition record to Resolved.

10. **Change the Work Order Task status from Active to Finished once the work is complete.**
    If the record status is changed to Finished before the components are reconciled, the system displays a warning and provides you with the opportunity to process the Material Disposition record at that time.

CU Actions

In addition to standard actions, the following can be completed from within the module.

Adding Compatible Structures

Compatible Structure records identify compatible units that comprise the structure as well as the quantities of compatible units needed. When you add compatible units to a CU Worksheet, you may find it much easier to identify an appropriate compatible structure instead of the individual compatible units.

Note: The Add Structure action is only available when the Work Order Task record is in Planning status.

Select Add Structure from the Actions list (when on the CU Worksheet) to open a wizard where you can select from all active Compatible Structure records and specify the number of structures, the appropriate function and difficulty levels, and the accounting treatment for the task you are planning. Since compatible structures are not typically used for planning operations work, the accounting treatment options are restricted to capital or maintenance.

How to Add Compatible Structures to a CU Worksheet

The Add Structure action is available only when the Work Order Task record is in Planning status.

1. **Open the appropriate CU Worksheet.**
2. **Select Add Structure from the Actions list.**
3. **Select the compatible structure you want to add.**
4. **Select a function, difficulty, quantity, and account treatment for the task.**
   Quantity is the number of compatible structures you want to add. The number of compatible units on each structure is multiplied by the number of structures.

   You must select an account treatment to determine if this is a capital, maintenance, or operations expense.

5. **Click the Next button.**
   If the compatible structure selected contains compatible units with a function or difficulty that are different from those you select in this step, the system opens a list of those unmatched compatible units when you click the Next button. You can then decide if you want to include any of those compatible units, using their existing classifications.

   The system opens either the Unmatched Compatible Unit screen or the Add Compatible Units screen.

If the Unmatched Compatible Units screen opens, check the Add box for any compatible units you want to include and click the Next button to open the Add Compatible Units screen.

On the Add Compatible Units from Compatible Structure screen, review the list of compatible units to verify that you want to add the compatible units in the quantities shown.

6. **Uncheck the Add box for any compatible units you do not want to add to the CU Worksheet.**
The system automatically checks the Add box for all items. You must remove the check the box if you decide not to include any of the compatible units listed.

7. **Click the Next button.**
The Confirm Compatible Units screen opens including the account function classification for each compatible unit to be added.

8. **Adjust the compatible unit quantities if necessary.**
The system supplies a quantity for each unit based on the number of units on the Compatible Structure record and the number of structures you selected in Step 4. If another quantity is required for the work being planned, you can enter a new quantity.

9. **Click the Add button.**
The system adds compatible units listed to the CU Worksheet for the task.

Adding Dependent Materials

Some materials required for compatible units may be dependent on other compatible units included on the CU Worksheet. For example, the size and length of the bolts used to mount a cross arm compatible unit on a transmission pole compatible unit may depend on the size or type of pole being used. These alternative materials are defined on the Dependent Materials view in the Compatible Units module.

Note: You must have the ADD DEPENDENT MATERIALS function in your responsibility profile to access this action.

You can select Add Dependent Materials from the Actions list to display a listing of dependent items associated with the compatible unit highlighted on the CU Worksheet.

The quantity shown reflects both the number of items on the compatible unit and the number of compatible units on the work order task. Place a check in the add box for items you want to include on the items worksheet when the Work Order record is set to Pending Approval, Approved or Active status.

Value Assets in Prior Year

This action becomes available when the work order is in Finished status. If you select this action from the actions list and the fixed asset batch job (sdbp_work_order.fixed_asset) runs, the system retrieves the accounting period based on the closed date on the work order. The year where the closed date falls is lessened by one (to derive the prior year), and this year is then used to determine which year to distribute direct and indirect overhead costs.

Planning Travel Time

You can plan travel time on the main Work Order Task record by selecting the Work Region where the work will be done and entering the number of Trips anticipated to and from the work site. The system uses this information, together with the travel time estimates your organization has entered in the Work Order Travel Time business rule, to account for travel time in the scheduling process.

When you plan labor for the task on the Labor Requirements view, the system completes the Total Travel column for each labor record by multiplying the number of people by the number of trips and the travel time. Since your organization uses compatible units, the system populates the Labor Requirements view when you change the work order status from Planning to Pending Approval or a higher status.

The system also makes the travel time and trip information available in the Task and Labor views in both of the scheduling modules and provides a Travel Time field in the Timekeeping module for recording the actual number of hours spent traveling.

How to Plan Travel Time for a Work Order Task
1. **Open the appropriate work order**
   The work order must be in Planning status if you want the system to include travel in compatible unit cost estimates.

2. **Open the appropriate Work Order Task record.**
3. **Select a Work Region where the work will be done.**
   When you select the Work region, the system supplies the default Travel Time from the Work Order Travel Time business rule.

4. **Edit the Travel Time and Number of Trips as needed.**
   Both travel time and the number of trips reflect one-way travel. For a round trip with a travel time of each leg being one hour, for example, enter 1 in the Travel Time field and enter 2 in the Trips field. If you save the Task without entering the number of trips, the system automatically defaults the number of trips to 2.

5. **Click Save.**
   When you plan labor for the task on the Labor Requirements view, the system calculates the Total Travel Hours for each labor record using the information you entered above.

   If your organization uses compatible unit, the system populates the Items Worksheet, including travel time for all L type (labor) items when you add compatible units to the CU Worksheet. When you change the Work Order from Planning status to a higher status, the system populates the Labor Requirements view.

The system also makes the travel time and trip information available in the scheduling modules.

Summary

When the Work Order Task record status is changed from Planning to Pending Approval, Approved or Active; the system copies the Material, Labor and Other items on the Items Worksheet to the Task's Material, Labor Requirements, and Other Requirements views, respectively. You can make subsequent changes on those views as needed but any such changes are not copied back to the items worksheet.

At the end of the year, batch processing allocates costs from the Overhead Regulatory Accounts to the related non-overhead accounts (Capital, Maintenance, Operations, Work In Progress) based on Overhead Class.

In addition to managing compatible units, you can also manage construction assets in the Work Order Task module.

By entering construction assets in the system, your organization has the ability to account for these assets when they are "handed over" as completed. These construction assets are then considered "fixed assets" and can be tracked and managed in the system as costs are accrued, and maintenance and operations work is completed. In particular, the system records cost accruals in the Fixed Asset view of the Regulatory Account module to support the reporting of these costs to regulatory agencies.

Chapter 6

Planning Compatible Units for Conductors

Conductors tend to be booked as one fixed asset (alone or as part of a continuous property record), independent of the Compatible Unit quantity. This is different than poles or other devices that may have a fixed asset record for each item installed. Typically the system creates one construction asset for every CU quantity and the user must manually identify which fixed asset records will be used. If your organization uses conductors, the system can be configured to create only one construction asset record for a work order task regardless of the CU quantity, and calculate the conductor lengths.

The compatible unit quantity for conductors is dependent upon the phase of the installation - a single phase installation only requires one span of conductor, while a three phase installation requires three spans of conductor. The system automatically determines the appropriate CU quantity for conductors based on the length of run and the phase.

Setting up a Compatible Unit for a conductor and planning it on a work order requires the following steps:

1. Set up a stock code with a conductor.

2. Add the stock code to a compatible unit and assign a quantity.

3. Add the compatible unit to a work order on the location worksheet.

The following sections outline these steps in detail.

Setting up a Stock Code as a Conductor

To define a Conductor, you must enter values in the Conductor Information view of the Catalog module.

The conductor information view is used to define a stock item as a conductor for use with compatible units.

The information entered in this screen defines the parameters for determining additional conductor length for slack based on the distance between two attachment points. The CU quantity and items quantity is automatically calculated for the stock item using the distance entered on work documents (Work Designs and Work Order CU Location) and the information entered here.

From and To represent the starting and ending point values of the stock code length to apply the calculation to based on the "Distance" defined on the work document. The Multiplier and Adder represent a number to be multiplied and added to the stock code length that falls on or

between the From and To values.
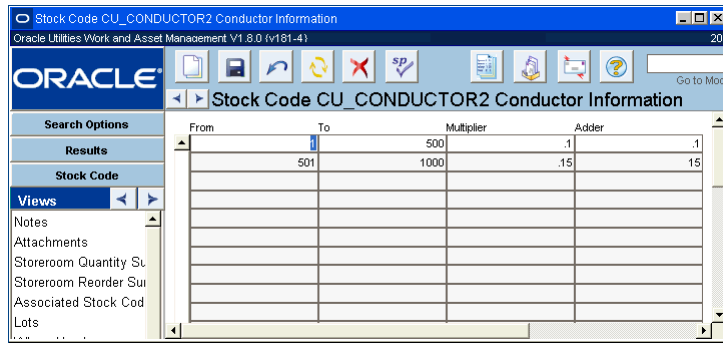
Conductor Information view Catalog module

Note: Slack is not factored into the calculation if the Underground check box is checked when the item is added to the CU Location (Detail) view on the work record.

Adding the Stock Code to a Compatible Unit

Create a new compatible unit or add the conductor to an existing compatible unit in the Compatible Units module Materials view.
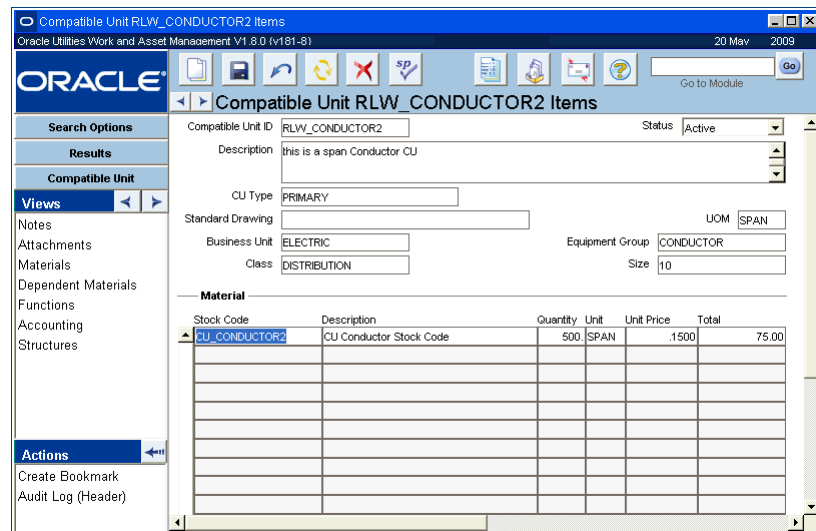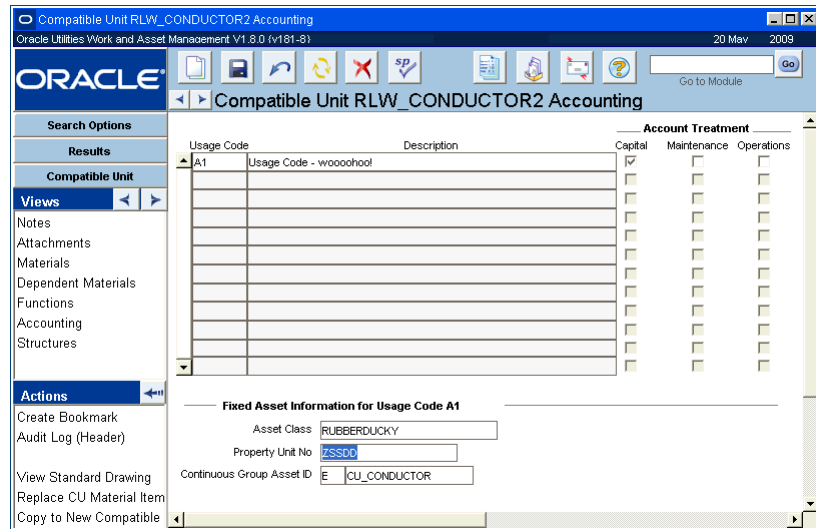

Conductor Stock Code added to Compatible Unit Materials

Make sure that the Function and Accounting views are configured properly. The compatible unit must reference a capital account treatment, property unit, asset class, and a group asset in the Accounting view. It must also have a property type indicated in the CU Type field on the header.

You can only enter one conductor type stock code on the compatible unit.

Note: Referencing a group asset defines the compatible unit as a continuous group asset for construction.

Conductor Stock Code Settings on Compatible Unit Accounting view

Make sure that the Include Material box is checked in the Functions view.
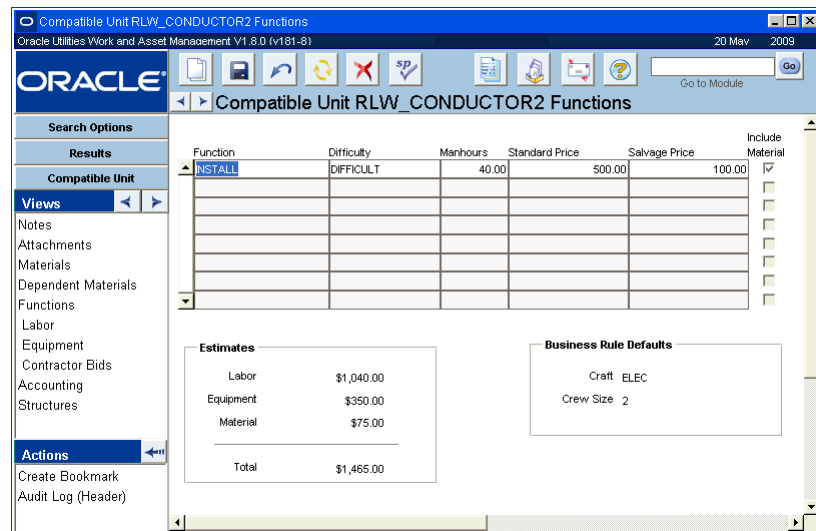
Conductor Stock Code Settings on Compatible Unit Functions view

Adding the Compatible Unit to a Work Order

Once you have a stock code defined as a conductor that is added to a compatible unit it can be added to a work order and the system will automatically calculate the compatible unit quantity for the conductor.

The process for adding the compatible unit to a work order is the same as the process when you are adding any compatible unit. The only difference is that you will see calculations.

How to Add a Conductor Compatible Unit to a Work Order
1. **Create a new work order.**
2. **Select CU worksheet from the views list and add the CU that contains the conductor.**
   Make sure that the Compatible Unit record is in Active status.

3. **Open the CU Location (Details) screen and fill in the location, description, distance between locations and units.**
   Make sure that the unit of measure (UOM) for the distance is the same as the UOM indicated for the conductor.

4. **Open the Location Worksheet.**

5. **Enter the compatible unit which contains the conductor.**
   The system recognizes that the compatible unit includes a conductor material item and calculates and populates the compatible unit quantity based on the distance between locations and the algorithm defined for the conductor span length.

6. **Enter the number of runs, function, difficulty, usage code and account treatment of capital.**
   No. of Runs represents the number of conductors being installed. Generally there would be three; hot, ground and neutral.

   The system populates the Items Worksheet based on the compatible unit and compatible unit quantity. The system also recognizes the compatible unit as a continuous group asset and populates the Construction Assets view with one record for the construction asset with the number of units equal to the compatible unit quantity.
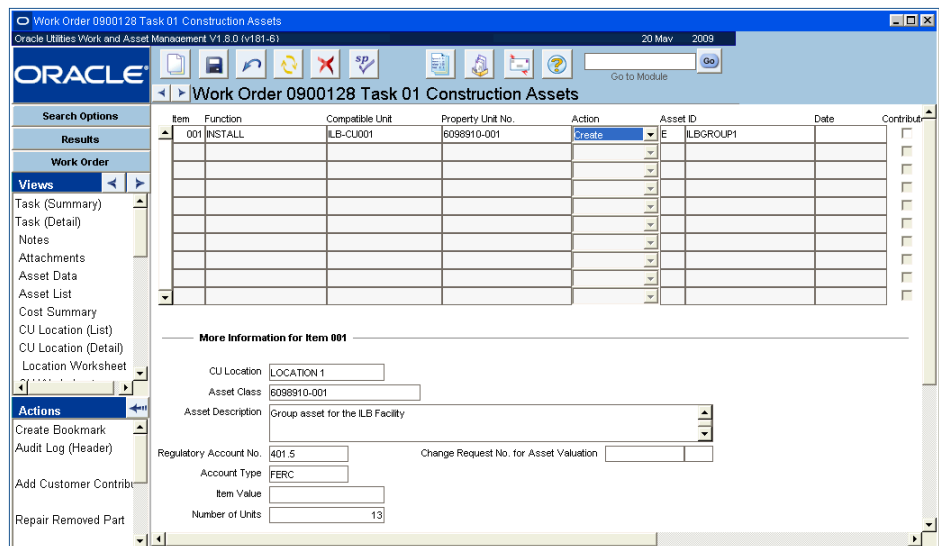
Construction Assets view with Fields Populated to Reflect Conductor values

The system sets the Action for the construction asset to Create or Retire based on the CU function category defined in the Compatible Unit Functions business rule, and populates the Asset ID of the construction asset with the continuous group Asset ID defined in the CU Accounting screen.

You can refer to the CU Worksheet to see how the CU Quantity is calculated.

Calculation Used to Determine the Compatible Unit Quantity for the Conductor
The following calculation is used:

$$CU\,qty = \left(\frac{Distance + Slack}{CU\,Item\,Qty} \right) * No.\,of\;Conductors$$

Example: CU Setup as "Linear Feet"

CU UOM:	LF
CU Item Qty & UOM:	1 LF
Settings from catalog component data:	Multiplier of 0.10 and adder of 20.
Distance on CU Location Detail:	1000 LF
No. of Conductors on CU Location Detail:	3
Slack:	(1000 * 0.1) + 20 = 120 LF
CU quantity:	((1000 + 120) / 1) * 3 = 3360 LF

Note: Slack is not factored into the calculation if the Underground check box is checked on the CU Location (Detail) view.

Cue Cards

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