

## 1 PURPOSE

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The purpose of this document is to summarize special set-ups required when using nonstandard discrete jobs in Oracle Manufacturing and the major functional differences between standard and nonstandard discrete jobs. Differences at the table level are identified.

The paper also includes important patches in release 11 that correct functional issues relating to nonstandard discrete job.

Material included in this paper came from the Work In Process Reference Manual, Work In Process Technical Reference Manual, Work In Process Users Guide, and the Cost Management Users Guide. The objective of this paper was to consolidate the information in these manuals into one cohesive paper on nonstandard jobs.

## 2 SCOPE & APPLICATION

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This paper is intended for functional analysts involved in using nonstandard jobs in Oracle Manufacturing. It does not identify all of the issues raised when using nonstandard jobs but tries to summarize the important issues documented in release 11.

## 3 USE OF NONSTANDARD DISCRETE JOBS in ORACLE MANUFACTURING

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On a functional basis, there are five major differences between the structure and execution of nonstandard discrete jobs and standard discrete jobs (as outlined in the Work In Process Reference manual). They are:

1. Oracle Work in Process provides more options with nonstandard jobs than with standard jobs.
2. Oracle MRP does not create planned purchase orders or reschedule recommendations for nonstandard jobs. The user must manually define and reschedule these jobs. Once the nonstandard job is defined, Oracle MRP will consider the material requirements and assemblies in its netting process.
3. Oracle MRP does not deduct scrapped assemblies from MRP net quantity nor does it gross down the MRP net quantity by the item shrinkage rate. You must manually adjust planned assembly shrinkage by entering an MRP net quantity that is less than the job quantity.
4. Nonstandard expense jobs are period costed and not subject to cost updates. These jobs do not earn overhead on completion. The material overhead at completion is posted directly to the subinventory material overhead account.
5. Oracle Work In Process will not automatically implement engineering change orders on nonstandard jobs with a status of unreleased – no charges allowed.

## 4 DIFFERENCES IN FIELDS ENTERED WHEN CREATING NONSTANDARD JOBS VERSUS STANDARD DISCRETE JOBS

|          | Standard Discrete Job | Nonstandard Discrete Job  |
|----------|-----------------------|---|
| Assembly | Required              | Optional<br>Must be entered if you want to perform a move and/or completion |

|                            |  |  |
|----------------------------|--|--|
|                            |  | transaction.   |
| Job Class                  | Required – job class defined for standard job.                     | Required, job class defined for nonstandard asset or nonstandard expense job.  |
| Quantity                   | Required   | You can enter a 0 here, as explained later in this article.  |
| MRP Net Qty                | Required – Defaults from Qty                                       | Required – Defaults from Qty. If an assembly is not entered, then a value is not populated in this field.  |
| Start Date/Completion Date | Required   | Required. If a routing exists for the job, then you can enter either a start or a completion date. If a routing does not exist, you must enter both a start and completion date. |
| Firm                       | Defaults to Yes if item is MPS planned. Otherwise, defaults to No. | Cannot enter a value in this field. It defaults to No.   |
| Routing Reference          | Cannot enter.  | Optional. If you want to perform job scheduling based on a routing, then enter a value.  |
| Bill Reference             | Cannot enter a value in this field                                 | Optional. If you want to automatically create material requirements based on a bill of materials, enter a value.   |
| Supply Type                | Required. Defaults to Based on Bill.                               | Required. Defaults to Based on Bill.   |

## 4.1 The Wip/Discrete/Discrete (WIPDJMDF) Form

### 4.1.1 The Bill Region of the Discrete Job Form

The screenshot displays the Oracle Applications WIPDJMDF form. The top section contains fields for Job (17404), Type (Non-standard), Assembly, Class (Rework), Status (Unreleased), UOM, and Firm. Below these are sections for Quantities (Start: 10, MRP Net: 0) and Dates (Start: 24-SEP-2000 00:00:00, Completion: 23-SEP-2000 00:00:00). The bottom section, titled 'Bill', includes fields for Reference (SB34701), Base Assembly, Alternate, Revision, Revision Date, and Supply Type (Based on Bill). At the bottom of the form are buttons for Sales Orders, Operations, and Components.

## .2 The Routing Region of the Wip Discrete Job Form

The screenshot displays the Oracle Applications WIP Discrete Job Form. The window title is "Oracle Applications - stdbase0\_vms1". The menu bar includes File, Edit, View, Format, Tools, Window, and Help. The toolbar contains various icons for file operations and navigation. The main form area is divided into several sections:

- Job Information:** Job (17404), Type (Non-standard), Assembly, Class (Rework), Status (Unreleased), UOM, and Firm.
- Quantities:** Start (10), MRP Net (0).
- Dates:** Start (21-SEP-2000 00:00:00), Completion (23-SEP-2000 00:00:00).
- Navigation Tabs:** Bill, Routing, Job History, Schedule Group, Project, Scheduling, and More.
- Reference Information:** Reference (SR34701), Base Assembly, Alternate, Revision, and Revision Date.
- Completion:** Subinventory and Locator.
- Buttons:** Sales Orders, Operations, and Components.

The bottom status bar shows "Record: 1/1", "List of Valu...", "<ORG>", and "<DBG>". A yellow banner at the bottom reads "Warning: Apple Window".

## 5 Wip/Setup/Wip Accounting Classes and Special Setup for Different Manufacturing Activities

### 5.1 Examples of Different Accounting Classes

#### 5.1.1 Expense Accounting Class

Oracle Applications - rldare03\_viv51

File Edit View Window Help

WIP Accounting Classes (M1)

Class: **Expense**

Description: **Expense job**

Type: **Expense Non-standard**

Inactive On:

Accounts

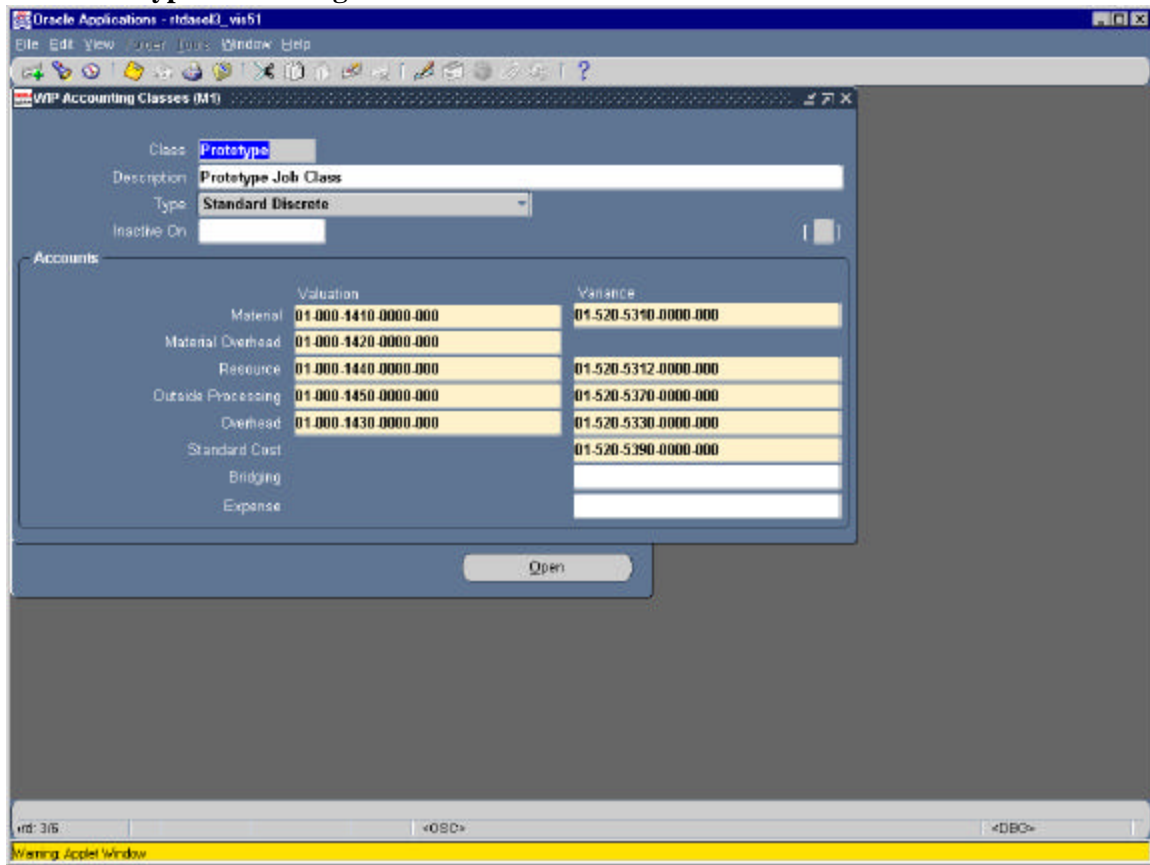
|                    | Valuation            | Variance             |
|--------------------|----------------------|----------------------|
| Material           | 01.000.5310.0000.000 | 01.520.5310.0000.000 |
| Material Overhead  | 01.000.5310.0000.000 |                      |
| Resource           | 01.000.5380.0000.000 | 01.520.5380.0000.000 |
| Outside Processing | 01.000.5370.0000.000 | 01.520.5370.0000.000 |
| Overhead           | 01.000.5330.0000.000 | 01.520.5330.0000.000 |
| Standard Cost      |                      |                      |
| Bridging           |                      |                      |
| Expense            |                      | 01.520.5310.0000.000 |

Open

ord: 216 <<OSC>> <<DBC>>

Warning: Apple Window

### 5.1.2 Prototype Accounting Class



Oracle Applications - stdase03\_vii51

File Edit View Window Help

WIP Accounting Classes (M1)

Class: **Prototype**

Description: **Prototype Job Class**

Type: **Standard Discrete**

Inactive On:

Accounts

|                    | Valuation            | Variance             |
|--------------------|----------------------|----------------------|
| Material           | 01.000.1410.0000.000 | 01.520.5390.0000.000 |
| Material Overhead  | 01.000.1420.0000.000 |                      |
| Resource           | 01.000.1440.0000.000 | 01.520.5312.0000.000 |
| Outside Processing | 01.000.1450.0000.000 | 01.520.5370.0000.000 |
| Overhead           | 01.000.1430.0000.000 | 01.520.5330.0000.000 |
| Standard Cost      |                      | 01.520.5390.0000.000 |
| Bridging           |                      |                      |
| Expense            |                      |                      |

Open

ord: 3/6 <OSC> <DBC>

Warning: Applet Window

### 5.1.3 Reconfig Accounting Class

Oracle Applications - rtdbase0\_vw51

File Edit View Window Help

WIP Accounting Classes (M1)

Class: **Reconfig**

Description: **Reconfiguration**

Type: **Asset Non-standard**

Inactive On:

Accounts

|                    | Valuation            | Variance             |
|--------------------|----------------------|----------------------|
| Material           | 01.000.1410.0000.000 | 01.520.5390.0000.000 |
| Material Overhead  | 01.000.1420.0000.000 |                      |
| Resource           | 01.000.1440.0000.000 | 01.520.5380.0000.000 |
| Outside Processing | 01.000.1450.0000.000 | 01.520.5370.0000.000 |
| Overhead           | 01.000.1430.0000.000 | 01.520.5330.0000.000 |
| Standard Cost      |                      | 01.520.5390.0000.000 |
| Bridging           |                      |                      |
| Expense            |                      |                      |

Open

ord: 4/5 <<OSD> <DBO>

Warning: Applet Window

### 5.1.4 Rework Accounting Class

Oracle Applications - rtdbase0\_vw51

File Edit View Window Help

WIP Accounting Classes (M1)

Class: **Rework**

Description: **Rework Job Class**

Type: **Expense Non-standard**

Inactive On:

Accounts

|                    | Valuation            | Variance             |
|--------------------|----------------------|----------------------|
| Material           | 01.000.1410.0000.000 | 01.520.5390.0000.000 |
| Material Overhead  | 01.000.1420.0000.000 |                      |
| Resource           | 01.000.1440.0000.000 | 01.520.5380.0000.000 |
| Outside Processing | 01.000.1450.0000.000 | 01.520.5370.0000.000 |
| Overhead           | 01.000.1430.0000.000 | 01.520.5330.0000.000 |
| Standard Cost      |                      |                      |
| Bridging           |                      |                      |
| Expense            |                      |                      |

Open

rd: 616      <<080>      <<080>

Warning: Applet Window

## 6 DIFFERENT MANUFACTURING ACTIVITIES AND DISCRETE JOBS (As outlined in the Work in Process Reference manual)

### 6.1 Disassembling Assemblies

#### 6.1.1 Setup

1. The completed assembly to be disassembled should reside in a nettable finished goods (FGI) subinventory.
2. You should have a standard operation to disassemble, ie Disassembly, with a direct charge resource, ie Tech1
3. Define a nonstandard discrete job for the assembly to be disassembled with quantity of 1.
4. Enter 0 in the MRP Net Quantity field because the assembly will not be completed into inventory as supply
5. Select an accounting class that is an expense type nonstandard because you are not building WIP assets
6. Define the material requirements manually with the assembly itself as a requirement at the Disassembly operation
7. Enter push as the supply type and enter the FGI subinventory in the supply subinventory field
8. Check MRP net since you want to create demand for an assembly that is supplied from the nettable FGI subinventory
9. Create negative component requirements for each of the major components you expect to return to inventory and check Mrp Net so that the MRP planning process sees these negative demands as supply

### **6.1.2 Transactions**

1. Use Wip Material Transactions window to issue the assembly to the nonstandard discrete job.
2. Use the Resource Transactions window to charge resource time incurred.
3. Use the Wip Material Transactions window to return the components to inventory after the dismantling process.
4. Do not use the Completions window since there is nothing to complete.
5. When the disassembly process is over and all the inventory components have been returned to inventory, change the job status to cancelled no charges.

### **6.1.3 Costing Issues**

The ending balance of the job will be equal to the resource and overhead costs incurred during the assembly and disassembly. The costs of materials issued and returned will be equal since all the components were returned to inventory. The resource and overhead are written off as a variance when the job is closed or at period end when expense type nonstandard jobs are automatically expensed.

## **6.2 REWORKING ASSEMBLIES**

### **6.2.1 Setup**

1. The rejected assemblies are in a non-nettable MRB subinventory.
2. You have defined standard rework operations with appropriate resources.
3. You define a nonstandard discrete job with a quantity to be reworked.
4. You enter that quantity in the Mrp Net quantity field.
5. You select an asset nonstandard accounting class because you are building up an asset.
6. After creating the nonstandard job, drill down into the Operations window to manually create a routing for this rework.
7. Drill down into Material Requirements window to manually identify those components required at the first operation. Make it supply type of push to push the additional material required to the first operation.

### **6.2.2 Transactions**

1. Use the Material Transactions window to manually push the component to the first operation.
2. Use the Move Transactions window to move the assembly from one operation to another operation and charge the resources and overhead appropriately.
3. Use the Completion Transactions window to complete the finished and reworked assembly into a nettable finished goods inventory.

### **6.2.3 Costing**

1. The job's ending balance should be equal to the cost of the resource and overhead charges only.
2. The material charges will net to zero balance because the only material was the assembly issued and received from the job.
3. The ending resource and overhead charges are written off as a variance when you close the job.

## **6.3 BUILDING ENGINEERING PROTOTYPES**

### **6.3.1 Setup**

1. Engineers have used the ECO process to define a future open bill with a revision and revision date.



2. You can use a standard routing to build the prototype and build it in the regular production area.
3. There has been no cost rollup on this future item.
4. Use the Discrete Jobs window to define a nonstandard job.
5. Enter a zero in the MRP Net quantity because none of these prototypes will be available as supply.
6. Select an expense nonstandard accounting class.
7. Enter a standard routing into the Routing Reference field to schedule the start and end dates of the job, as well as, to automatically create the operations and resources associated with this job.
8. Enter the revision and revision date into the Bill Revision and Revision date fields to automatically create the component requirements for this job.
9. Note: The WIP: Exclude Open ECOs profile should be set to No so that you can define jobs for open revisions.

### **6.3.2 Transactions**

1. Use the Material Transactions window to issue the components to the nonstandard job.
2. Use the Move and Resource Transactions windows to move the fuel filters from operation to operation and to charge resources and overheads. You can also use these windows to add operations or resources as needed.
3. Use the Completion Transactions window to complete the new item into a non-nettable engineering prototype inventory location.

### **6.3.3 Costing**

1. The job will have an ending balance equal to the cost of material, resources, and overhead charges less the current standard cost for the completed assemblies. Since this future version is the current standard, the balance is written off when you close the job or a period end when expense type nonstandard jobs are automatically expensed.

## **6.4 There are some other manufacturing activities relating to nonstandard jobs. They are:**

### **6.4.1 Maintaining Plant or Equipment**

Engineering defines a non-stockable item and a primary routing for each type of machine to be maintained with all the operations and resources required. The Discrete Job form is used to define a nonstandard discrete jobs without an assembly and a job quantity of 0. Select an expense type of nonstandard accounting class so that variances and charges will be accrued against the correct accounts. You will not be moving thru operational steps but will be using the routing as a task reference list for charging resources. Use the Resource Transactions window to report charges and use the Material Transaction window to issue any material required for maintenance. Since maintenance is performed on a periodic basis, you can leave this job open. The material, resource, and overhead charges incurred during any period will be written off as a variance at period end.

### **6.1.2 Field Service Repairs**

Field Service returns are handled similarly to the above. A defective item is returned via an RMA number. You have placed this item in a non-nettable customer return subinventory. Engineers have defined alternate routings for each type of repair as this occurs frequently. Some standard operations have been included in the alternate routings. You define a nonstandard job with a job quantity of 1 and MRP net quantity of 0. You enter an MRP net quantity of 0 because you do not want MRP to plan for this item. The wip accounting class is an expense type nonstandard accounting class. You can enter the RMA number and Customer in the Description field for the job for traceability. Enter the routing

in the routing reference field to schedule the start and end dates for the job., as well as, create the operations and resources required. You can add components required in the Material Requirements window or by simply issuing more components to the job using the Material Transactions window. Use the Completions Transactions window to complete the repaired item into a non-nettable subinventory for shipment to the customer. The ending balance of the job will be equal to the cost of the repair material, resource, and overhead charges less the repaired item. A variance will be written off when the job is either closed or at period end when expense type nonstandard jobs are automatically expensed.

### 6.1.3 Other Projects To Be Billed To Customers

These jobs are handled similarly to the jobs defined above.

## 7 UNDERSTANDING CHARGES INCURRED TO A NONSTANDARD JOB

### 7.1 Discrete Job Value Report (WIPRDJVR)

Use the Discrete Job Value Report to analyze your standard discrete jobs and nonstandard asset jobs. You can submit the WIP Value Report before submitting this report to review total variances and charges for your jobs. Then, you can submit this report to analyze a summary of the transactions behind the charges and variances for each job.

Attention: This report does not include expense nonstandard jobs. Use the Expense Job Value Report to analyze expense nonstandard jobs.

Please refer to the Oracle Work In Process Reference Manual for further details concerning this report and the columns that appear on the report.

#### Primary Tables Utilized By This Report

Cst\_Item\_Costs  
Cst\_Resource\_Costs  
Cost\_Resource\_Overheads  
Wip\_Scrap\_Values  
Mtl\_Material\_Transactions  
Wip\_Period\_Balances

### 7.2 Wip Value Report (WIPUTVAL)

Use the WIP Value Report to report your work in process inventory in a particular accounting period. Oracle Work in Process prints the value of discrete jobs for the period specified and lists the ending balance for each discrete job in a particular accounting class and subtotals by the accounting class. In addition, Oracle Work in Process summarizes each accounting class by cost element and prints a subtotal for each type of accounting class. You can submit the report using several options. It will display the job's class type if all class types are selected or only those jobs related to a specific class type: Asset nonstandard, Expense nonstandard, Standard Discrete.

Attention: To ensure accurate ending inventory values for discrete jobs, you must close any open periods prior to the one you are using for this report.

Attention: Oracle Work in Process overstates your work in process value by the value in your expense nonstandard jobs. Oracle Work in Process automatically writes off this value at period close.

#### Primary Table

Wip\_Period\_Balances

### **7.3 Expense Job Value Report (WIPREJVR)**

Use this report to analyze your nonstandard expense jobs. You can submit the Wip Value Report before submitting this report to review total charges for your jobs. This report includes summarized information on all cost transactions including material, resource, move and resource based overhead, scraps, completions, and period close variances. The report also prints period-to-date summary information as well as complete job header information. Oracle Work in Process groups and subtotals your cost transactions by transaction type.

Attention: Unlike the Discrete Job Value Report, this report prints no standard or variance information. Expense nonstandard jobs typically have no standards and are used only to collect and charge costs.

### **7.4 Wip Account Distribution Report (WIPUTACD)**

Use this report to print detailed account information for several work in process cost transactions, including resource, overhead, and outside processing charges, cost updates, and period close and job close variances. Oracle Work in Process prints detailed information for each charge you make to an account. Oracle Work in Process groups your transactions by job or schedule, by transaction type, and orders your transactions by earliest transaction date.

Note: Oracle Work in Process does not print material cost transactions, such as issues, completions, and scraps, in this report. You can print this information using the Material Account Distribution reports in Oracle Inventory.

## **8. TABLE DESIGN CONSIDERATIONS**

When understanding nonstandard jobs, the following Oracle Work In Process tables should be reviewed:

### **8.1 Wip\_Entities**

This table stores information about each discrete job. Each row includes a unique discrete job, the entity type, and the assembly built by the job. Oracle Work in Process uses this information to ensure that you do not enter duplicate job names.

Select wip\_entity\_id, organization\_id, wip\_entity\_name, entity\_type, primary\_item\_id from wip\_entities where wip\_entity\_name like '<your job number>%';

### **8.2 Mtl\_Parameters**

This table maintains a set of default options like general ledger accounts, costing method, organization id, and organization code for each organization defined in Oracle Inventory.

Select organization\_id, organization\_code from mtl\_parameters;

You will be able to identify the current organization's organization\_id. The organization\_id is an internal number assigned by the system when an organization is created and this id is populated in many of the Oracle database application tables.

### 8.3 Mfg\_Lookups

Stores and maintains the lookups for Oracle Inventory, and Oracle Manufacturing. A lookup is a string of characters that is assigned to a number. This is also referred to as a job type field.

This can be viewed by navigating in WIP/Setup/Lookups

Here are the valid lookup types associated with `wip_class_type`:

The screenshot shows the Oracle Applications interface for configuring manufacturing lookups. The title bar reads "Oracle Applications - rtdase03\_vw51". The menu bar includes File, Edit, View, Order, Tools, Window, and Help. The toolbar contains various icons for file operations and navigation.

The main window is titled "Oracle Manufacturing Lookups". It features several input fields at the top:

- Type: WIP\_CLASS\_TYPE
- User Name: WIP\_CLASS\_TYPE
- Application: Oracle Work in Process
- Description: (empty)

To the right of these fields is an "Access Level" section with three radio button options:

- ☒ User
- ☐ Extensible
- ☐ System

Below the input fields is a table with columns: Code, Meaning, Description, Tag, From, To, Enabled, and a vertical scrollbar. The table contains four rows of data:

| Code | Meaning             | Description | Tag | From | To | Enabled                             |
|------|---------------------|-------------|-----|------|----|-------------------------------------|
| 1    | Standard discrete   |             |     |      |    | <input checked="" type="checkbox"/> |
| 2    | Repetitive assembly |             |     |      |    | <input checked="" type="checkbox"/> |
| 3    | Asset non-standard  |             |     |      |    | <input checked="" type="checkbox"/> |
| 4    | Expense non-stands  |             |     |      |    | <input checked="" type="checkbox"/> |

At the bottom of the screen, there are two status bars: "<DBO>" and "<CBO>". A yellow warning banner at the very bottom reads "Warning: Applet Window".

## 8.4 Wip\_Accounting\_Classes

Wip\_Accounting\_Classes stores accounting flexfield information for standard discrete jobs, nonstandard asset jobs, nonstandard expense jobs. Oracle Work In Process stores a general ledger account for each cost element associated with the class. The class\_code uniquely identifies each class. Oracle Work in Process uses this information when you create journal entries to post your work in process cost transactions.

This accounting class is associated with the job thru the Discrete Job Form when the job is created and the accounting classes are copied into the jobs in the Wip\_Discrete\_Jobs table when the job is created.

```
Select class_code class_type, organization_id from wip_accounting_classes;
```

```
1 select class_code, class_type, substr(description,1,30)
2* from wip_accounting_classes where organization_id = 207
SQL> /
```

| CLASS_CODE | CLASS_TYPE | SUBSTR(DESCRIPTION,1,30)  |
|------------|------------|---------------------------|
| Discrete   | 1          | Discrete Job Class        |
| Rework     | 4          | Rework Job Class          |
| Prototype  | 1          | Prototype Job Class       |
| Repetitive | 2          | Repetitive Schedule Class |

Note the accounting numbers that are debited or credited when the costs are incurred and during closure or period end for a nonstandard discrete job:

```
1* select material_account, material_variance_account, material_overhead_account,
resource_account, resource_variance_account, overhead_account, overhead_variance_account
from wip_accounting_classes where class_code like 'Rework%';
```

|                           |       |
|---------------------------|-------|
| MATERIAL_ACCOUNT          | 13402 |
| MATERIAL_VARIANCE_ACCOUNT | 16882 |
| MATERIAL_OVERHEAD_ACCOUNT | 13513 |
| -----                     |       |
| RESOURCE_ACCOUNT          | 15339 |
| RESOURCE_VARIANCE_ACCOUNT | 16296 |
| OVERHEAD_ACCOUNT          | 15338 |
| -----                     |       |
| OVERHEAD_VARIANCE_ACCOUNT | 19457 |
| -----                     |       |

These accounts are initially copied into the Wip\_Discrete\_Jobs table when a new wip job is created and an accounting class is associated with the wip job.

To translate this internal accounting number to the actual user defined account, use the table GL\_Code\_Combinations.

## 8.5 GL\_Code\_Combinations

This table stores valid accounting flexfield segment value combinations for each accounting flexfield structure within your Oracle General Ledger application. Associated with each account are certain codes and flags, including whether the account is enabled, whether detail posting or detail budgeting is allowed, and others. Segment values are stored in the segment columns. Note that each Accounting flexfield structure may use different segment columns within the table to store the flexfield value combination. Moreover, the segment columns which are used are not guaranteed to be in any order.

```
SQL> select segment1, segment2, segment3, segment4
2 from gl_code_combinations
3 where code_combination_id = 13402;
```

|          |      |
|----------|------|
| SEGMENT1 | 01   |
| SEGMENT2 | 000  |
| SEGMENT3 | 2220 |
| SEGMENT4 | 000  |

## 8.6 WIP\_DISCRETE\_JOBS

Wip\_discrete\_jobs stores your discrete job information. Each row represents a discrete job, and contains information about the assembly being built, the revision of the assembly, the job quantity, the status of the job, the material control method, accounting information, and job schedule date.

Select job\_type, class\_code, bom\_reference\_id, routing\_reference\_id, common\_routing\_sequence\_id from wip\_discrete\_jobs where wip\_entity\_id = <the above wip\_entity\_id>;

Here is a partial list of the columns associated with the Wip\_Discrete\_jobs:

SQL> desc wip\_discrete\_jobs;

| Name                          | Null? | Type                  |
|-------------------------------|-------|-----------------------|
| -----                         |       |                       |
| WIP_ENTITY_ID                 |       | NOT NULL NUMBER       |
| ORGANIZATION_ID               |       | NOT NULL NUMBER       |
| LAST_UPDATE_DATE              |       | NOT NULL DATE         |
| LAST_UPDATED_BY               |       | NOT NULL NUMBER       |
| CREATION_DATE                 |       | NOT NULL DATE         |
| CREATED_BY                    |       | NOT NULL NUMBER       |
| LAST_UPDATE_LOGIN             |       | NUMBER                |
| SOURCE_LINE_ID                |       | NUMBER                |
| SOURCE_CODE                   |       | VARCHAR2(30)          |
| DESCRIPTION                   |       | VARCHAR2(240)         |
| STATUS_TYPE                   |       | NOT NULL NUMBER       |
| PRIMARY_ITEM_ID               |       | NUMBER                |
| FIRM_PLANNED_FLAG             |       | NOT NULL NUMBER       |
| JOB_TYPE                      |       | NOT NULL NUMBER       |
| WIP_SUPPLY_TYPE               |       | NOT NULL NUMBER       |
| CLASS_CODE                    |       | NOT NULL VARCHAR2(10) |
| MATERIAL_ACCOUNT              |       | NUMBER                |
| MATERIAL_OVERHEAD_ACCOUNT     |       | NUMBER                |
| RESOURCE_ACCOUNT              |       | NUMBER                |
| OUTSIDE_PROCESSING_ACCOUNT    |       | NUMBER                |
| MATERIAL_VARIANCE_ACCOUNT     |       | NUMBER                |
| RESOURCE_VARIANCE_ACCOUNT     |       | NUMBER                |
| OUTSIDE_PROC_VARIANCE_ACCOUNT |       | NUMBER                |
| STD_COST_ADJUSTMENT_ACCOUNT   |       | NUMBER                |
| OVERHEAD_ACCOUNT              |       | NUMBER                |
| OVERHEAD_VARIANCE_ACCOUNT     |       | NUMBER                |
| SCHEDULED_START_DATE          |       | NOT NULL DATE         |
| DATE_RELEASED                 |       | DATE                  |
| SCHEDULED_COMPLETION_DATE     |       | NOT NULL DATE         |
| DATE_COMPLETED                |       | DATE                  |
| DATE_CLOSED                   |       | DATE                  |
| START_QUANTITY                |       | NOT NULL NUMBER       |
| QUANTITY_COMPLETED            |       | NOT NULL NUMBER       |
| QUANTITY_SCRAPPED             |       | NOT NULL NUMBER       |
| NET_QUANTITY                  |       | NOT NULL NUMBER       |
| BOM_REFERENCE_ID              |       | NUMBER                |
| ROUTING_REFERENCE_ID          |       | NUMBER                |
| COMMON_BOM_SEQUENCE_ID        |       | NUMBER                |
| COMMON_ROUTING_SEQUENCE_ID    |       | NUMBER                |
| BOM_REVISION                  |       | VARCHAR2(3)           |
| ROUTING_REVISION              |       | VARCHAR2(3)           |
| BOM_REVISION_DATE             |       | DATE                  |

|                               |              |
|-------------------------------|--------------|
| ROUTING_REVISION_DATE         | DATE         |
| LOT_NUMBER                    | VARCHAR2(30) |
| ALTERNATE_BOM_DESIGNATOR      | VARCHAR2(10) |
| ALTERNATE_ROUTING_DESIGNATOR  | VARCHAR2(10) |
| COMPLETION_SUBINVENTORY       | VARCHAR2(10) |
| COMPLETION_LOCATOR_ID         | NUMBER       |
| MPS_SCHEDULED_COMPLETION_DATE | DATE         |
| MPS_NET_QUANTITY              | NUMBER       |
| DEMAND_CLASS                  | VARCHAR2(30) |

Note the columns, class\_code, routing\_revision, routing\_revision\_date, alternate\_routing\_designator, and accounting columns. These are the columns we have been referring to throughout this paper.

Select job type, class\_code, bom\_reference\_id, routing\_reference\_id from wip\_discrete\_jobs where wip\_entity\_id = <wip\_entity\_id from above query>;

## 8.7 Wip\_Period\_Balances

This table stores summary accounting information for your jobs and schedules. Each row represents job charges within a given accounting period, and contains the summary values for each cost element. Oracle Work in Process uses this information to report job and schedule values and to calculate job and period variances.

| Name                      | Null? Type      |
|---------------------------|-----------------|
| -----                     |                 |
| ACCT_PERIOD_ID            | NOT NULL NUMBER |
| WIP_ENTITY_ID             | NOT NULL NUMBER |
| REPETITIVE_SCHEDULE_ID    | NUMBER          |
| LAST_UPDATE_DATE          | NOT NULL DATE   |
| LAST_UPDATED_BY           | NOT NULL NUMBER |
| CREATION_DATE             | NOT NULL DATE   |
| CREATED_BY                | NOT NULL NUMBER |
| LAST_UPDATE_LOGIN         | NUMBER          |
| ORGANIZATION_ID           | NOT NULL NUMBER |
| CLASS_TYPE                | NOT NULL NUMBER |
| TL_RESOURCE_IN            | NUMBER          |
| TL_OVERHEAD_IN            | NUMBER          |
| TL_OUTSIDE_PROCESSING_IN  | NUMBER          |
| PL_MATERIAL_IN            | NUMBER          |
| PL_MATERIAL_OVERHEAD_IN   | NUMBER          |
| PL_RESOURCE_IN            | NUMBER          |
| PL_OVERHEAD_IN            | NUMBER          |
| PL_OUTSIDE_PROCESSING_IN  | NUMBER          |
| TL_MATERIAL_OUT           | NUMBER          |
| TL_MATERIAL_OVERHEAD_OUT  | NUMBER          |
| TL_RESOURCE_OUT           | NUMBER          |
| TL_OVERHEAD_OUT           | NUMBER          |
| TL_OUTSIDE_PROCESSING_OUT | NUMBER          |
| PL_MATERIAL_OUT           | NUMBER          |
| PL_MATERIAL_OVERHEAD_OUT  | NUMBER          |
| PL_RESOURCE_OUT           | NUMBER          |
| PL_OVERHEAD_OUT           | NUMBER          |



|                           |        |
|---------------------------|--------|
| PL_OUTSIDE_PROCESSING_OUT | NUMBER |
| REQUEST_ID                | NUMBER |
| PROGRAM_APPLICATION_ID    | NUMBER |
| PROGRAM_ID                | NUMBER |
| PROGRAM_UPDATE_DATE       | DATE   |
| TL_MATERIAL_VAR           | NUMBER |
| TL_MATERIAL_OVERHEAD_VAR  | NUMBER |
| TL_RESOURCE_VAR           | NUMBER |
| TL_OUTSIDE_PROCESSING_VAR | NUMBER |
| TL_OVERHEAD_VAR           | NUMBER |
| PL_MATERIAL_VAR           | NUMBER |
| PL_MATERIAL_OVERHEAD_VAR  | NUMBER |
| PL_RESOURCE_VAR           | NUMBER |
| PL_OVERHEAD_VAR           | NUMBER |
| PL_OUTSIDE_PROCESSING_VAR | NUMBER |

## 9. EXAMPLE OF NONSTANDARD DISCRETE JOB AND UNDERLYING WIP TABLES

Oracle Applications - rldas03\_v101

File Edit View Window Tools Window Help

Discrete Discrete Jobs (M1)

Discrete Jobs (M1)

Job 17503 Type Non-standard

Assembly SB10460 Cover Assembly

Class Expense UOM Ea

Status Released Firm

Quantities

Start 1

MRP Net 0

Dates

Start 25-SEP-2000 00:00:00

Completion 25-SEP-2000 07:01:00

Bill Routing Job History Schedule Group, Project Scheduling More

Reference SB17794 Drive Mount Assembly

Alternate

Revision A Revision Date 25-SEP-2000 08:46:00

Supply Type Based on Bill

Sales Orders Operations Components

FRM-4040: Transaction complete. 1 records applied and saved.

Warning: Apple Window

Oracle Applications - stdstd01\_vw51

File Edit View Window Tools Window Help

Discrete Jobs (M1)

Job: 17503 Type: Non-standard

Assembly: SB10460 Cover Assembly

Class: Expense UOM: Ea

Status: Released Firm

Quantities: Start: 1 MRP Net: 0

Dates: Start: 25-SEP-2000 00:00:00 Completion: 25-SEP-2000 07:01:00

Bill Routing Job History Schedule Group, Project Scheduling More

Reference: SB10460 Cover Assembly

Alternate:

Revision: A Revision Date: 25-SEP-2000 08:46:00

Completion:

Subinventory: Locator:

Sales Orders Operations Components

Warning: Applet Window

### 9.1 To translate the job number into a wip\_entity\_id:

```
SQL> select wip_entity_id, organization_id
2 from wip_entities
3 where wip_entity_name like '17503%';
```

```
WIP_ENTITY_ID ORGANIZATION_ID
-----
32152          207
```

### 9.2 To translate the item numbers into an inventory\_item\_id:

The primary assembly for this discrete job:

```
SQL> select inventory_item_id
2 from mtl_system_items
3 where organization_id = 207
4 and segment1 like 'SB10460%';
```

```
INVENTORY_ITEM_ID
-----
676
```

The bill reference number used on this expense job is:

```
SQL> select inventory_item_id
2  from mtl_system_items
3  where organization_id = 207
4  and segment1 like 'SB17794%';
```

INVENTORY\_ITEM\_ID

```
-----
          339
```

The routing reference number used is:

```
SQL> select inventory_item_id
2  from mtl_system_items
3  where organization_id = 207
4  and segment1 like 'SB10460%';
```

INVENTORY\_ITEM\_ID

```
-----
          676
```

### 9.3 In order to understand the accounts associated with the Accounting Class Code of Expense:

```
1  select material_account, material_variance_account,
2  material_overhead_account, resource_account,
3  resource_variance_account
4  from wip_accounting_classes
5  where organization_id = 207
6* and class_code like 'Expense%'
SQL> /
```

|                           |       |
|---------------------------|-------|
| MATERIAL_ACCOUNT          | 20918 |
| MATERIAL_VARIANCE_ACCOUNT | 15341 |
| MATERIAL_OVERHEAD_ACCOUNT | 20918 |
| RESOURCE_ACCOUNT          | 20919 |
| RESOURCE_VARIANCE_ACCOUNT | 15342 |

### 9.4 To understand those columns populated in the Wip\_Discrete\_Jobs table when a new job is created:

```
SQL> select primary_item_id, bom_reference_id, routing_reference_id,
2  class_code
3  from wip_discrete_jobs
4  where wip_entity_id = 32152;
```

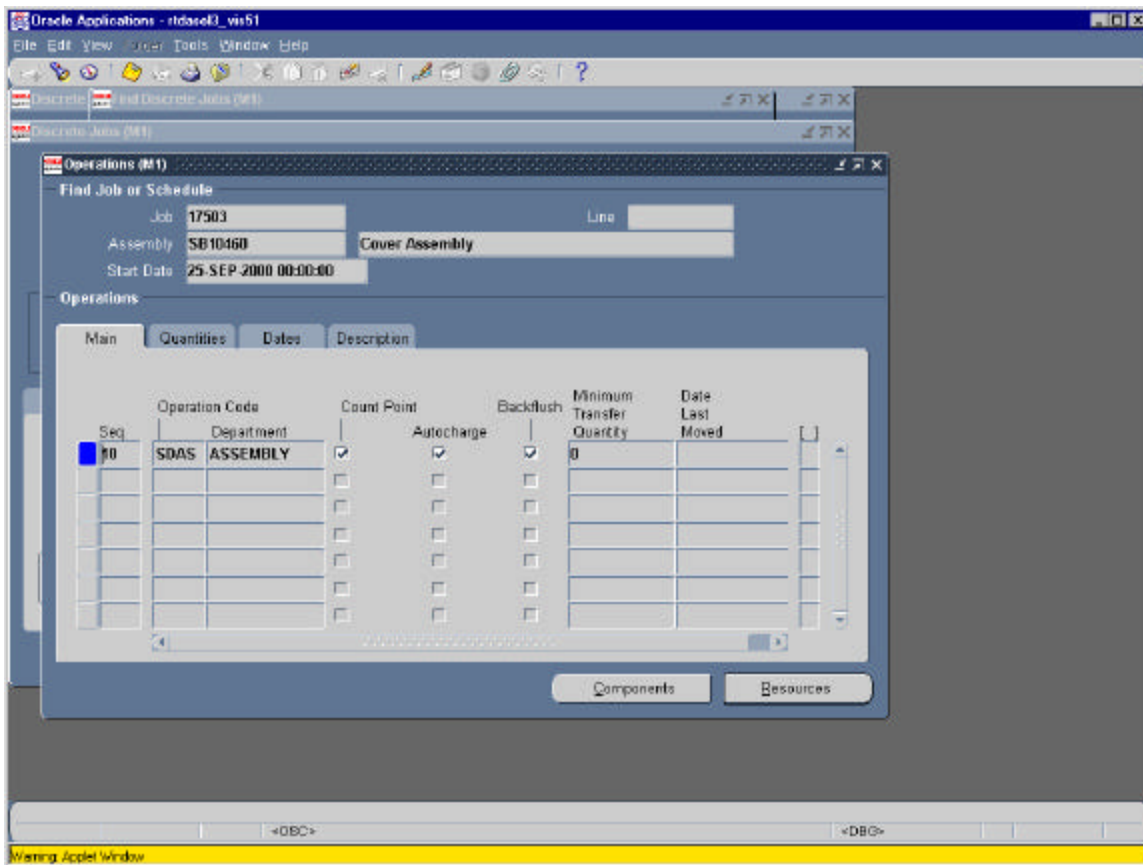
PRIMARY\_ITEM\_ID BOM\_REFERENCE\_ID ROUTING\_REFERENCE\_ID CLASS\_CODE

```
-----
          676          339          676          Expense
```

### 9.5 Note that the accounts were populated in the wip\_discrete\_jobs at the time the job was created:

```
SQL> select material_account, material_overhead_account, resource_account,
2 resource_variance_account, material_variance_account
3 from wip_discrete_jobs
4 where wip_entity_id = 32152;
```

|                           |       |
|---------------------------|-------|
| MATERIAL_ACCOUNT          | 20918 |
| MATERIAL_OVERHEAD_ACCOUNT | 20918 |
| RESOURCE_ACCOUNT          | 20919 |
| RESOURCE_VARIANCE_ACCOUNT | 15342 |
| MATERIAL_VARIANCE_ACCOUNT | 15341 |

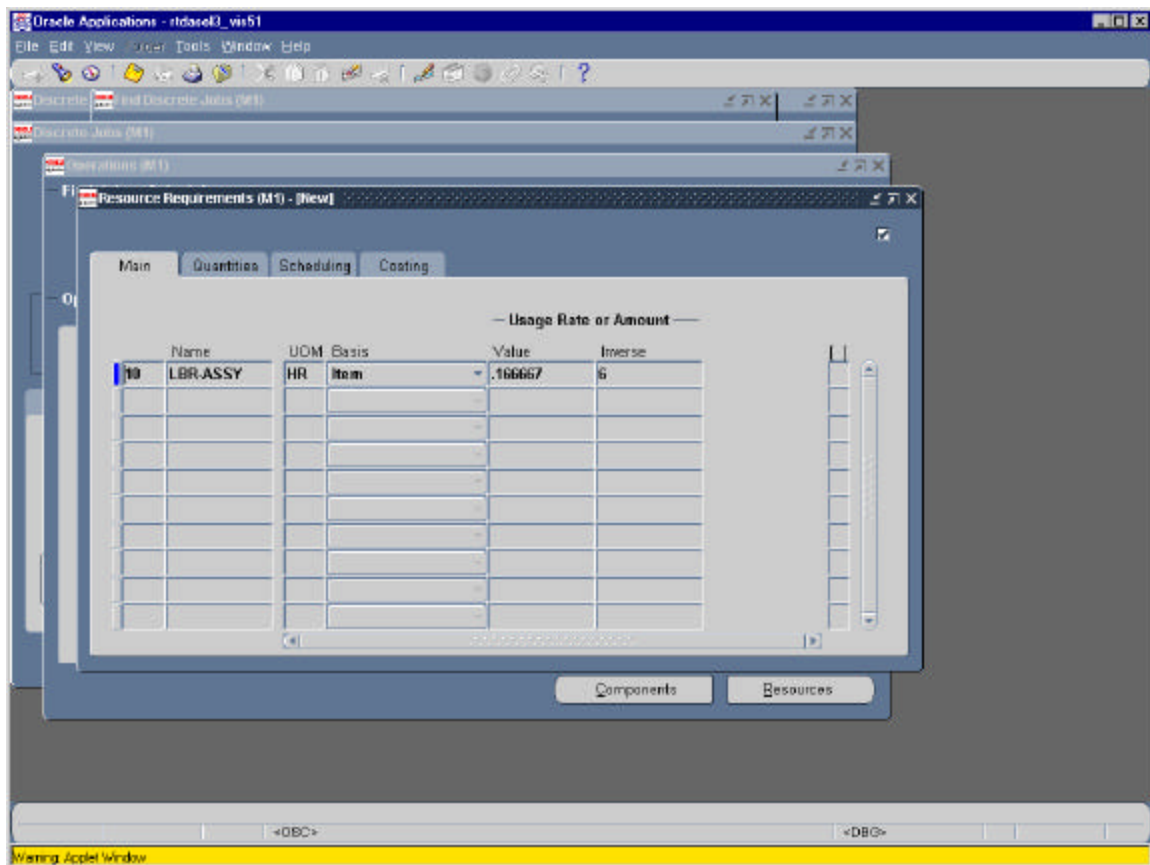


### 9.6 At the time of job creation, the routing associated with the routing reference field was populated in the Wip\_Operations table.

```
1 select operation_seq_num, operation_sequence_id, standard_operation_id,
2 department_id, scheduled_quantity, quantity_in_queue, quantity_running,
3 quantity_completed
4 from wip_operations
5 where wip_entity_id = 32152
6* and organization_id = 207
```

SQL> /

|                       |      |
|-----------------------|------|
| OPERATION_SEQ_NUM     | 10   |
| OPERATION_SEQUENCE_ID | 1461 |
| STANDARD_OPERATION_ID | 4    |
| DEPARTMENT_ID         | 1    |
| SCHEDULED_QUANTITY    | 1    |
| QUANTITY_IN_QUEUE     | 1    |
| QUANTITY_RUNNING      | 0    |
| QUANTITY_COMPLETED    | 0    |

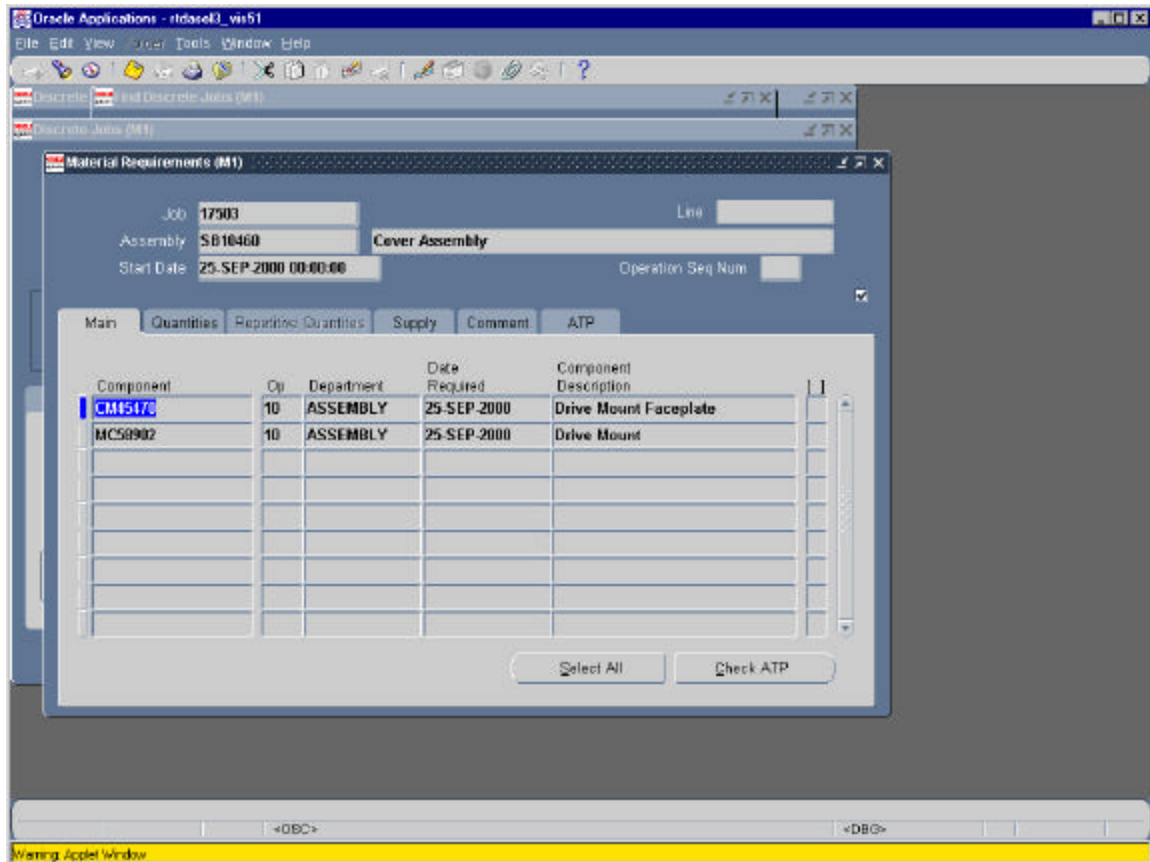


### 9.7 The resource information associated with the job is stored in the wip\_operation\_resources table.

Each row represents a resource and contains a sequence number, the resource's unit of measure, Its usage rate or amount.

```
SQL> select operation_seq_num, resource_seq_num, resource_id,
2 uom_code, basis_type, usage_rate_or_amount
3 from wip_operation_resources
4 where wip_entity_id = 32152 and organization_id = 207;
```

|                      |            |
|----------------------|------------|
| OPERATION_SEQ_NUM    | 10         |
| RESOURCE_SEQ_NUM     | 10         |
| RESOURCE_ID          | 1          |
| UOM                  | HR         |
| BASIS_TYPE           | 1          |
| USAGE_RATE_OR_AMOUNT | .166666667 |



### 9.8 The components of the Bom\_Reference field are copied into the Wip\_Requirement\_Operations table at the time of job creations.

Wip\_Requirment\_operations stores information about the material requirements For your jobs or schedules. Each row represents a material requirement, and contains information about the component items.

```
SQL> select inventory_item_id, operation_seq_num, component_sequence_id,
2  required_quantity, quantity_issued, quantity_per_assembly
3  from wip_requirement_operations
4  where wip_entity_id = 32152
5  and organization_id = 207;
```

|                       |     |     |
|-----------------------|-----|-----|
| INVENTORY_ITEM_ID     | 169 | 341 |
| OPERATION_SEQ_NUM     | 10  | 10  |
| COMPONENT_SEQUENCE_ID | 472 | 471 |
| REQUIRED_QUANTITY     | 1   | 1   |

|                       |   |   |
|-----------------------|---|---|
| QUANTITY_ISSUED       | 0 | 0 |
| QUANTITY_PER_ASSEMBLY | 1 | 1 |

Oracle Applications - ftdas03\_vw51

File Edit View Tools Window Help

Discrete End Discrete Jobs (M1)

Discrete Jobs (M1)

**Material Requirements (M1)**

Job: 17903 Line:

Assembly: S010460 Cover Assembly

Start Date: 25-SEP-2000 00:00:00 Operation Seq Num:

Main Quantities Repetitive Quantities Supply Comment ATP

| Component | UCM | Per Assembly | Required | Issued | Open | On Hand |  |
|-----------|-----|--------------|----------|--------|------|---------|--|
| CM45170   | Ea  | 1            | 1        |        | 1    | 36258   |  |
| MC58902   | Ea  | 1            | 1        |        | 1    | 20000   |  |
|           |     |              |          |        |      |         |  |
|           |     |              |          |        |      |         |  |
|           |     |              |          |        |      |         |  |
|           |     |              |          |        |      |         |  |
|           |     |              |          |        |      |         |  |
|           |     |              |          |        |      |         |  |
|           |     |              |          |        |      |         |  |

Select All Check ATP

<DBC> <DBC>

Warning: Apple Window



## 10. MOVING THE ASSEMBLY THRU THE OPERATION AND INCURRING MATERIAL COST WITH OPERATION PULL SUPPLY TYPE

Oracle Applications - stdas03\_vin51

File Edit View Order Tools Window Help

Move Transactions (M1)

Sales Order: \_\_\_\_\_ Order Line: \_\_\_\_\_

Line: \_\_\_\_\_ Assembly: SB10460 Cover Assembly: \_\_\_\_\_ UOM: Ea

Job: 17903 Bill Revision: A

Transaction Type:

- ☐ Move
- ☐ Complete
- ☐ Return

Operations:

| Seq     | Code | Department | Step    |
|---------|------|------------|---------|
| From 10 | SDAS | ASSEMBLY   | Queue   |
| To 10   | SDAS | ASSEMBLY   | To move |

Transaction:

☐ Overcompleting

UOM: Ea

Available: 1

Quantity: 1

Date: 25-SEP-2000 09:52:55

Scrap Account:

Alias: \_\_\_\_\_

Number: \_\_\_\_\_

Reason: \_\_\_\_\_

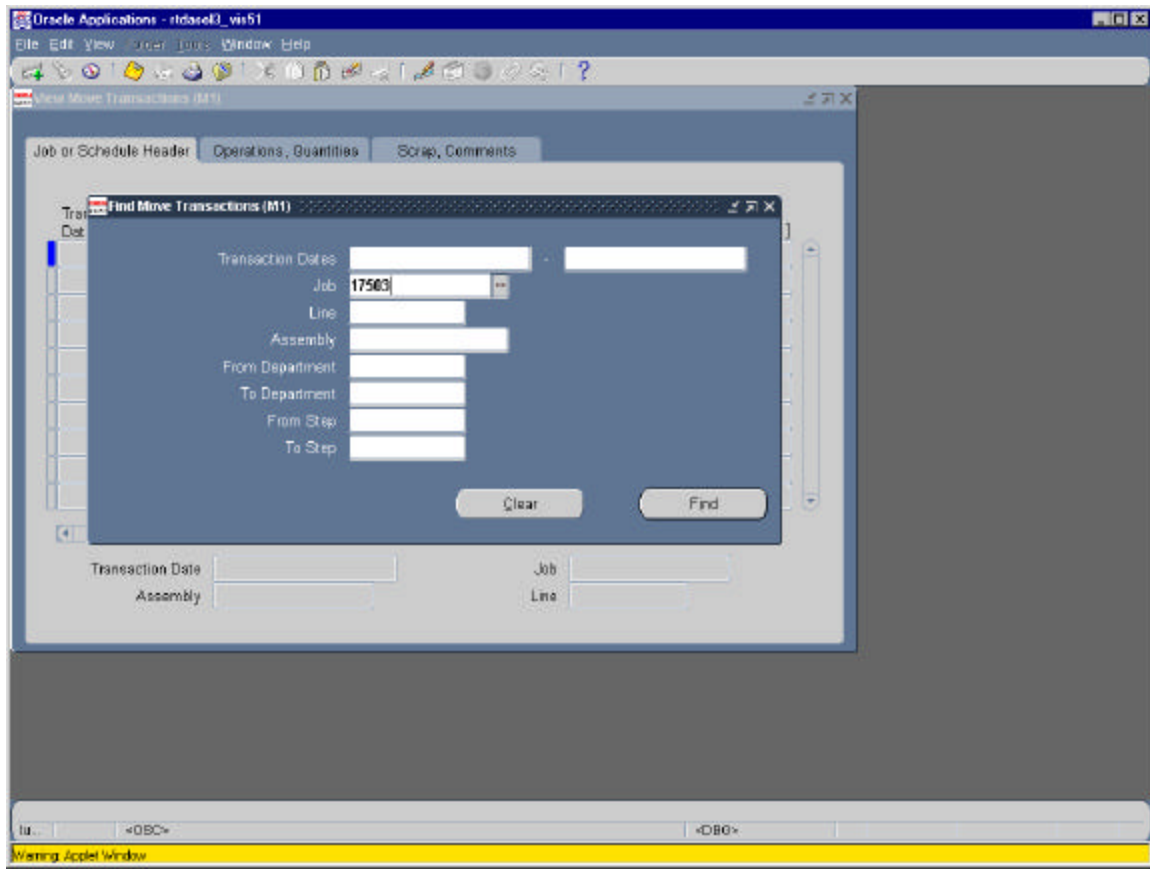
Reference: \_\_\_\_\_

☐ Manual Resources Exist

Statuses Resources Save

<OBC> <DBG>

Warning: Applet Window



[illegible]

## 10.1 Components are Operation Pull

Oracle Applications - stdbase0\_vw51

File Edit View Window Help

View Material Requirements (M1)

Main Quantities Repetitive Quantities Supply Header

| Component | UCM | Per Assembly | Required | Issued | Open | On Hand |
|-----------|-----|--------------|----------|--------|------|---------|
| CM45470   | Ea  | 1            | 1        | 1      |      | 36257   |
| MCS0902   | Ea  | 1            | 1        | 1      |      | 19999   |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |
|           |     |              |          |        |      |         |

Job: 17503 Line:

Assembly: SB10460 Cover Assembly

Start Date: 25-SEP-2000 00:00:00

Component Desc: Drive Mount Faceplate

<OBC> <DBG>

Warning: Applet Window

## 10.2 Costs Are Incurred As A Result of Moving the Job thru operation 10

Oracle Applications - rtdare3\_vir51

File Edit View Order Jobs Window Help

WIP Jobs and Schedules (14)

WIP Value Summary (M1) - 17503

Periods

From: 01-SEP-2000 To: 31-OCT-2000 Refresh

Quantities

UCM Ea

Required: 1 Completed: 0 Scrapped: 0

Summary Level

| Cost Element      | Account             | Costs Incurred | Costs Relieved | Variances Relieved | Net Activity |
|-------------------|---------------------|----------------|----------------|--------------------|--------------|
| Material          | 01-000-5310-0000-00 | 1.25           | 0.00           | 0.00               | 1.25         |
| Material Overhead | 01-000-5310-0000-00 | 0.15           | 0.00           | 0.00               | 0.15         |
| Resource          | 01-000-5380-0000-00 | 12.60          | 0.00           | 0.00               | 12.60        |
| Outside Process   | 01-000-5370-0000-00 | 0.00           | 0.00           | 0.00               | 0.00         |
| Overhead          | 01-000-5330-0000-00 | 5.99           | 0.00           | 0.00               | 5.99         |
| Total             |                     | 19.99          | 0.00           | 0.00               | 19.99        |

Distributions

<DBO>

Warning: Applet Window

Oracle Applications - stdapp01\_v11

File Edit View Window Help

WIP Value Summary (M1) - 17503

Periods: From 01-SEP-2000 To 31-OCT-2000 Refresh

Quantities: UOM Ea Required 1 Completed 0 Scrapped 0

Summary Level

| Cost Element      | Account             | This Level |          | Previous Level |          |
|-------------------|---------------------|------------|----------|----------------|----------|
|                   |                     | Incurred   | Relieved | Incurred       | Relieved |
| Material          | 01-000-5310-0000-00 | 0.00       | 0.00     | 1.25           | 0.00     |
| Material Overhead | 01-000-5310-0000-00 | 0.00       | 0.00     | 0.15           | 0.00     |
| Resource          | 01-000-5300-0000-00 | 1.00       | 0.00     | 11.60          | 0.00     |
| Outside Process   | 01-000-5370-0000-00 | 0.00       | 0.00     | 0.00           | 0.00     |
| Overhead          | 01-000-5330-0000-00 | 3.12       | 0.00     | 2.87           | 0.00     |
| Total             |                     | 4.12       | 0.00     | 15.87          | 0.00     |

Distributions

<DBO>

Warning: Apple Window

```
SQL> select pl_material_in, tl_resource_in, tl_overhead_in
2 from wip_period_balances
3 where wip_entity_id = 32152;
```

|                |      |   |   |
|----------------|------|---|---|
| PL_MATERIAL_IN | 1.25 | 0 | 0 |
| TL_RESOURCE_IN | 1    | 0 | 0 |
| TL_OVERHEAD_IN | 3.12 | 0 | 0 |

Oracle Applications - stdare01\_vii51

File Edit View Window Help

View Discrete Jobs (M1)

Job: 17563 Type: Non-standard

Assembly: SB10460 Cover Assembly

Class: Expense UOM: Ea

Status: Complete Firm

Quantities: Start: 1 MRP Net: 0

Dates: Start: 25-SEP-2000 00:00:00 Completion: 25-SEP-2000 07:01:00

Bill Routing Job History Schedule Group, Project Scheduling More

Quantities: Remaining: Completed: 1 Scrapped:

Dates: Released: 25-SEP-2000 Completed: 25-SEP-2000 Closed:

Sales Orders Operations Components

<C63>

Warning: Apple Window

Oracle Applications - stdare01\_vir51

File Edit View Window Help

Close Discrete Jobs (M1)

Job: 17563 Type: Non-standard

Assembly: SB10460 Cover Assembly

Class: Expense UOM: Ea

Status: Closed ☐ Firm

Quantities: Start: 1 MRP Net: 0

Dates: Start: 25-SEP-2000 00:00:00 Completion: 25-SEP-2000 07:01:00

Bill Routing Job History Schedule Group, Project Scheduling More

Reference: SB17794 Drive Mount Assembly

Alternate:

Revision: A Revision Date: 25-SEP-2000 08:46:00

Supply Type: Based on Bill

Sales Orders Operations Components

<DBC>

Warning: Apple Window



Oracle Applications - stdare0\_vw51

File Edit View Window Help

Report: request ID - 467845

Page 2 Font Size 6

Oracle Standard Costing

Report Date: 21-SEP-2000 10:21  
Page: 1 of 2

Cost By: Job

Job: 17985 Job Name: Job Type: Nonstandard Status: Closed

Assembly: 011000 Revision: 1 21-SEP-99 Date: 21-SEP-99  
Accounting Class: Expense Subst: 1.00 Subst. Released: 21-SEP-99  
Class: Expense Job: 17985 Subst. Completed: 1.00 Subst. Released: 21-SEP-99  
Class: Expense Job: 17985 Subst. Issued: 1.00 Subst. Released: 21-SEP-99

Material:

| Material                    | Qty | Component | Item     | Description | Unit | Issued | Unit Cost | Ext Value |
|-----------------------------|-----|-----------|----------|-------------|------|--------|-----------|-----------|
| 4653                        | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| 4653                        | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| Total Material Costs: 22.00 |     |           |          |             |      |        |           |           |

Resource:

| Resource                   | Qty | Component | Item     | Description | Unit | Issued | Unit Cost | Ext Value |
|----------------------------|-----|-----------|----------|-------------|------|--------|-----------|-----------|
| 4652                       | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| 4652                       | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| Total Resource Costs: 1.00 |     |           |          |             |      |        |           |           |

Material Based Overhead Costs:

| Material                                  | Qty | Component | Item     | Description | Unit | Issued | Unit Cost | Ext Value |
|---|-----|-----------|----------|-------------|------|--------|-----------|-----------|
| 4652                                      | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| 4652                                      | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| Total Material Based Overhead Costs: 1.00 |     |           |          |             |      |        |           |           |

Resource Based Overhead Costs:

| Resource                                  | Qty | Component | Item     | Description | Unit | Issued | Unit Cost | Ext Value |
|---|-----|-----------|----------|-------------|------|--------|-----------|-----------|
| 4652                                      | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| 4652                                      | 10  | 0000470   | 220-0000 | 220-0000    | EA   | 1.00   | 1.00      | 1.00      |
| Total Resource Based Overhead Costs: 1.00 |     |           |          |             |      |        |           |           |

Go To... First Previous Next Last

Save Orders Operations Components

FRM-40401: No changes to save.  
<DBO>

Warning: Apple Window

### 10.3 When the job is closed, variances are posted.

Oracle Applications - stdase03\_vin51

File Edit View Window Help

WIP Jobs and Schedules (M1)

WIP Value Summary (M1) - 17503

Periods

From: 01-SEP-2000

To: 31-OCT-2000

Refresh

Quantities

UDM: Es

Required: 1

Completed: 1

Scrapped: 0

Summary Level

| Cost Element      | Account             | Costs Incurred | Costs Released | Variances Released | Net Activity |
|-------------------|---------------------|----------------|----------------|--------------------|--------------|
| Material          | 01-000-5310-0000-00 | 1.25           | 9.75           | 8.50               | 0.00         |
| Material Overhead | 01-000-5310-0000-00 | 0.15           | 0.44           | 0.29               | 0.00         |
| Resource          | 01-000-5300-0000-00 | 12.60          | 12.60          | 0.00               | 0.00         |
| Outside Process   | 01-000-5370-0000-00 | 0.00           | 0.00           | 0.00               | 0.00         |
| Overhead          | 01-000-5330-0000-00 | 5.99           | 5.99           | 0.00               | 0.00         |
| Total             |                     | 19.99          | 28.78          | 8.79               | 0.00         |

Distributions

<DBO>

Warning: Applet Window

```
SQL> select acct_period_id, tl_resource_in, tl_overhead_in,
2 pl_material_in, pl_material_overhead_in, pl_resource_in,
3 pl_overhead_in, tl_material_out, tl_material_overhead_out, tl_resource_out,
4 pl_material_out, pl_resource_out, tl_material_var,
5 tl_material_overhead_var, tl_overhead_var, pl_material_var
6 from wip_period_balances
7 where wip_entity_id = 32152;
```

|                          |      |
|--------------------------|------|
| ACCT_PERIOD_ID           | 703  |
| TL_RESOURCE_IN           | 1    |
| TL_OVERHEAD_IN           | 3.12 |
| PL_MATERIAL_IN           | 1.25 |
| PL_MATERIAL_OVERHEAD_IN  | .15  |
| PL_RESOURCE_IN           | 11.6 |
| PL_OVERHEAD_IN           | 2.87 |
| TL_MATERIAL_OUT          | 0    |
| TL_MATERIAL_OVERHEAD_OUT | 0    |
| PL_MATERIAL_OUT          | 1    |
| PL_RESOURCE_OUT          | 11.6 |

|                          |      |
|--------------------------|------|
| TL_MATERIAL_VAR          | 0    |
| TL_MATERIAL_OVERHEAD_VAR | 0    |
| TL_OVERHEAD_VAR          | 0    |
| PL_MATERIAL_VAR          | -8.5 |

## 10.4 Work in Process Standard Cost Transactions

### 10.4.1 Component Issue Transactions

| Account                                 | Debit | Credit |
|---|-------|--------|
| WIP accounting class valuation accounts | XX    |        |
| Subinventory elemental accounts         |       | XX     |

Subinventory accounts are defined in the Define Subinventories window in Oracle Inventory.  
WIP elemental accounts are defined in the WIP Accounting Classes window in Work in Process.

### 10.4.2 Move Transactions

#### Backflush Material Transactions

| Account                                 | Debit | Credit |
|---|-------|--------|
| WIP accounting class valuation accounts | XX    | XX     |

### 10.4.3 Resource Charges

**Work in Process support four resource autocharging methods:  
Manual, WIP Move, PO Move and PO Receipt**

Costing Resource Charges at Resource Standard  
Resource charges increase work in process valuation

| Account   | Debit | Credit |
|---|-------|--------|
| WIP accounting class resource valuation account | XX    |        |
| Resource absorption account                     |       | XX     |

If autocharge is set to WIP Move, work in process and labor are charged at standard.

Costing Labor Charges at Actual

| Account   | Debit | Credit |
|---|-------|--------|
| WIP accounting class resource valuation account | XX    |        |
| Resource absorption account                     |       | XX     |

If the standard rates check box is checked and you enter an actual rate for a resource, the system charges the job at standard. If autocharge is set to manual and actual rates and quantities are recorded, a rate variance is recognized immediately for any rate difference. Any quantity difference is recognized as an efficiency variance at period close. The accounting entries for the actual labor charges are:

| Account  | Debit | Credit |
|--|-------|--------|
| WIP accounting class resource valuation account  | XX    |        |
| Resource rate variance account (Debit when actual rate is greater<br>Than the standard rate. Credit when the actual rate is less than<br>The standard rate.) | XX    | XX     |
| Resource absorption account  |       | XX     |

### 10.4.4 Assembly Completion Transactions

| Account                         | Debit | Credit |
|---------------------------------|-------|--------|
| Subinventory elemental accounts | XX    |        |

Wip accountign class valuation accounts

XX

#### Material Overhead

Nonstandard discrete jobs do not earn overhead on completion. Since you have already earned overhead to produce the assemblies as you are repairing or reworking, Work in Process prevents you from double earning material overhead on these assemblies.

The accountign entries for material overhead on completion transactions for nonstandard expense and nonstandard asset jobs are:

| Account  | Debit | Credit |
|--|-------|--------|
| Subinventory material overhead account         | XX    |        |
| Wip accountign class material overhead account |       | XX     |

### 10.4.5 Job Close Transactions

Work in Process recognizes variances when you close a job. The close process writes off the balances Remaining in the WIP elemental valuation accounts to the elemental variance accounts you defined by accounting class, leaving a zero balance remaining in the closed job. If there is a positive balance in the job at the end of the close, the accounting entries for a job close are:

| Account                                 | Debit | Credit |
|---|-------|--------|
| WIP accounting class variance accounts  | XX    |        |
| WIP accounting class valuation accounts |       | XX     |

### 10.4.5 Period Close Transactions

#### Costing Nonstandard Expense Job Period Close Transactions

You can close discrete jobs and recognize variances for nonstandard expense jobs at any time. In addition, The period close process automatically recognizes variances on all nonstandard expense job charges incurred during the period. Therefore, open nonstandard expense jobs have zero WIP accounting balances at the start of a new period. If there is a positive balance in the job at the end of the period, the accounting entries for nonstandard expense jobs at period close are:

| Account                                 | Debit | Credit |
|---|-------|--------|
| WIP accounting class variance accounts  | XX    |        |
| WIP accounting class valuation accounts |       | XX     |

### 10.4.6 Standard Cost Update Transactions

The standard cost update process revalues standard and nonstandard asset discrete jobs. Nonstandard expense jobs do not get revalued by the cost update. The cost update creates accounting transactions By job and cost element valuation account. Each standard and nonstandard asset discrete job is Updated using the following formula:

Standard cost update adjustment=[new costs in (material, resource, outside processing, and Overhead charges) – new costs out (scrap and assembly completion charges)] – [old costs in (material, Resource, outside processing, and overhead charges) – old costs out (scrap and assembly completion charges)]

If the result of the cost update is an increase in the standard cost of the job, the accounting entries for a cost update transaction are:

| Account                                 | Debit | Credit |
|---|-------|--------|
| WIP accounting class valuation accounts | XX    |        |
| WIP Standard cost adjustment account    |       | XX     |

If the result of the cost update is a decrease in the standard cost of the job, the accounting entries for a cost update transaction are:

| Account                                 | Debit | Credit |
|---|-------|--------|
| WIP Standard cost adjustment account    | XX    |        |
| WIP accounting class valuation accounts |       | XX     |

## WIP Account Distribution Report

This report prints detailed account information for several work in process transactions including resource, overhead, and outside processing charges, cost updates, and period close and job variances. Oracle Work in Process prints detailed information for each charge you make to an account.

The primary tables used in this report are wip\_transactions and wip\_transaction\_accounts.

Oracle Work in Process does not print material cost transactions, such as issues, completions, and scraps in this report. You can print this information using the Material Account Distribution reports in Oracle Inventory.

```
SQL> select lookup_code, substr(meaning,1,30)
2  from mfg_lookups
3  where lookup_type like 'CST_ACCOUNTING_LINE_TYPE%';
```

LOOKUP\_CODE SUBSTR(MEANING,1,30)

```
-----
1 Inv valuation
10 Inter-org receivables
11 Inter-org transfer credit
12 Inter-org freight charge
13 Average cost variance
14 Intransit Inventory
15 Encumbrance Reversal
16 Accrual
17 Invoice Price Variance
18 Exchange Rate Variance
19 Special Charge Expense
```

LOOKUP\_CODE SUBSTR(MEANING,1,30)

```
-----
2 Account
20 Expense
21 Lot Based Split
22 Lot Based Merge
23 Lot Based Translate
24 Lot Based Split/Merge Cost Upd
25 Lot Based Bonus
26 Lot Based Update Quantity
3 Overhead absorption
4 Resource absorption
5 Receiving Inspection
```

LOOKUP\_CODE SUBSTR(MEANING,1,30)

```
-----
6 Purchase price variance or rat
7 WIP valuation
8 WIP variance
9 Inter-org payables
99 Unknown
```

```
SQL> select transaction_id, reference_account, accounting_line_type,
2 base_transaction_value from wip_transaction_accounts
3 where wip_entity_id = 32152 and organization_id = 207;
```

| TRANS_ID | REFERENCE_ACCT | ACCOUNTING_LINE_TYPE | BASE_TRANS_VALUE |
|----------|----------------|----------------------|------------------|
| 587945   | 15344          | 3                    | -1.67            |
| 587945   | 20921          | 7                    | 1.67             |
| 587982   | 20918          | 7                    | 8.79             |
| 587982   | 20919          | 7                    | 0                |
| 587982   | 20920          | 7                    | 0                |
| 587982   | 20921          | 7                    | 0                |
| 587982   | 15341          | 8                    | -8.79            |
| 587982   | 15342          | 8                    | 0                |
| 587982   | 15343          | 8                    | 0                |
| 587982   | 19453          | 8                    | 0                |
| 587946   | 19451          | 3                    | -.1              |
| 587946   | 20921          | 7                    | .1               |
| 587946   | 19451          | 3                    | -.1              |
| 587946   | 20921          | 7                    | .1               |
| 587947   | 15344          | 3                    | -1               |
| 587947   | 20921          | 7                    | 1                |
| 587945   | 20897          | 4                    | -1               |
| 587945   | 20919          | 7                    | 1                |
| 587945   | 19451          | 3                    | -.25             |
| 587945   | 20921          | 7                    | .25              |

## Material Account Distribution Report

The primary tables used in this report are mtl\_transaction\_accounts and mtl\_material\_transactions Table.

```
SQL> select transaction_id, reference_account, inventory_item_id,
2 base_transaction_value
3 from mtl_transaction_accounts
4 where transaction_source_id = 32152;
```

| TRANSACTION_ID | REFERENCE_ACCOUNT | INVENTORY_ITEM_ID | BASE_TRANSACTION_VALUE |
|----------------|-------------------|-------------------|------------------------|
|----------------|-------------------|-------------------|------------------------|

|         |       |     |       |
|---------|-------|-----|-------|
| 1536953 | 13401 | 169 | -1.17 |
| 1536953 | 13513 | 169 | -.15  |
| 1536953 | 20918 | 169 | 1.32  |
| 1536954 | 13401 | 341 | -.08  |
| 1536954 | 15339 | 341 | -11.6 |
| 1536954 | 15338 | 341 | -2.87 |
| 1536954 | 20918 | 341 | .08   |
| 1536954 | 20919 | 341 | 11.6  |
| 1536954 | 20921 | 341 | 2.87  |
| 1536993 | 13401 | 676 | 9.75  |
| 1536993 | 13513 | 676 | 6.43  |

| TRANSACTION_ID | REFERENCE_ACCOUNT | INVENTORY_ITEM_ID | BASE_TRANSACTION_VALUE |
|----------------|-------------------|-------------------|------------------------|
|----------------|-------------------|-------------------|------------------------|



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|         |       |     |        |
|---------|-------|-----|--------|
| 1536993 | 15339 | 676 | 12.6   |
| 1536993 | 20918 | 676 | -10.19 |
| 1536993 | 20919 | 676 | -12.6  |
| 1536993 | 20921 | 676 | -5.99  |

15 rows selected.

## **IMPORTANT PATCHES RELATING TO NONSTANDARD DISCRETE JOBS IN RELEASE 11**

### **Bug 772961 (fixed in 11.0WIP E, 1189534) and 11.5, 783454**

#### **Problem Description**

You cannot create a nonstandard discrete job for a non-asset subinventory using WIP mass load program. You get an error message indicating the completion subinventory is invalid.

#### **Problem Solution**

The bug is fixed to make the completion subinventory validation consistent with the Discrete job form. The logic of including the profile option INV:EXPENSE\_TO\_ASSET\_TRANSFER is added in the Subinventory validation. If the profile option is Yes the asset item assembly can have either expense Or asset subinventory, but if the profile is No, it will only have asset subinventory.

### **757109 (fixed in 11.0Wip E) and 11.5**

#### **Problem Description**

You are unable to over return assembly to a nonstandard job without a routing.  
You are salvaging parts from returns and you receive the following error message:  
APP-5407 Quantity will drive inventory negative, selects ok and receives the message  
Total transaction quantity must be less than or equal to job completed quantity

#### **Problem Solution**

Apply the above patch. One can over-return on a nonstandard job without a routing.

### **687073**

#### **Problem Description**

You are using the Discrete Job Value report. You perform a scrap transaction and find a total job balance of \$0.00 on the standard job but find a negative total on an asset nonstandard job. It looks like the WIP scrap transaction is being added back into the total balance when the job is closed.

#### **Problem Solution**

Apply the above patch that corrects updates made to wip\_period\_balances for scrap transactions. Once updates to wip\_period\_balances for scrap transactions occur, the job close program will calculate the correct variances that will result in a zero job balance after job close for nonstandard jobs.

### **823186**

#### **Problem Description**

Cannot link nonstandard jobs to sales orders. Functionality existed in 10.7 but was lost in release 11.

**Problem Solution**

Apply this patch that includes a library routine modification that is called by the Discrete Job form.

**794660****Problem Description**

When creating a new discrete job, if you change the job type from standard to nonstandard, the Assembly field becomes non-updatable. Therefore, you cannot define an assembly for a nonstandard job.

**Problem Solution**

This bug is fixed in 1.0 WIP E, bug 1189534

**1072213.6****Problem Description**

MRP does not plan for components of a nonstandard discrete job.

**Problem Solution**

To tell MRP to plan for components on a nonstandard discrete job, ensure the “MRP Net” box is checked in the material requirement screen for each component you want MRP to plan.

1. Navigate to Work In Process/Job Schedule Details/Material Requirements
2. Query up your nonstandard job
3. Go to the supply alternate region
4. Check the MRP Net boxes for each component you want MRP to plan
5. Rerun MRP
6. Now MRP will plan for the nonstandard discrete job components

**1076470.6****Problem Description**

You are reworking a serialized item for repair. The item is received using an RMA receipt into a To Be Repaired subinventory. You create an unreleased work in process job nonstandard via the Wip mass load process. Then you navigate into WIP, release the job, add the repair parts to be Used via the job/schedule details/material window.

These parts are set up to backflush upon job completion.

When the job is complete, you perform a completion move using completion transaction window To move the repair part into a repaired, ready to ship subinventory. At this point you get a message That there is already the same serial number out there, and you cannot complete the transactions.

**Problem Solution**

Issue the serialized item to the job before attempting the wip completion transaction. Do not try to Backflush the repairable item while doing the WIP completion transaction, this will give a duplicate Serial number error message.

<Enter main article text here.>

## RELATED DOCUMENTS

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Work In Process Reference Manual  
Work In Process Users Guide  
Work In Process Technical Reference Manual  
Cost Management Users Manual

&lt;&lt;End\_of\_Article&gt;&gt;