Bulk Stock Control

Release A7.3

JDEdwards®

J.D. Edwards & Company
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Where Do I Look?

Online Help
- Program
- Form
- Field

CD–ROM Guides

Guides

Technical Foundation

System Administration and Environment Fundamentals

- Understanding Your Environment
- Creating and Maintaining Environments
- Setting Up Security
- Upgrading Your System

Common Foundation

Prerequisite J.D. Edwards Software Fundamentals

- Using Menus
- Getting Help
- Customizing Data
- Reporting

Important Note for Students in Training Classes

This guide is a source book for online helps, training classes, and user reference. Training classes may not cover all the topics contained here.

Welcome

About this Guide

This guide provides overviews, illustrations, procedures, and examples for release A7.3 of J.D. Edwards software. Forms (screens and windows) shown are only examples. If your company operates at a different software level, you might find discrepancies between what is shown in this guide and what you see on your screen.

This guide includes examples to help you understand how to use the system. You can access all of the information about a task using either the guide or the online help.

Before using this guide, you should have a fundamental understanding of the system, user defined codes, and category codes. You should also know how to:

- Use the menus
- Enter information in fields
- Add, change, and delete information
- Create and run report versions
- Access online documentation

Audience

This guide is intended primarily for the following audiences:

- Users
- Classroom instructors
- Client Services personnel
- Consultants and implementation team members

Organization

This guide is divided into sections for each major function. Sections contain chapters for each task or group of related tasks. Each chapter contains the information you need to accomplish the task, run the program, or print the

report. Chapters normally include an overview, form or report samples, and procedures.
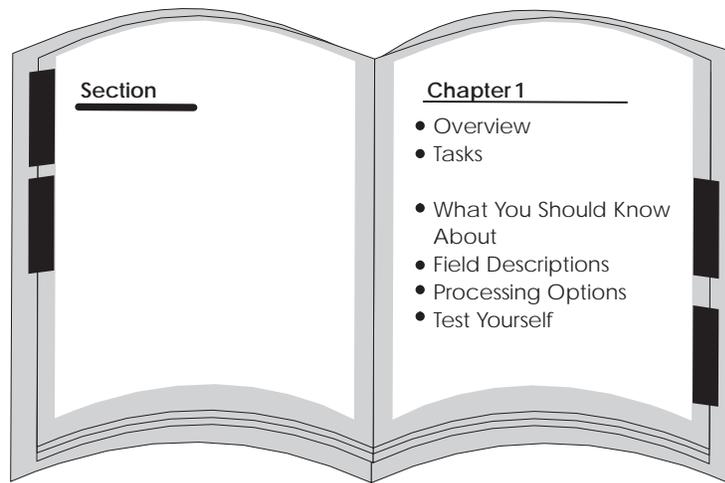
When it is appropriate, chapters also might explain automatic accounting instructions, processing options, and warnings or error situations. Some chapters include self-tests for your use outside the classroom.

This guide has a detailed table of contents and an index to help you locate information quickly.

Conventions Used in this Guide

The following terms have specific meanings when used in this guide:

- *Form* refers to a screen or a window.

- *Table* generally means "file."

We assume an "implied completion" at the end of a series of steps. That is, to complete the procedure described in the series of steps, either press Enter or click OK, except where noted.

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Overview of Bulk Stock Control

System Integration

The Bulk Stock Control system controls the storage, measurement, and movement of bulk inventory. You can tailor the system to handle the complexities of constantly changing inventory in your business environment. You can also track bulk inventory so that you always know the location and amount of each product available for sale or production.

The Bulk Stock Control system works in conjunction with other J.D. Edwards systems in order to:

- Manage the immense volume of product sales, purchases, movements, and adjustments

- Provide an efficient means for initial system setup and long-term maintenance

- Provide timely information and reports to review inventory status

- Improve communication and quality control

Features of Bulk Stock Control

Key features of the Bulk Stock Control system are:

- Intra-depot stock movements

- Bulk product receipts

- Reconciliations

The Bulk Stock Control system enables you to perform the following bulk stock management functions:

- Control the storage and movement of liquids from one container to another at varying temperatures

- Calculate the volume for each transaction (sale, receipt, movement, and so on), for each product and for each container (tank, truck, and so on)

- Perform volume and density conversions to any base temperature using international standard algorithms

- Calculate product gain or loss accurately for each stock movement

- Track inventory balances for each product in various units of measure and show the details of the transactions creating the balance

- Track commingled/custody stock in a tank and manage the transactions associated with each product by owner

Intra-Depot Stock Movements

Intra-depot stock movements track inventory within a depot. The primary transactions, receiving new product and selling to customers, add or decrease inventory into and out of a depot.

You record an intra-depot stock movement whenever you need to account for stock that can no longer be accounted for in the location or container to which it was previously assigned.

Bulk stock movements include:

- Tank to tank transfers

- Repacking

- Rebrands

- Regrades

- Decanting

- Filling

- Simple blend

- Consumed in operations

- General stock adjustments

Movements can occur at numerous points within a depot. General Stock Movements allows you to record the various types of movements, convert them to standard quantities via calculation programs, and record any gains or losses that might have occurred.

Bulk Product Receipts

You record the receipt of bulk products requested on a purchase order as they arrive at the depot. You can confirm the receipt of the products requested on the purchase order, record the volumes received, and make adjustments to correct variances. Additionally, you can calculate any gains or losses that might have occurred during transportation.

As product moves between storage locations, gains or losses might occur due to spillage, theft, faulty meters, and so on. Four Point Analysis Maintenance helps you track these gains or losses. You perform a four point analysis primarily for

long voyages to determine the product lost in transit, but you can record the data for any movement.

Receipts is a standard J.D. Edwards program. However, when you record the receipt of a bulk product, the Energy and Chemical Solutions (ECS) version displays a Bulk Product Receipts window that allows you to record volumes and the product temperatures recorded when the product is received.

Reconciliations

The reconciliation process attempts to reconcile confirmed sales figures for a given period. During this process, the system should identify discrepancies due to transactions not being entered (lost invoices), theft, leakage and/or faulty meters.

The reconciliation process for bulk products is illustrated below. In the example, quantities (in liters) are shown to help you understand the process.
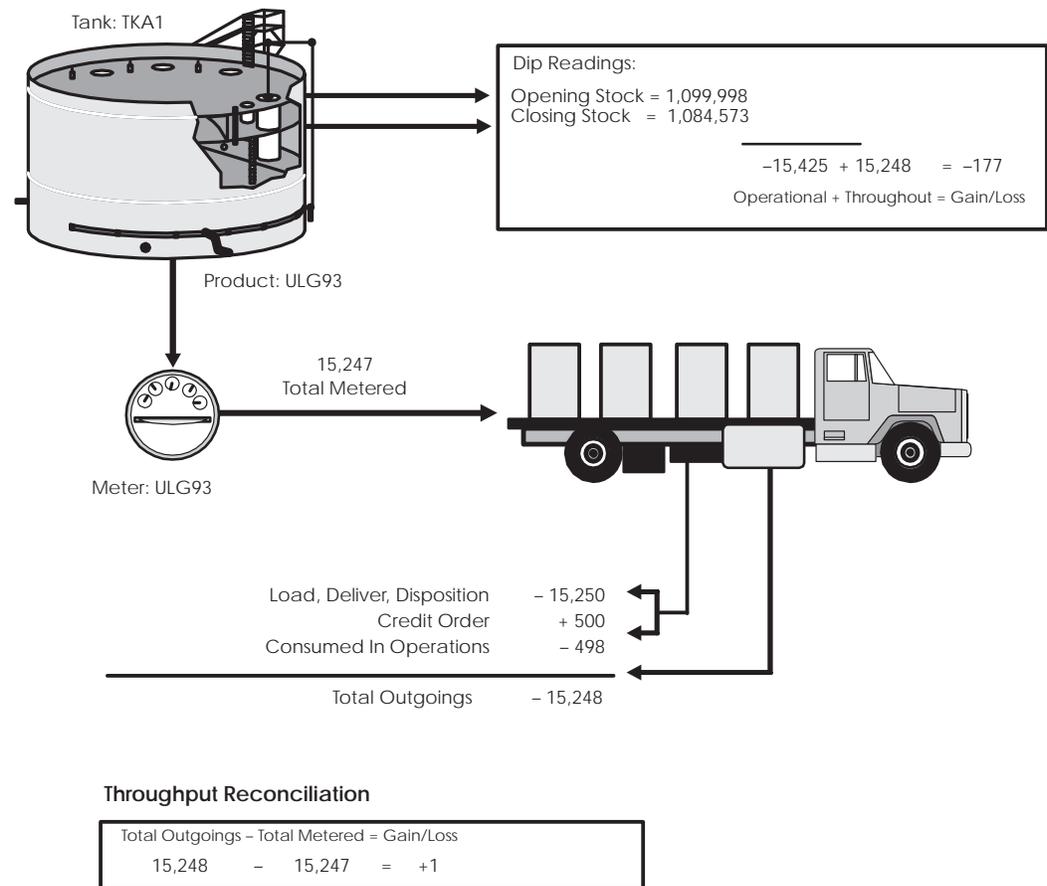
Tank: TKA1

Dip Readings:

Opening Stock = 1,099,998
Closing Stock = 1,084,573

−15,425 + 15,248   = −177
Operational + Throughout = Gain/Loss

Product: ULG93

Meter: ULG93

15,247
Total Metered

Load, Deliver, Disposition	– 15,250
Credit Order	+ 500
Consumed In Operations	– 498
Total Outgoings	– 15,248

Throughput Reconciliation

| Total Outgoings – Total Metered = Gain/Loss |
| 15,248   –   15,247   =   +1 |

Throughput Reconciliations

Throughput reconciliation compares confirmed sales figures and other metered outgoings for a given period with the measured throughput based on the meter readings. The comparison identifies discrepancies due to transactions not being entered, theft, leakage, or faulty meters.

Operational Reconciliations

Operational reconciliation performs the "true" reconciliation process. From all inbound and outbound transactions (since the last reconciliation), the system calculates the amount that should be in physical inventory, and compares it to the actual amount in the tanks (from the final physical tank dip). In other words, it measures and compares the physical inventory levels with the book inventory levels, so differences can be reconciled and operational gains or losses recorded. It then updates the book inventory to reflect the current physical inventory.

Bulk Stock Control Management

The following summarizes the tasks for managing bulk stock.

SETUP

– Depots
– Items
– Tanks
– Unit of Measure Conversions

TRANSACTIONS

– Intra-Depot Stock Movements
  Stock Adjustments
  Consumed in Operations
  Tank to Tank Transfer
  Repacking, Decanting & Filling
  Rebranding/Regrading
  Simple Blend

– Bulk Product Receipts
– Four Point Analysis

REPORTS

– Daily Product Movements
– Monthly Tank Stock Movements
– Tank Table Strappings

THROUGHPUT RECONCILIATIONS

– Record Closing Meter Readings
– Compare Meter Throughput with
  Confirmed Metered Outgoings
– Update Throughput Status

REPORTS

– Throughput Reconciliations

OPERATIONAL RECONCILIATIONS

– Tank Dip Readings
– Compare and Approve Incoming and
  Outgoing Transactions
– Update Reconciliation Status

REPORTS

– Operational Reconciliations
– Gain/Loss Analysis

Tables

The following illustrates the tables used by the Bulk Stock Control system and their contents.

```
┌─────────────┐         ┌─────────────┐         ┌─────────────┐
│ F4101       │         │ F41011      │         │ F41001      │
│ Item Master │         │ Bulk Item   │         │ Inventory   │
│             │         │ Master      │         │ Constants   │
└─────────────┘         └─────────────┘         └─────────────┘
   Item Number             Item Number              Branch

        ┌─────────────┐    ┌─────────────┐    ┌─────────────┐
        │ F4102       │    │ F41022      │    │ F4108       │
        │ Item Branch │    │ Bulk Depot/ │    │ Lot Master  │
        │             │    │ Product     │    │             │
        │             │    │ Information │    │             │
        └─────────────┘    └─────────────┘    └─────────────┘
         Item Number        Item Number        Item Number/
         Branch             Branch             Branch/Lot

                    ┌─────────────┐
                    │ F4100       │
                    │ Location    │
                    │ Master      │
                    └─────────────┘
                     Branch/
                     Location
        ┌─────────────┐
        │ F41021      │
        │ Item        │
        │ Location    │
        └─────────────┘
         Item/Branch/
         Lot/Location/    ┌─────────────┐
         Primary Bin      │ F4602       │
                          │ Location Detail
                          │ Information │
                          └─────────────┘
                           Item/Branch
                           Location/Lot/
                           Seq Number

┌─────────────┐    ┌─────────────┐
│ Pricing     │    │ F4105       │
│             │    │ Cost        │
│             │    │ Ledger      │
└─────────────┘    └─────────────┘
                    Item Number/Branch/
                    Location/Lot/Ledger Type
┌─────────────┐    ┌─────────────┐
│ Pricing     │    │ F30026      │
│ Discounts   │    │ Item Cost   │
│             │    │ Component   │
│             │    │ Add-Ons     │
└─────────────┘    └─────────────┘
```

Menu Overview

The commonly used menus for the J.D. Edwards Bulk Stock Control system are listed below.

```
          Bulk Stock Control
               G4150
```

Daily Processes

```
   Bulk Stock Control              Intra-Depot Stock
        G41501                        Movements
                                       G415011


   ECS Purchase Order               Bulk Stock
      Processing                   Reconciliations
        G4921                          G41502
```

Periodic Processes

```
          Bulk Stock Control
              Reports
              G415012
```

Setup Processes

```
 Bulk Stock Control       Inventory System        Inventory Master/
      Setup                    Setup                Transactions
     G415041                   G4141                   G4111
```

Advanced and Technical Processes

```
        Inventory Advanced and
         Technical Operations
               G4131
```

Daily

Intra-Depot Stock Movements

Objectives

- To understand temperature and density conversions for bulk products
- To understand how to account for commingled stock
- To understand the types of intra-depot stock movements
- To record the different types of intra-depot stock movements
- To calculate ambient volume and weight and convert to standard volume and weight
- To calculate and record gains and losses associated with intra-depot stock movements

About Intra-Depot Stock Movements

Intra-depot stock movements track inventory within a depot. The primary transactions, receiving new product and selling to customers, add or decrease inventory into and out of a depot.

You record an intra-depot stock movement whenever you need to account for stock that can no longer be accounted for in the location or container to which it was previously assigned.

A single intra-depot movement can be a "from" transaction, a "to" transaction, or both, and can have multiple lines for each entry. "From" transactions reduce inventory in a location. "To" transactions increase inventory in a location.

Before you can record volumes, you might need to calculate them from dip readings or weighbridge information. The system performs conversions in order to record volumes for bulk stock based on a standard temperature.

Complete the following tasks to record intra-depot stock movements:

- ❏ Understand volume measurement and conversion
- ❏ Understand commingled stock
- ❏ Record intra-depot stock movements
- ❏ Calculate volume from dip readings (optional)
- ❏ Calculate volume from weighbridge information (optional)

See Also

- *Transferring Inventory (P4113)* in the *Inventory Management Guide* for information on inventory movements

Understand Bulk Stock

About Bulk Stock

The volume of a bulk product changes in relation to ambient temperature. Ambient temperature is the temperature of the surrounding environment that a product is in, such as a tank or a compartment of a vehicle. To record volume at a common base for all stock movements, you need to convert volume that you have calculated at ambient temperatures to volume calculated at a standard temperature. The system uses only standard volumes to make adjustments to bulk inventory.

How Does Temperature and Density Affect Volume?

Temperature has a rather unique effect on liquids. A liquid product expands when its temperature rises and contracts when its temperature declines. How much the product expands or contracts is its relative density. The more dense the liquid, the less the liquid expands or contracts.

When you measure liquid products, you need to convert the volume measured at the ambient temperature of the liquid to its volume based on a standard temperature. The system performs this conversion using standard tables or algorithms. You define the standard temperature to which you want to convert for each product by depot.

How Does the System Convert Volume?

When you record an intra-depot stock movement, a receipt of stock, or other volume entry for bulk stock, you can enter volumes calculated at ambient or standard temperatures. The system uses the temperature and density table indicated on the Bulk Product Information form to calculate a volume correction factor (VCF). It then multiplies the VCF by the ambient quantity to get the standard quantity. If the depot's standard temperature is different from the temperature used in the table, a secondary conversion is made to convert from the base table temperature to standard.

If no table is indicated, the system uses the co-efficient of expansion to calculate the standard volume.

The system also calculates the weight of the product and converts the standard quantity to the Primary Stock Accounting Unit (PSAU) quantity for the product.

The system records the following for volume conversion:

- Ambient volume
- Standard volume
- Weight
- PSAU quantity, either weight or volume

The following graphic illustrates the process that the system uses to calculate volume and weight.

Key

◇ = Decision

▭ = Process

▱ = Form (Input/Output)

Flowchart text:

- Determine Quantity Entered
- Weight Entered
- Ambient Volume Entered
- Standard Volume Entered
- No Volume Entered
- Call Dip Volume Calculator
- Call Dip Weighbridge Information
- Is Temperature and Density Entered? — YES / NO
- Derive Temp. and Density From Default Tank Information
- Is Temperature and Density Entered? — YES / NO
- Derive Temp. and Density From Default Tank Information
- Calculate Standard Volume and Weight
- Write Records to: Item Ledger (F4111) Bulk Product Transactions (F41511) Update Balances
- Calculate Standard Volume and Weight

How Do You Measure Volume?

To measure the volume of bulk products, you can perform various types of dips or use a weighbridge to weigh the product. Tank dip readings include the pipeline and discharge volumes, plus the initial dip volume.

Dip Measurement

A wet dip (innage) measures the liquid height in the tank. You measure the liquid height by lowering the innage tape and bob to the gauge striking point of the tank, pulling it out, and noting where the liquid marks the tape.
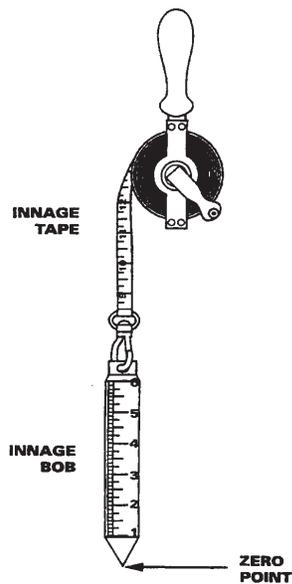
Innage tape and bob

A dry dip (ullage) measures the space between the liquid and a reference point at the top of the tank. You perform this type of dip when the product is too thick to be accurately measured. You measure the space between the top of the liquid and the reference point, then determine the liquid height by subtracting the dry dip measurement from the reference height.

Tank Gauging and Strapping

After you measure the height of the liquid in the tank, you refer to the strapping table computed specifically for that tank. The strapping table converts tank dip readings to gross volumes for a particular tank.
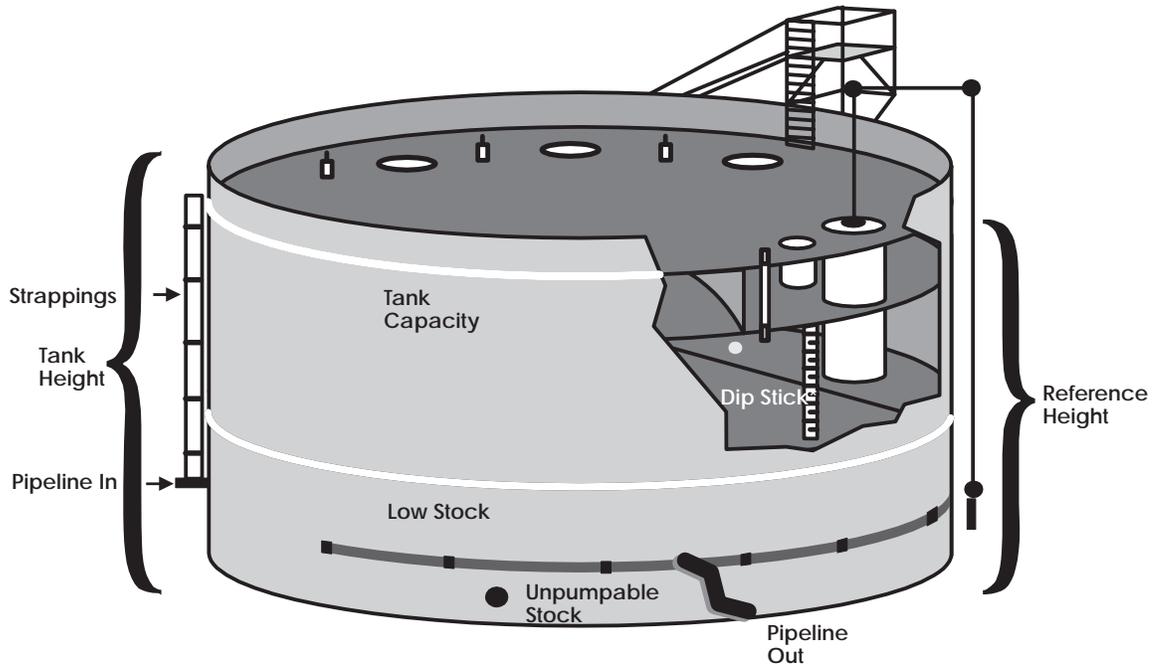
Strapping tables might be set up in the following ways:

Shell Height	Distance between the bottom of the bottom angle of the tank and the top of the top angle of the tank.
Gauging Height or Reference Height	Distance from the striking point on the tank floor (or strike plate) to a designated reference point on the gauge hatch.
Effective Inside Tank Height	Distance from the strike plate to the top angle, or where the product would begin to overflow. This height defines the upper and lower limits of the tank table.

Water and Sediment Height

When determining the gross amount of product in a tank, you must subtract the water and sediment from the total amount of product in the tank. To do this, you cover the innage tape with a water-finding paste, then perform a wet dip. The paste reacts with the sediment, dissolves, and turns the tape red.

Floating Roofs

Floating roof tanks are normally used for aviation fuels or other products where it is critical to minimize the amount of water in the product.

Floating roof tanks have a moveable roof that floats on top of the product in the tank. A tank with a floating roof displaces a certain amount of liquid around its edges and up into the tank hatch. With such tanks, you must make a correction to the product measurement. The amount of displacement depends on the weight of the roof.

Weighbridge Measurement

You can use a weighbridge to weigh the product in a tank, for example, a tank on a truck. To do so, you subtract the weight of the vehicle from the total weight. The system uses the weight to calculate volume. Weight is typically standard. It is not subject to volume changes in relation to temperature and density.

How Do You Measure Temperature and Density?

There are many types of thermometers for measuring the temperature of liquid in a tank and some that are standard for a particular type of tank. The temperature of liquid in a tank might vary throughout its depth, so you might need to perform readings at various depths and calculate an average reading.

You use a hydrometer to measure the density of liquids. A hydrometer floats vertically in liquid petroleum. Its buoyancy depends on the density of the liquid. You first take a sample of the liquid from the tank and put it in a glass cylinder. Then, lower the hydrometer into the tank and take a reading, as well as a temperature reading (using a thermometer). You use the temperature reading to convert from the density at the liquid's ambient temperature to the density at its standard temperature.

See Also

- *Calculating Standard Volume* in Appendix C

- *Defining Depot Temperature and Density (P41002)* for defining the standard temperature

- *Defining Default Units of Measure for Bulk Items (P41012)* for defining the PSAU

- *Calculating Volume from Dip Readings (P415102)*

- *Calculating Volume from Weighbridge Information (P415104)*

Understand Commingled Stock

About Commingled Stock

You might hold stock belonging to another company at your depot, within the same tank as your own stock. This is known as commingled stock. Trading partners for whom you hold stock typically do not find it feasible to carry all the products that they want to sell. Or they might have a dry depot, in which they carry no stock at all.

When the company enters a sales order, a driver might be required to pick up the stock at your depot. When the driver picks up the stock, you can enter an inventory transaction to take stock out of the tank or enter a sales order and create a trip to download to a gantry. If your driver is delivering the stock, you can enter a sales order and create a trip if you want to include the trip in your dispatch planning. If you enter a sales order, you can charge a handling fee as the sales price.

Whenever you make a stock movement, record receipt, load stock, or record a disposition, you must specify the owner of the product if the tank in use is set up for commingled stock. These transactions should be reflected in inventory, but not in accounts receivable or the general ledger.

Energy and Chemical Solutions accounts for two types of commingled stock:

- Commingled for custody
- Commingled for duty

Commingled for custody refers to stock that is owned by your trading partner, but stored in your tank. The trading partner might not have a depot in your area, but still needs to serve its customers.

Commingled for duty refers to stock in tanks that hold both duty-free and duty-paid stock. For example, you might sell duty-paid stock to domestic customers and duty-free stock to international customers or the government.

Stock can also be both commingled for custody and for duty. For example, you might hold duty-free stock in your tank for your trading partner.

To correctly account for the two types of commingled stocks, you can set a processing option in the following systems:

Bulk Stock Control System	• Stock Movements • Enter Receipts by Purchase Order
Load and Delivery Management System	• Confirm Bulk Load • Bulk Disposition

See Also

- *Setting Up Depot Locations (P4100)* for information on setting up item/location combinations for commingled stock

- *Setting Up Additional Tank Information (P415002)* for information on defining a tank for commingled stock

Record Intra-Depot Stock Movements

```
G4150    Bulk Stock Control
         Choose Bulk Stock Control
```

```
G41501   Bulk Stock Control
         Choose Intra-Depot Stock
         Movements
```

```
G415011  Intra-Depot Stock
         Movements
         Choose an option
```
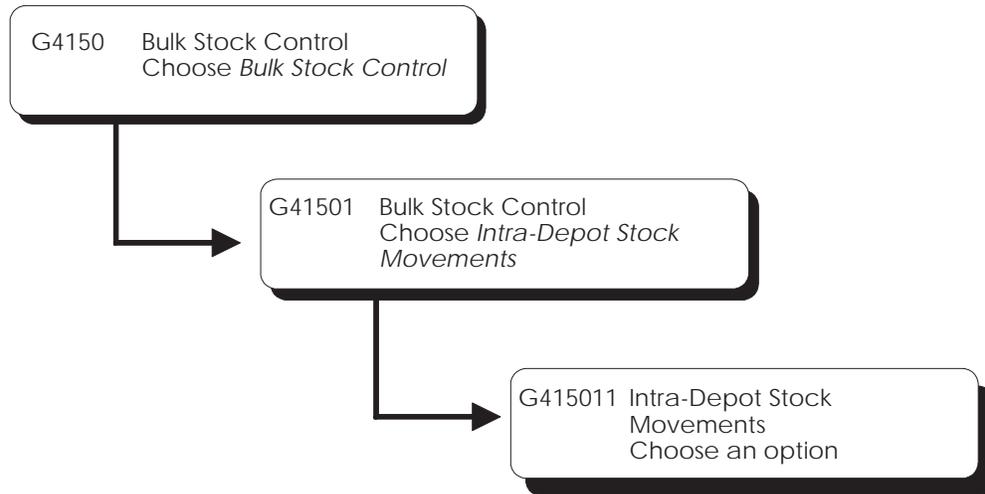
Recording Intra-Depot Stock Movements

You can record the following types of intra-depot stock movements so that your inventory is always accurately accounted for:

- Bulk stock adjustments

- Consumed in operations – own use

- Tank to tank transfer

- Repack

- Rebrand

- Regrade

- Decant

- Fill

- Simple blend

Six processing groups, defined by the processing options, determine how each of the stock movements is processed.

Choose the appropriate movement form based on the type of stock movement you need to perform. Following each movement form below is an explanation of how to record the type of movement, including the "from" (F) or "to" (T) lines required, document type, examples, and whether the movement results in a gain or loss.

Bulk Stock Adjustment

Any adjustment to inventory

- Record a "from" or a "to" (not both)
- Example:
    F: Spillage line loss
    T: Receipt of product
- No gain or loss
- Document Type: BJ

Consumed in Operations – Own Use

Used in internal operations

- Record a "from" or a "to" (not both)
- On a "from" transaction, can specify the account to be expensed
- Examples: Cleaning tanks, running vehicles
    F: Tank
    T: Return to tank
- No gain or loss
- Document Type: BO

Tank to Tank Transfer

Transfer from one tank to another within the same depot

- Record a "from" and a "to"
- Examples: Maintenance, replenishing of commingled stock
    F: Tank A
    T: Tank B
- Gain or loss
- Document Type: BT

Repack

Repack from one package size to another

- Record a "from" and a "to." Program allows multiple "from" and "to" lines
- Examples: Drums to other containers, such as cans
    - F: 10W40 drums
    - T: 10W40 cans
- Gain or loss, such as due to spillage
- Document Type: BP

Rebrand

Change to stock item (no physical movement)

- Record a "from" and a "to"
- Examples: Change due to confirming supply under incorrect item; renaming an item
    - F: Base Oil A
    - T: Base Oil B
- No gain or loss
- Document Type: BR

Regrade

Change to stock item (no physical movement)

- Record a "from" and a "to"
- Normally due to customer demand
- Examples: Take a higher grade product and sell as lower grade
    - F: Premium
    - T: Unleaded
- No gain or loss
- Document Type: BR

Decant

Empty a packaged item

- Record a "from" and a "to." Program allows multiple "from" and "to" lines
- Examples: Convert additives from drums to bulk storage
    - F: Package product decanted
    - T: Bulk product
    - T: Empty container
- Gain or loss due to loss in process, e.g. spillage
- Document Type: BD

Fill

Take bulk product in tank and fill drums or canisters

- Record a "from" and a "to." Program allows multiple "from" and "to" lines
- Examples:
    - F: Empty containers
    - F: Bulk stock
    - T: Filled package product
- Gain or loss due to loss in process, e.g. spillage
- Document Type: BL

Simple Blend

Blend multiple products to make another

- Record a "from" and a "to." Program allows multiple "from" and "to" lines
- Increases quantity on hand of current product in tank
- Examples:
    - F: Bulk Product A
    - F: Additive 1
    - T: Bulk Product C
- No gain or loss
- Document Type: BB

The following graphics illustrate the movement of stock in a tank to tank transfer; repack, decant, or filling transaction; and a simple blend.

Tank to Tank Transfer

From Tank   To Tank

BEFORE   AFTER

AFTER   Meter   BEFORE

Repack, Decant, or Fill Transaction

From Tank   To Filling Line

BEFORE

AFTER   Meter

Filled Packages

Simple Blend

From Tank 1   From Tank 2

BEFORE   Product A   To Tank   Product B   BEFORE

AFTER   AFTER

After Level

Product C

Before Level
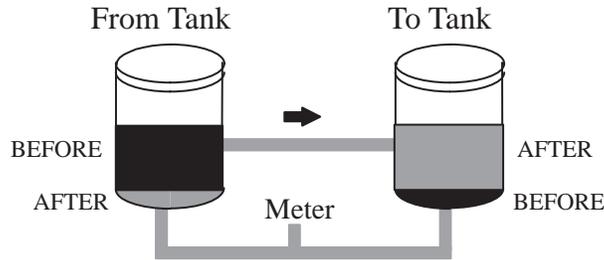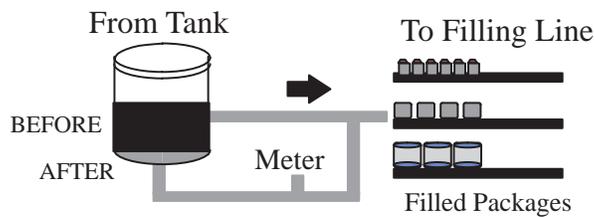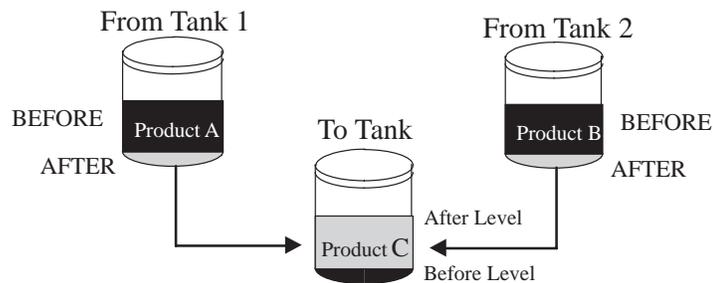
For a fill, decant, or repack, if you must record a gain or loss, you need a conversion at the item level for the volume of each unit of the packaged product. You also need to set up a conversion factor of .0000001 per one empty package so that the system can convert each subfile line to the unit of measure of the bulk gain/loss item. Set this up at the system level for each empty package unit of measure, for example, .0000001 LT per 1.0 item.

Packaged items contain bulk stock at standard temperature, not ambient, because the temperature of the product in the package cannot be determined.

Record a rebrand when product is mislabeled coming in and needs to be renamed. Alternatively, you might want to record a rebrand if the same product is sold under different names to different customers for marketing reasons. One way to handle such a case is to make one product a parent item and the other a component of a kit.

The system requires that all volume and weight units of measure have conversions to kilograms (KG) and cubic meters (M3) for calculation purposes.

Additionally, you can account for gains or losses that might occur during a stock movement and record stock movements involving kit items.

Complete the following tasks:

❑ Record an intra-depot stock movement

❑ Record an intra-depot stock movement for a kit

❑ Record a gain or loss on an intra-depot stock movement

When you record stock movements, the system updates the following tables:

- Item Ledger (F4111)
- Bulk Product Transactions (F41511), if a bulk item is moved
- Gain/Loss Transactions (F41512), if a gain or loss is created
- Account Ledger (F0911)
- Item Location (F41021)
- Location Detail Information (F4602), if warehouse control is activated for the branch/plant

Recording an Intra-Depot Stock Movement

Record stock movements whenever you must account for stock that can no longer be accounted for in the location or container to which it was previously assigned.

For each type of intra-depot stock movement, you complete the same basic steps to record the transaction. The form and the information you need to enter vary, depending on the type of movement you are recording (defined by the processing group) and the processing option settings.

▶ **To record an intra-depot stock movement**

On the selected stock movement form

```
[415101] - Bulk Stock Adjustments                          _ □ ×
Functions   Options   Tools   Help

                        Bulk - Adjustment      Branch/Plant        DEPOT1
                                               Trans. Date    06/30/98
                                               Trans. Time    17:39:16
                                               Prev Doc No       18276 BJ
Document No./Type    18274  BJ      Explanation  Bulk - Adjustment
G/L Date                            Batch Number    6067153


    F        Product        Loc/Tank  Ambient Qty                      0
    T
    T  REG                  TKREG1        500000  LT        496700  LT


  ✔    ✖                                 1 i    2 ▲    4 ⊕    9 ▬    ▲
Opt: 5=Dip/Mtrs  6=Weigh  7=Avail  F10=Reverse  F13=JE's  F24=More   MW   ▼
```

1. Complete the following fields or accept the default values:

    •   Branch/Plant

    •   Transaction Date

    •   Transaction Time

    •   Document Number

    •   Document Type

    •   Explanation

    •   General Ledger Date

2. Complete the following fields:

    •   From/To

    •   Product

    •   Location/Tank

    •   Ambient Quantity

    Alternatively, you can use the Dip Volume Calculator or Weighbridge Information programs to calculate ambient quantity.

    See *Calculating Volume from Dip Readings* or *Calculating Volume from Weighbridge Information*.

3. Complete the following field:

   - PSAU Quantity

   Alternatively, you can let the system calculate the PSAU Quantity.

   See *About Bulk Stock*.

4. Access the fold area.

```
[415101] - Bulk Stock Adjustments                               _ □ ×
Functions   Options   Tools   Help

                        Bulk - Adjustment      Branch/Plant        DEPOT1
                                               Trans. Date    06/30/98
                                               Trans. Time    17:39:16

Document No./Type    18274 BJ        Explanation  Bulk - Adjustment
G/L Date                             Batch Number    6067153


    F          Product        Loc/Tank   Ambient Qty                      0
    T
    T REG                     TKREG1        500000 LT        496700  LT
 Temp     20.00  C            Density    700.0 A      D/Temp     20.00  C
 Weight         349975   KG   Owner/Dty              J/E Upt   Y
 Reason                       Cont/Supp             G/L Dte   06/30/98
 Lot/SN                       Lot Exp               Lot St
 Unit Cs          .1500       Ext. Cost      74,505.00  Line No     1.00

 Temp                         Density               D/Temp
 Weight                       Owner/Dty             J/E Upt
 Reason                       Cont/Supp             G/L Dte
 Lot/SN                       Lot Exp               Lot St
 Unit Cs                      Ext. Cost             Line No     2.00

  ✓    ✗                              1 i   2 ▲   4 ⊕   9 ▬           ⬆
 Opt: 5=Dip/Mtrs  6=Weigh  7=Avail  F10=Reverse  F13=JE's  F24=More   MW  ⬇
```

5. Complete the following optional fields:

   - Owner/Duty
   - Journal Entry Update
   - Reason Code
   - Agreement Number
   - Agreement Supplement
   - Lot
   - Lot Expiration
   - Lot Status Code
   - Unit Cost
   - Extended Cost

Field	Explanation
Document Number	The number that identifies an original document. This can be a voucher, an invoice, unapplied cash, a journal entry number, and so on.
	. . . . *Form-specific information* . . . .
	If you leave this field blank, the Next Numbers program automatically assigns a number when you enter a new transaction.
Document Type	A user defined code (system 00/type DT) that identifies the type of document. This code also indicates the origin of the transaction. J.D. Edwards has reserved document type codes for vouchers, invoices, receipts, and time sheets, which create automatic offset entries during the post program. (These entries are not self-balancing when you originally enter them.)
	The following document types are defined by J.D. Edwards and should not be changed: P Accounts Payable Documents R Accounts Receivable Documents T Payroll Documents I Inventory Documents O Order Processing Documents J General Accounting/Joint Interest Billing Documents
Explanation	This text identifies the reason that a transaction occurred.
	. . . . *Form-specific information* . . . .
	The user defined code based on the document type provides the default value.
General Ledger Date	A date that identifies the financial period the transaction is to be posted to. The Company Constants table for the General Accounting system shows the date range for each financial period. You can have up to 14 periods. Generally, period 14 is used for posting audit adjustments.
	. . . . *Form-specific information* . . . .
	If you leave this field blank, the default value is the current date.

Field	Explanation
From/To	Indicates whether this line in the transaction is a From line or a To line. This field allows you to combine multiple existing products/locations into a single product/location, for example, three From lines and one To line. You can also split one existing product/location into several new products/locations, for example, one From line and two To lines. The information in a From transaction line is always existing item location information.
	. . . . *Form-specific information* . . . .
	Depending on the type of intra-depot stock movement, the transaction can be a From, a To, or both. A From transaction reduces the inventory in that location. A To transaction increases the inventory.
	Processing Groups 1 and 2 can have either a From or a To transaction, but not both.
	Processing Groups 3, 4, 5, and 6 must have both a From and a To transaction.
Ambient Quantity	The volume as measured for density and temperature prior to conversion. You can enter the ambient quantity or let the system automatically calculate it.
PSAU Quantity	The quantity as converted to the primary stock accounting unit of measure identified for this item (product). This primary stock accounting unit can be either volume or weight.
	. . . . *Form-specific information* . . . .
	Normally, you leave the Primary Stock Accounting Unit (PSAU) Quantity field blank and allow the system to calculate it. However, if you enter the quantity and unit of measure, the system accepts it as valid and performs no calculation.
Owner/Duty	A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, special mailing addresses, and so on.
	. . . . *Form-specific information* . . . .
	Use this field only for tanks with commingled stocks or with duty-paid and unpaid product in the same tank. If the Stock Commingled field on the Additional Tank Information form contains a Y, B, or D, this field is required.

Field	Explanation
Journal Entry Update	Controls whether to update the General Ledger (G/L) for commingled product. Typically, you update the G/L for the product that belongs to your company's inventory, not the product that belongs to another owner.

	Valid values are:
	       Y or 1 – (Yes) A journal entry is written.
	       N or 0 – (No) A journal entry is not written.

Reason Code	A user defined code (system 42/type RC) that explains the purpose for a transaction. For example, you can use a code to indicate a transaction that involves returned items, such as goods that were damaged in shipment or the overshipment of goods.
Agreement Number	A unique number your company assigns to identify a particular agreement. You might want to assign some significance to the agreement number (for example, an agreement type code, location, year, and so forth). An agreement might have multiple supplements to record addendum or changes, for example.
	. . . . *Form-specific information* . . . .
	If this transaction is part of an agreement with a business partner, enter the agreement number.
Agreement Supplement	The supplement number records changes or addendum to agreements that occur over time or by item. It can also indicate individual agreements that are tied to a master agreement. The system allows up to 999 different supplements per base agreement number.
Lot	A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.
	. . . . *Form-specific information* . . . .
	A processing option controls whether the Lot field appears. Complete the lot information only if you are using lot processing.
Lot Expiration	The date that a lot of items expires.
	The system enters this date for you if you have specified the shelf life days for the item on Item Master Information or Item Branch/Plant Information. The system calculates the expiration date by adding the number of shelf life days to the date that you receive the item.
	You can commit inventory based on the lot expiration date for items. You choose how the system commits inventory for an item on Item Master Information or Item Branch/Plant Information.

Field	Explanation
Lot Status	A user defined code (table 41/L) that indicates the status of the lot. If this field is blank, it indicates that the lot is approved. All other codes indicate that the lot is on hold.
	You can assign a different status code to each location in which a lot resides on Item/Location Information or Location Lot Status Change.
Unit Cost	The amount per unit (the total cost divided by the unit quantity).
	. . . . *Form-specific information* . . . .
	A processing option controls whether this field appears. If you leave this field blank, the system uses the cost setup for the item in the Cost Ledger field, based on the costing method for the item branch being used.
Extended Cost	For accounts receivable and accounts payable, this is the invoice (gross) amount. For sales orders and purchase orders, this is the unit cost times the number of units.
	. . . . *Form-specific information* . . . .
	A processing option controls whether this field appears. The value is calculated as quantity multiplied by the unit cost. To give your inventory a new dollar value, you can enter a dollar amount only transaction in this field and leave the quantity and unit cost information blank.

What You Should Know About

Deleting or changing previous transactions	You cannot delete or change previously entered transactions. This is because the inventory has been updated and G/L records written.
	If you enter a transaction in error:
	• Locate the transaction
	• Reverse the entry
	• Enter any information on a blank line to correct the error
	When you reverse a transaction, post the new batch created by the reversal to update the general ledger.
Entering by ambient quantity or weight	A processing option determines whether the Weight or Ambient Quantity field displays on the detail line. When you enter the ambient quantity in the detail line, the system calculates the weight and displays it in the fold area. When you enter the weight, the system calculates the ambient quantity and displays it in the fold area.

Entering account and subledger information You can set a processing option to display account and subledger information fields. This option is available only for the following processing groups:

- Bulk stock adjustments
- Consumed in operations – own use

Recording empty containers Enter a separate transaction for any empty containers resulting from a movement. Do not convert empty containers to a bulk unit of measure. Because zero is not allowed, the conversion usually equals .0000001.

Processing Options for General Stock Movements

```
Default Values :

   1. Document type for product.                      _____

   2. Enter Processing Group:                          _____
      '1' – Generic Bulk Stock Adjustment
      '2' – Consumed in Operations
      '3' – Tank-to-Tank Transfer
      '4' – Repacking, Decanting,
            or Filling
      '5' – Rebrand/Regrade
      '6' – Simple Blend

   3. Enter the default Reason Code.                   _____

   4. Enter '1' to have cursor                         _____
       positioning on From/To type.

   5. Enter a default Gain/Loss location.              _____
        (Maximum 20 characters)

Process Control :
   6. Method for assigning expiration                  _____
       date to newly created lots.

    '1' = Assign manually.
    '2' = Newest From Expiration Date.
    '3' = Oldest From Expiration Date.
    '4' = Transaction date + shelf life.

Dream Writer Versions
 Enter the version of each program to
 be used.  If left blank, ZJDE0001
 will be used.

   7. Journal Entries          (P09101)               _____
   8. G/L Functional Server   (XT0911Z1)              _____
   9. Item Search             (P41200)                _____
  10. Item Ledger             (P415201)               _____
  11. Warehouse Requests      (P46100)                _____

Processing Control :
  12. Enter a '1' to protect costs or                 _____
       a '2' to make costs non-display.
```

If left blank, the change of costs
is allowed.

13. Enter a '1' to suppress Lot   _____
    information.

14. Enter a '1' to suppress G/L Date.   _____

15. Enter a '1' to run in summary mode.   _____
    G/L accounts will be summarized
    within each document number.
    If run in detail, G/L accounts
    will be produced for each line.

16. Enter a '1' to allow transfers from   _____
    held lots.

17. Enter a '1' to allow transfers   _____
    greater than quantity available.

18. Enter a '1' if the 'From' and 'To'   _____
    quantities must balance to zero.
    Blank does not require balancing
    to zero.
      (Bulk Quantities only)

19. Enter a '1' if the FROM and TO   _____
    lines must have the same Package
    Items. Blank will not edit.

20. Enter which item search screen   _____
    is to be used to return items.

    1 = Item Search Window allowing the
        return of multiple items.

    2 = Full item search screen with
        query capability.

    (If left blank the item search
     window allowing the return of
     a single item will be used.)

21. Enter a '1' to display Weight in   _____
    the main subfile line, and the
    ambient quantity in the fold area.
    Enter a '2' to enter account
    numbers and subledger information
    on "From" transactions (valid
    on Adjustments and Consumed in
    Operations transactions only).

22. Enter a '1' to update the Item   _____
    History file (F4115) for tracking
    on "from" transactions.

Recording an Intra-Depot Stock Movement for a Kit

You might need to record a stock movement that involves a kit item, such as
when entering a simple blend transaction. When you enter a transaction that

includes a kit item in the movement, you first copy a bill of materials to obtain the parent item information for the kit. Then, enter any detail information for the stock movement.

If you specify detail information prior to copying a bill of materials, the system deletes the information. You must enter it again.

See Also

- *Recording an Intra-Depot Stock Movement* for the processing options for this program

▶ **To record an intra-depot stock movement for a kit**

On the selected stock movement form

1. Complete the following fields or leave them blank to accept the default values:
   - Branch/Plant
   - Transaction Date
   - Transaction Time
   - Document Number
   - Explanation
   - General Ledger Date

2. Access Copy B.O.M. Window.

3. On Copy B.O.M. Window, complete one or more of the following fields:
   - Branch/Plant
   - Item Number
   - Transaction Quantity

4. To complete the transaction for the kit item, follow the steps to record an intra-depot stock movement.

See *Recording an Intra-Depot Stock Movement*.

Copying a Bill of Materials

You can access the Copy B.O.M. Window from a stock movement form when you are recording a stock movement for a kit item. This window allows you to copy the Bill of Materials for the parent item.

Recording a Gain or Loss on an Intra-Depot Stock Movement

When moving product from one location, tank, or container to another, a change in volume can occur due to spillage, leakage, evaporation, temperature changes, and so on. You can account for these gains or losses when recording the "from" and "to" movements of the product.

You can specify gains or losses for the following stock movements:

- Tank to tank transfer

- Repack

- Decant

- Fill

Processing options control how gains or losses are recorded in the following ways:

- Set a processing option to specify a default gain/loss location

- Set a processing option to ensure that the From, To, and Gain/Loss quantities equal zero

The system calculates gains and losses as follows:

$$
\boxed{\begin{array}{l}\text{The sum of all "to"}\\\text{transactions converted}\\\text{to a standard unit of}\\\text{measure}\end{array}} \quad - \quad \boxed{\begin{array}{l}\text{The sum of all "from"}\\\text{transactions converted}\\\text{to a standard unit of}\\\text{measure}\end{array}} \quad = \quad \boxed{\text{Gain or loss}}
$$

The sum of all "To" transactions converted to a standard unit of measure, minus the sum of all "From" transactions converted to a standard unit measure, equals the gain or loss.

You record gains and losses to a logical location instead of a physical location to prevent them from adjusting actual inventory. Because no item/location

record exists, searching by a location will not display the inventory for the location.

Example: Recording Loss

The following diagram illustrates 1000 liters (LT) transferred from Tank A to Tank B. After the transfer, Tank B reports receiving only 995 liters. To accurately account for the transfer, you record a 5-liter loss to the logical location.

BIS   Branch/Plant

Tank A
Unleaded

Pipeline

Tank B
Unleaded

1000 LT

995 LT

5 LT loss recorded
to logical location
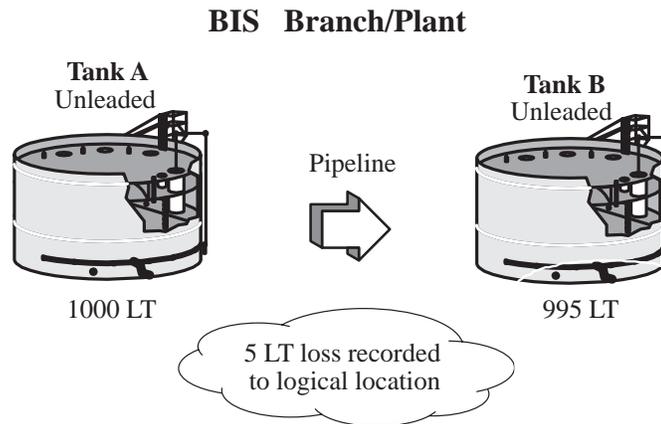
You do not record a 5-liter loss to Tank A, because 1000 liters actually left Tank A. Likewise, you do not record a gain of 5 liters to Tank B, because 995 liters actually entered Tank B.

See Also

- *Setting Up Depot Locations (P4100)* for information on setting up a logical location
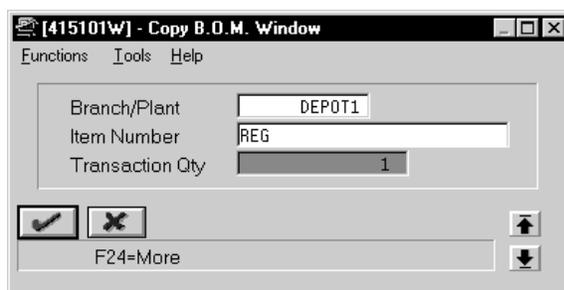
- *Recording an Intra-Depot Stock Movement* for the processing options for this program

▶ **To record a gain or loss on an intra-depot stock movement**

On the selected stock movement form

1. Follow the steps to record an intra-depot stock movement that includes both a "from" and a "to" transaction on two lines.

   See *Recording an Intra-Depot Stock Movement*.

   The system calculates the gain/loss quantity and displays it in the primary unit of measure.

2. Complete the following required fields for Gain/Loss:

   - Location
   - Bulk Product

Field	Explanation
Location	A code that identifies inventory locations in a branch/plant. You define the format of the location identifier by branch/plant (P410012).

Field	Explanation
Product	A number that the system assigns to an item. It can be in short, long, or 3rd item number format.
	. . . . *Form-specific information* . . . .
	Identifies the product to be adjusted. If this is a stock movement for a bulk item, the system uses the product number from the Current Product field in Tank Master as the default value when you enter the transaction.
	The gain/loss product must be a bulk product. An entry in this field is required for repack, decant, or fill transactions, but not for tank to tank transfer.

What You Should Know About

Converting products to a common unit of measure	The program converts all products within a transaction to the common unit of measure associated with the gain/loss bulk product. If the unit of measure conversion is not set up by item, the system uses the standard unit of measure conversions.
Requiring quantities to balance	You can set a processing option to require that the "from" quantity, the "to" quantity, and the gain/loss quantity balance based on the common unit of measure.

Calculate Volume from Dip Readings

```
G4150    Bulk Stock Control
         Choose Bulk Stock Control
```

```
G41501   Bulk Stock Control
         Choose Intra-Depot Stock
         Movements
```

```
G415011  Intra-Depot Stock
         Movements
         Choose an option
```
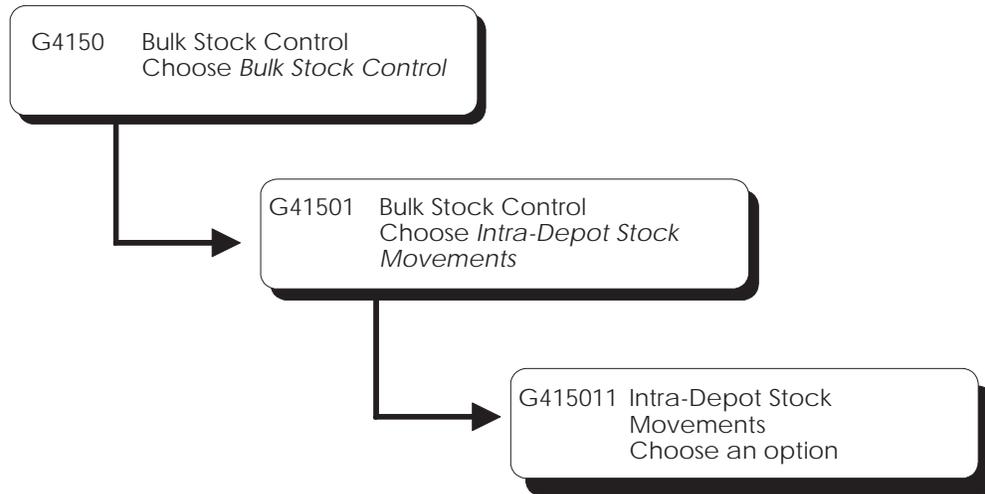
Calculating Volume from Dip Readings

You use Dip Volume Calculator to calculate volume for stock movements when you have dip readings based on tank strappings information.

Typically, a dip reading is taken before and after a movement occurs. You enter these readings, and the program calculates the following:

- Ambient volume

- Standard volume

- PSAU volume

- Weight

It also calculates the difference between the before and after quantities. An after dip that is lower than the before dip is considered a discharge from the tank. The reverse is considered a receipt of product.

When you enter before and after dip readings, the program calculates the ambient volume for each reading from the tank strappings. The system takes

into account the tank type and the dip type, and applies the floating roof displacement correction, if required.

For liquified petroleum gas (LPG) products, the Dip Volume Calculator program performs the following:

- Corrects the liquid volume to 15°C using the LPG tables

- Calculates liquid mass (weight)

- Determines if inert gas is present (affects vapour density calculation)

- Derives the vapour density

- Calculates vapour mass (weight)

- Calculates vapour volume

- Calculates volume: total volume = liquid volume + vapour volume

- Calculates weight: total weight = liquid weight + vapour weight

- Calculates the liquid volume from the strapping tables

Complete the following tasks to calculate volume from dip readings:

❑ Calculate volume for a stock movement

❑ Calculate volume for a simultaneous movement

Calculating Volume for a Stock Movement

To calculate volume for a stock movement, you enter the dip readings from your tank strappings table information. You must enter them in increments consistent with the strappings units set up on the tank strappings table (centimeters, feet/inches, fractions). The system will not convert them.

Sometimes you may not need to take tank strappings. Alternatively, you can enter the volume directly in the Other Volume field. The program will convert ambient volume to standard. When doing this, you must also enter the before and after dip readings as zero.

If the dip type is E for an electronic gauge reading, the gross dip readings you enter are treated as volumes, not as strappings. Therefore, the system does not make strappings conversions. It only makes the conversion to standard volume. The unit of measure used is the default tank strapping unit of measure. You can enter electronic gauge readings in ambient or standard volumes.

▶ **To calculate volume for a stock movement**

On the selected bulk stock movement form

1.   Choose the transaction for which you want to calculate volume.

2.   Access Dip Volume Calculator.

3.   On Dip Volume Calculator, complete the following Before field:

     •   Gross Dip

4.   Complete the following Before fields or leave them blank and use the default values:

     •   Water Dip

     •   Temperature

     •   Temperature Type

     •   Density

     •   Density Type

     •   Density Temperature

     •   Density Temperature Type

     •   Other Volume

     If the following field displays a Y, the item is an LPG product:

     •   Calculate Vapour

5.   If the item is an LPG product, complete the following fields:

     •   LPG Vapour Pressure

     •   Vapour Temperature

     •   Vapour Temperature Type

- Slip Tube Reading Type

- Vapour Weight

6. Complete the following After fields or leave them blank and use the default values:

- Water Dip

- Temperature

- Density

- Density Temperature

- Other Volume

The system performs the volume calculations and places the values in the following fields:

- Ambient Result

- Volume at Standard Temperature

- Weight Result

- PSAU Quantity

When you return to the bulk stock movement form, the system displays the calculations in the appropriate fields.

Field	Explanation
Gross Dip	This number represents the total dip reading of a tank. (Net volume = Gross dip volume − water dip volume + Other volumes.)
	You can enter a number for a single dip or multiple dip reading. Enter dip readings in increments consistent with the strapping units on the tank strappings table (for example, centimeters or feet/inches/fractions).
	For U.S. increments, Branch/Plant Constants, controls the delimiter that indicates the separator between the units of measure (for example, between feet, inches, and fractions). Therefore, if you used a "/" as the delimiter, enter the following: • 15 feet 10 1/2 inches: Enter 15/10/8 • 15 feet: Enter 15// • 6 feet and 13/16 inches: Enter 6/4/13 • 12 feet and 5/16 inches: Enter 12//5
	Fractions are shown in sixteenths of an inch.

Field	Explanation
Water Dip	This number represents the total dip reading of water in the tank. (Net volume = gross dip volume – water dip volume + other volumes.) This can be a single dip or a multiple dip reading.
Temperature	The temperature of the product.
Density	Identifies your company's standard for density. You can also use this field for pack size and weight information.
Density Temperature	Indicates the temperature at which the density was measured. The system uses the density temperature type from Branch/Plant Constants – Page 3.
Other Volume	This number represents any volumes that will affect the net volume calculation. The default value equals the pipeline volume plus the discharge volume. The pipeline and discharge volumes are from Additional Tank Information data. (Net volume = gross dip volume – water dip volume + other volumes.)

Calculate Vapour	Indicates whether the product requires a calculation of the vapour volume. Valid values are:
	    • Y or 1 (Product requires the calculation)
	    • N or 0 (Product does not require the calculation)

LPG Vapour Pressure	This is the observed LPG vapour pressure. The system compares this value to the equilibrium vapour pressure to check for inert gases. The observed pressure of the LPG vapour is recorded as part of the tank dip, and is used in the calculation of the liquid equivalent volume of the vapour.

Slip Tube Reading Type	This field is used when recording a dip reading for an LPG Slip Tube type tank. This field denotes whether this is a long or short slip tube reading. Valid values are:
	    L Long
	    S Short
	
	If you leave this field blank, the system uses S.

Field	Explanation
Ambient Result	The volume as measured for density and temperature prior to conversion. You can enter the ambient quantity or let the system automatically calculate it. . . . . *Form-specific information* . . . . The value in this field is derived from one of the following: • Any value recorded in the Other Volume field. • Any pipeline value or discharge volume recorded on the Additional Tank Information form is added to the net result of the Before and After volume calculated. The result is shown in the Ambient Result field.
Volume at Standard Temperature	The volume after it has been converted to a standard base. Conversions are made according to published standard routines for density/gravity and for temperature.
Weight Result	The weight of the product at standard temperature. The system calculates the weight by multiplying the volume by the density and applying an air correction, if necessary (all at the base temperature).
PSAU Quantity	The quantity as converted to the primary stock accounting unit of measure identified for this item (product). This primary stock accounting unit can be either volume or weight.

What You Should Know About

Entering multiple dip readings	To enter multiple dip readings, access the Reading Calculations window from the Gross Dip or Water Dip fields. You can enter up to three dip readings to calculate an average.
Moving large quantities	If you are moving in a large quantity of product, you can enter the Before reading and record the After reading at a later time.

Entering Multiple Dip Readings

You can access the Reading Calculations window from the Gross Dip or Water Dip fields of the Dip Volume Calculator to enter multiple dip readings. You can enter up to three dip readings to calculate an average.

Calculating Volume for a Simultaneous Movement

You can calculate volume for a simultaneous movement, such as simultaneously receiving and withdrawing product from the same tank, to speed operations.

When you calculate volume from dip readings, you can also record the meter readings from a withdrawal of product. When you enter these readings, the system adds the quantity you withdraw back into the quantity calculated from the dip readings. A message displays to indicate that there was a simultaneous withdrawal.

This function is not available if you choose Dip Volume Calculator from the Bulk Stock Control menu.

You must record any gain/loss associated with this type of transaction to the outturn gain/loss.

See Also

- *Recording a Gain or Loss on a Stock Movement (P415101)*

▶ **To calculate volume for a simultaneous movement**

On the selected bulk stock movement form

1. Choose the transaction for which you want to calculate volume.
2. Access Dip Volume Calculator.
3. On Dip Volume Calculator, access Discharge Meter Readings.

```
[415103] - Discharge Meter Readings                        _ □ ×
Functions   Tools   Help

Branch/Plant          DEPOT1 Doc Ty/No./Line     BJ    18274    1,00
Tank ID        TKREG1        Product             REG

    Meter No    Opening      Closing     Temp   Density  Den/Tem
    MREG            1000       100000    20,00 C   700,0 A  20,00 C




   ✓    ✗                                                        ↑
   F5=Update/Rtn Qty  F8=Load Meter No.  F10=Meter Master  F24=More Keys   ↓
```

4. On Discharge Meter Readings, complete the following fields:
   - Meter Number
   - Opening

- Closing

- Temperature

- Temperature Type

- Density

- Density Type

- Density Temperature

- Density Temperature Type

The date, time, and ambient or standard mode appear in the fold area.

```
[415103] - Discharge Meter Readings                    _ □ ×
Functions  Tools  Help

Branch/Plant          DEPOT1 Doc Ty/No./Line    BJ    18274   1,00
Tank ID          TKREG1      Product           REG

   Meter No │   Opening   │   Closing  │  Temp │Density│Den/Tem│   │
   MREG     │      1000   │    100000  │ 20,00 C│  700,0 A│ 20,00 C│
   Date/Time 24.04.96 18:21:00 Amb/Std          99000 LT          98347

   Date/Time                    Amb/Std

  ✔    ✖                                                          ↑

 F5=Update/Rtn Qty  F8=Load Meter No.  F10=Meter Master  F24=More Keys   ↓
```
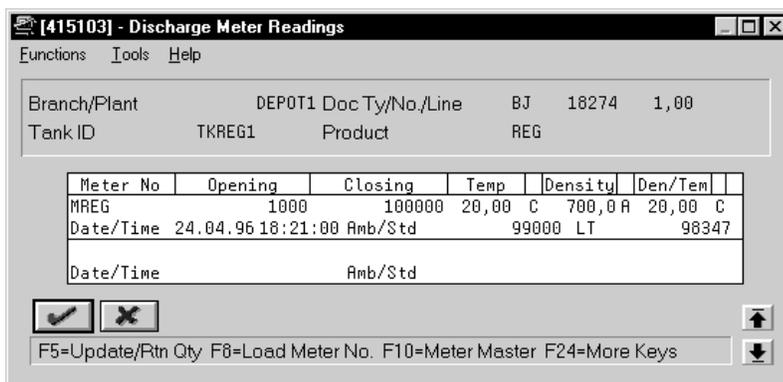
5. Save your entries and return to the intra-depot stock movement form.

Field	Explanation
Opening	The beginning (opening) meter reading before the product flows through a pipeline. In order to calculate the ambient volume, an after (closing) meter reading is required.
Closing	The closing reading of the meter at the date and time specified by the user. This indicates the quantity of product that has flowed through the meter when the closing readings are taken. In order to calculate the ambient volume, an after (closing) meter reading is required.

What You Should Know About

Accessing Dip Volume Calculator

Alternatively, you can access the Dip Volume Calculator program directly from the Bulk Stock Control menu or from Bulk Stock Receipts from the Purchase Order Processing menu while receiving products.

If you access Dip Volume Calculator directly from the Bulk Stock Control menu, the program serves as a calculation tool only. It does not store the values.

Accessing Dip Volume Calculator

You can access the Dip Volume Calculator program directly from the Bulk Stock Control menu, from any stock movements form, or from Bulk Stock Receipts from the Purchase Order Processing menu while receiving products.

If you access Dip Volume Calculator directly from the Bulk Stock Control menu, the program serves as a calculation tool only. It does not store the values.

Accessing Discharge Meter Readings

If you access the Dip Volume Calculator from the Bulk Stock Control menu, you do not have the option to access Discharge Meter Readings.

Calculate Volume from Weighbridge Information

```
G4150    Bulk Stock Control
         Choose Bulk Stock Control
```

```
G41501   Bulk Stock Control
         Choose Intra-Depot Stock
         Movements
```

```
G415011  Intra-Depot Stock
         Movements
         Choose an option
```

Calculating Volume from Weighbridge Information

You use the Weighbridge Information program to calculate volume for stock movements when you have weight readings from a weighbridge. This program calculates the weight or volume of the product by subtracting the weight of the vehicle.

The system calculates the following:

- Weight (by subtracting the weight before loading from the weight after loading)

- Ambient volume

- Standard volume

- PSAU quantity, either weight or volume

The Weighbridge Information program has the following requirements:

- The Before Loading weight cannot be below the empty weight of the vehicle.

- The After Loading weight cannot exceed the weight capacity or maximum gross weight of the vehicle.

- The volume calculated cannot exceed the volume capacity of the vehicle.

▶ **To calculate volume from weighbridge information**

On the selected bulk stock movement form

1. Choose the transaction for which you want to calculate volume.

2. Choose Weighbridge Information.

3. On Weighbridge Information, complete the following fields:

- Vehicle ID

- Weight Before Loading

- Unit of Measure

- Weight After Loading

- Unit of Measure

4. Complete the following fields, or leave them blank to use the default values from the Default Tank Information table:

- Temperature

- Temperature Type

- Density

- Density Type

- Density Temperature

- Density Temperature Type

The system calculates the volume and places the quantities in the following fields:

- Weight of Product

- Primary Stock UOM (PSAU)

- Product Volume (Ambient)

- Product Volume (Standard)

- Volume Correction Factor

When you return to the stock movement form, the system displays the calculations in the appropriate fields.

Field	Explanation
Weight of Product	The weight of the product at standard temperature. The system calculates the weight by multiplying the volume by the density and applying an air correction, if necessary (all at the base temperature).
Primary Stock UOM (PSAU)	The quantity as converted to the primary stock accounting unit of measure identified for this item (product). This primary stock accounting unit can be either volume or weight.
Volume Correction Factor	A calculated number to convert ambient volume to volume at standard density and temperature. This value identifies the primary stock accounting unit of measure used by the system.

What You Should Know About

Accessing Weighbridge Information

You can access this program directly from the Bulk Stock Control menu, from any stock movements form, or from Bulk Stock Receipts from the Purchase Order Processing menu while receiving products.

If you access Weighbridge Information directly from the Bulk Stock Control menu, the program serves as a calculation tool only. It does not store the values.
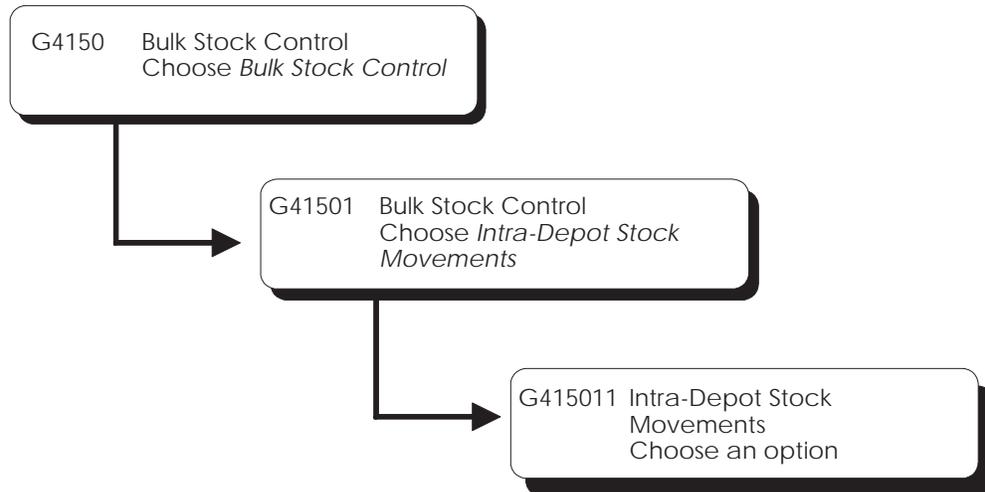
Bulk Product Receipts

Objectives

- To record receipt of bulk inventory
- To perform a four-point analysis in order to calculate gain or loss for received products

About Bulk Product Receipts

You record the receipt of bulk products requested on a purchase order as they arrive at the depot. You can confirm the receipt of the products requested on the purchase order, record the volumes received, and make adjustments to correct variances.

You can also calculate any gains or losses that might have occurred during transportation due to spillage, theft, faulty meters, and so on. To do so, you perform a four-point analysis. You perform a four-point analysis primarily for long voyages to determine the product lost in transit, but you can record the data for any movement.

Complete the following tasks to receive goods:

❑ Record bulk product receipts

❑ Calculate gain or loss for received products

See Also

- *Entering Receipts* in the *Purchase Management Guide* for information on purchase orders and receiving inventory

Record Bulk Product Receipts

G4	Distribution/Logistics Systems Choose *ECS Purchase Order Processing*

G4921	ECS Purchase Order Processing Choose *Enter Receipts by Purchase Order*
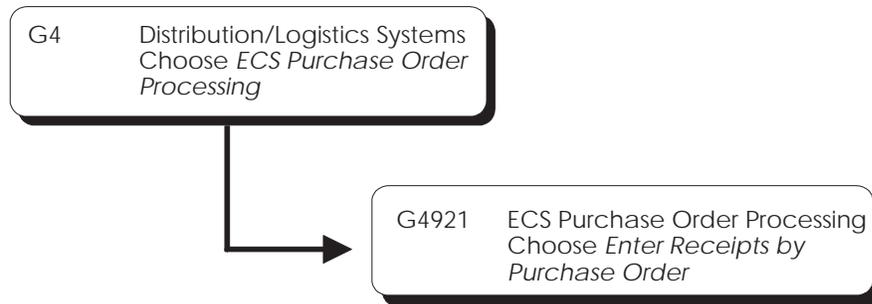
Recording Bulk Product Receipts

You record the receipt of bulk products requested on a purchase order as they arrive at the depot. You can confirm the receipt of the products or make adjustments to correct variances. The system updates the Item Ledger table (F4111), the Purchase Order Receiver table (F43121), and the Bulk Product Transactions table (F41511).

When you record bulk product receipts, you can display all purchase order lines that have an open quantity or amount to be received and record a receipt of a bulk product. An open quantity is the purchase order quantity minus the previous quantities received.

When you receive a bulk item, the Bulk Product Receipts window opens, allowing you to record temperature and density information and calculate standard volume and weight. A bulk item is defined by the Bulk/Packed field on the Item Master form.

Before You Begin

❑ Verify that you have purchase orders entered in the system

▶ **To record bulk product receipts**

On Enter Receipts by Purchase Order

```
[4312] - Enter Receipts by PO                              _ □ ×
Functions   Options   Tools   Help

                                       Received (Y)   □
                                       Branch/Plant   *
Order Number         9356    OP        G/L Date       25.04.96
Supplier              630    A-Z Fuels, Inc
Received (Y)         25.04.96
Received (Y)
Supplier Remark
Container I.D                           Skip To Line

O       Item/Account        Quantity  UM   Unit Cost    Extended Cost
   REG                         100000  LT      0,0001           10,00




   ✔   ✘                                                    ⤒
Opt: 1=Receive 4=Multi Loc 7=Close 8=Reverse 9=Cancel  F24=More Keys   MW  ⬇
```

1. Complete the following field:

   • Order Number

   The system displays all items with open quantities for this purchase order.

2. Choose the Receive option for the purchase order line for which you want to record received products.

   The Bulk Product Receipts window appears.

```
[41511W] - Bulk Product Receipts                          _ □ ×
Functions   Tools   Help

                                 Branch/Plant        DEPOT1
                                 Line Number         1,000
Order Number      9356 OP        Receipt Date        25.04.96
Item Number       REG            Receipt Time        10:00:15
Description        Leaded Fuel
     Loc/Tank    Owner/Du     Ambient Qty      PSAU Qty        Weight Qty
   □           □          □              100000  LT  □

   Temp      □   □     Density    □   □   Den/Temp   □   □
   Reason    □         Agreement N ▓▓▓    Agreement S ▓
   Lot       □         Lot Expire □       Lot Status □
   ✔   ✘                                                    ⤒
F6=Weighbridge  F8=4-Point Analysis  F10=Dip Volume Calculator  F24=More  ⬇
```

3. On Bulk Product Receipts, complete one or more of the following fields or leave the default values:

- Owner/Duty

- Ambient Quantity

- Temperature

- Temperature Type

- Density

- Density Type

- Density Temperature

- Density Temperature Type

4. Complete the following optional fields:

- Reason

- Lot

- Contract

- Lot Expiration

- Aggreement Number

- Aggreement Supplement

- Lot Status

Field	Explanation
Owner/Duty	A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, special mailing addresses, and so on.
	. . . . *Form-specific information* . . . .
	Use this field only for tanks with commingled stocks or with duty-paid and unpaid product in the same tank. If the tank you are receiving product into has been set up with commingled stock, this field is required. If the Stock Commingled field on the Additional Tank Information form contains a Y, B, or D, this field is required.

What You Should Know About

Adding receipts by item You can choose Enter Receipts by Item from the ECS Purchase Order Processing menu to add receipts by item number. The system displays all purchase orders for a specific item number. Enter the item number and follow the steps described for adding receipts by purchase order.

Specifying entry modes A processing option allows you to specify one of three modes of entry on Enter Receipts by Purchase Order. You can toggle among the different modes.

Calculating quantity You can access Dip Volume Calculator or Weighbridge Information from Bulk Product Receipts if you need to calculate the volumes to enter.

Calculating gain or loss You can access Four-Point Analysis Maintenance from Bulk Product Receipts if you need to calculate gains or losses.

Receiving commingled stock If the primary location contains commingled stock, complete the Owner/Duty field on the Bulk Product Receipts window to identify the owner of the product.

See Also

- *Calculating Volume from Dip Readings (P415102)* and *Calculating Volume from Weighbridge Information (P415104)* for information on calculating volume.

- *Calculating Gain or Loss for Received Products (P415109)* for performing a four-point analysis.

Processing Options for Enter Receipts by PO

```
Default Values:
  1. Order Type                               _____
  2. Receipt Document Type                    _____

Incoming Acceptable Next Status Codes:
  3. Status Code 1                            _____
  4. Status Code 2                            _____
  5. Status Code 3                            _____

Outgoing Next Status Codes:
  6. Partial receipt                          _____
  7. Close balance of line                    _____
  8. Cancel balance of line                   _____
```

Prompting Control:
Enter a '1' to:
  9. Select all lines for receipt.   _____
 10. Be prompted to accept the receipt.   _____
 11. Display lot/layer information.   _____
 12. Display Sales Order Backorders.   _____
 13. Record serial number information   _____
     for inventory items.

 14. Enter a '1' to protect prices, or   _____
     a '2' to make prices non-display.
     If left blank, the update of
     prices is allowed.

 15. Enter a '1' to require manual entry _____
     of the quantity. If left blank,
     the quantity field will be loaded.
 16. Enter a '1' to display description. _____
     If left blank, the item/account
     number will be displayed.
 17. Enter the format to be displayed.   _____
       1 = Receipts by Purchase Order
       2 = Receipts by Item
       3 = Receipts by G/L Account
     (If left blank, format 1 is used.)

Landed Cost Processing:
 18. Enter a '1' to display the landed   _____
     cost video, or a '2' to perform
     blind landed cost processing.
     If left blank, no landed cost
     processing is performed.

Tolerance Checking:
Enter a '1' for a warning message, or a
'2' to prohibit entry. If left blank,
no tolerance checking is performed.

 19. Quantity, Unit Cost, Amount   _____
 20. Receipt Date   _____

Item Branch/Location Processing:
 21. Enter a '1' to update the supplier   _____
     when an item is purchased the
     first time, or a '2' to update the
     supplier every time the item is
     purchased. If left blank, no
     supplier update is performed.
 22. Enter a '1' to default the Location _____
     and Lot Number from the primary
     item balance location, if the
     Location and Lot Number are both
     blank.

Dream Writer Versions:
Enter the version for each program:
If left blank, ZJDE0001 will be used.

 23. Open Order Inquiry   (P430301)   _____
 24. G/L Functional Server   (XT0911Z1)   _____
 25. SO Backorder Release   (P42117)   _____
 26. Receipt Traveler   (P43512)   _____
 27. Receipt Routing   (P43250)   _____

Document Processing:
   28. Enter a '1' to automatically print   _____
        a Receipt Traveler Document
        following each receipt.

Kit Processing:
   29. Enter a '1' to display the kit   _____
        parent item, or a '2' to display
        the kit component items. If
        left blank, no kit information
        is displayed.

Supplier Analysis:
   30. Enter a '1' to capture supplier   _____
        analysis information. If left
        blank, no supplier analysis
        information is captured.

Associated Text Processing:
   31. Enter a '1' to purge the associated   _____
        text when the line is fully
        received. If left blank, the
        text is retained.

Receipt Acknowledgment:
   32. Enter a '1' to send a PPAT message   _____
        to the purchase order originator
        regarding the receipt.
   33. Enter the next status code that the   _____
        Sales Order should be updated to
        upon full receipt of a direct ship
        purchase order line.

Receipt Routing:
   34. Enter a '1' to initiate the   _____
        receipt routing process. If left
        blank, all items will be received
        directly into stock.

Summarization:
   35. Enter a '1' to summarize journal   _____
        entries. If left blank, journal
        entries are written in detail.

        NOTE: If tracking commitments in
        the PA/PU ledgers, this option
        may NOT be used.

Warehouse Processing:
   36. Enter the Directed Putaway mode: _____
        ' ' : No Directed Putaway Requests
        '1' : Request Putaway only
        '2' : Request Putaway and process
             using the subsystem
        '3' : Receive directly to reserved
             locations (No requests).

   37. If processing putaway requests   _____
        through the subsystem, enter the
        DREAM Writer version to be used.
        If blank, XJDE0001 is used.
        (See Form ID P46171).

   38. Enter the DREAM Writer version of   _____
        On-Line Reservations to be used.

```
                    If blank, ZJDE0001 is used.
                    (See Form ID P46130)
```

Currency Processing:
39. Enter the date to be used when   _____
     retrieving the currency exchange
     rate. If left blank, the purchase
     order exchange rate will be used.
       1 = G/L Date
       2 = Current Date

40. Enter a '1' to protect the   _____
     exchange rate field.

Bulk Item Processing:
41. Enter '1' to record the difference   _____
     between ambient and standard
     quantities received as a
     temperature gain/loss.
     Enter '2' to update the unit cost
     as the extended cost divided by
     the standard quantity.
     Leave blank if quantities are
     purchased and received in
     standard.

Direct Ship Order Processing:
  (LOAD & DELIVERY MANAGEMENT ONLY)

42. Enter a '1' if related sales order   _____
     lines should be automatically
     load and deliver confirmed.
43. Enter the sales order next status   _____
     code beyond which sales orders
     will not be automatically load
     and deliver confirmed.
44. Enter the version of the   _____
     transportation transaction server
     to be used to automatically load
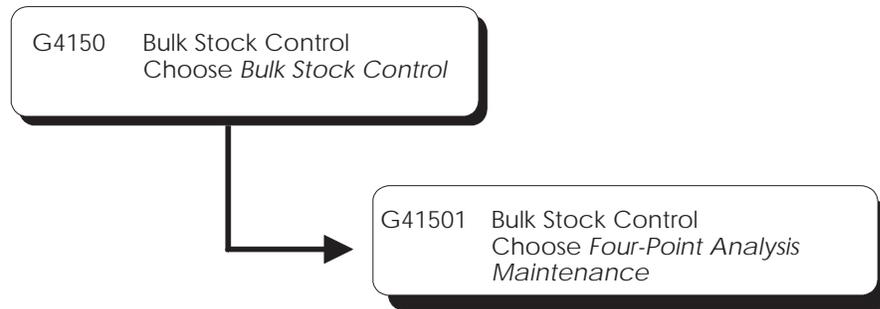   and deliver confirm orders.

Calculate Gain or Loss for Received Products

G4150   Bulk Stock Control
         Choose *Bulk Stock Control*

G41501   Bulk Stock Control
         Choose *Four-Point Analysis
         Maintenance*
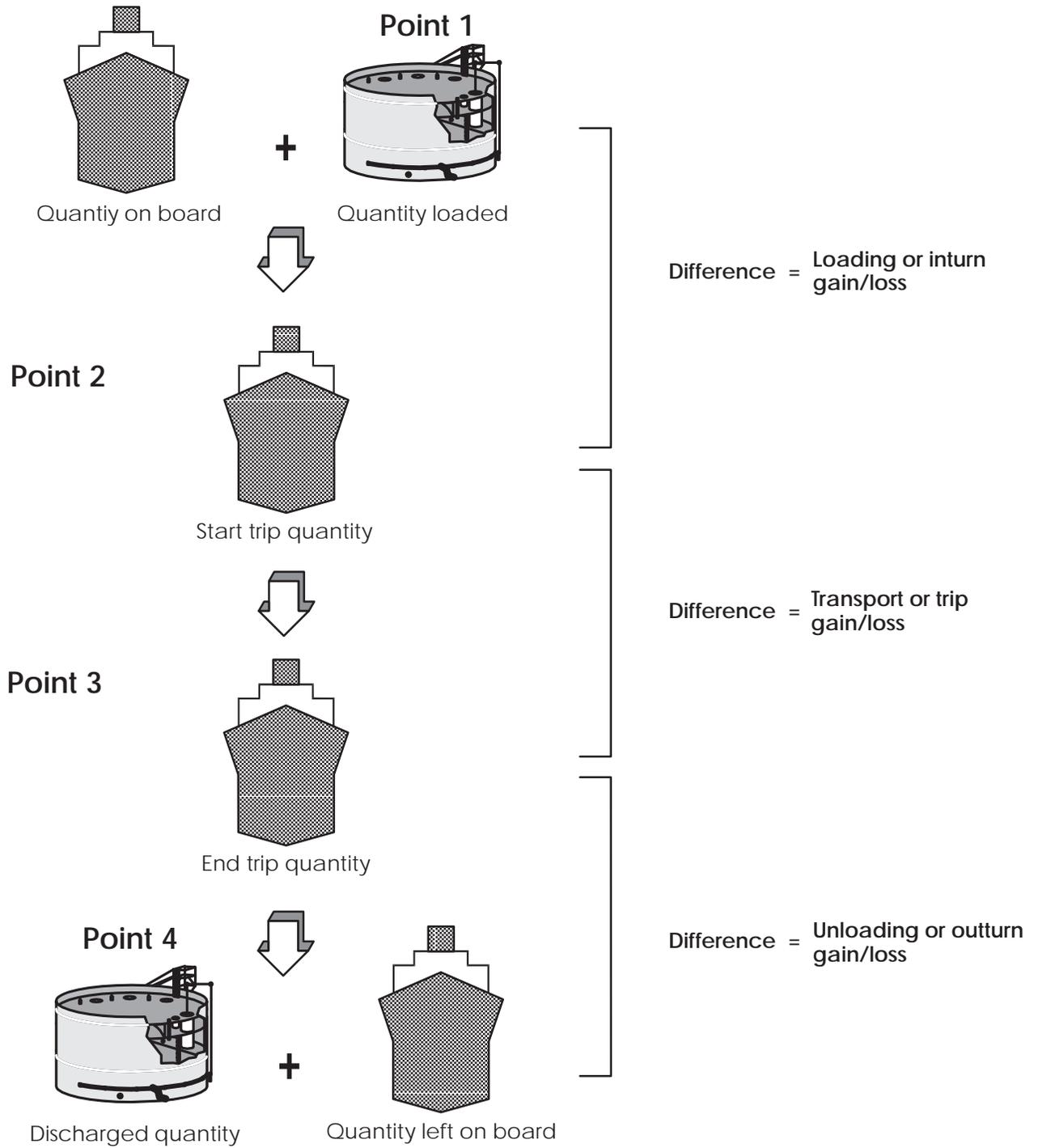
Calculating Gain or Loss for Received Products

Use Four-Point Analysis Maintenance when you record received products to calculate any gains or losses that might have occurred during shipment. "Four points" refers to the opening and closing readings at a supplying location and the opening and closing readings at a receiving location. "Analysis" refers to the variance between the two results (that is, the gain or loss).

You can choose to perform a four-point analysis for each line item on a purchase order. You can also perform a four-point analysis on partial receipts. The program creates a four-point record for each receipt.

The output for Four-Point Analysis Maintenance is informational only. It does not update the gain/loss table or the general ledger. You cannot retrieve this data for other programs. If you need the output elsewhere, for example, to enter a gain or loss manually, print the form and enter the data in the required program.

The following diagram illustrates a four-point analysis.

Point 1

Quantiy on board

+

Quantity loaded

Difference = Loading or inturn gain/loss

Point 2

Start trip quantity

Difference = Transport or trip gain/loss

Point 3

End trip quantity

Point 4

Discharged quantity

+

Quantity left on board

Difference = Unloading or outturn gain/loss

During four-point analysis the system does the following:

- Adds the opening on-board quantity to the quantity loaded (Point 1) and compares the total to the start trip quantity (Point 2). Any difference represents the loading (inturn) gain or loss. The system calculates a percentage based on the sum of opening on-board plus loaded quantities.

- Compares the start trip quantity (Point 2) to the end trip quantity (Point 3). Any difference represents the transport (trip) gain or loss. The system calculates a percentage based on the opening on-board quantity.

- Compares the end trip quantity (Point 3) with the sum of the discharged (Point 4) and left-on-board quantities. Any difference represents the unloading (outturn) gain or loss. The system calculates a percentage based on the end trip quantity.

- Calculates the total gain or loss, both in volume and percent.

See Also

- *Purging Four-Point Analysis Records (P41509)*

▶ **To calculate gain or loss for received products**

On Four-Point Analysis Maintenance

1. Complete the following fields or accept the default values:
   - Record Number
   - PO Number

- Mode of Transport
- Supplier
- Carrier Number
- Vehicle Identification
- Item
- Branch/Plant
- Load Date
- Unload Date

2. Access the the fold area.

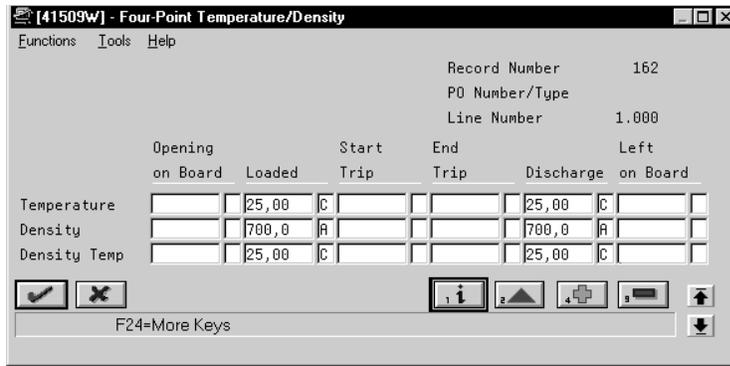3. Enter the ambient quantities in the following required fields:

- Loaded
- Discharged

4. Complete one or more of the following optional fields:

- Opening on Board
- Start Trip
- End Trip
- Left on Board
- Alternate Quantity Unit of Measure

5. Choose the item to calculate the gains or losses.

6. Access Four-Point Temperature/Density.

```
[41509W] - Four-Point Temperature/Density                    _ □ ✕
Functions  Tools  Help
                                    Record Number        162
                                    PO Number/Type
                                    Line Number          1.000

            Opening          Start    End             Left
            on Board  Loaded  Trip     Trip   Discharge  on Board
Temperature  [    ]  [25,00] [C] [   ] [   ]  [25,00] [C] [   ]
Density      [    ]  [700,0] [A] [   ] [   ]  [700,0] [A] [   ]
Density Temp [    ]  [25,00] [C] [   ] [   ]  [25,00] [C] [   ]

[✔] [✖]                      [1 i] [2 ▲] [4 ✚] [9 ▬]   [⬆]
        F24=More Keys                                   [⬇]
```

7. On Four-Point Temperature/Density, complete the following fields for each corresponding field that you completed in the fold area:

    - Temperature

    - Temperature Type

    - Density

    - Density Type

    - Density Temperature

    - Density Temperature Type

8. Return to Four-Point Analysis Maintenance.

9. Accept the entries.

    The system adds the record.

Recording Four-Point Temperature Density

While recording a four-point analysis, you can access Four-Point Temperature Density to complete temperature and density information. The system uses this information to convert ambient quantities to standard.

Field	Explanation
Loaded	The amount of product loaded from the tank to the vessel.
Discharged	The quantity discharged (unloaded) from the vessel.
Opening on Board	The standard quantity of product already on the vessel before loading additional product.

Field	Explanation
Start Trip	The quantity at standard temperature at the beginning of the trip. This is normally the sum of the opening on-board quantity and the loaded quantity. If there is a difference, this would be reflected as a loading or inturn gain or loss.
End Trip	The quantity at the end of the trip or voyage. This quantity is compared to the quantity at the start of the trip, and any difference is reflected as a Transport (Trip) gain or loss. This End Trip quantity is also compared to the sum of the discharged quantity and the left-on-board quantity. Any difference is an unloading (outturn) gain or loss.
Left on Board	The quantity (if any) left on the vehicle after the product is discharged (unloaded).
Alternate Quantity UOM	This specifies quantities that are in an alternate unit of measure. . . . . *Form-specific information* . . . . If you leave this field blank, the system calculates the quantity based on the standard quantity.

What You Should Know About

Accessing Four-Point Analysis Maintenance	Alternatively, you can access Four-Point Analysis Maintenance from the Bulk Product Receipts window while recording receipts.
Accessing Four-Point Analysis Maintenance	You can access Four-Point Analysis Maintenance from the Bulk Inventory Management menu or from Bulk Product Receipts window while recording receipts.
Recording standard quantities	You can enter standard quantities if you already have them. If you enter standard quantities, you do not need to access the Four-Point Temperature/Density window to convert ambient quantities to standard quantities.
Calculating volume for Four-Point Analysis Maintenance	You can use Dip Volume Calculator to enter the opening and closing dip readings of any supplying or receiving point and calculate volumes. You can then print the dip calculations, return to the Four-Point Analysis Maintenance form, and enter the quantities in the appropriate fields.
Protecting records from revisions	You can use the Protect option to secure records from being changed.

Processing Options for Four–Point Analysis Maintenance

```
Record Selection
1.  Enter a '1' if you would like to            _____
    print a report of the purged
    records.  If you are not running
    the purge in final mode, the report
    will give you a listing of the
    records that would be purged from
    the files.

2.  Enter a '1' if you wish to run the          _____
    purge in final mode.  If left blank
    no records will be removed from the
    files and processing option #3 will
    be ignored.

3.  Enter a '1' if you want to save the         _____
    purged records to a history file.
    If this processing option is left
    blank, the records will not be
    saved.
```

Recording Four-Point Temperature Density

While performing a four-point analysis you can access the Four-Point Temperature/Density window to record temperature and density information for the readings you record on the Four-Point Analysis Maintenance form. The system uses this information to convert ambient quantities to standard.

On Four-Point Analysis Maintenance

1. Access Four-Point Temperature/Density.

2. On Four-Point Temperature/Density, complete the following fields for each corresponding field that you completed in the fold area of Four-Point Analysis Maintenance:

    - Temperature

    - Temperature Type

    - Density

    - Density Type

    - Density Temperature

    - Density Temperature Type

3. Return to Four-Point Analysis Maintenance.

Reconciliations

Objectives

- To process throughput reconciliations
- To record closing meter readings in order to calculate throughput
- To print the Throughput Reconciliations report
- To print the Gain/Loss Analysis Report
- To review gains and losses
- To process operational reconciliations
- To record tank dip readings in order to calculate tank volume
- To print the Operational Reconciliation reports
- To review operational reconciliation history
- To review or change a reconciliation status

About Reconciliations

As part of the management of bulk stock, you must reconcile confirmed sales figures for a given period. To do so, you compare the transactions and inventory levels recorded in the system to the actual inventory levels in the depot. During the reconciliation process, the system identifies any discrepancies. A gain might be due to transactions not being entered (lost invoices). A loss might be due to theft, leakage, and/or faulty meters.

The system enables you to process two types of reconciliations:

- Throughput
- Operational

A processing option allows reconciliation of the document types for load-confirmed sales, non-metered outgoings, and other metered outgoings.

Complete the following tasks to perform reconciliations:

- ❏ Process throughput reconciliations (optional)

- ❏ Process operational reconciliations
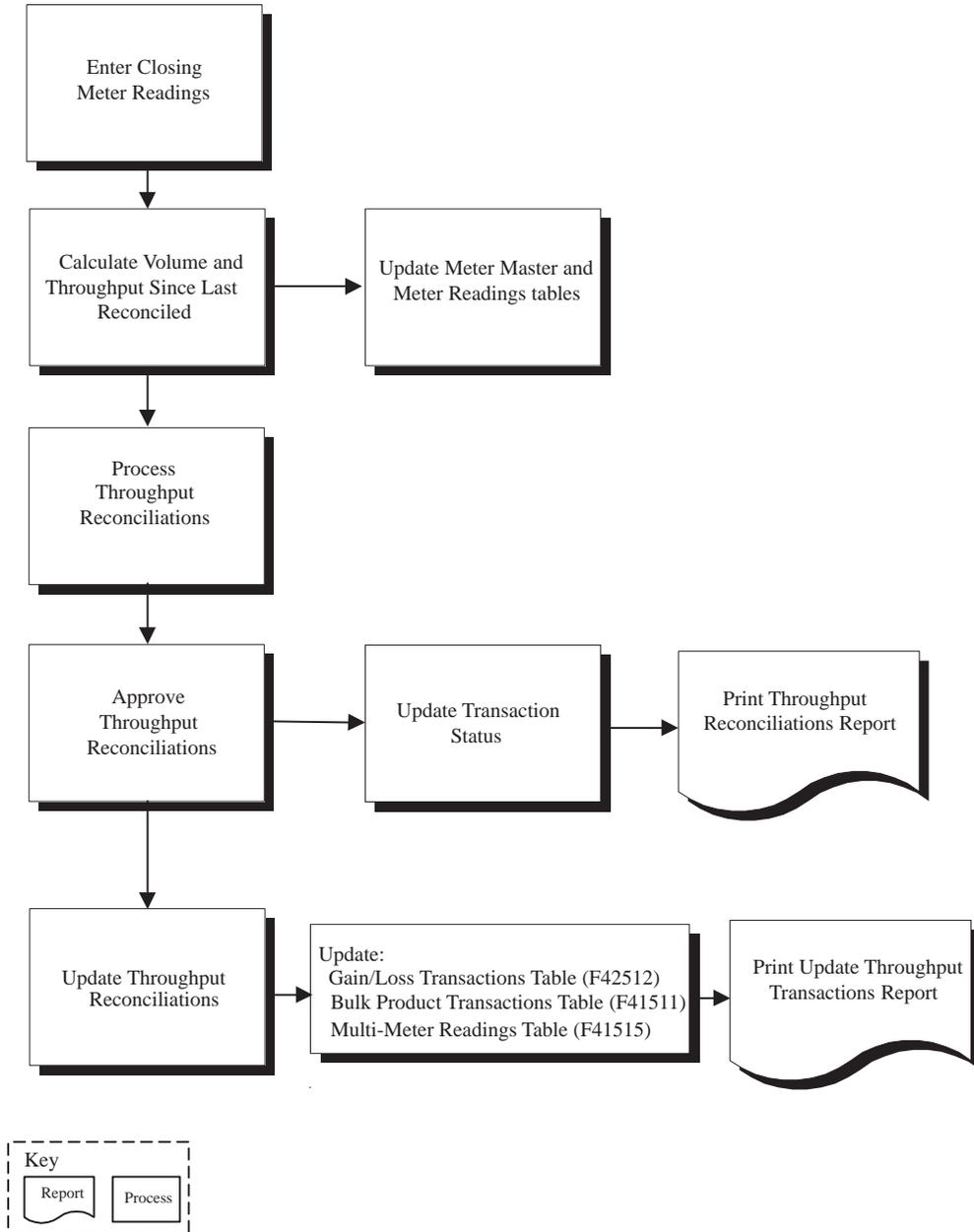
- ❏ Work with reconciliations information

What Are Throughput Reconciliations?

Throughput reconciliation compares confirmed sales figures and other metered outgoing transactions for a given period with the metered throughput at the point of reconciliation. The comparison identifies discrepancies due to transactions not being entered, theft, leakage, and/or faulty meters.

Throughput reconciliation is optional. However, if you perform throughput reconciliation up through the time period you begin operational reconciliation, the operational reconciliation process will be more accurate.

Throughput reconciliation compares the transactions entered in the system to the throughput meter readings. Throughput reconciliation does not update inventory and the general ledger. Upon your review and approval, the program updates the reconciliation status and the Gain/Loss Transactions table (F42512).

The following illustrates throughput reconciliation.

```
┌─────────────────┐
│ Enter Closing   │
│ Meter Readings  │
└─────────────────┘
         │
         ▼
┌─────────────────┐        ┌─────────────────────┐
│ Calculate Volume│───────▶│ Update Meter Master │
│ and Throughput  │        │ and Meter Readings  │
│ Since Last      │        │ tables              │
│ Reconciled      │        └─────────────────────┘
└─────────────────┘
         │
         ▼
┌─────────────────┐
│ Process         │
│ Throughput      │
│ Reconciliations │
└─────────────────┘
         │
         ▼
┌─────────────────┐   ┌─────────────────┐   ┌─────────────────────┐
│ Approve         │──▶│ Update          │──▶│ Print Throughput    │
│ Throughput      │   │ Transaction     │   │ Reconciliations     │
│ Reconciliations │   │ Status          │   │ Report              │
└─────────────────┘   └─────────────────┘   └─────────────────────┘
         │
         ▼
┌─────────────────┐   ┌───────────────────────────────┐   ┌─────────────────────┐
│ Update          │──▶│ Update:                       │──▶│ Print Update        │
│ Throughput      │   │  Gain/Loss Transactions Table │   │ Throughput          │
│ Reconciliations │   │   (F42512)                    │   │ Transactions Report │
└─────────────────┘   │  Bulk Product Transactions    │   └─────────────────────┘
                      │   Table (F41511)              │
                      │  Multi-Meter Readings Table   │
                      │   (F41515)                    │
                      └───────────────────────────────┘
```

Key
Report   Process

What Are Operational Reconciliations?

Operational reconciliation performs the "true" reconciliation process. Using all inbound and outbound transactions since the previous reconciliation, the system calculates the amount that should be in physical inventory and compares it to the actual amount in the tanks (from the final physical tank dip). In other words, it measures and compares the physical inventory levels with the book inventory levels, so differences can be reconciled and operational gains or losses recorded. It then updates inventory to reflect the current physical stock levels. Most companies perform operational reconciliations daily. Some perform them monthly.

During operational reconciliation, the system includes throughput gains and losses with operational gains and losses to update the general ledger.

Operational reconciliation updates the following tables:

- Gain/Loss Transactions (F42512)
- Account Ledger (F0911)
- Item Location (F41021)
- Item Ledger (F4111)
- Bulk Product Transactions (F41511)

The following illustrates operational reconciliation.

```
┌─────────────────┐
│ Enter Physical  │
│   Inventory     │
│ Readings (Dips) │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│    Process      │
│   Operational   │
│ Reconciliations │
└─────────────────┘
         │
         ▼
┌─────────────────┐      ┌─────────────────┐      ┌──────────────────────┐
│    Approve      │      │                 │      │  Print Operational   │
│   Operational   │─────▶│ Update Transaction ──▶│ Reconciliations Reports │
│ Reconciliations │      │     Status      │      │                      │
└─────────────────┘      └─────────────────┘      └──────────────────────┘
         │
         │                ┌──────────────────────────────────────────────┐
         │                │ – Update Reconciliation Status               │
         │                │ – Update Gain/Loss Transactions Table (F42512)│
         ▼                │ – Update Account Ledger Table (F0911)         │
┌─────────────────┐       │ – Update Item Ledger Table (F4111)            │
│     Update      │──────▶│ – Update On Hand in Item Location Table (F41021)│
│   Operational   │       │ – Update Bulk Product Transactions Table (F41511)│
│ Reconciliations │       └──────────────────────────────────────────────┘
└─────────────────┘
         │                ┌──────────────────────┐
         │                │ Print Update Operational │
         │            ───▶│ Reconciliations Report  │
         ▼                │                      │
┌─────────────────┐       └──────────────────────┘
│ Print Gain/Loss │
│ Analysis Report │
└─────────────────┘
```

Key

| Report | Process |

Process Throughput Reconciliations

Processing Throughput Reconciliations

You process throughput reconciliations to reconcile load-confirmed sales transactions and other metered transactions for a given period with the metered throughput. Throughput reconciliations is basically informational, to verify that all outgoing movements through meters have been recorded.

Complete the following tasks:

❑ Record closing meter readings

❑ Update throughput transaction status

❑ Update throughput reconciliations

Before You Begin

❑ Set up the user defined code (UDC) tables for throughput reconciliation. See *About Setting Up User Defined Codes for Bulk Stock.*

Recording Closing Meter Readings

G4150   Bulk Stock Control
Choose *Bulk Stock Reconciliations*

G41502   Bulk Stock Reconciliations
Choose *Multi-Meter Readings*
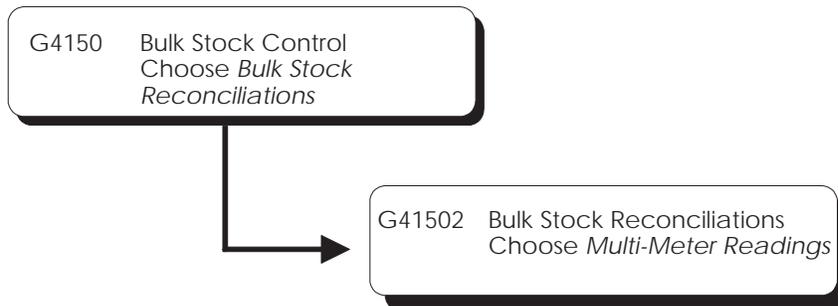
Use Multi-Meter Readings to record the most current meter readings in order to determine the amount of product that has passed through a meter. This allows you to update the throughput volume since previously reconciled.

Before You Begin

❑ Verify that the status code for transactions that have been throughput reconciled is specified in the processing options

▶ **To record closing meter readings**

On Multi-Meter Readings

```
[415105] - Multi-Meter Readings                              _ □ ×
Functions   Options   Tools   Help

                                      Branch/Plant        [    DEPOT1  ]
Item Number       UNL-REC                Unlead Fuel for Reconciliation
Skip to Date      30.06.98
Skip to Meter     [        ]


   O  Meter     Closing Reading  Reading  Reading   Throughput      Rec  Meter
   P  Number                      Date     Time     Calculated      Y/N  Status
      UNL-REC-1            0     01.01.98 08:00:00           0   LT N   A
      UNL-REC-1       100000     02.01.98 09:56:30     1000000   LT N   A
      UNL-REC-1                                                         A
      UNL-REC-2            0     01.01.98 08:00:00           0   LT N   A
      UNL-REC-2        45000     02.01.98 09:56:30      450000   LT N   A
      UNL-REC-2                                                         A
      UNL-REC-3            0     01.01.98 08:00:00           0   LT N   A
      UNL-REC-3        10000     02.01.98 09:57:58      100000   LT N   A
      UNL-REC-3                                                         A


                         Total All Meters            1550000  LT

  ✔  ✖                              i    ▲   ✚    ━    ⬆
  Opt: 1=Meter Master 2=Specific Meter Readings  F8=Meter Read Inq  F24=More      MW  ⬇
```

1. To locate an item, complete the following fields:

   - Branch/Plant

   - Item Number

   The system displays the following fields:

   - Throughput Calculated

   - Reconciled

   - Meter Status

   - Total All Meters

2. Complete the following field:

   - Closing Reading

3. If the meter reading is for a date and time other than the current, complete the following fields:

   - Reading Date

- Reading Time

The system calculates the throughput.

4. Accept the record or correct it.

Field	Explanation
Throughput Calculated	The calculated volume that has passed through the meter since the last meter reading. . . . . *Form-specific information* . . . . This amount is added to the amount in the Total Throughput Since Last Calibration field on the Meter Master Maintenance (P415006) form.
Reconciled	Identifies whether the reading has been reconciled. Valid values are: Y The record has been fully reconciled. N The record has not been reconciled. I In process, the record has been throughput reconciled. P In process, the tank has an error condition or the reconciliation ended abnormally.
Meter Status	Indicates whether the meter is active (A) or inactive (I). A meter must have an active status for reconciliation. You cannot enter a reading for an inactive meter.

What You Should Know About

Recording initial meter readings

If no previous readings exist for a particular meter, the system updates the meter status with an "I" for inactive. It does not calculate throughput for the initial reading. You must enter the initial reading as the closing reading. The system sets the previous reading to equal the closing reading and changes the Reconciliation Yes/No status to Y.

You can enter transactions for a tank before an initial meter reading. Be sure to enter an initial reading date and reading time that is prior to the transaction dates. If the initial meter reading is not prior to the transaction dates, the transactions are treated as retroactive (that is, before the last reconciliation) and are not be included in the current reconciliation.

Locating previous meter readings   To locate previous meter readings for a product in order to review or make a change, enter the date for the readings you need to locate in the Skip To Date field. The system will display all meter readings from this date up to the current date.

Processing Options for Multi–Meter Readings

1. Enter the Reconciliation Status Code   _____
   which indicates the transaction has
   been throughput reconciled. Records
   with this status (and any status
   greater than the one entered) will be
   protected from changes.

Updating Throughput Transaction Status

After you record closing meter readings, you need to compare the metered throughput with the outgoings in order to update the transaction status and approve the transactions for reconciliation.

The system includes in the comparison only transactions with the document types specified in the processing options. The system also includes only those transactions that have a last reconciliation status equal to the last reconciliation status specified in the processing option.

Complete the following tasks to update the transaction status:

- Reconcile throughput transactions

- Approve throughput reconciliations

- Print the Throughput Reconciliations Report (optional)

After you reconcile the throughput transactions, you update the transaction status to send the reconciliations to the next step in the process. Depending on the status codes set up for throughput reconciliations and specified in the processing options, updating at this point takes the reconciliations to an additional approval step or to Update Throughput Reconciliations, which updates the Gain/Loss Transactions (F42512) table.

Some companies prefer to include an additional approval step to allow a manager to approve the reconciliations before running Update Throughput Reconciliations. In this case, a person with the proper authority approves the reconciliations from Review/Approve Variances and updates the transaction status to proceed to Update Throughput Reconciliations.

If you want to approve and update the transaction status in a separate step, you must set the current and next status processing options differently and set the

processing option to approve reconciliations in a separate step. This creates two different versions of the Throughput Reconciliations program.

After you have approved the reconciliations, you can print the Throughput Reconciliations Report.

The system calculates metered throughput by comparing metered standard (MS) and metered ambient (MA) for confirmed outgoings and multiplying that ratio by the ambient metered throughput. This is necessary because there is no temperature from the meter, only from the confirmed outgoings.

MS/MA x Metered Withdrawals = Metered Withdrawals at Standard

You update metered throughput by entering closing meter readings. The system multiplies meter units entered by the number of units per meter unit in the Meter Master (F41506). For example: the closing reading is 500 and the meter units are 2 liters/unit, then the throughput is 1,000.

Before You Begin

❑ Perform load confirmations on all sales transactions for the items you want to reconcile. See *Confirming a Load by Trip* and *Confirming Load and Delivery* in the *Load and Delivery Management Guide*.

❑ Verify that the document types for the transactions you want to reconcile are specified in the processing options.

❑ Verify that the correct beginning and next reconciliation status codes are specified in the processing options.

▶   **To reconcile throughput transactions**

G4150   Bulk Stock Control
Choose *Bulk Stock Reconciliations*

G41502   Bulk Stock Reconciliations
Choose *Throughput Reconciliations*
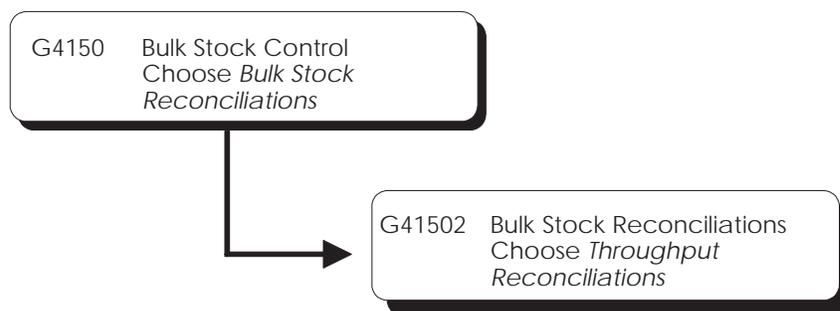
On Throughput Reconciliations
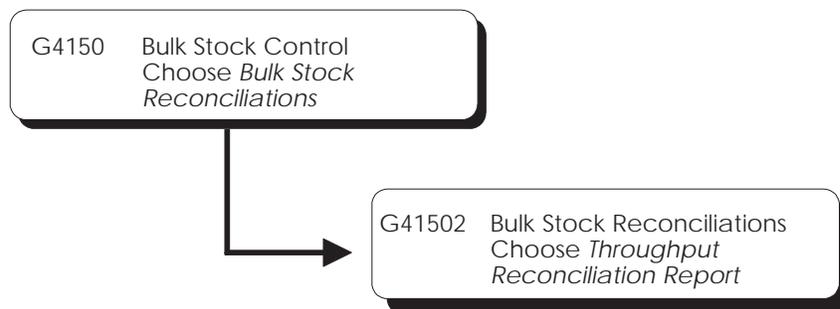

1. To locate an item, complete the following fields:
   - Branch/Plant
   - Item Number

2. Complete the following optional fields:
   - As of Date
   - As of Time

3. Compare the metered throughput with the confirmed metered outgoings.

4. If the variance is correct, accept the information displayed to update the transaction status.

Field	Explanation
As of Date	The date that an order was entered into the system. This date determines which effective level is used for inventory pricing. . . . . *Form-specific information* . . . . The date for which reconciliations are to be calculated. All unreconciled transactions with a date on or before the date entered will be included in the reconciliation.
As of Time	The time when the readings were performed. If you leave this field blank, the system time will be used. Enter the time in either HHMMSS or HH:MM:SS format.

What You Should Know About

Correcting variances

If the variance in the comparison is not correct, you can do the following to correct the variance and resume reconciliations:

- Access the transaction details windows to display the transactions associated with each type of outgoing to determine if a transaction was missed or a reading was entered incorrectly. You can choose Load Confirmed Sales Details, Other Metered Outgoings Details, or Non-Metered Outgoings Details.
- Exit the program and correct the variance if the cause is known (for example, an order that has gone out, but has not been load confirmed).

Displaying in standard or ambient mode

On Throughput Reconciliations, you can toggle between the standard and ambient modes. In standard mode, volume displays in the primary stock accounting unit of measure. In ambient mode, volume displays in the volume unit of measure set up for the item. When resolving discrepancies, you should use ambient mode. However, you may not use ambient mode if the meters are temperature-compensated or are mass flow meters. A processing option controls which mode appears when you access this form.

Reviewing non-metered outgoings

The quantities for non-metered outgoings are informational only. They are not calculated in the metered throughput withdrawals or the throughput gain/loss.

Recording quantities when the meter is out of service

If the meter is out of service, you can estimate the amount of product that passed through the meter and still perform throughput reconciliation. To do so:

- Access the Out of Service Meter Quantity window
- Record the meter number and estimated quantity
- Return to Throughput Reconciliations

The estimated quantity appears next to Corrections under Metered Throughput.

Processing Options for Throughput Reconciliations

```
1. List the User Defined Codes which
   contain the document types that make
   up the following categories:
         Load Confirm Sales:
                     system code. . . .          _____
                     record type. . . .          _____
         Other Metered Outgoings:
```

```
                              system code. . . .              _____
                              record type. . . .              _____
                    Non-Metered Outgoings:
                              system code. . . .              _____
                              record type. . . .              _____
```

2. Enter the screen format to initially   _____
   display:
        1 = ambient volume
        2 = standard volume (default)

3. Enter the beginning (current)   _____
   reconciliation status.

4. Enter the next reconciliation status.   _____

▶   **To approve throughput reconciliations**
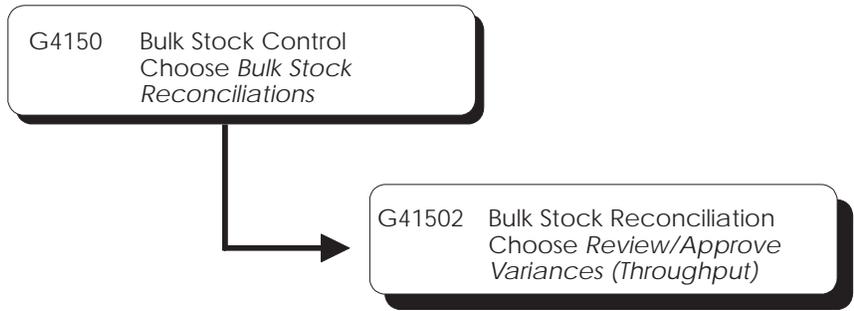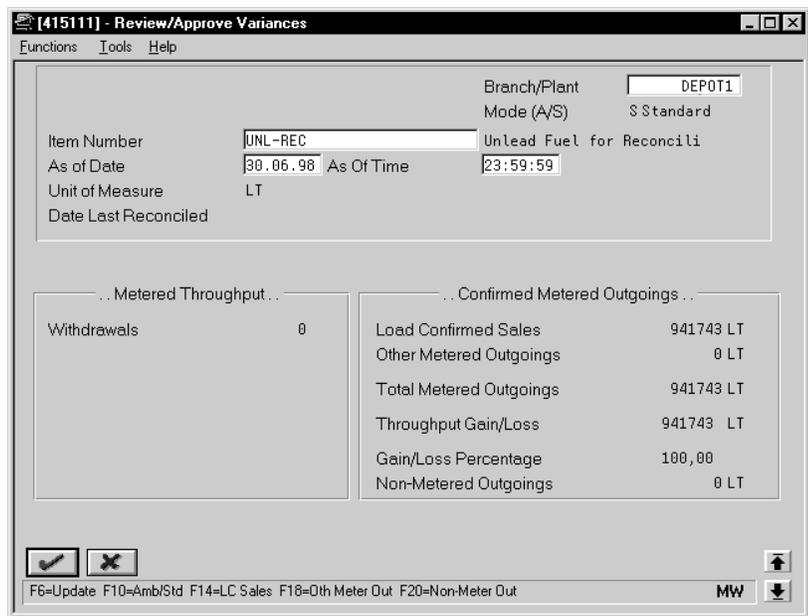
G4150   Bulk Stock Control
         Choose *Bulk Stock
         Reconciliations*

G41502   Bulk Stock Reconciliation
         Choose *Review/Approve
         Variances (Throughput)*

On Review/Approve Variances


```
[415111] - Review/Approve Variances                            _ □ ×
Functions    Tools   Help

                                        Branch/Plant          DEPOT1
                                        Mode (A/S)        S Standard
   Item Number          UNL-REC         Unlead Fuel for Reconcili
   As of Date           30.06.98  As Of Time    23:59:59
   Unit of Measure      LT
   Date Last Reconciled


   .. Metered Throughput ..          .. Confirmed Metered Outgoings ..

   Withdrawals             0         Load Confirmed Sales        941743 LT
                                     Other Metered Outgoings          0 LT

                                     Total Metered Outgoings     941743 LT

                                     Throughput Gain/Loss        941743  LT

                                     Gain/Loss Percentage        100,00
                                     Non-Metered Outgoings            0 LT


   ✔  ✖
   F6=Update  F10=Amb/Std  F14=LC Sales  F18=Oth Meter Out  F20=Non-Meter Out    MW
```

1. To locate an item, complete the following fields:

   - Branch/Plant

   - Item Number

2. Complete the following optional fields:

   - As of Date

   - As of Time

3. Compare the metered throughput with the confirmed metered outgoings.

4. If the variance is correct, accept the information displayed to update the transaction status.

Printing the Throughput Reconciliations Report

▶ **To print the Throughput Reconciliations Report**

| G4150 | Bulk Stock Control
Choose *Bulk Stock Reconciliations* |

| G41502 | Bulk Stock Reconciliations
Choose *Throughput Reconciliation Report* |

After you have approved throughput reconciliations, you can print the Throughput Reconciliations Report.

Run this DREAM Writer program to:

- View the detailed transactions that make up a throughput reconciliation

- View the totals for a throughput reconciliation

The report displays the transactions with the document types entered in the processing options and those with a last reconciliation status equal to the last reconciliation status entered in the processing options. The metered withdrawals are displayed as standard volumes only.

Alternatively, you can print the Throughput Reconciliations Report from Review/Approve Variances after you've approved the throughput reconciliations or from Throughput Reconciliations if your reconciliation process is set up to not

require the approval step. Also, you can access the Throughput Reconciliations Report from the Bulk Stock Control Reports menu.

You can print the Throughput Reconciliations Report from Review/Approve Variances after you've approved the throughput reconciliations or from Throughput Reconciliations if your reconciliation process is set up to not require the approval step. Also, you can print the Throughput Reconciliations Report from the Bulk Stock Reconciliations menu or Bulk Stock Control Reports menu.

Before You Begin

❑ Verify that the document types for the reconciled transactions you want to view are specified in the processing options

❑ Verify that the last reconciliation status for the transactions is specified in the processing options
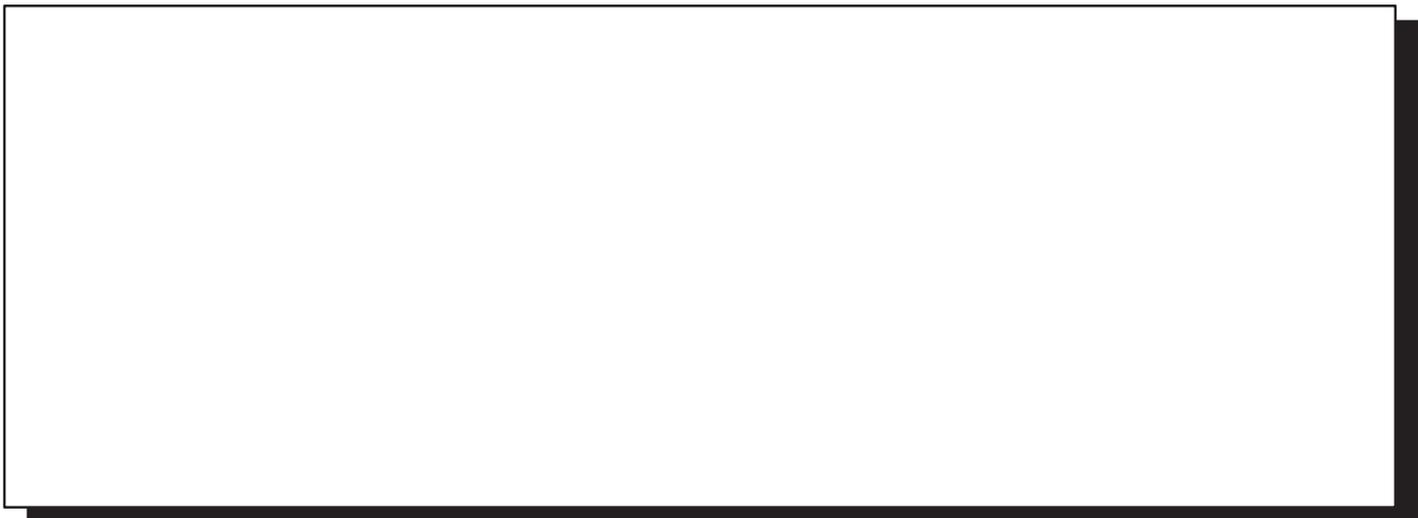
Processing Options for Throughput Reconciliation Report

```
1. List the User Defined Codes which
   contain the document types that make
   up the following categories:
        Load Confirm Sales:
                system code. . . .                 _____
                record type. . . .                 _____
        Other Metered Outgoings:
                system code. . . .                 _____
                record type. . . .                 _____
        Non-Metered Outgoings:
                system code. . . .                 _____
                record type. . . .                 _____

2. Enter a '1' to print the detailed                 _____
   transactions or a '2' to print totals
```

```
         only.  The default is to print totals
         only.

      3. Enter the current reconciliation          _____
         status.

      4. Enter the "As Of" date thru which you
         want records to be included.              _____

      5. Document Type for Load & Delivery
         Transactions created.  (With the
         exception of Sales Orders created
         during Milk Run Processing and
         Charge to Org during Disposition).        _____

      6. Enter '1' to print detailed Load and
         Delivery transactions. ' ' is the
         default and will not print detailed
         Load and Delivery transactions.           _____

      7. Enter the Trip Status code that is
         "Delivery Confirmed".                     _____

      8. Enter 'A' to print all quantities as
         ambient. ' ' is the default and will
         print quantities as standard.             _____
```

Recording Out-of-Service Meter Quantities

If the meter is out of service, you can estimate the amount of product that passed through the meter and still perform throughput reconciliation. To do so:

- Access the Out of Service Meter Quantity window

- Record the meter number and estimated quantity

- Return to Throughput Reconciliations

The estimated quantity appears next to Corrections under Metered Throughput.

Reviewing Transaction Details

During Throughput or Operational Reconciliations, you can access the Transaction Details window to determine if a transaction was missed or a reading was entered incorrectly. You can review the following information:

From Throughput Reconciliations:

- Load Confirmed Sales Transaction details

- Other Metered Outgoings Transaction details

- Non-Metered Outgoings Transaction details

From Operational Reconciliations:

- Incoming Transaction details

- Outgoing Transaction details

Which detail information displays depends on the option you choose from the reconciliations form.

Updating Throughput Reconciliations

G4150   Bulk Stock Control
           Choose *Bulk Stock*
           Reconciliations

G41502   Bulk Stock Reconciliations
          Choose *Update Throughput*
          Reconciliations
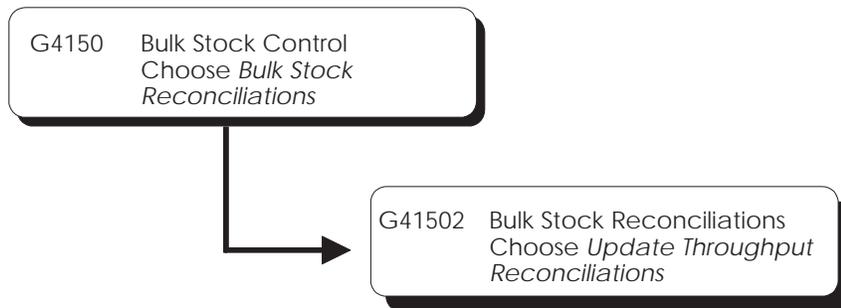
Run the Update Throughput Transactions DREAM Writer program to do the following:

- Update the reconciliation status on the Multi-Meter Readings table (F41515)

- Update the reconciliation status on transactions

- Update the Bulk Product Transactions table (F41511)

- Update each transaction and reading with the date it was reconciled

- Update the Gain/Loss Transactions table (F41512) with the calculated gain or loss values

- Print the Update Throughput Reconciliations Report

You can run this program in proof mode before you complete the actual update. This allows you to revew each transaction and verify the information before you update the tables. To do this, add a proof verion and leave the processing option blank.

Before You Begin

❏ Set the processing option to run the program in update mode
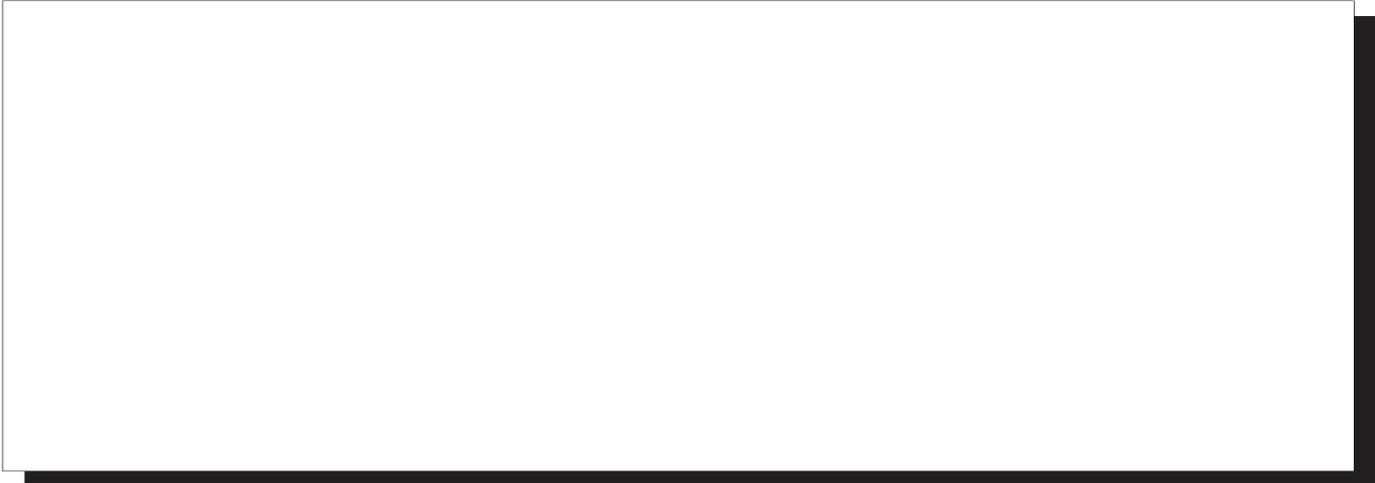
Processing Options for Update Throughput Reconciliations

Selection Criteria:

1. List the User Defined Codes which
    contain the document types that make
    up the following categories:
    Load Confirm Sales:
                     system code. . . .   _____
                     record type. . . .   _____
             Other Metered Outgoings:
                     system code. . . .   _____
                     record type. . . .   _____
             Non-Metered Outgoings:
                     system code. . . .   _____
                     record type. . . .   _____

  2. Enter the current reconciliation   _____
     status.

  3. Enter the next reconciliation   _____
     status.

  4. Enter the Transaction Date to use   _____
     when selecting records. All
     unreconciled records thru this date
     will be included.

Print Options:

  5. Enter '1' to print the report data   _____
     at ambient. The default of blank
     will print the report data at
     standard.

Update Options:

6. Enter '1' to update the Gain/Loss   _____
   File. Default of blank will run
   the report in proof mode.

7. Enter the Reconciliation Date to   _____
   use when in update mode. If no
   date is entered, the current system
   date will be used.

Process Operational Reconciliations

Processing Operational Reconciliations

Operational reconciliation calculates the amount that should be in physical inventory, based on all inbound and outbound transactions since the previous reconciliation, and compares it to the actual amount in the tanks (from the final tank dip). In other words, it measures and compares the physical inventory levels with the book inventory levels, so differences can be reconciled and operational gains or losses recorded. It then updates inventory to reflect the current physical stock levels. Operational reconciliation uses only standard volumes.

Complete the following tasks:

❑ Record tank dip readings

❑ Update operational transaction status

❑ Update operational reconciliations

❑ Review gains and losses (optional)

Before You Begin

❑ Set up the user defined code tables to define the document types to include in the operational reconciliation. See *About User Defined Codes for Bulk Stock*.

❑ Set up the gain/loss and inventory automatic accounting instructions (AAIs). See *About AAIs for Bulk Stock*.

Recording Tank Dip Readings

```
┌─────────────────────────────────┐
│ G4150    Bulk Stock Control     │
│          Choose Bulk Stock      │
│          Reconciliations        │
└─────────────────────────────────┘
                    │
                    ▼
        ┌──────────────────────────────────────┐
        │ G41502   Bulk Stock Reconciliations  │
        │          Choose Multi-Tank Dip       │
        │          Reading Input               │
        └──────────────────────────────────────┘
```
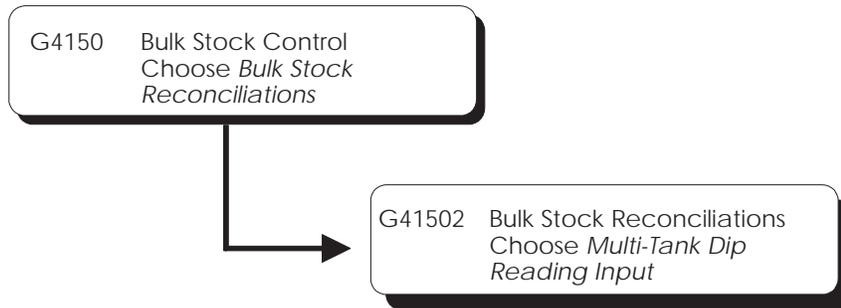
Use Multi-Tank Dip Reading Input to record the physical stock (dip) levels in the tanks. The system uses the dip readings to calculate tank volume, which is necessary to process operational reconciliations.

After you record the readings, the system checks the following in order to calculate volume:

- Gross dip against the tank height and the tank reference height

- Water dip against the gross dip height

- Dip temperature against the minimum and maximum temperatures allowed for the tank

- Density temperature against the minimum and maximum temperatures allowed for the tank

For LPG products, the system uses the vapour pressure and temperature to calculate the liquid equivalent of the vaporized portion of the product. It then adds this liquid amount to the liquid volume calculated from the dip reading. Together, they make up the total volume of product in the LPG tank.

The system retrieves existing tank levels from the Bulk Product Transactions table (F41511). You can change this information and enter dip readings to record the current stock levels. You cannot change the tank levels that display after the reconciliation process has begun.

▶ **To record tank dip readings**

On Multi-Tank Dip Reading Input

```
[415106] - Multi-Tank Dip Reading Input                    _ □ ×
 Functions   Options   Tools   Help

                                    Branch/Plant        DEPOT1
      Item Number         UNL-REC           Unlead Fuel for Reconciliat
      Skip to Date/Time   25.04.96
      Skip to Tank Id


        Tank     Gross Dip   Water Dip  T Read Dte  Temp   Density  Den/Tem  O
     I TKUNREC1
     I TKUNREC2








     ✔   ✗                                 i    ▲    ⊕    ▬     ⬆
  Opt: 5=Strappings 6=Tank Master 8=Default Tank  F8=Tank Read Inq  F24=More    MW   ⬇
```

1. Complete the following fields to locate an item:

    •   Branch/Plant

    •   Item Number

2. Complete the following field:

    •   Gross Dip

3. Complete the following optional fields:

    •   Water Dip

    •   Read Date

4. Complete the following fields or leave them blank to use the values from the Default Tank Information table:

    •   Temperature

    •   Density

    •   Density/Temperature

5. Access the fold area.

```
[415106] - Multi-Tank Dip Reading Input                              _ □ ×
Functions   Options   Tools   Help

                                         Branch/Plant          DEPOT1
           Item Number          UNL-REC            Unlead Fuel for Reconciliat
           Skip to Date/Time    25.04.96
           Skip to Tank Id


        │  Tank   │ Gross Dip │ Water Dip │T│Read Dte│ Temp  │Density│Den/Tem│ O
        I TKUNREC1
        Other Volume                        Reading Time
        LPG Vap Pres .                       Ambient Vol
        LPG Vap Temp .             ST        Standard Vol
        Vapour Weight                        PSAU Volume
        Liquid Weight                        Item Number    UNL-REC
        I TKUNREC2
        Other Volume                        Reading Time
        LPG Vap Pres .                       Ambient Vol
        LPG Vap Temp .             ST        Standard Vol
        Vapour Weight                        PSAU Volume
        Liquid Weight                        Item Number    UNL-REC



        ✔  ✗                          1 i  2▲  4✛  9▬   ↑

        Opt: 5=Strappings 6=Tank Master 8=Default Tank  F8=Tank Read Inq  F24=More    MW  ↓
```

6. If the item is an LPG product, complete the following fields:

- LPG Vapour Pressure
- LPG Vapour Temperature
- Slip Tube Type

The system calculates the volume and weight information and displays it in the fold area.

Field	Explanation
Read Date	You can enter a date with or without slashes (/) or dashes (-) as separators. If you leave a date entry field blank, the system supplies the current date.
	. . . . *Form-specific information* . . . .
	Enter the date that the tank dip was read, not the date that the information was entered. The default value is the current system date.

What You Should Know About

Recording initial dip readings	If no previous readings exist for a particular tank, the system updates the Tank Status of Default Tank Information with an "I" for inactive.
	You can record transactions for the tank before an initial dip reading. Be sure to record an initial reading date and reading time that is prior to the transaction dates. If the initial reading is not prior to the transaction dates, the system treats the transactions as retroactive (that is, before the last reconciliation) and does not include them in the reconciliation.
Recording volume from an electronic tank gauging device	If you use an electronic tank gauging device that calculates the volume automatically, record the volume in the Gross Dip field. Then, record the user defined code for an electronic gauging device in the Dip Type field. The system uses this code to determine if the volume entered is ambient or standard.

Processing Options for Multi–Tank Dip Reading Input

```
1. Enter the status code beyond which a      _____
   dip reading cannot be changed.  This
   will indicate the point at which a
   reading has been operationally
   reconciled.

2. Enter a '1' to be prompted to accept      _____
   the dip readings.

3. Enter the DREAM Writer version to use     _____
   when calling P415203, Tank Reading
   Inquiry.  Version ZJDE0001 will be
   used as the default if left blank.
```

Updating Operational Transaction Status

After you record tank dip readings, you need to compare all incoming and outgoing transactions recorded since the last reconciliation with the physical stock levels in each tank. Then, you can update the transaction status and approve the transactions for reconciliation.

The system includes in the comparison only transactions with the document types specified in the processing options. The system also includes only those transactions that have a last reconciliation status equal to the last reconciliation status specified in the processing option.

You must reconcile any differences prior to recording any operational gains or losses.

Complete the following tasks to update the transaction status:

- Reconcile operational transactions

- Approve operational reconciliations

- Print operational reconciliations reports (optional)

After you reconcile the operational transactions, you update the transaction status to send the reconciliations to the next step in the process. Depending on the status codes set up for operational reconciliations and specified in the processing options, updating at this point takes the reconciliations to an additional approval step or to Update Operational Reconciliations.

Some companies prefer to include an additional approval step to allow a manager to approve the reconciliations before running Update Operational Reconciliations. In this case, a person with the proper authority approves the reconciliations from Review/Approve Variances and updates the transaction status to proceed to Update Operational Reconciliations.

If you want to approve and update the transaction status in a separate step, you must set the current and next status processing options differently and set the processing option to approve reconciliations in a separate step. This creates two different versions of the Operational Reconciliations program.

After you have approved the reconciliations, you can print the Operational Reconciliations reports.

Before You Begin

❏ Perform throughput reconciliation up through the time period you will perform operational reconciliation (optional). See *Processing Throughput Reconciliations*.

❏ Verify that all prior operational reconciliations are completed through Update Operational Reconciliations.

❏ Verify that the document types for the transactions you want to reconcile are specified in the processing options.

❏ Verify that the correct beginning and next reconciliation status codes are specified in the processing options.

▶ **To reconcile operational transactions**

G4150   Bulk Stock Control
          Choose *Bulk Stock*
          Reconciliations

G41502   Bulk Stock Reconciliations
          Choose *Operational*
          Reconciliations
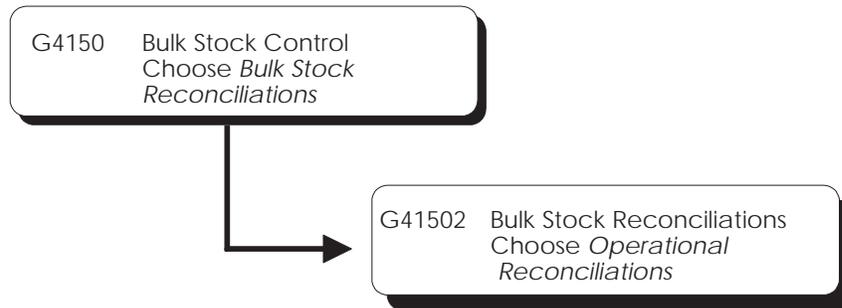
On Operational Reconciliations

```
[415112] - Operational Reconciliations                        _ □ ×
Functions   Options   Tools   Help

                                    Branch/Plant        DEPOT1

Item Number          UNL-REC             Unlead Fuel for Reconcili
Tank ID              
As Of Date           30.06.98  As Of Time        23:59:59


 O    Tank          Current Product        Last
                                          Reconciled
   TKUNREC2  Unlead Fuel for Reconciliation
 Incomings               0   LT  Outgoings              0   LT
 Opening Stock           0   LT  Closing Stock          0   LT
 Gain/Loss                                                  LT
   TKUNREC1  Unlead Fuel for Reconciliation
 Incomings               0   LT  Outgoings              0   LT
 Opening Stock           0   LT  Closing Stock          0   LT
 Gain/Loss                                                  LT
                            Total Gain/Loss

 ✔   ✘                                                       ⬆
 Opt: 1=Incomings  2=Outgoings  F6=Update  F21=Print Rep't  F24=More   MW  ⬇
```

1. Complete the following fields:

    •   Branch/Plant

    •   Item Number

    •   Tank ID

2. Complete the following optional field:

    •   As of Date

    The system displays the following fields:

    •   Opening Stock

- Closing Stock

3. Compare the transactions against the physical stock levels.

4. If the variance is correct, accept the information displayed to update the reconciliation status.

Field	Explanation
Opening Stock	The opening stock in the tank for that day. The opening stock is the same quantity as the closing stock volume from the prior reconciliation period.
Closing Stock	The quantity from the most recent tank dip reading. The closing stock is based on the As Of Date for the reconciliation.

What You Should Know About

Correcting variances   If the variance in the comparison is not correct, do the following to correct the variance and resume reconciliations:

- Access the transaction details windows to review incomings and outgoings to determine if a transaction was missed or a reading was entered incorrectly. You can choose Incomings Transactions Detail or Outgoings Transactions Detail.
- Exit Operational Reconciliations and correct any variance, if the cause is known.

Processing Options for Operational Reconciliations

```
1. List the User Defined Code containing
   the document types for the following:
           Incomings:
                   system code. . . .          _____
                   record type. . . .          _____
           Outgoings:
                   system code. . . .          _____
                   record type. . . .          _____

2. Enter the User Defined Code which
   lists the document types that must
   be throughput reconciled prior to
   being operationally reconciled.
                   system code. . . .          _____
                   record type. . . .          _____
3. Enter the beginning (current)               _____
   reconciliation status.

4. Enter the next reconciliation status.       _____
```
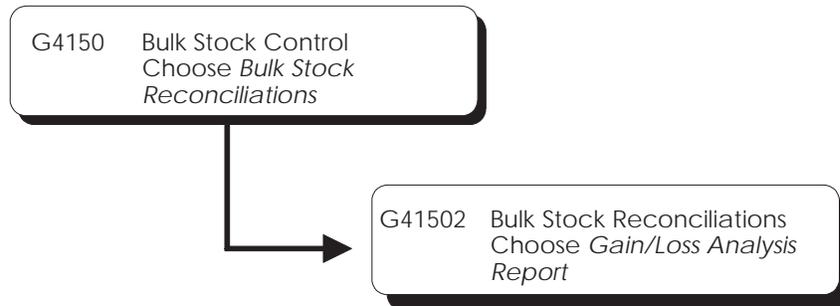
5. Enter the processing mode:
    ' ' = Review Only (default)
    '0' = Review and Approve
    '1' = Approve Only

(Roll to next page for explanation)

Review Only – Selects OUTGOINGS at the
 current status (#3) and updates all
 transactions to the next status (#4).

Review and Approve – Selects OUTGOINGS
 at the current status (#3) and updates
 all transactions to the next status
 (#4) AND updates the reconciliation
 flag to 'I'.

Approve Only – Selects ALL transactions
 at the current status (#3) and updates
 all transactions to the next status
 (#4) AND updates the reconciliation
 flag to 'I'.

▶   **To approve operational reconciliations**
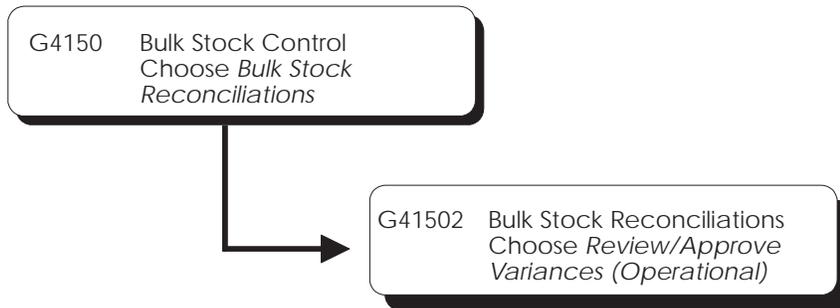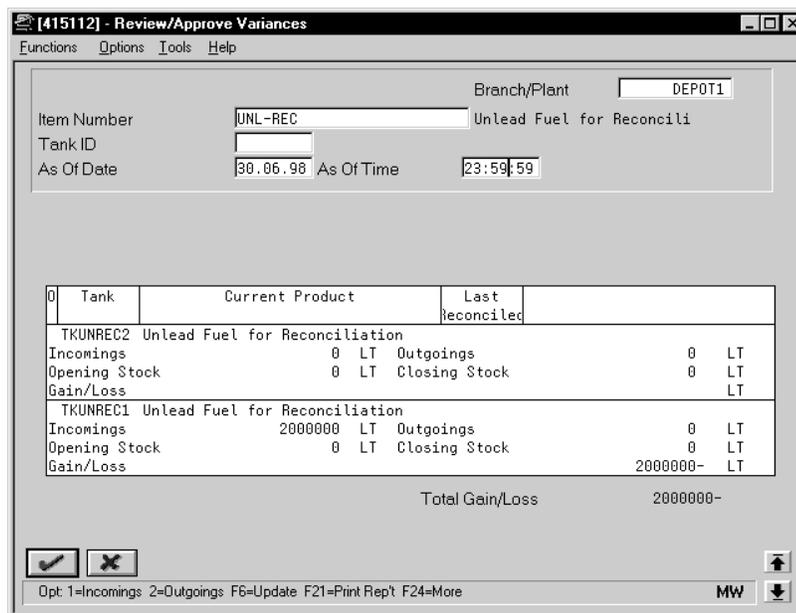
```
┌─────────────────────────────────────────┐
│ G4150    Bulk Stock Control              │
│          Choose Bulk Stock               │
│          Reconciliations                 │
└─────────────────────────────────────────┘
              │
              │
              ▼
         ┌──────────────────────────────────────────┐
         │ G41502   Bulk Stock Reconciliations       │
         │          Choose Review/Approve            │
         │          Variances (Operational)          │
         └──────────────────────────────────────────┘
```

On Review/Approve Variances

```
┌─────────────────────────────────────────────────────────────────┐
│ ≊ [415112] - Review/Approve Variances                 _ □ X      │
│ Functions  Options  Tools  Help                                   │
│                                                                   │
│                              Branch/Plant        │   DEPOT1  │    │
│  Item Number        UNL-REC              Unlead Fuel for Reconcili │
│  Tank ID            [        ]                                     │
│  As Of Date         30.06.98  As Of Time      23:59:59            │
│                                                                   │
│                                                                   │
│  ┌─┬──────┬────────────────────┬──────────┬───────────┐          │
│  │O│ Tank │   Current Product  │   Last   │           │          │
│  │ │      │                    │ Reconciled│          │          │
│  │ TKUNREC2  Unlead Fuel for Reconciliation            │          │
│  │Incomings            0   LT  Outgoings           0   LT          │
│  │Opening Stock        0   LT  Closing Stock       0   LT          │
│  │Gain/Loss                                            LT          │
│  │ TKUNREC1  Unlead Fuel for Reconciliation            │          │
│  │Incomings      2000000   LT  Outgoings           0   LT          │
│  │Opening Stock        0   LT  Closing Stock       0   LT          │
│  │Gain/Loss                                  2000000-  LT          │
│  └─────────────────────────────────────────────────────┘          │
│                            Total Gain/Loss     2000000-           │
│                                                                   │
│  ┌───┐ ┌───┐                                              ┌─┐     │
│  │ ✓ │ │ ✗ │                                              │▲│     │
│  └───┘ └───┘                                              └─┘     │
│  Opt: 1=Incomings  2=Outgoings  F6=Update  F21=Print Rep't  F24=More   MW  ▼ │
└─────────────────────────────────────────────────────────────────┘
```

1. Complete the following fields:

    •   Branch/Plant

    •   Item Number

    •   Tank ID

2. Complete the following optional field:

    •   As of Date

    The system displays the following fields:

    •   Opening Stock

- Closing Stock

3. Compare the transactions against the physical stock levels.

4. If the variance is correct, accept the information displayed to update the transaction status.

Printing the Operational Reconciliations Reports

▶ **To print operational reconciliations reports**

```
G4150    Bulk Stock Control
         Choose Bulk Stock
         Reconciliations
```

```
G41502   Bulk Stock Reconciliations
         Choose an operational
         reconciliations report option
```
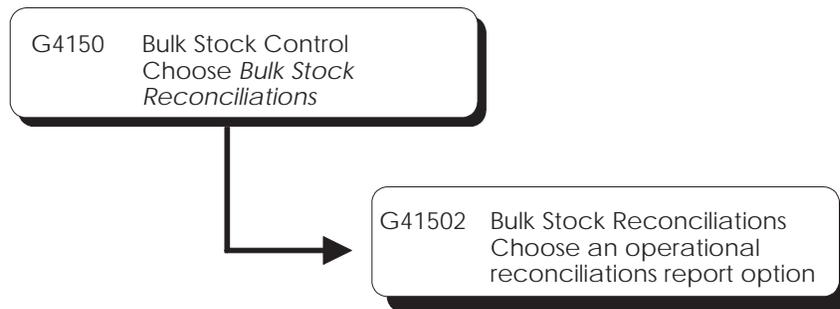
After you've approved operational reconciliations, you can print the Operational Reconciliations Summary Report and the Operational Reconciliations Detail Report.

You can use both reports to compare all inbound and outbound transactions to the physical stock levels in each tank. Volumes are displayed as standard volumes only. The Operational Reconciliations Detail Report displays the detailed transactions for incomings and outgoings. The Operational Reconciliations Summary Report displays only summary information.

The reports display the transactions with the document types entered in the processing options and those with a last reconciliation status equal to the last reconciliation status entered in the processing options. The program selects the records with operational reconciliation dates within the From and Thru dates specified in the processing options.

Alternatively, you can print the Operational Reconciliations Detail Report from Review/Approve Variances after you've approved the operational reconciliations or from Operational Reconciliations if your reconciliation process is set up to not require the approval step. Also, you can print the Operational Reconciliations Summary Report from the Bulk Stock Control Reports menu.

You can print the Operational Reconciliations Detail Report from Review/Approve Variances after you've approved the operational reconciliations or from Operational Reconciliations if your reconciliation process is set up to not require the approval step. You can print the Operational Reconciliations

Summary Report and the Operational Reconciliations Detail Report from the Bulk Stock Reconciliations menu. Also, you can print the Operational Reconciliations Summary Report from the Bulk Stock Control Reports menu.

Before You Begin

❏ Verify that the document types for the reconciled transactions you want to view are specified in the processing options

❏ Verify that the last reconciliation status for the transactions is specified in the processing options

❏ Verify that the From and Thru dates in the processing options for the reconciliations are correct
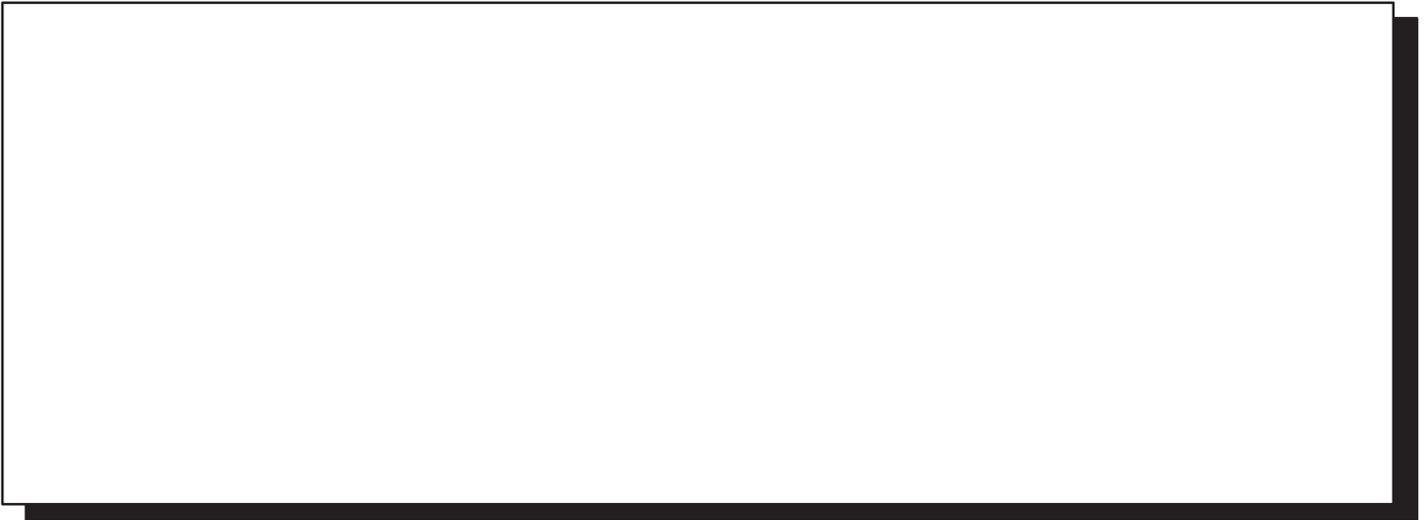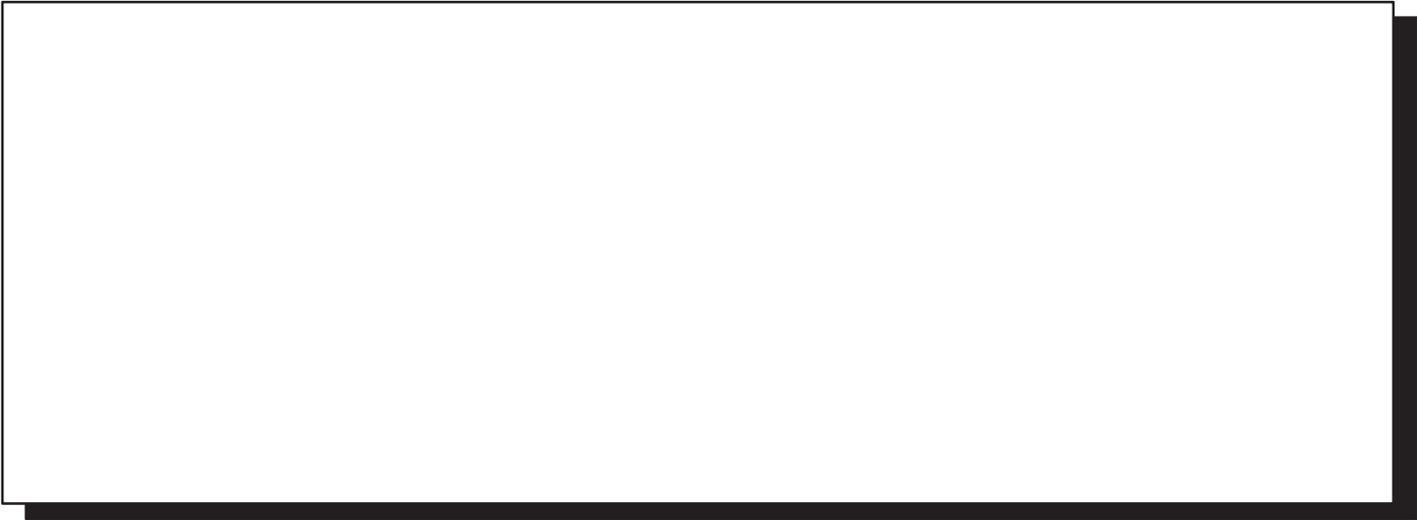
Processing Options for Operational Reconciliations Summary Report

```
1. List the User defined Code containing
   the document types for the following:
           Incomings:
                   system code. . . .          _____
                   record type. . . .          _____
           Outgoings:
                   system code. . . .          _____
                   record type. . . .          _____

2. Enter the current reconciliation                        _____
   status.

3. Enter the "From" reconciliation date                    _____
   to use when selecting records.

4. Enter the "Thru" reconciliation date                    _____
   to use when selecting records.

5. Enter the point through which records                   _____
   have been processed.  This option
   controls the retrieval of records.
    ' ' = review (default)
    '0' = approval without prior review
    '1' = approval with prior review

6. Enter the unit of measure you want                      _____
   the Total Depot Gain/Loss displayed
   in.
```

Processing Options for Operational Reconciliations Detail Report

```
1. List the User Defined Code containing
   the document types for the following:
           Incomings:
                   system code. . . .          _____
                   record type. . . .          _____
           Outgoings:
```

```
                             system code. . . .          _____
                             record type. . . .          _____
```

2. Enter the current reconciliation   _____
   status.

3. Enter the "From" reconciliation date   _____
   to use when selecting records.

4. Enter the "Thru" reconciliation date   _____
   to use when selecting records.

5. Enter the point through which records   _____
   have been processed. This option
   controls the retrieval of records.
   ' ' = review (default)
   '0' = approval without prior review
   '1' = approval with prior review

6. Enter the unit of measure you want   _____
   the Total Depot Gain/Loss displayed
   in.

Updating Operational Reconciliations

```
G4150     Bulk Stock Control
          Choose Bulk Stock
          Reconciliations


                    G41502    Bulk Stock Reconciliations
                              Choose Update Operational
                              Reconciliations
```
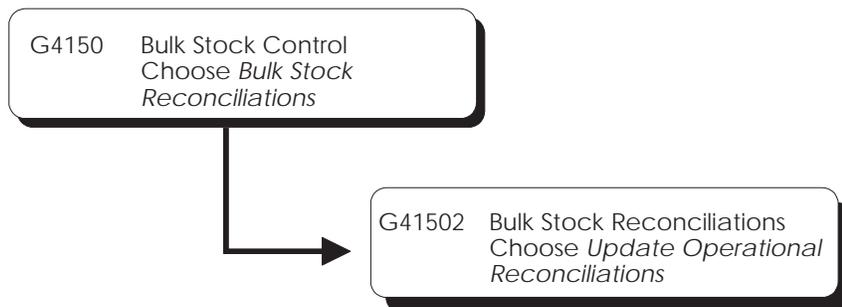
Run the Update Operational Reconciliations DREAM Writer program to update:

- The reconciliation status on transactions to indicate that they are
  reconciled

- Each transaction with the date it was operationally reconciled

- The Gain/Loss Transactions table (F41512) with the values calculated

- Inventory balances to reflect physical stock levels

- The adjusting entries to the Item Ledger table (F4111)

- The Account Ledger (F0911) with adjustments to the Bulk Gain/Loss and
  the Physical Inventory accounts

- The Reconciled Thru Date on the Depot/Product Information form (after
  all tanks for a product are reconciled)

- The Item Location table (F41021) with the quantity on hand

- The Bulk Product Transactions table (F41511) with the reconciliation status, reconciled flag, and the operational reconciled date

You can also print the Update Operational Reconciliations Report.

You can run this program in proof mode before you complete the actual update. This allows you to review each transaction and verify the information before you update the tables.

To do this, add a proof version and leave the processing option blank

Failure of operational reconciliations might be due to the following:

- Company dates not current

- AAIs not set up

- Branch/plant constants missing

- Lot numbers in transactions

- The account unit of measure on AAI acounts is blank or does not have a conversion factor

Processing Options for Update Operational Reconciliations

Record Selection:
1. Enter the As Of Date: _____

```
2. Enter the As Of Time:                        _____

3. Enter the current reconciliation             _____
   status.

4. Enter the next reconciliation status.        _____

5. Enter '1' to update records.  Default        _____
   of blank will not update records.

6. Enter the document type to be used           _____
   for creating the adjusting entry.

7. Enter the General Ledger date for            _____
   processing the update.  If left blank
   the current system date will default.

8. Enter the General Ledger date for            _____
   processing the retroactive gain/loss.
   If left blank the current system date
   will default.

9. Enter '1' to run in summary mode.            _____
   The G/L accounts will be summarized
   within each document number.  If run
   in detail, G/L accounts will be
   produced for each detail line.

10. Enter the DREAM Writer version to           _____
    use for the G/L Functional Server
    XT0911Z1. If left blank the default
    version ZJDE0001 will be used.

11. List the User Defined Code
    containing the document types for
    the following:
             Incomings:
                  system code. . . .          _____
                  record type. . . .          _____
             Outgoings:
                  system code. . . .          _____
                  record type. . . .          _____
```

Reviewing Gains and Losses

Print the Gain/Loss Analysis Report or review the Gain/Loss Inquiry to review the overall gains and losses for a depot and product, based on the Gain/Loss Transactions table (F41512). It is useful to review this information after performing operational reconciliations.

Complete the following tasks:

- Print the Gain/Loss Analysis Report

- Review the Gain/Loss Inquiry

Printing the Gain/Loss Analysis Report

▶ **To print the Gain/Loss Analysis Report**

```
G4150    Bulk Stock Control
         Choose Bulk Stock
         Reconciliations
```

```
G41502    Bulk Stock Reconciliations
          Choose Gain/Loss Analysis
          Report
```

This DREAM Writer report shows the quantity and financial impact of the gains and losses.

Depending on your processing options, you can compare either the volume difference or the percent variance.

The system performs variance (or tolerance) checking as follows:

- For a volume difference, the system compares the total gain/loss for each product to the quantity entered in the processing options. This lets you print a report in which variances are greater than, equal to, or less than a certain volume.

- For a percent variance, the system compares the total gain or loss as a percent of total outgoings to the quantity entered in the processing options. This lets you print a report in which the variance is greater than, equal to, or less than a specified percentage.

- If no quantity for comparison is entered in the processing options, the report displays all records.
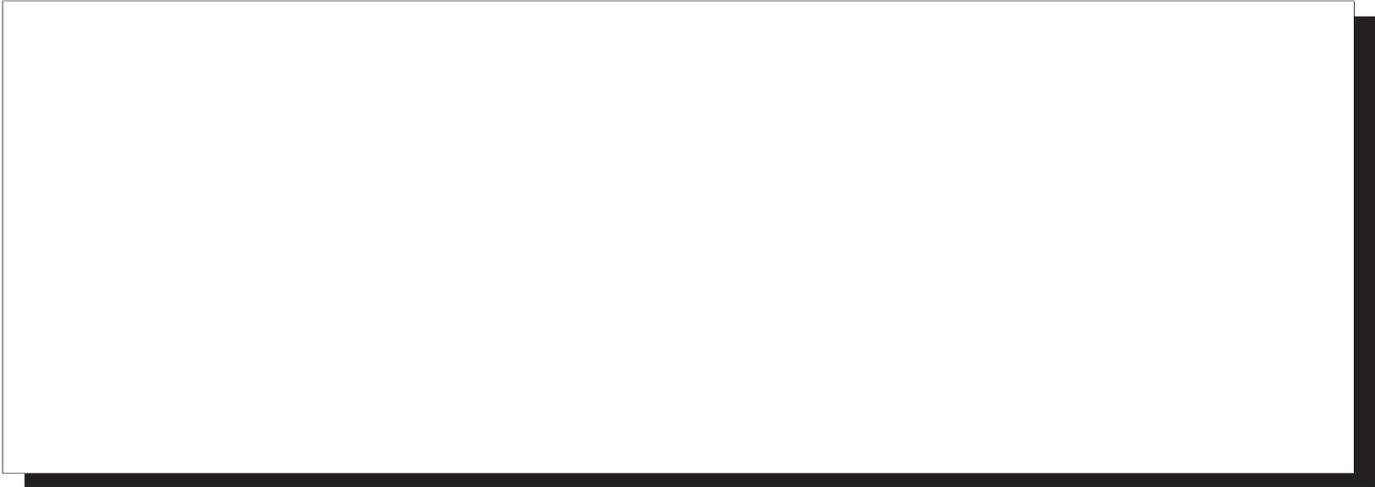
Processing Options for Gain/Loss Analysis Report

```
1. Enter the range of transaction dates
   for inclusion of records.  (Blanks
   will default to system date)
           From Date . . . . . . . . . .          _____
           Thru Date . . . . . . . . . .          _____

2. Enter the relation to use for the              _____
   variance selection.  (GT=greater than
   LT=less than, and EQ=equal to)

3. Enter the quantity to compare the              _____
   variance to for selection.

4. Enter one of the following:                    _____
    A = compare the volume difference
    % = compare the percent variance
```

Reviewing the Gain/Loss Inquiry

▶ **To review the Gain/Loss Inquiry**
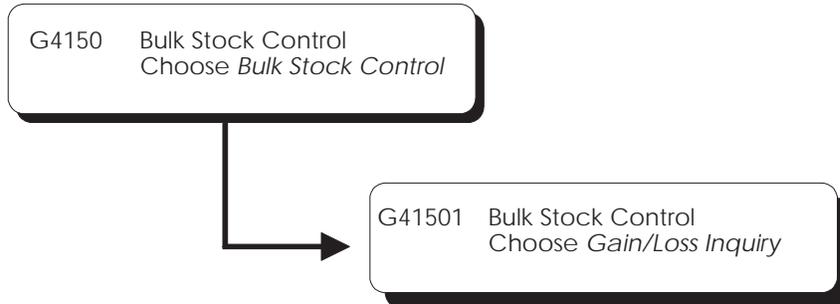
G4150   Bulk Stock Control
          Choose *Bulk Stock Control*

G41501   Bulk Stock Control
          Choose *Gain/Loss Inquiry*

On Gain/Loss Inquiry

Complete one of more of the following fields to narrow your search or accept the default values:

- Date From/Transaction
- Date Thru/Transaction
- Item Number
- Branch/Plant
- Location

- Gain/Loss Reason

The program displays the gain/loss information based on the selection criteria you specified.

Work with Reconciliations Information

Working with Reconciliations Information

As part of your depot operations, you might need to review totals of transactions that have been processed through operational reconciliations. Additionally, you might need to review or change a reconciliation status.

Complete the following tasks:

❑ Review operational reconciliation history

❑ Work with reconciliation status

Reviewing Operational Reconciliation History

G4150   Bulk Stock Control
         Choose *Bulk Stock
         Reconciliations*

G41502   Bulk Stock Reconciliations
         Choose *Reconciliation History
         Review*
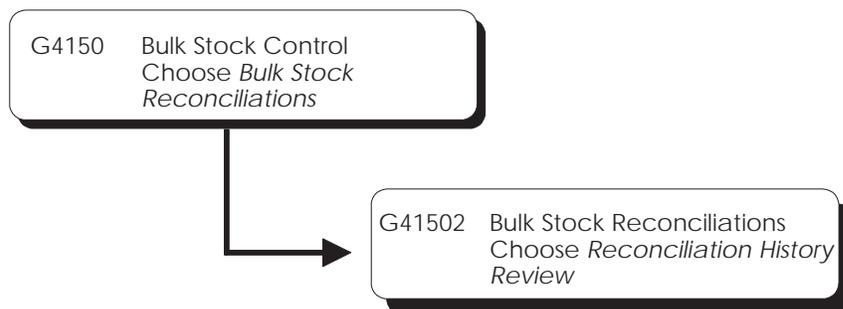
You can review totals of transactions that have been processed through operational reconciliations in order to resolve discrepancies in the current reconciliation period. When you process operational reconciliations, the system creates a historical record for each depot, item, tank, reconciliation date, and reconciliation time. The system tracks data for the total of incoming transactions, outgoing transactions, opening quantity, closing quantity, and gain/loss quantity. Reconciliation History Review displays the historical record of past operational reconciliations using this data.

You can choose to view all history by item or by tank within a depot. Optionally, you can display the history as of a selected date.

▶ **To review operational reconciliation history**

On Reconciliation History Review

```
┌─────────────────────────────────────────────────────────────────┐
│ 🖥 GUI/400 RTS Pro                                       _ □ ×  │
│ File  Edit  Help                                                 │
│ ┌─────────────────────────────────────────────────────────────┐ │
│   415114         Reconciliation History Review  Branch/Plant . .│ DEPOT1 │
│                                                                   │
│  Item Number. . . . . .│REG                      │                │
│  Tank ID. . . . . . . .│*    │                                    │
│  Skip To Date . . . . .│      │ Skip To Time . .│      │          │
│                                                                   │
│                                                                   │
│    Tank       Reconciled Product       Rec Date  Time             │
│  TKREG1    Leaded Fuel                 12/29/95 17:47:00          │
│                                                                   │
│   Incomings. . . .        993400  LT  Outgoings. . . . .    993  LT│
│   Opening Stock. .           993  LT  Closing Stock. . .  993186  LT│
│                                       Gain/Loss. . . . .    214- LT│
│                                                                   │
│  TKREG2    Leaded Fuel                 12/29/95 18:11:00          │
│                                                                   │
│   Incomings. . . .           993  LT  Outgoings. . . . .    993  LT│
│   Opening Stock. .             0  LT  Closing Stock. . .     10  LT│
│                                       Gain/Loss. . . . .     10  LT│
│                                       Total Gain/Loss:   6341909   │
│                                      │F24=More│                    │
│                                                                   │
│ └─────────────────────────────────────────────────────────────┘ │
└─────────────────────────────────────────────────────────────────┘
```

1. Complete the following field:

   • Branch/Plant

2. Complete one or more of the following fields to narrow your search:

   • Item Number

   • Tank ID

   • Skip To Date

   • Skip To Time

   The system displays the operational reconciliation history according to your selection criteria.

Working with Reconciliation Status

You can review the status of a reconciliation record or change the status if necessary. The same program controls two forms, one which allows you only to review status information and one which allows you to make changes to the status.

Complete the following tasks:

• Review reconciliation status

• Change reconciliation status

▶ **To review reconciliation status**

```
G4150     Bulk Stock Control
          Choose Bulk Stock
          Reconciliations
```

```
G41502    Bulk Stock Reconciliations
          Choose Reconciliation Status
          Inquiry
```
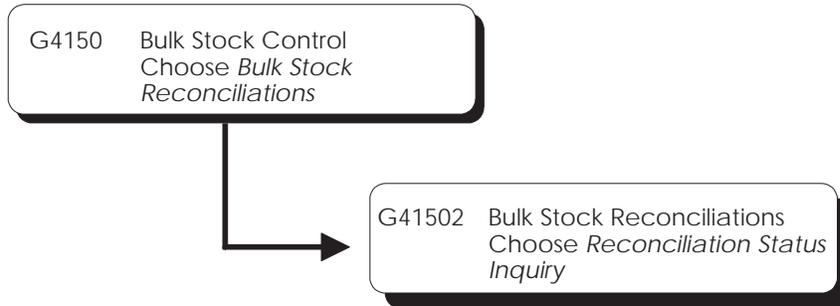
You can review the reconciliation status of a transaction recorded in the system by item number, tank ID, or last status.

On Reconciliation Status Inquiry

```
[415113] - Reconciliation Status Inquiry                              _ □ ✕
Functions  Options  Tools  Help

                                     Branch/Plant          DEPOT1
                                     Date         *      Thru   *
                                     Date Range - Based On      □
                                     Doc Type            *
        Item Number      UNL-REC             Unlead Fuel for Reconciliation
        Tank ID          *
        Recon Status     *

        O Document Do  Order  R Tank ID   Ambient  UM Stock UOM UM R Last
        P Number   Ty   Date  T           Volume      Volume   Y Stat
           18257 BJ 02.01.98 F TKUNREC1   600000- LT   596040- LT   000
           18258 BT 02.01.98 F TKUNREC1     1000- LT      993- LT   000
           18258 BT 02.01.98 T TKUNREC2     1000  LT      993  LT   000
            5412 OV 12.04.96 P TKUNREC1  2000000  LT  2000000  LT I 006
            8681 S3 09.04.96 S TKUNREC1    25000- LT    24835- LT   003
            8678 S3 09.04.96 S TKUNREC1   200000- LT   198680- LT   003
            8680 S3 09.04.96 S TKUNREC1   273000- LT   271198- LT   003
            2008 CT 09.04.96 S TKUNREC1     6000- LT     5960- LT   003
            2008 CT 09.04.96 S TKUNREC1     4000- LT     3974- LT   003
            2008 CT 09.04.96 S TKUNREC1     5000- LT     4967- LT   003
            2008 CT 09.04.96 S TKUNREC1     5000- LT     4967- LT   003

   ✔  ✗                              i     ▲    ♣    ▬    ⬆
        Opt: 5=More Detail      F24=More Keys                     MW   ⬇
```

1. Complete the following fields or accept the default values:

   • Branch/Plant

   • Date

   • Thru

   • Date Range – Based On

- Document Type

2. Complete the following field:

- Item Number

1. Complete one or both of the following fields to narrow your search or accept the default values:

- Tank ID

- Reconciliation Status

The system displays the reconciliation status according to your selection criteria.

Processing Options for Reconciliation Status Inquiry

Screen Control Options:
1. Enter '1' to allow the update of   _____
   the reconciliation status.

2. Enter default depot (if blank, the   _____
   depot from the User Defaults will
   be used).

▶   **To change reconciliation status**

G4150   Bulk Stock Control
Choose *Bulk Stock Reconciliations*

G41502   Bulk Stock Reconciliations
Choose *Reconciliation Status Change*
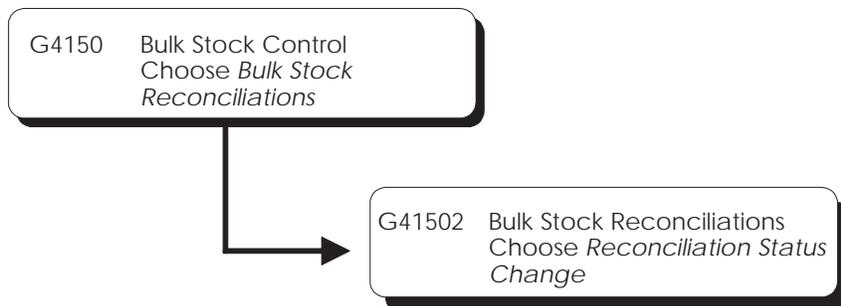
You can manually change the reconciliation status of a transaction recorded in the system. This is useful, for example, if you approved reconciliations prematurely. You can reset the reconciliation status, enter missed transactions or other information, and then approve the reconciliations again.

You should not run this program is not meant to change a reconciliation status after you have run the update reconciliations program. Manually changing the reconciliation status of a record without running the appropriate processes to update the status could create inaccurate records in the system.

On Reconciliation Status Change

1. Complete the following fields or accept the default values:

   • Branch/Plant

   • Date

   • Thru

   • Date Range – Based On

   • Document Type

2. Complete the following field:

   • Item Number

1. Complete one or more of the following fields to narrow your search or accept the default values:

   • Tank ID

   • Reconciliation Status

   The system displays the reconciliation status according to your selection criteria.

2. Complete the following field to change the reconciliation status of a record:

   • Last Status

What You Should Know About

Reviewing transaction details   To review additional information for a specific transaction, choose the More Detail option to open the Bulk Product Transaction Details window.

Reviewing Transaction Details

The Bulk Product Transaction Details window allows you to review additional information for a specific transaction.

Periodic

Bulk Stock Information

Objectives

- To review the history of all transactions for a specific bulk product or product and location
- To review a summary by month of all the transactions that affect tank stocks
- To review the inventory balances for tanks containing commingled stock
- To review meter readings for a given product or meter for a specific time period
- To review all physical tank dip readings as of a specific date and time

About Bulk Stock Information

As part of your management of bulk stock, you might need to review the following:

- Current status of tank stock
- Availability and demand of stock
- Transactions
- Commingled stock quantities
- Meter and tank readings used for reconciliation

Review Bulk Stock Information

Reviewing Bulk Stock Information

Several programs let you review information on your bulk stock. You can review the following:

- Current status of tank stock
- Availability and demand of stock items
- Transactions affecting stock
- Quantities of commingled stock
- Meter and tank readings used for reconciliation

Complete the following tasks:

❏ Review product transactions

❏ Review monthly tank stock status

❏ Review commingled stock

❏ Review meter readings

❏ Review tank readings

Reviewing Product Transactions

| G4150 | Bulk Stock Control
Choose *Bulk Stock Control* |

| G41501 | Bulk Stock Control
Choose *Bulk Product*
Transaction Inquiry |
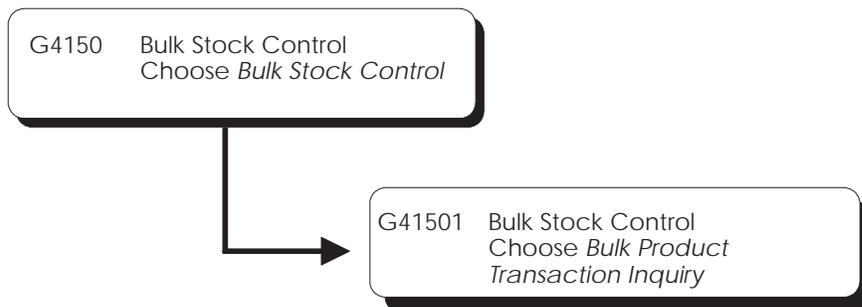
You can review the history of all transactions for a specific bulk product or product and location. These transactions might be the result of an intra-depot stock movement, a sale (posted after the customer sales update process), or a purchase receipt.

▶ **To review product transactions**

On Bulk Product Transaction Inquiry
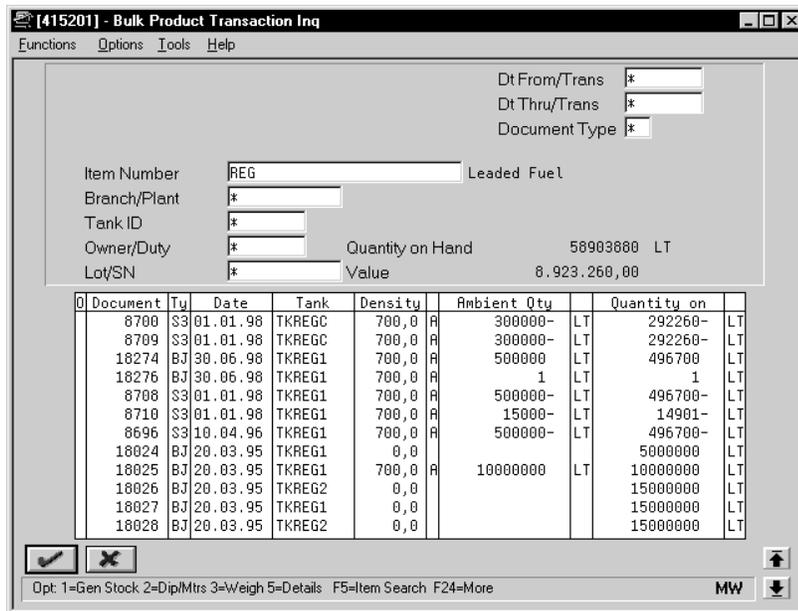
1. Complete the following field:

   - Item Number

2. Complete one or more of the following optional fields:

   - Date From/Transaction

   - Date Thru/Transaction

   - Document Type

   - Branch/Plant

   - Tank ID

   - Owner/Duty

   - Lot

3. Choose a transaction.

4. Access Bulk Product Transaction Details.
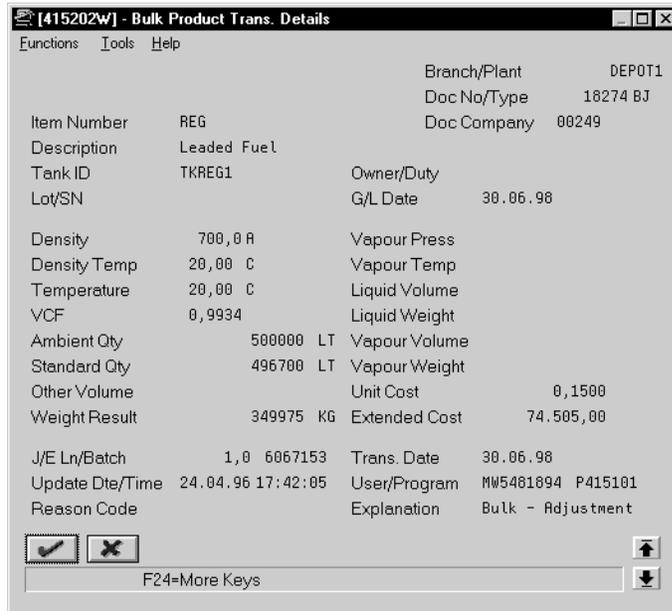
What You Should Know About

Accessing Bulk Product Transaction Inquiry
Alternatively, you can access Bulk Product Transaction Inquiry from the Intra-Depot Stock Movements menu or the Item Ledger.

Accessing Bulk Product Transaction Inquiry
You can access Bulk Product Transaction Inquiry from the Bulk Stock Control menu, the Intra-Depot Stock Movements menu, or the Item Ledger.

Reviewing stock movements
To review general stock movements, choose the General Stock Inquiry option for the transaction. This form displays the transaction information from the general stock movements form.

Processing Options for Bulk Product Transaction Inquiry

```
Default Value:
   1. Document Type                                    _____

Dream Writer Versions:
Enter a DREAM Writer Version for the
following programs. (ZJDE0001) is the
default.
   2. Load & Delivery Ledger Inq  P49511               _____
```

Reviewing Stock Movements

If you choose the General Stock Inquiry option from the Bulk Product Transaction Details form, an inquiry version of the general stock movements form displays. You can review the transaction information recorded in the stock movement.

Reviewing Monthly Tank Stock Status

G4150   Bulk Stock Control
         Choose *Bulk Stock Control*

G41501   Bulk Stock Control
         Choose *Monthly Tank Stock Status*
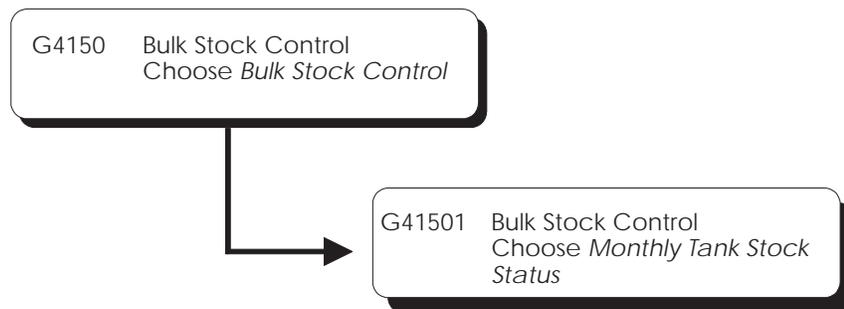
Use Monthly Tank Stock Status to review a summary by month of all transactions that affect tank stocks. You can review only transactions that have been operationally reconciled.

▶ **To review monthly tank stock status**

On Monthly Tank Stock Status

```
[415205] - Monthly Tank Stock Status                    _ □ ×
Functions   Options   Tools   Help

                                      Branch/Plant        DEPOT1

   Month/Year          □ □
   Tank ID            [      ]
   Skip to Date       [      ]
   Product

   O Dt Opening Stock  Incomings   Outgoings   Closing Stock Gain/Loss  % Out




 ✔  ✖
 5=Bulk Prod Transaction Inquiry   F21=Print Report   F24=More        MW
```

1. Complete the following fields:

    •   Branch/Plant

    •   Tank ID

2. Complete one of the following optional fields:

    •   Month/Year

    •   Skip to Date

    The system displays data in the following fields, based on your search criteria:

    •   Opening Stock

    •   Incomings

    •   Outgoings

    •   Closing Stock

    •   Gain/Loss

    •   Percent of Total Outgoings

Field	Explanation
Incomings	The total of all unreconciled incoming transactions for the document types listed in the processing options.
Outgoings	The total of all unreconciled outgoing transactions for the document types listed in the processing options.
Volume – Gain/Loss	The operational gain/loss calculated for that day. Gains are shown as positive and losses as negative.
Percent of Total Outgoings	The gain/loss expressed as a percentage of the total outgoings for the reporting period.

What You Should Know About

Printing Tank Stock Status   If you want to print the Monthly Tank Stock Movements report, choose the Print Monthly Tank Stock Report option.

See *Reviewing Monthly Tank Stock Movements*.

Processing Options for Monthly Tank Stock Status

```
1. List the User Defined Code containing
   the document types for the following:
            Incomings:
                  system code. . . .          _____
                  record type. . . .          _____
            Outgoings:
                  system code. . . .          _____
                  record type. . . .          _____

Dream Writer Versions:
 2. Bulk Product Transaction Inquiry          _____
    (P415201).  The default version is
    ZJDE0001.

3. Enter reconciliation status range:
                  From . . . . . . .          _____
                  To . . . . . . . .          _____
```

Reviewing Commingled Stock

```
G4150    Bulk Stock Control
         Choose Bulk Stock Control
```

```
G41501    Bulk Stock Control
          Choose Commingled Stocks
          Inquiry
```
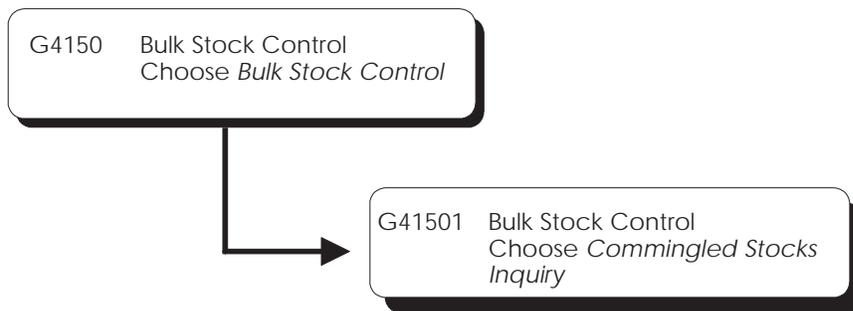
Use Commingled Stocks Inquiry to review the inventory balances for tanks containing commingled or custody stock. You can display inventory balances in the following ways:

- By owner, to view the balances for all tanks and products by a specific owner

- By tank, to view the balance for a given tank for all owners

- By product, to view the balance based on the current product in the Tank Master table (F41500)

Balances for some tanks by owner might be negative. This occurs when only one tank is current and all product has been withdrawn from that tank, regardless of ownership.

▶   **To review commingled stock**

On Commingled Stocks Inquiry

```
[415206] - Commingled Stocks Inquiry                          _ □ ×
Functions   Options   Tools   Help

                                    Branch/Plant        DEPOT1

        Tank              TKREG1    Storage Tank for Leaded Fuel
   or   Product           [        ]
   or   Owner             [        ]

  O   Owner        Description          Tank  S     Quantity
  P                                           C
                                       TKREG1  Y      9686901  KG
                                       TKREG1  Y        39736  KG
                            Owner Total:              9726637  KG

      249   Model Energy & Chemical Company  TKREG1 Y  194561882 KG
      249                 Owner Total:               194561882 KG

      500   Gas Station                TKREG1  Y     2306914- KG
      500                 Owner Total:               2306914- KG

      99999 Darrel Bolter              TKREG1  Y          141  KG
      99999                Owner Total:                    141  KG

                                       TKREG1  Y               LT

  ✔   ✘
  Opt: 1=Bulk Prod Trans Inquiry   F24=More Keys
```

Complete one of the following fields:

- Tank

- Product

- Owner

The system displays inventory balances relating to the search criteria, as well as the following field:

- Stock Commingled

Field	Explanation
Stock Commingled	A stock value that identifies the type of commingled stock. If any tank for a product contains commingled stock, you must set up all tanks for that product as containing commingled stock. You also use this field to divide product in the tank into two quantities. For example, enter a value if you want to separate duty-paid from unpaid product in the same tank. If the stocks are commingled, you must record all the product movements at the "owner" level. Valid values are:

> Y or 1 – Stocks are commingled for custody
> N or 0 – Stocks are not commingled
> D or 2 – Stocks are commingled for duty
> B or 3 – Stocks are commingled for both custody and duty

. . . . *Form-specific information* . . . .

The Stock Commingled field on Additional Tank Information must identify a tank as commingled to display on Commingled Stocks Inquiry.

Reviewing Meter Readings

G4150   Bulk Stock Control
Choose *Bulk Stock Reconciliations*

G41502   Bulk Stock Reconciliations
Choose *Meter Reading Inquiry*
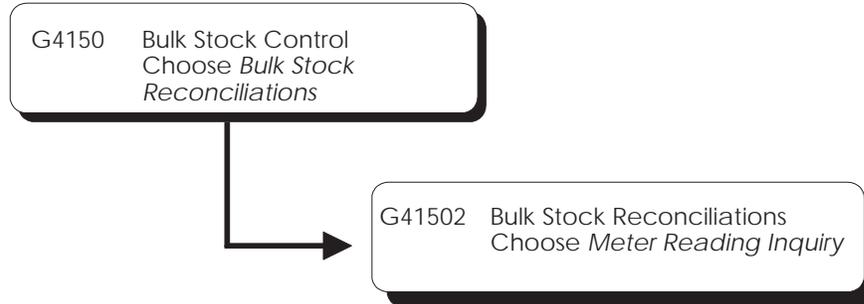
Use Meter Reading Inquiry to review meter readings for a given product or meter for a specific time period. You can view records of reconciled stock, unreconciled stock, or both, depending on the status codes set in the processing options. The system stores records in the Multi-Meter Readings table (F41515).

▶   **To review meter readings**

On Meter Reading Inquiry

```
┌──────────────────────────────────────────────────────────────────────────┐
│ 🖳 [415207] - Meter Reading Inquiry                              _ □ ×     │
│ Functions  Options  Tools  Help                                            │
│                                                                            │
│                                    Branch/Plant      ┌─────DEPOT1─┐         │
│                                    Status            │000│ Thru │999│ St │1││
│                                    Date Range        ┌──────┐┌──────┐      │
│          Meter Number   │UNL-REC-1│ TF-1                                    │
│    OR  Product          │         │                                        │
│                                                                            │
│      ┌──────────────┬─────────┬────────────────┬───────────────┬────┐     │
│      │   Product    │ Reading │ Closing Reading │  Throughput   │Rec │     │
│      │              │  Date   │                 │  Calculated   │Y/N │     │
│      │ UNL-REC      │01.01.98 │              0  │            0  │LT│N│     │
│      │ UNL-REC      │02.01.98 │         100000  │      1000000  │LT│N│     │
│      │              │         │                 │               │    │     │
│      │              │         │                 │               │    │     │
│      │              │         │                 │               │    │     │
│      │              │         │                 │               │    │     │
│      └──────────────┴─────────┴─────────────────┴───────────────┴────┘     │
│                         Total Throughput         1000000 LT                │
│   ┌──┐ ┌──┐                                                        ┌─┐     │
│   │✔ │ │✘ │                                                        │⬆│     │
│   └──┘ └──┘                                                              │
│      F15=Ascend/Descend   F24=More                         MW     │⬇│     │
└──────────────────────────────────────────────────────────────────────────┘
```

Complete one or more of the following fields:

- Branch/Plant
- Status Code From
- Status Code Thru
- Status Range – Based On
- Product
- Meter Number

What You Should Know About

Accessing Meter Reading Inquiry	Alternatively, you can acces Meter Reading Inquiry from Multi-Meter Readings on the Bulk Stock Reconciliations menu.
Accessing Meter Reading Inquiry	You can acces Meter Reading Inquiry directly from the Bulk Stock Reconciliations menu or from Multi-Meter Readings.

Deleting meter readings You cannot delete meter readings from Meter Reading Inquiry.

Processing Options for Meter Reading Inquiry

```
Default Values:
   1. From Reconciliation Status Code            _____
   2. Thru Reconciliation Status Code            _____

Processing Control:
   3. Enter a '1' if the above Status            _____
       Codes are based on Last Status.
       If left blank, the Next Status
       will be used.
```

Reviewing Tank Readings

```
G4150     Bulk Stock Control
          Choose Bulk Stock
          Reconciliations
```

```
G41502    Bulk Stock Reconciliations
          Choose Tank Reading Inquiry
```
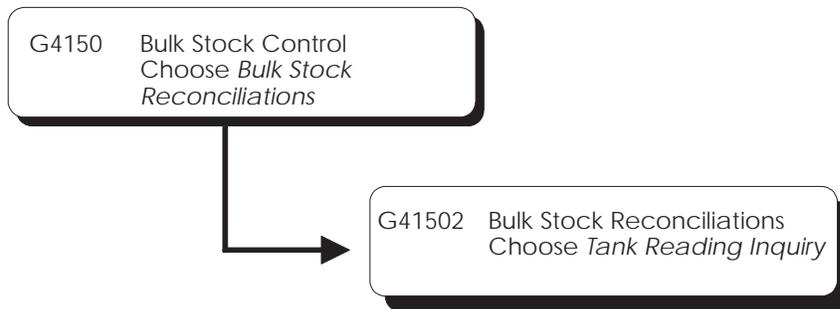
Use Tank Reading Inquiry to view all of the physical tank dip readings as of a specific date and time. The system displays information from the Tank Master (F41500) and Bulk Product Transactions (F41511) tables. If no dip reading is available as of the specified date, the system retrieves the data from the Default Tank Information table (F41508).

▶ **To review tank readings**

On Tank Reading Inquiry
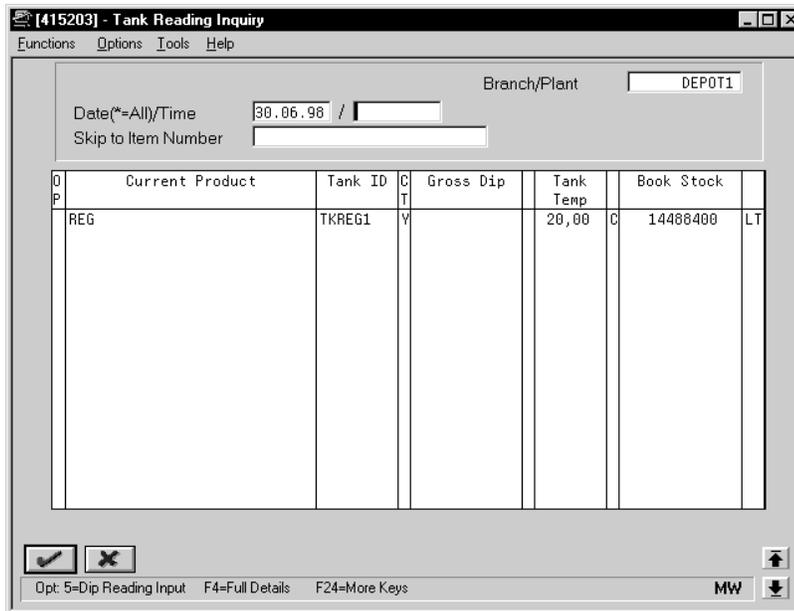
1. Complete the following fields:

   - Branch/plant
   - Date/Time
   - Skip To Item Number

2. Access the fold area.

3. Review the following fields:

   - Pumpable Stock
   - Ullage

Field	Explanation
Pumpable Stock	The book stock minus the unpumpable stock.
Ullage	The capacity of the tank, minus the book stock, minus the pipeline volume.

What You Should Know About

Reviewing tank density   You can display tank readings in two different formats:

- Gross dip and related data
- Tank density and related data

To display tank density, change the processing option for this program.

Reviewing tank totals   To review totals of book stock, pumpable stock, and ullage, choose the Tank Reading Inquiry Total Window option. The program retreives the totals from the most current records for each product and tank listed on the Tank Reading Inquiry form.

Reviewing Tank Stock Totals

To review totals of book stock, pumpable stock, and ullage by product, you can choose the Tank Reading Inquiry Total Window option from the Tank Reading Inquiry form. The program retreives the totals from the most current records for each product and tank listed on the Tank Reading Inquiry form.

Processing Options for Tank Reading Inquiry

Screen Format:
```
1. Enter a '1' to display Density on
   the first line. A default of blank
   will display Gross Dip on the
   first line with pumpable stock and
   ullage in the fold area.
```

Bulk Stock Control Reports

Objectives

- To review reports used for bulk stock control
- To print the Daily Product Movements report to review daily incoming and outgoing quantities for a current day
- To print the Monthly Tank Stock Movements report to review the transactions affecting stock balances
- To print the Tank Strappings Table Report to review tank dip heights and cumulative volumes

About Bulk Stock Control Reports

Bulk stock control reports provide useful information for monitoring bulk inventory. In your day-to-day operations, you might need to determine the status of tank stock, strappings, or specific transactions.

Review Bulk Stock Reports

Reviewing Bulk Stock Reports

Several programs allow you to process reports to review bulk inventory and tank strappings information.

Complete the following tasks:

- ❏ Review daily product movements

- ❏ Review monthly tank stock movements

- ❏ Review tank strappings

Reviewing Daily Product Movements

G4150	Bulk Stock Control
	Choose *Bulk Stock Control*

G415012	Bulk Stock Control Reports
	Choose *Daily Product Movements*
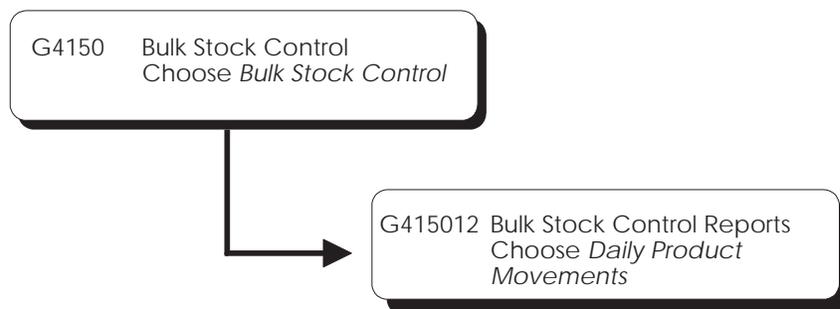
Run Daily Product Movements to review incoming (Today Ins) and outgoing (Today Outs) quantities for the current day. The report lists:

- Ambient and standard volume quantities

- Standard weight quantities

- Current standard quantities by product and customer

Totals of these quantities appear at the bottom of the report.
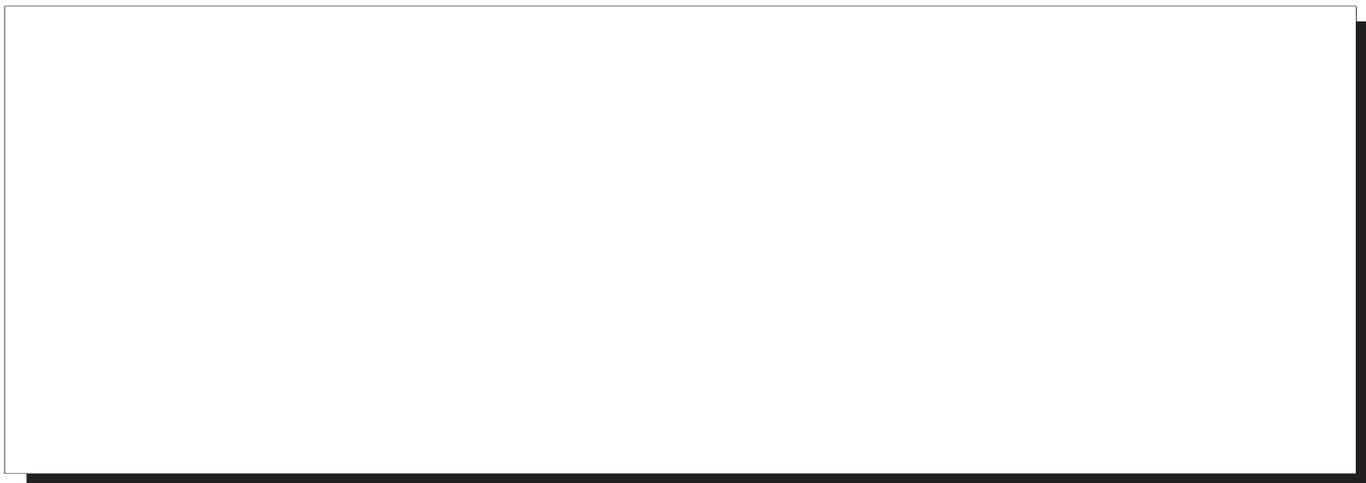
Processing Options for Daily Product Movements

```
1. List the User Defined Code containing
   the document types for the following:
            Incomings:
                     system code. . . .        _____
                     record type. . . .        _____
            Outgoings:
                     system code. . . .        _____
                     record type. . . .        _____

2. Enter the beginning date.  If left        _____
   blank the current system date will
   be used.

3. Enter the ending date. If left blank      _____
   the current system date will be used.
```

Reviewing Monthly Tank Stock Movements

G4150   Bulk Stock Control
          Choose *Bulk Stock Control*

G415012 Bulk Stock Control Reports
          Choose *Monthly Tank Stock
          Movements*
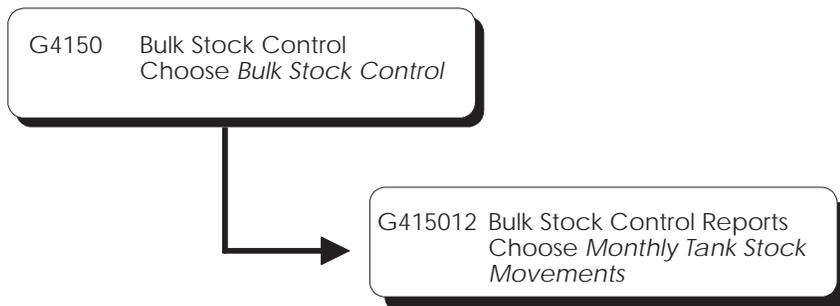
Run Monthly Tank Stock Movements to review a summary of the transactions affecting tank stock balances, the totals for each product, and the depot's product gain or loss for the period.

You can generate this report for any time period specified. For example, you can run it for a single month, multiple months, or a year, depending on your DREAM Writer data selection values. If you frequently request reports for different dates, add this version with the Date field as a permanent data selection.
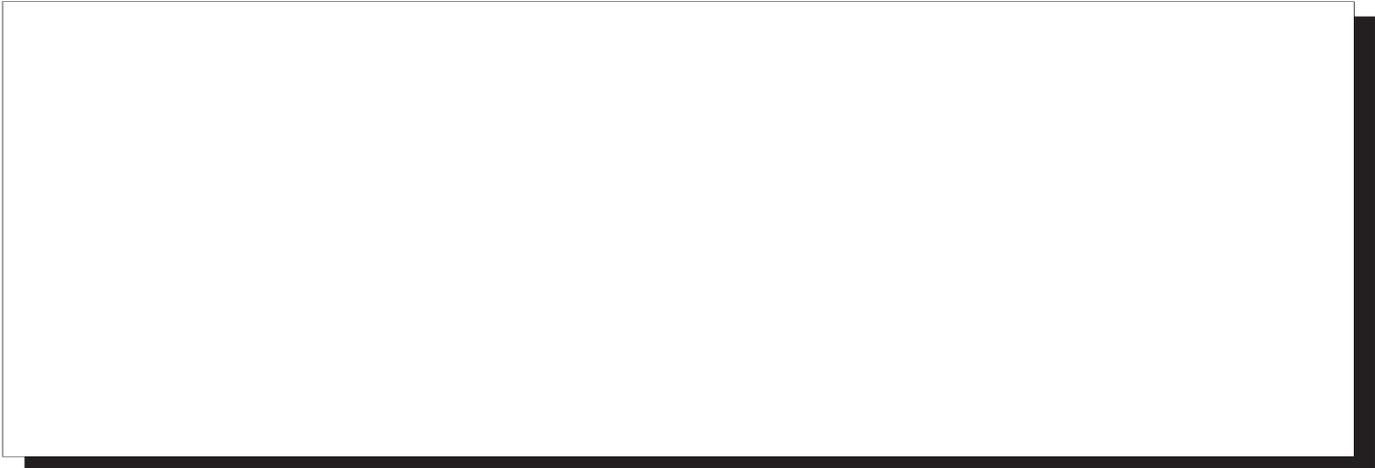
Processing Options for Monthly Tank Stock Movements Report

```
1. List the User Defined Code containing
   the document types for the following:
           Incomings:
                   system code. . . .            _____
                   record type. . . .            _____
           Outgoings:
                   system code. . . .            _____
                   record type. . . .            _____
```

Reviewing Tank Strappings

```
G4150     Bulk Stock Control
          Choose Bulk Stock Control
```

```
G415012  Bulk Stock Control Reports
         Choose Tank Strapping
         Table Report
```
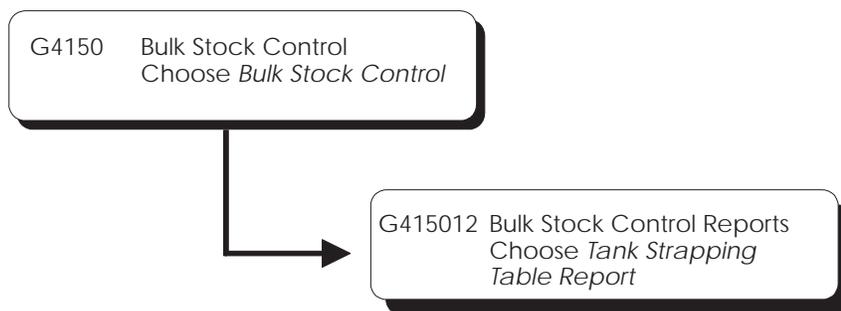
Run the Tank Strapping Table Report to review the dip heights and the cumulative volumes associated with those dip heights. Each tank table prints on a separate page, but tables are grouped within cost centers.
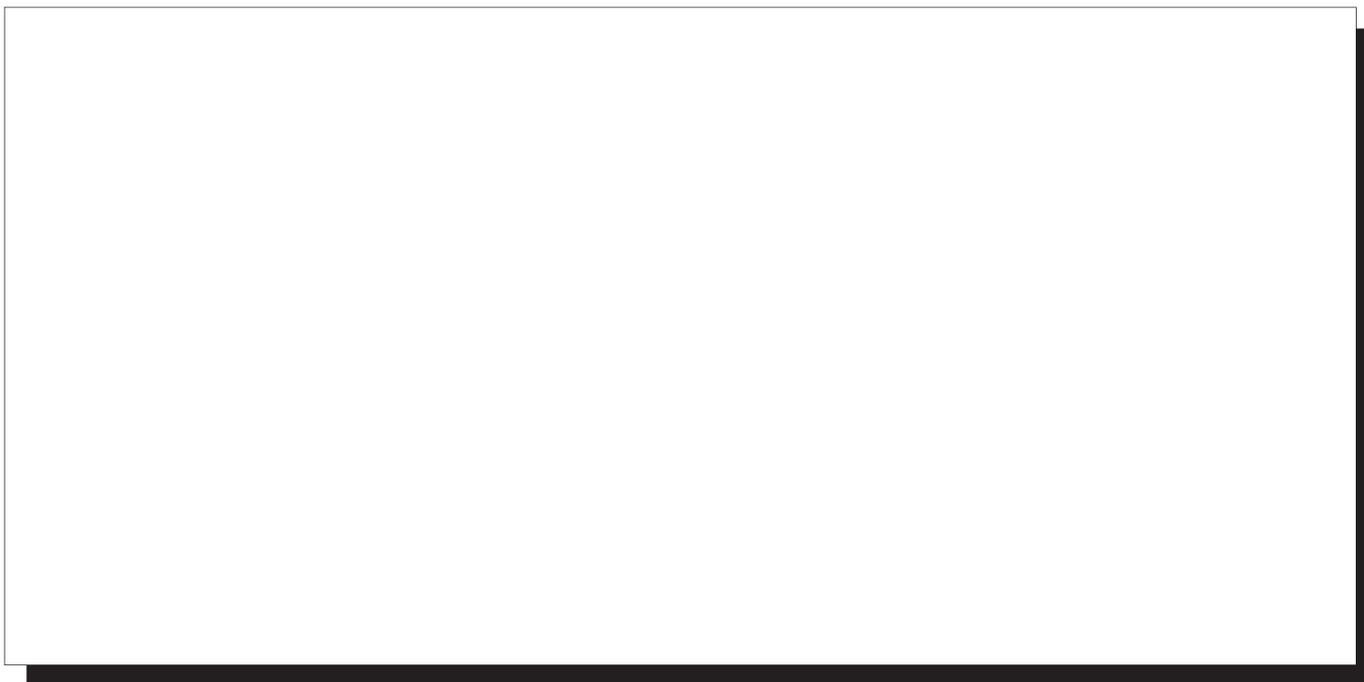
Processing Options for Tank Strapping Table Report

```
Height Readings:
  1. Enter the range of height readings
      to be selected for processing.
      If left blank, the range will be
      from the lowest height reference
      point to the highest height
      reference point.
```

```
        Dip Height/Ullage From                          _____
        Dip Height/Ullage Thru                          _____

  2. Enter the height increment.  If                    _____
     left blank, the increment will
     default from the strapping units.
```

Setup

Bulk Depot Setup

Objectives

- To set up a depot
- To specify depot constants for bulk products, such as location specifications and default temperature and density
- To set up valid locations, such as tanks, within each depot

About Bulk Depot Setup

Managing bulk inventory transactions is key to controlling inventory and product movements. To successfully manage transactions, you must first set up your depots.

You set up each depot to supply the default information that is used throughout the Bulk Stock Control system. The system pre-loads these default values whenever you perform a bulk transaction, print reports, or use programs to locate information. You can update or maintain this information as your business situations demand.

You can set up separate depots for bulk and packaged products or set up one depot for both. Your company's business processes determine how you set up depots.

Bulk depot setup involves the following tasks:

❏ Setting up depot constants for bulk products

❏ Setting up depot locations

Before You Begin

❏ Create an Address Book record for each depot (branch/plant) or owner for commingled stock. See the *Address Book Guide.*

❏ Set up each depot as a business unit to define information about inventory, expense, and revenue entries. Even if your company chooses not to post any accounts at the depot level or wants to record accounting activity to another business unit, you must set up each depot as a business unit. See the *General Accounting Guide.*

❑ Define a default branch/plant. See *Setting Up Constants (P41001)* in the *Inventory Management Guide.*

Set Up Depot Constants for Bulk Products

```
┌─────────────────────────────────────┐
│ G41      Inventory Management        │
│          Enter 29                    │
│                                      │
└──────────────┬──────────────────────┘
               │
               │
               │     ┌─────────────────────────────────────┐
               │     │ G4141    Inventory System Setup      │
               └────▶│          Choose Branch/Plant Constants│
                     │                                      │
                     └─────────────────────────────────────┘
```
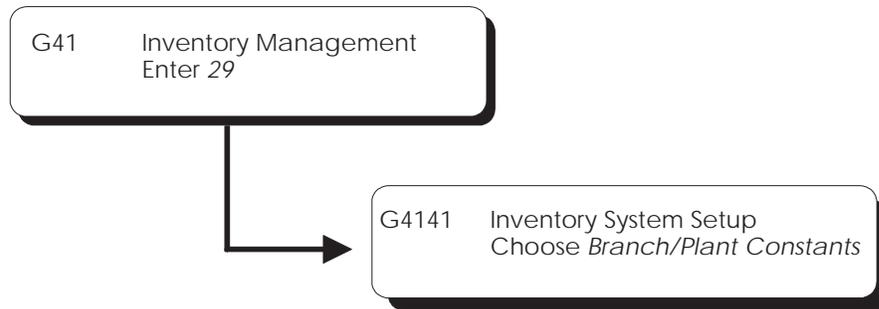
Setting Up Depot Constants for Bulk Products

The system uses the constants you set up on Branch/Plant Constants as the default values for bulk products. You must define constants for each depot. The system pre-loads these values whenever you perform bulk transactions. However, you can override the values in various bulk programs.

For depots with bulk products, you must define the format specifications for the stocking locations and the default temperature and density information.

Complete the following tasks to set up depot constants for bulk products:

❑ Define format specifications for a depot location

❑ Define depot temperature and density

Before You Begin

❑ Define the depot default values used for managing inventory, processing orders and recording to the general ledger on Branch/Plant Constants – Page 1. See *Defining Branch/Plant Constants (41001)* in the *Inventory Management Guide.*

Defining Format Specifications for a Depot Location

You must define the format specifications for your stocking locations before setting up the locations for this depot. Format specifications record the numbering scheme used for stocking locations. You also define the units of measure that this depot uses for volume, weight, and dimensions of the stocking items.

▶ **To define format specifications for a depot location**

On Branch/Plant Constants

1. Choose the depot you want to set up.

2. Access Branch/Plant Constants – Page 2.


```
[410012] - Branch/Plant Constants - Pg 2                          _ □ ×
Functions   Tools   Help

Branch/Plant                        DEPOT1   Depot 1

                          Location Format Specifications
Separator Character          
Length of Aisle              8  L/R  L      Length of Code 6      ☐ L/R ☐
"   " Bin                    8      L       "   " Code 7          ☐      ☐
"   " Code 3                 ☐      ☐       "   " Code 8          ☐      ☐
"   " Code 4                 ☐      ☐       "   " Code 9          ☐      ☐
"   " Code 5                 ☐      ☐       "   " Code 10         ☐      ☐

                          Warehouse Control Specifications
Request Inclusion Vers       ☐                                    .
Dimen. Display U/M           ☐                                    .
Volume Display U/M           ☐                                    .
Weight Display U/M           ☐                                    .

Default Receiving Locn       [          .          ]
Default Shipping Locn        [          .          ]

   ✔   ✖                                    i  ▲  ⊕  ▬  ↑
            F24=More                                    MW  ↓
```

3. On Branch/Plant Constants – Page 2, complete the following fields:

    • Separator Character

    • Length of Aisle

    • Left or Right Justification

    • Length of Bin

    • Left or Right Justification

Field	Explanation
Separator Character	A character that divides the elements of the location when you display them on forms or reports.
	Separators are not stored in the tables, but are used to edit a location on a form or report. If you do not want to use separators, leave this field blank. The system displays the location as one string of characters.
	. . . . *Form-specific information* . . . .
	The system uses the character you enter in this field to separate the combination of tank/owner and aisle/bin when displayed on forms or reports. Companies commonly use a period (.) as the separator character.
Length	Identifies the number of characters to represent the tank (or aisle for packaged stock). Valid values are numbers 1 through 8.
Length of Bin	Identifies the number of characters to represent the owner for commingled bulk stock (or aisle for packaged stock). Valid values are numbers 1 through 8.

Defining Depot Temperature and Density

You must define the default values that the depot uses for temperature, density, and measurement of bulk products.

▶ **To define depot temperature and density**

On Branch/Plant Constants

1. Choose the depot you want to set up.

2. Access Branch/Plant Constants – Page 1.

3. Access Branch/Plant Constants – Page 3.

4. On Branch/Plant Constants – Page 3, complete the following fields:

    •   Temperature Type

    •   Standard Temperature

    •   Density Type

    •   U.S. or Metric Measurement

- U.S. Increments Delimiter

Field	Explanation
Standard Temperature	Indicates the temperature to which the system converts all volumes for inventory purposes. This is the depot (branch/plant) standard. You can convert volumes to a baseline temperature using the Petroleum Measurement Table routines (for example, 60 degrees Fahrenheit or 15 degrees Centigrade) and then convert to the depot standard (for example, 20 degrees Centigrade).
U.S. Increments Delimiter	This character separates feet from inches and fractions when entering U.S. increments in tank strappings and the dip volume calculator. The integer to the left of the delimiter is feet. The integer to the right is inches. Another delimiter denotes fractions of an inch in sixteenths. You can use any character except a period (.) or a comma (,). If you leave this field blank, the system uses a forward slash (/).

What You Should Know About

Accessing Branch/Plant Constants – Page 3 Alternatively, you can access Branch/Plant Constants – Page 3 from the Bulk Stock Control Setup menu. Use this selection when the default information on Branch/Plant Constants – Page 1 and Page 2 has already been set up.

Accessing Branch/Plant Constants – Page 3 You can access Branch/Plant Constants – Page 3 from Branch/Plant Constants – Page 1 or from the Bulk Stock Control Setup menu. Use the selection from the Bulk Stock Control Setup menu when the default information on Branch/Plant Constants – Page 1 and Page 2 has already been set up.

Set Up Depot Locations

G41   Inventory Management
Enter *29*

G4141   Inventory System Setup
Choose *Define Warehouse Locations*
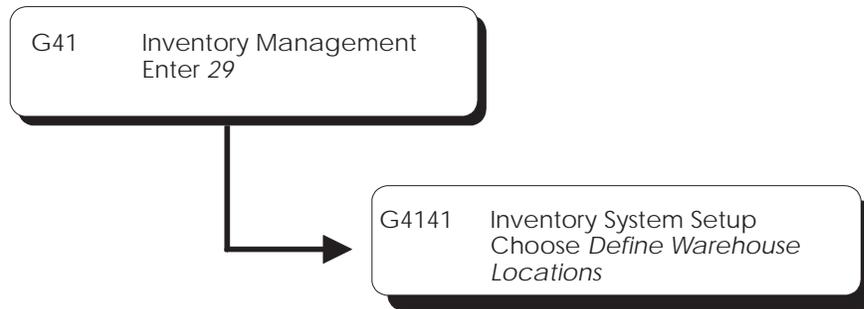
Setting Up Depot Locations

After you define the location format specifications for your depots, you set up locations, such as tank farms, for the depots. The system stores the locations you define in the Location Master table (F4100). All programs that require location specifications use this table to verify locations.

In addition to setting up your physical locations for the depots, you need to set up logical locations. The logical location stores the gains and losses for each product resulting from the various stock movements. The system records gains and losses in the Gain/Loss Transactions table (F41512).

You set up the logical location in the Location Master table with no item location records and no associated tank. Therefore, if you search for inventory by location, the system does not display the inventory from the logical location, because there are no item/location records. Most users set up a separate logical location for each product in the depot. For commingled stock (product with multiple owners), set up a logical location at the owner level.

As part of setting up a depot location, you must assign a name to the location. To name a location, identify the tank or, if the tank has commingled stock, the tank and owner.

The name you assign can be the same as the tank ID. However, the location name can also designate the owner as well. Following are some typical conventions for naming locations:

TNK1A	Use this convention to identify a single tank that contains product with only a single owner.
TNK1C.Owner1 **TNK1C.Owner2**	Use this convention to identify a single tank that contains commingled stock. The period (.) between the tank ID and the owner is the separator character you defined when you set up the depot constants.
* (a blank location)	Use an asterisk (*) in the Location field to define a blank location. The system uses a blank location for the initial soft commit when you enter sales orders.

The following diagram illustrates a tank with commingled stock and the relationship between the tank, location, and customer number information.
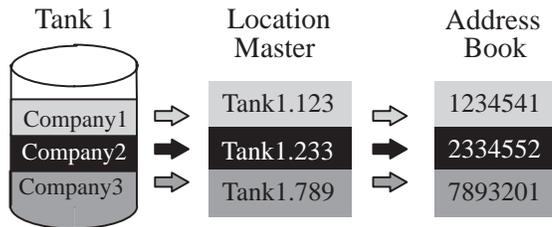
You can set up tanks as commingled for duty or as commingled for duty and custody. For a tank commingled for duty set up the combination of Tank/Duty status as a valid location. For a tank commingled for duty and custody, set up the locations for each valid combination of owner/duty status.

Before You Begin

❑ Define the format specifications for locations. See *Defining Location Format Specifications (P41204)*.

See Also

- *Setting Up Warehouse Locations (P4100)* in the *Inventory Management Guide*

▶ To set up depot locations

On Define Warehouse Locations

```
[4100] - Define Warehouse Locations                              _ □ X
Functions   Options   Tools   Help

                                              Zone        [    ]
                                              Detail Level [ ]

     Branch/Plant              [   DEPOT1  Depot 1        ]
     Skip To Location          [                         ]

  O      Location      LOD  Put   Pick  Replen  . . . Location Codes . . .
                            Zone  Zone   Zone   5 | 6 | 7 | 8 | 9 | 10
     *                   9
     GAINLOSS            9
     PACKAGES            9
     TKACE               9
     TKADD               9
     TKBIT               9
     TKBLEN              9
     TKBOA               9
     TKBOB               9
     TKDIS               9
     TKHVY               9
     TKJET               9


  [ ✓ ] [ ✗ ]                        [ i ] [ ▲ ] [ ✚ ] [ ▬ ]  [ ⬆ ]
  Opt: 1=Items   3=Duplicate   F10=Warehouse Definition   F24=More Keys   MW  [ ⬇ ]
```

1. Complete the following fields:

   - Branch/Plant

   - Location

2. Complete the following optional field:

   - Level of Detail

Field	Explanation
Location	A code that identifies inventory locations in a branch/plant. You define the format of the location identifier by branch/plant (P410012).
	. . . . *Form-specific information* . . . .
	A location format is comprised of elements and, optionally, a separator character. Elements represent more specific locations in a branch/plant. If the tank contains commingled stock, include the separator character defined on Branch/Plant Constants – Page 2 and identify the owner.
	The total length of all elements in this field, including separators, cannot exceed 20 characters. The location for a single tank can contain up to the number of characters identified in the Length of Tank/Aisle field on Branch/Plant Constants – Page 2.
	The owner ID can contain up to the number of characters identified in the Length of Owner/Bin field on Branch/Plant Constants – Page 2.
	If you leave this field blank and do not use a separator character, the system displays the location as an asterisk. If you use a separator character, the system displays the location with the correct number of spaces for each element, followed by the separator character.
Location Level of Detail	A code that summarizes or classifies locations and provides a hierarchy of locations for inquiry purposes. For instance, you can assign aisles to level 3, and individual racks within the aisle as level 4.
	. . . . *Form-specific information* . . . .
	Use the Detail Level field in the upper-right corner of the form to specify the beginning level of detail that you want the system to display.
	Use the Level of Detail field in the lower portion of the form to identify the level of detail for the location.

What You Should Know About

Deleting locations	You cannot use the D action code to delete locations in a depot. To delete a location, you must enter a C action code and clear the information in all location detail lines you want to delete.

Standard Unit of Measure Conversions

Objectives

- To set up standard unit of measure conversions for bulk items

About Standard Unit of Measure Conversions

You must set up the unit of measure conversions that will apply to each item. Setting up standard unit of measure conversions allows you to enter items in different units of measure. The system converts them to one standard unit of measure to accurately account for inventory.

For bulk products, standard unit of measure conversions allow the system to calculate standard volume.

See Also

- *Setting Up Standard Units of Measure (P41003)* in the *Inventory Management Guide*

Set Up Standard Conversions for Bulk Items

```
G41          Inventory Management
             Enter 29
```

```
G4141        Inventory System Setup
             Choose Standard Units of Measure
```
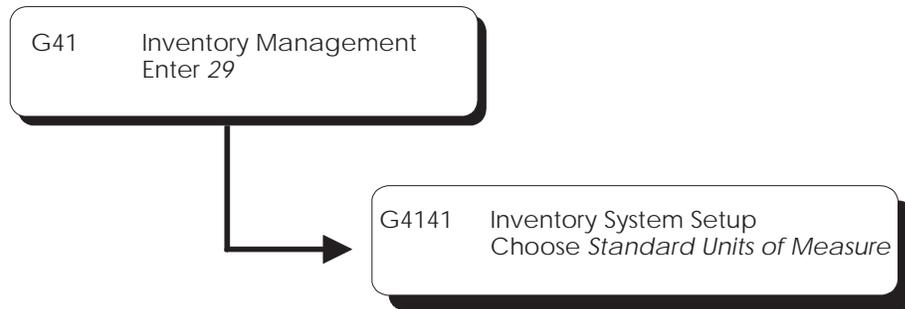
Setting Up Standard Conversions for Bulk Items

You set up standard unit of measure conversions for conversions that are constant. For example, if 100 centimeters always equals 1 meter, you set this up as a standard unit of measure conversion.

To set up conversions, define all common volume-to-volume and weight-to-weight conversions that your company needs for bulk item transactions. You can also set up volume-to-weight conversions for bulk items.

Whenever a conversion is needed for recording a transaction, the system uses standard unit of measure conversions if it is unable to find item-specific conversions. The system stores standard conversions in the Unit of Measure Conversion Factors – Standard table (F41003).

The system processes transactions according to the following hierarchy of conversion factors:

```
Select unit of          None     Select standard units    None     Error Message
measure at the item     found    of measure (Standard     found
or item/branch level             Unit of Measure
(Unit of Measure                 Conversion Factors –
Conversion Factors               Standard table
table F41002)                    F41003)
```
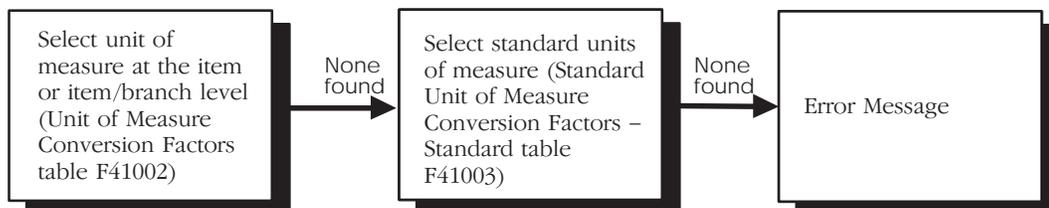
No special logic in the program keeps you from creating conflicting conversion factors, so use care when setting them up.

You can set up an unlimited number of conversion factors. However, you must set up conversion factors that calculate each unit of measure back to the primary unit of measure, for example, from pallets, to cartons, to boxes, to eaches.

The following is an example of valid conversions:

- 1 BX = 2 EA
- 1 CR = 2 BX
- 1 PL = 2 CR

See Also

- *Setting Up Unit of Measure Conversions by Bulk Item (P41002)*
- *Appendix B – Unit of Measure Conversions*

▶ **To set up standard conversions for bulk items**

On Standard Units of Measure
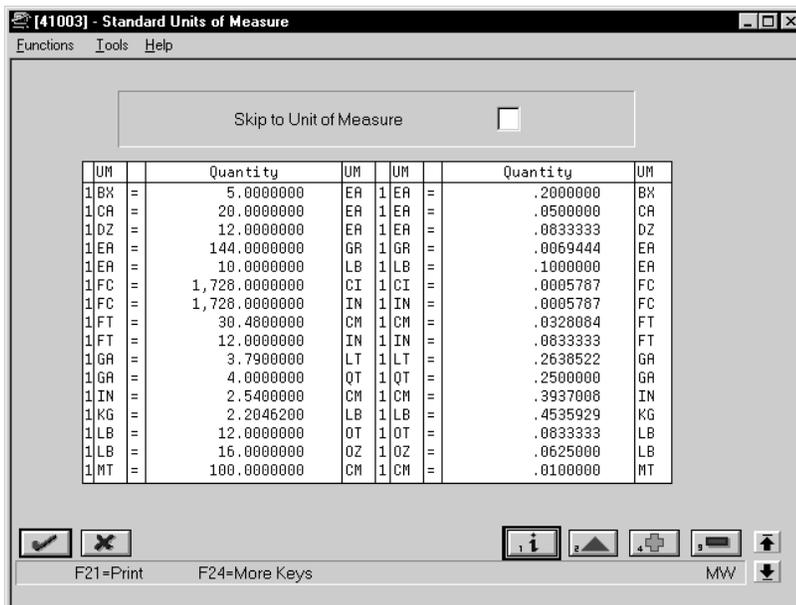
Complete the following required fields:

- Unit of Measure

- Quantity

- Unit of Measure

Field	Explanation
UM	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.
	. . . . *Form-specific information* . . . .
	Enter the unit of measure for which you will set up a conversion factor, and the unit of measure that the quantity represents.
Quantity	The factor that the system uses to convert one unit of measure to another unit of measure.
	. . . . *Form-specific information* . . . .
	Enter the conversion factor, or numeric quantity. The system uses the conversion factor during various inventory transactions to convert the previously entered unit of measure to another unit of measure. The system stores all conversion factors in a table for automatic conversion under program control.

What You Should Know About

Setting up volume-to-weight conversions	To perform volume-to-weight conversions for bulk items: • Set up conversion factors from cubic meters to all other units of measure used for volume calculations • Set up a unit of measure conversion from kilograms to all other units of measure used for weight calculations
Deleting a conversion factor	To delete a conversion factor, use the C action code and clear the complete line you want to delete. Using a D action code clears the entire table.

Bulk Item Setup

Objectives

- To set up basic information the system needs to process transactions for bulk items
- To define the default units of measure and set up unit of measure conversions for each bulk item
- To define the default temperature and density values for each item
- To set up basic item information at the depot level
- To define the primary depot location and assign a lot number
- To define all cost methods specific to a bulk item

About Bulk Item Setup

When you set up an item, you define basic information about the item and specify how the system should process transactions for the item. Setting up a bulk item provides the item-level default values used throughout the various bulk transaction processing programs. In addition, you set up item information specific to a depot.

Complete the following tasks:

- ❏ Set up a bulk item
- ❏ Set up item information by depot

Set Up a Bulk Item

```
┌────────────────────────────────────┐
│ G41      Inventory Management       │
│          Choose Inventory Master/   │
│          Transactions               │
└────────────────────────────────────┘
                    │
                    │
                    ▼
          ┌──────────────────────────────────────┐
          │ G4111    Inventory Master/Transactions│
          │          Choose Item Master Information│
          └──────────────────────────────────────┘
```
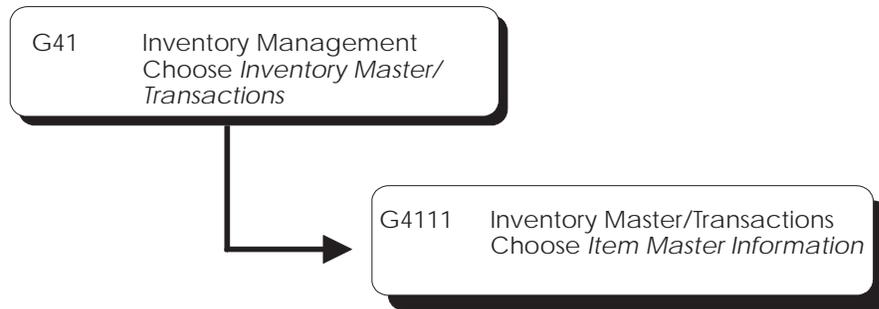
Setting Up a Bulk Item

You set up a bulk item by defining the basic information that the system uses to process transactions. This basic information includes:

- Item number and description

- Price and cost rules

- Availability and inventory commitment rules

- Item-specific system messages

Complete the following tasks:

- ❑ Set up basic bulk item information

- ❑ Define default units of measure for bulk items

- ❑ Set up unit of measure conversions by bulk item

- ❑ Define item temperature and density

You can set the processing options to display certain forms automatically when you enter information. Otherwise, you can choose the forms you need from Item Master Information.

See Also

- *Entering Item Master Information (P4101)* in the *Inventory Management Guide*
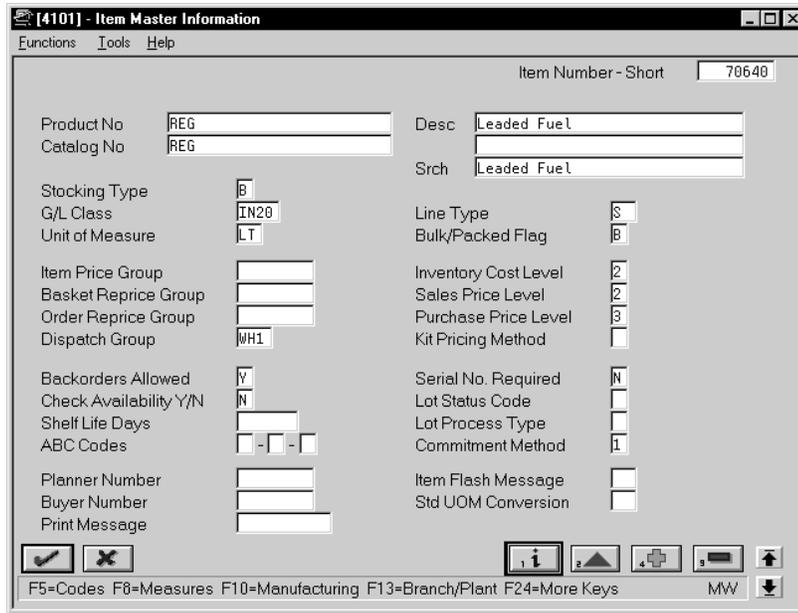
Setting Up Basic Bulk Item Information

Set up the basic item information, such as stocking information and pricing groups, that the system needs to process transactions for stock and non-stock items.

▶ **To set up basic bulk item information**

On Item Master Information

1. Complete the following fields:

   - Product Number
   - Description
   - Stocking Type
   - G/L Classification
   - Line Type
   - Bulk/Packed Flag

2. Complete the following optional fields:

- Item Number
- Catalog Number
- Search Text
- Unit of Measure
- Item Price Group
- Inventory Cost Level
- Basket Reprice Group
- Sales Price Level
- Order Reprice Group
- Purchase Price Level
- Dispatch Group
- Kit Pricing Method
- Backorders Allowed
- Serial Number Required
- Check Availability Y/N
- Lot Status Code
- Shelf Life Days
- Lot Process Type
- ABC Codes

Field	Explanation
Bulk/Packed Flag	Indicates if the item is a bulk liquid product. If it is a bulk product, you must perform temperature and density/gravity conversions. To record the movement of bulk products, you must use forms designed specifically for bulk products. If you try to record movement using standard inventory forms, the system prevents the movement. Valid values are: P Packaged B Bulk Liquid If you leave this field blank, the system uses P.

Field	Explanation
Dispatch Group	A user defined code that identifies the dispatch group. A dispatch group is a grouping you make for products according to the physical characteristics that are important when storing and transporting those products.
	During the trip building process, the system checks if the dispatch group for the item and the vehicle are compatible. The system only allows products belonging to the allowed dispatch groups to be assigned to the vehicle.
Check Availability Y/N	This field controls whether availability checking is performed throughout the Sales Order Processing system. You might want to check availability for some items. For other items you might want to assume that an adequate supply is available. Valid values are: Y Check Availability N Do Not Check Availability

What You Should Know About

Copying from an existing item

You can use an existing item setup as a model for a new item to speed entry. Locate an item previously entered, add the new item, and complete any of the information specific to your new item.

Deleting an Item Master Information record

You cannot delete an item record if the item is referenced as an Item Branch/Plant record, Bill of Material item, or Item Cross-Reference.

Processing Options for Item Master Information

```
Default Values :
  1. Primary Unit of Measure (Blanks=EA)                    _____
  2. Weight Unit of Measure  (Blanks=LB)                    _____

Process Control :
  3. Specify the from and thru dates
       to be used for effective dates
       in the Item Notes File :
       - From Date (Blank = System date)                    _____
       - Thru Date (Blank = 12/31 with                      _____
         the year = to the default
         value for the data dictionary
         item Century Change Year
         (#CYR))

  4. Enter a '1' for each additional
       Item Master information screen to
       display when performing an add or
       change.  If blank, the screen will
       not display.
```

```
            Classification Codes. . . . . .        _____
            Cost Revisions (Conditional). .        _____
            Price Revisions (Conditional) .        _____
            Units & Measures. . . . . . . .        _____
            Manufacturing Values. . . . . .        _____
            Bulk Product Information. . . .        _____

   5. Enter a '1' to use the window              _____
      version of the screens selected
      above.  If left blank, the full
      screen versions will be displayed.

   6. Enter a '1' to automatically call          _____
      the Item Branch Program (P41026)
      when adding a new item number
      and return to the Item Master
      Screen.  Enter a '2' to call the
      Item Branch program automatically
      and remain on the Item Branch
      Screen.  If left blank, the Item
      Branch Program will not be called.

Global Update:
   7. Enter a '1' to transfer changes            _____
      made to the 2nd (LITM) and the
      3rd (AITM) item numbers to the
      Item Branch (F4102) item records.

      (F19 from Item Master Revisions
      allows you to update other files).
    or
      Enter a '2' to transfer changes
      to records in the selected files
      (see User Defined Codes 40/IC).

      Press F1 to display the selected
      files.

Dream Writer Versions:
 Enter the version to be used for each
  program.  If left blank, ZJDE0001
  is used.
  8. Item Availability     (P41202)             _____
  9. Item Branch           (P41026)             _____
```

Defining Default Units of Measure for Bulk Items

Each item in the Item Master table can have several units of measure associated
with it for different situations. For example, you can purchase and ship an item
in cases, stock it in units (eaches), and sell it in dozens. The system retrieves the
item-level units of measure throughout the Inventory Management and Sales
Order Processing systems. You need to define the units of measure associated
with each item.

Before You Begin

❑ Add an item to the Item Master table (F4101). See *Setting Up Basic Bulk
Item Information*.

❑ Set up standard unit of measure conversions. See *Setting Up Standard Conversions for Bulk Items*

▶ **To define default units of measure for bulk items**

On Item Master Information

1. Access Default Units of Measure.

```
[41012] - Default Units of Measure                              _ □ ✕
Functions   Tools   Help

        Item Number              REG
                                 Leaded Fuel

        Unit of Measure
        Primary                  LT  Liters
        Secondary                LT  Liters
        Purchasing               LT  Liters
        Pricing                  LT  Liters
        Shipping                 LT  Liters
        Production               LT  Liters
        Component                LT  Liters
        Weight                   KG  Kilograms
        Volume                   LT  Liters
        PSAU-Volume or Weight    V

    ✔   ✖                              i   ▲  ✛  ▬   ▲
  F8=Conversions   F12=Previous   F24=More              MW  ▼
```
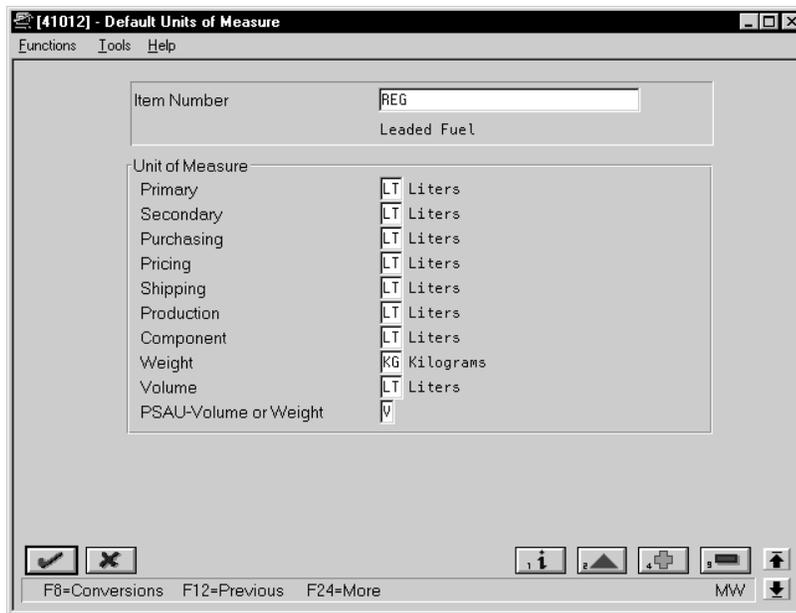
2. On Default Units of Measure, complete the following required fields:

   • Primary

   • Weight

   • Volume

   • PSAU – Volume or Weight

Field	Explanation
Primary	A user defined code (system 00, type UM), that identifies the unit of measure that the system uses to express the quantity of an item, for example, EA (each) or KG (kilogram).
	. . . . *Form-specific information* . . . .
	This is the primary stock accounting unit (PSAU) of measure that the system uses to store all inventory. If you change the primary unit of measure, the conversion factors in the item-level conversion table will no longer be valid.
	The default for this field is the unit of measure you specify for the item on Item Master Information.
Weight	A user defined code (system 00/type UM) that identifies the unit of measure that the system uses to display weight for this item. You can specify ounces, grams, kilograms, and so on, as weight standards. The system uses this unit of measure for the item or overrides it for an individual item or container.
	. . . . *Form-specific information* . . . .
	The default for this field is the weight unit of measure you specify in processing options for Item Master Information.
Volume	A code (system 00/table UM) that indicates the volumetric unit of measure for ambient volume, for example, gallon (GL) or liter (LT).
PSAU – Volume or Weight	Indicates whether the primary stock accounting unit of measure is in volume or weight. This field only appears if the item is designated as a bulk product in the Item Master Information table. Valid values are: V Volume W Weight
	If you leave this field blank, the system uses V.

What You Should Know About

Entering additional units of measure	You can enter additional units of measure to the user defined code table (00/UM). To do so, verify the special handling code in the fold area of User Defined Codes Revisions. The weight and volume units of measure must have a special handling code of W (weight) or V (volume). The weight-to-volume conversion process must be able to determine whether to treat a unit of measure as weight or volume.

See Also

- *About User Defined Codes for Bulk Stock* for information on revising user defined code tables

Setting Up Unit of Measure Conversions by Bulk Item

In addition to the standard unit of measure conversions, you need to set up unit of measure conversions that are item-specific. For example, a drum of additive might have a different conversion factor than a drum of oil. You set up conversions that are unique for an item at the item or item branch/plant level. The system stores this information in the Unit of Measure Conversion table (F41002). If you do not set up unit of measure conversions by item, the system uses the standard unit of measure conversions.

The system processes transactions according to the following hierarchy of conversion factors:

```
┌───────────────────┐         ┌───────────────────┐         ┌───────────────────┐
│ Select unit of    │  None   │ Select standard   │  None   │                   │
│ measure at the    │  found  │ units of measure  │  found  │                   │
│ item or item/     │────────▶│ (Standard Unit of │────────▶│  Error Message    │
│ branch level      │         │ Measure           │         │                   │
│ (Unit of Measure  │         │ Conversion        │         │                   │
│ Conversion        │         │ Factors –         │         │                   │
│ Factors table     │         │ Standard table    │         │                   │
│ F41002)           │         │ F41003)           │         │                   │
└───────────────────┘         └───────────────────┘         └───────────────────┘
```

You can set up an unlimited number of conversion factors. However, you must set up conversion factors that calculate each unit of measure back to the primary unit of measure, for example: from pallets, to cartons, to boxes, to eaches.

The following is an example of valid conversions:
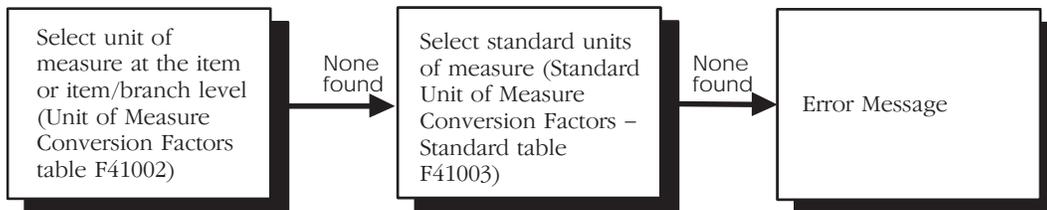
- 1 BX = 2 EA
- 1 CR = 2 BX
- 1 PL = 2 CR

Before You Begin

❑ Add an item to the Item Master table (F4101). See *Setting Up Basic Bulk Item Information*.

See Also

- *Setting Up Standard Conversions for Bulk Items (P41003)*

- *Appendix B - Unit of Measure Conversions*

▶ **To set up unit of measure conversions by bulk item**

On Item Master Information

1. Access Default Units of Measure.

2. On Default Units of Measure, choose Conversions.

3. On Item Units of Measure, complete the following required fields:

   - Unit of Measure

   - Quantity

   - Unit of Measure

What You Should Know About

Fill, repack, and decant movements	If you record fill, repack, and decant stock movements for a bulk item, you must also set up unit of measure conversions for the package quantity, for example, 1 DR (drum) = 209 LT (liters).

Defining Item Temperature and Density

You must define the default values by item that the system uses for temperature, density, and measurement. In addition, you specify the density and temperature tables to use for each item.

When you enter a transaction, the system verifies that the temperature or density you entered is within the range specified by the selected table for the item. The system uses the following temperature and density tables. Allowable ranges are shown for each table.

Temperature Range

Field	Explanation
6B	0 to 300 F 5B
24B	0 to 300 F 23 B
54B	−18 to 150 C 53B
54C	−18 to 150 C
54D	−20 to 150 F 53 B
BIT	−25 to 275 C BIT
LPG	−50 to 50 C LPG

Density Range

Field	Explanation
5B	0 to 85 API Gravity – 1 decimal place
23B	.6535 to 1.0750 Relative Density – 4 decimal places
53B	653 to 1075 Absolute Density – 1 decimal place
53D	800 to 1164 Absolute Density – 1 decimal place
BIT	700 to 1200 Absolute Density – 1 decimal place

Field	Explanation
LPG	.5000 to .6530 Relative Density – 4 decimal places

▶ **To define item temperature and density**

On Item Master Information

1. Access Bulk Product Information.

2. On Bulk Product Information, complete the following optional field:

   - Product Group

3. If the item requires temperature conversion, complete the following required fields:

   - Requires Temperature Conversion

   - Density

   - Density Table

   - Temperature Conversion Table

   See *About Bulk Stock* for information on converting volume for bulk products to volume at a standard temperature.

4. Complete the following fields or leave them blank to use the default values from the selected tables:

- Density Temperature

- Density Minimum

- Temperature Minimum

- Temperature Maximum

5. If the item is an LPG product, complete the following fields:

- LPG Product

- Calculate Vapour

- LPG Vapour Temperature

6. Complete the following field or accept the default value:

- Reconcile

Field	Explanation
Requires Temperature Conversion Flag	Indicates whether the item requires a temperature conversion. Valid values are: Y or 1 – Yes N or 0 – No (Default)
Density	Identifies your company's standard for density. You can also use this field for pack size and weight information.
Density Table	Identifies the density conversion algorithm to be used in calculations.
Reporting Temperature Table	Identifies the temperature table to use for reporting purposes. Fill in this field only if you use a table that is different than the Temperature Conversion table. This table is usually used for government reporting.
Reconcile	This code indicates whether the Item or Tank should be included in the reconciliation process as follows: T or 1 = Include this item in the Throughput Reconciliation process only O or 2 = Include this item or tank in the Operational Reconciliation process only B or 3 = Include this item in both the Throughput and Operational Reconciliation processes N or 0 = Do not include this item or tank in either of the Reconciliation processes

What You Should Know About

Adding an item	When adding an item, access Bulk Product Information from Item Master Information. When you use this access, you can only add or change information for that specific item.
Changing an item	If an item currently exists in the Item Master table (F4101), you can access Bulk Product Information from the Bulk Stock Control Setup menu.
Deleting an item	You cannot delete an item from Bulk Product Information. You can delete items only from Item Master Information.
Using a different temperature table for reporting purposes	You can use a different temperature table for reporting purposes. Specify this table in the Reporting Temperature Table field. This might be necessary for government reporting purposes.

Set Up Item Information by Depot

```
┌─────────────────────────────────────┐
│ G41      Inventory Management        │
│          Choose Inventory Master/    │
│          Transactions                │
└─────────────────────────────────────┘
                    │
                    │
                    ▼
        ┌─────────────────────────────────────────┐
        │ G4111    Inventory Master/Transactions   │
        │          Choose Item Master Information   │
        └─────────────────────────────────────────┘
```
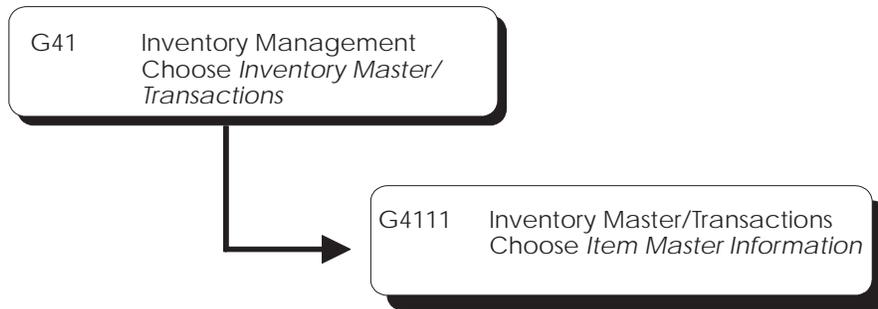
Setting Up Item Information by Depot

As part of your bulk item setup, you must set up item information specific to a depot (branch/plant), such as stocking information, primary locations, cost methods, and pricing groups.

Complete the following tasks:

- ❏ Set up basic item information by depot

- ❏ Define a primary depot location

- ❏ Define cost methods for bulk items

- ❏ Set up additional bulk item information

Before You Begin

- ❏ Add or locate an item on the Item Master Information form. When you access Item Branch/Plant Information and specify the depot for which you want to complete item information, the item and depot you specify provides the default values for the next form or window you access.

See Also

- • *Entering Branch/Plant Information (P41026)* in the *Inventory Management Guide*

Setting Up Basic Item Information by Depot

You must set up item information, such as stocking information and pricing groups, specific to a depot. This system stores this information in the Item Branch table (F4102).

The system retrieves item information as follows:
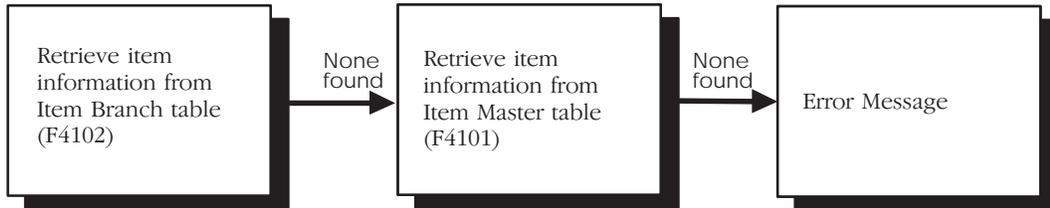
When processing transactions, the system retrieves item information specific to a depot from the Item Branch table. If none is found, the system retrieves item information from the Item Master table.

▶   **To set up basic item information by depot**

On Item Master Information

1. Access Item Branch/Plant Information.

2. On Item Branch Information, complete the following field:

    - Branch/Plant

3. Complete the following optional fields specific to a branch/plant:

    - Sales Taxable

    - Purchasing Taxable

    - Margin Maintenance

    - Supplier

    - Print Message

What You Should Know About

Deleting an item from Item Branch Information

To delete an item from Item Branch Information, verify the following:

- All associated balances for the item must be zero.
- All on-hand balances, backordered quantities, and any commitments must be transferred or satisfied.
- The Average Cost Work table (F41051) must not contain any transactions for the item and branch.

If the above requirements have been met, the system deletes the records from the following tables:

- Cost Ledger (F4105), if the cost level is 2 or 3
- Item Location (F41021)
- Item Branch (F4102)

Defining a Primary Depot Location

You can define a primary location and assign a lot number when you add an item branch/plant record.

▶ **To define a primary depot location**

On Item Master Information

1. Access Item Branch/Plant Information.

2. On Item Branch Information, access Item/Location Information.
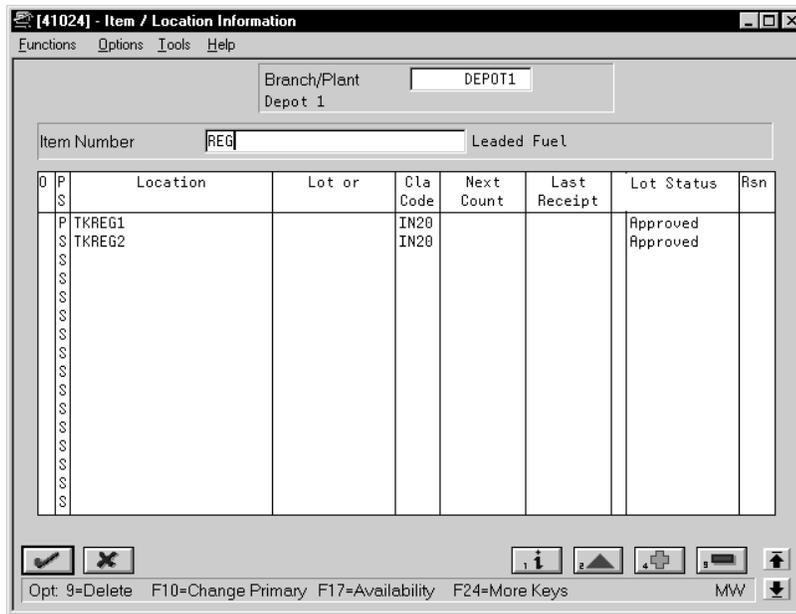
3. On Item/Location Information, accept the information to access the Primary Location window.
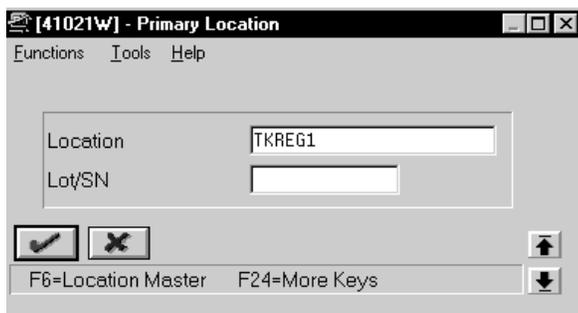
4. On the Primary Location window, complete the following fields:

- Location
- Lot

What You Should Know About

Displaying the Primary Location window   When you access Item Branch/Plant Information from Item Master Information, the Primary Location window only displays if you are adding a branch/plant record.

Assigning lot numbers   You can assign a lot number to bulk products. However, the system will not select bulk products by lot, nor does the Bulk Load Confirm process allow you to load confirm bulk products by lot. Therefore, although you can set up bulk products by lot, you will not be able to use this information for sales transactions.

Defining Cost Methods for Bulk Items

You need to define all cost methods specific to an item. You can create an unlimited number of cost methods. The system stores cost methods in the Cost Ledger table (F4105).

▶ **To define cost methods for bulk items**

On Item Master Information

1. Access Item Branch/Plant Information.

2. On Item Branch Information, access Cost Revisions.


```
[4105] - Cost Revisions                                          _ □ ✕
Functions  Options  Tools  Help

Item Number          REG                    Leaded Fuel
Branch/Plant              DEPOT1             Cost Methods
Location                                     Sales/Inventory    01
Lot/SN                                       Purchasing         01

        0                Cost Method              Unit Cost
        01 Last In                                  .1500
        02 Weighted Average                         .1500
        08 Purchasing-Base Cost No Adds             .1500




  ✔  ✖                              i  ▲  ⊕  ▬  ⬆
Opt:  1=Components  9=Delete  F10=Speed  F19=Previous  F20=Next  F24=More  MW  ⬇
```

3. On the Cost Revisions window, complete the following fields:

   • Sales Inventory

   • Purchasing

4. Enter costs for each cost method in the following field:

- Unit Cost

What You Should Know About

Deleting cost methods	If you delete the Sales/Inventory cost method, a warning appears, indicating that the inventory value will drop to zero. The system does not delete the cost record, but updates it to a zero cost.
Changing the sales/inventory cost method	If you change the Sales/Inventory cost method, the system creates General Ledger and Item Ledger transactions to reflect the change.
Displaying cost methods	You can set processing options to display the following formats:

- One cost method at a time, which also displays all locations and lots for the item
- Multiple cost methods per item

Setting Up Additional Bulk Item Information

You need to set up additional information by depot that is specific to bulk items. The information includes additional volume conversion information, automated depot processes, and blending and filling categories.

▶ To set up additional bulk item information

On Item Master Information

1. Access Item Branch/Plant Information.

2. On Item Branch Information, access Bulk Depot/Product Information.

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ▦ [41029] - Bulk Depot/Product Information                    _ □ ×       │
│ Functions   Tools   Help                                                  │
│ ┌───────────────────────────────────────────────────────────────────┐    │
│ │                                          Branch Plant    ┌ DEPOT1 ┐│    │
│ │  Item Number          ┌ REG                        ┐              │    │
│ │                       └────────────────────────────┘              │    │
│ │                         Leaded Fuel                               │    │
│ ├───────────────────────────────────────────────────────────────────┤    │
│ │  Strategic Volume        ┌──────────────┐┌LT┐                      │    │
│ │  Hydrometer Correction   │Y│                                       │    │
│ │  Air Correction          │N│                                       │    │
│ │  Gantry/Load Rack Flag   │N│                                       │    │
│ │  Auto Batch Blend        │N│                                       │    │
│ │  Auto Warehouse          │N│                                       │    │
│ │                                                                   │    │
│ │  Replenishment Type      │PUR│ Purchased Product                   │    │
│ │  Blend Category          │   │ blank valid                        │    │
│ │  Fill Category           │   │ Default                            │    │
│ │                                                                   │    │
│ │  Reconciled Thru Date    ┌───────┐                                 │    │
│ │  Reconcile               │   │                                     │    │
│ │                                                                   │    │
│ │  [✔] [✘]              [ i ] [▲] [✚] [▬] [⬆]                       │    │
│ │      F12=Previous  F14=Notes  F24=More              MW  [⬇]        │    │
│ └───────────────────────────────────────────────────────────────────┘    │
└─────────────────────────────────────────────────────────────────────────┘
```

3. On Bulk Depot/Product Information, complete one or more of the following fields or accept the default values:

    *   Branch/Plant

    *   Strategic Volume/Unit of Measure

    *   Hydrometer Correction

    *   Air Correction

    *   Gantry/Load Rack Flag

    *   Auto Batch Blend

    *   Auto Warehouse

    *   Replenishment Type

    *   Blend Category

    *   Fill Category

    *   Reconcile

Field	Explanation
Strategic Volume	Identifies the government-mandated, strategic stock level assigned to the depot for a specific product. The system displays a warning message when the stock level falls below government-required minimums.

Field	Explanation
Hydrometer Correction	Indicates whether this product must include the appropriate stem correction for the thermal expansion of the glass hydrometer. Valid values are: • Y or 1 (Yes) • N or 0 (No) If you leave this field blank, the system uses N (No).
Air Correction	Indicates if an air correction must be applied in the volume-to-weight conversion. The weight in air of a liquid differs from its mass (weight in a vacuum) because of the effects of air buoyancy. Thus, the calculation changes slightly if an air correction is required. Valid values are: • Y or 1 (Yes) • N or 0 (No) If you leave this field blank, the system uses N (No).
Load Rack	Indicates whether a gantry (loading rack) is used. Valid values are: Y or 1 – Yes N or 0 – No If you leave this field blank, the system uses N (No).
Auto Batch Blend	Indicates if this product at this depot will be used by an automated batch blending system. Valid values are: • Y or 1 (Yes) • N or 0 (No) If you leave this field blank, the system uses N (No).
Auto Warehouse	Indicates if this product at this depot will be used by an automated warehouse system. Valid values are: • Y or 1 (Yes) • N or 0 (No) If you leave this field blank, the system uses N (No).
Replenishment Type	Indicates the method of supply, for example, blended product, purchased product, or filled product. The Replenishment Type field is also used in conjunction with the blend and fill categories. A blended product requires a blend category. A filled product requires a fill category. A purchased product prevents the use of either a blend or fill category. Valid values for replenishment type are: • B = Blended products • F = Filled products • P = Purchased products
Blend Category	A user defined code (system 39/type BC) that indicates the valid product groups (or categories) that can be put into a specific blending tank. It is used to specify compatible or incompatible groups for blended stock items and blending equipment (tanks).

Field	Explanation
Fill Category	A user defined code (system 39/type FC) that identifies the different filling categories. Fill categories are used to specify compatible/incompatible groups for filled stock items and filling equipment. This field also identifies the different types of fillings (for example DRUM, TIN) and matches a filling of a particular stock item against the equipment (filling line) used.

What You Should Know About

Updating the Reconciled Thru Date	When you access Depot/Product Information, the system updates the Reconciled Through Date based on the Operational Reconciliations program.

Tank and Flow Meter Setup

Objectives

- To set up the structural tank information that the system uses to process transactions
- To set up a blending tank and define the allowed blending categories
- To set tank information, such as discharge and filling rates, that the system needs to calculate volume and manage depot transactions
- To set up the strappings information for all tanks within a depot
- To define the default temperature and density specific to a tank
- To specify the allowed product groups and sequence restrictions within tanks
- To set up flow meters for a depot
- To set up a filling line

About Tank and Flow Meter Setup

A depot consists of tanks that hold various products. You must define the tanks, allowed products, meters, and filling lines at the depot location. The system uses this information to calculate volumes and optimize tank usage.

Complete the following tasks:

- ❑ Set up a tank

- ❑ Define tank temperature and density

- ❑ Define product groups

- ❑ Set up a flow meter

- ❑ Set up a filling line

Before You Begin

- ❑ Set up the depot and tank locations. See *Setting Up Depot Constants for Bulk Products.*

❏ Set up the items that will be placed in the tanks. See *Setting Up a Bulk Item*.

Set Up a Tank

```
G4150    Bulk Stock Control
         Enter 29
```

```
G415041 Bulk Stock Control Setup
          Choose Tank Master Maintenance
```
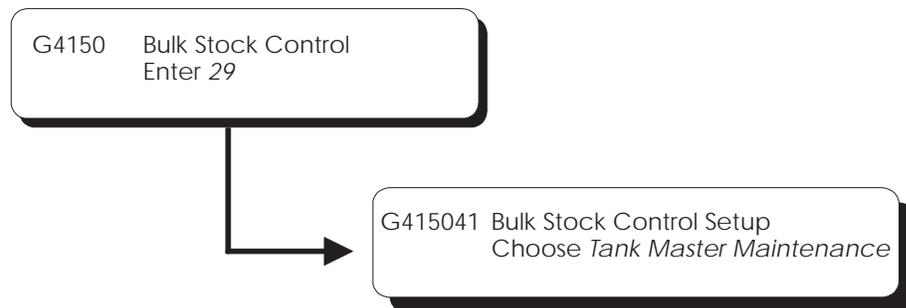
Setting Up a Tank

To set up a tank, you specify the structural information about the tank, such as capacity, height, and tank specifications. The system uses this information to calculate volume and optimize tank usage.

Complete the following tasks:

❏ Set up basic tank information

❏ Set up a blending tank (optional)

❏ Set up additional tank information

❏ Set up tank strapping information

```
[415001] - Tank Master Maintenance                              _ □ ×
Functions   Tools   Help

  * Notes *                          Branch/Plant         DEPOT1
Tank ID            TKREG1
Description        Storage Tank for Leaded Fuel


Tank Location      TF1  Tank Farm 1
Tank Usage         STO  Storage Tank
Tank Type          VER  Vertical

Tank Capacity        20000000 LT    Heated Tank         N
Diameter              1500.00 CM    Pressurized         N
Tank Height           1010.00 CM    Reference Height        1000.00 CM

Strapping Units    CM  Centimeters  Strapping Temp       22.00  C
Dip Type           W   Wet Dip Reading Gauging Method    M  Manual Dip
Floating Roof      Y                Date Installed      03/07/95
Roof Weight              2.00 TN    Process Control ID
Floating Height       150.00 CM     Reconcile           B


  ✔  ✖                              i    ▲   ⊹   ▬   ⬆
 F5=Add'l Info F6=Strappings F8=All'd Prod F10=Blend Cat F14=Notes F15=Locn   MW  ⬇
```

Setting Up Basic Tank Information

You must define the basic structural information about a tank. The system retrieves this information when processing transactions to calculate volume. This information is stored in the Tank Master table (F41500).

▶ **To set up basic tank information**

On Tank Master Maintenance

1. Complete the following fields:

    • Branch/Plant

    • Tank ID

    • Tank Location

    • Tank Usage

    • Tank Type

    • Tank Capacity

    • Unit of Measure

    • Tank Height

    • Unit of Measure

    • Reference Height

    • Unit of Measure

- Strapping Units
- Dip Type
- Gauging Method

2. Complete any or all of the following optional fields:

- Heated Tank
- Diameter
- Pressurized
- Strapping Temperature
- Floating Roof
- Date Installed
- Roof Weight
- Process Control ID
- Floating Height
- Reconcile

Field	Explanation
Tank ID	An 8-character field identifying the tank as defined on the Branch/Plant Constants form.
	. . . . *Form-specific information* . . . .
	NOTE: Do not enter a tank and owner ID. The information on this form applies only to the entire physical tank.
Tank Location	A user defined code (system 39/type TL) that indicates the tank's location, for example, Tank Farm 1, Tank Farm 2, and so forth.
Tank Usage	A user defined code (system 39/type TU) that identifies how the tank is used. A blending tank should be identified with a code that begins with the letter "B." If the tank is a blending tank, the Blend Categories Window appears when you press Enter at tank setup time.
	NOTE: Blending tanks allow more than one product to be put in the tank. All other tanks can contain only one product, which is considered the current product.
Tank Type	A user defined code (system 39/type TY) that indicates the physical shape of the tank and whether the tank is on scale.

Field	Explanation
Tank Capacity	The total volumetric storage capacity of a tank. Tank Capacity consists of two fields. The first is the total storage capacity of the tank. The second is the unit of measure (UM) associated with the capacity measurement. The capacity is checked while receiving products and recording general stock movements. If you enter a value that is greater than the tank's capacity, the system displays an error message and will not allow you to record the transaction.
	The system uses the unit of measure as the basic unit of measure for the tank. All other volume units of measure associated with the tank must match this unit of measure.
	If the dip type is slip tube or normal dip, then the Tank Capacity is an informational field only. If the dip type is roto percent (for LPG bullets/spheres only), then Liquid Volume equals Roto % multiplied by Gross Capacity. Vapour Space equals Gross Capacity minus Liquid Volume.
Tank Height	Identifies the distance from the bottom to the top of a tank and the unit of measure. These fields are display only fields.
Reference Height	Identifies the maximum dip height of the product within the tank, or the point from which ullages are to be converted to height of liquid. The reference height must be below tank height.
Strapping Units	A user defined code that identifies strapping table increments (for example, centimeters, millimeters, half inches, or quarter inches). If the depot is in U.S. increments, you must enter FF in this field.
Dip Type	A user defined code (system 39/type DP) that identifies the method of measurement that the system uses to calculate the volume from tank dips. Valid values are: • W = Wet Dip Reading • U = Ullage Dip Reading • R = Roto Gauge Percent Reading • S = Slip Tube Reading • E = Electronic Gauge Reading
Gauging Method	A user defined code that identifies the measuring method that the system uses to determine the quantity of liquid in the tank.

Field	Explanation
Floating Roof	Indicates whether the tank has a floating roof, and if so, whether a floating roof calculation is required. Valid values are: • Y or 1 = Floating roof – requires calculation. • N or 0 = No floating roof. • S or 2 = Floating roof – strappings already account for floating roof calculation (no calculations required). If you enter Y or 1, the program requires roof weight and floating height entries.
Roof Weight	Identifies the unit of measure for the roof weight. If you use a unit of measure that is not equal to kilograms, you must set up a conversion between your unit of measure and kilograms in the Standard Unit of Measure Conversion program. The Roof Weight field is required if the Floating Roof field is set to Y or 1. This value is used to calculate the roof displacement correction.
Process Control System ID	Identifies the process control system. You can identify one or more process control systems associated by depot, tank, or mode of transport. The system uses this field for downloads of automated gantry information.
Reconcile	This code indicates whether the Item or Tank should be included in the reconciliation process as follows: T or 1 = Include this item in the Throughput Reconciliation process only O or 2 = Include this item or tank in the Operational Reconciliation process only B or 3 = Include this item in both the Throughput and Operational Reconciliation processes N or 0 = Do not include this item or tank in either of the Reconciliation processes

What You Should Know About

Deleting a tank record	When you delete a tank, the system automatically deletes the corresponding records in the Tank Strapping Table Maintenance (F41503) and Default Tank Information (F41508) tables.

Setting Up a Blending Tank

A blending tank can hold more than one product. You set up a blending tank to define the blending categories that will be allowed in that tank.

▶   **To set up a blending tank**

On Tank Master Maintenance

1. Follow the steps to set up a tank.

2. Enter the code for a blending tank in the following field:

    • Tank Usage

3. Access Blend Categories.

```
[41501W] - Blend Categories                    _ □ ✕
Functions   Tools   Help

Branch/Plant        DEPOT1
Tank ID             TKBLEN
Description         Tank for Blending

        Categories
        IBB Inline Blender-Base Oils
        MOT Motor Oils



 ✓    ✗                                          ⬆
        F24=More Keys                             ⬇
```
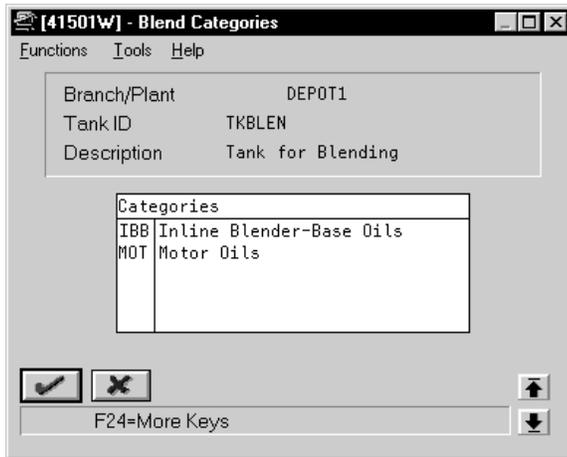
4. On Blend Categories, complete the following required field:

    • Categories

What You Should Know About

Deleting a category	Use the C action code and clear the Categories field to delete a category.
Adding a category	You can only add new categories on a blank line.

Setting Up Additional Tank Information

You must define additional information about a tank that the system needs to calculate volume and manage depot transactions. This information includes discharge and filling rates, tank status, and commingled stock.

If you set up a tank as carrying commingled stock, all transactions, such as general stock movements, load confirm, and disposition, require you to enter

the owner of the product. All tanks for the product must be defined as commingled, since any could be the current tank at any time.

Before You Begin

❑ Set up the tank in the Tank Master table (F41500). See *Setting Up Basic Tank Information.*

▶ **To set up additional tank information**

On Tank Master Maintenance

1. Access Additional Tank Information.

2. On Additional Tank Information, locate the tank.
3. Enter a C in the following field:

   • Action Code

4. Complete the following fields:

   • Tank Status

   • Current Product

5. Complete one or more of the following optional fields:

   • Unpumpable Volume

   • Discharge Volume

   • Pipeline Volume

- Discharge/Hours

- Low Stock Warning

- Fill Rate/Hour

- Date Cleaned

- Temperature Expiration Period

6. Complete the following fields or leave blank to accept the default values:

- Temperature Expiration Period

- Current Tank

7. If the tank contains commingled stock, complete the following field:

- Stock Commingled

8. Indicate a change.

9. Accept the entries.

Field	Explanation
Tank Status	Identifies whether the tank is active or inactive. A tank must have a status of active to assign product to it. A tank that has a status of inactive indicates that the tank is empty and not being used. Multiple tanks can be active for a product, but only one tank can be defined as the current, or default, tank. Valid values are: • A = Active • I = Inactive
Current Product	A number that the system assigns to an item. It can be in short, long, or 3rd item number format. . . . . *Form-specific information* . . . . Identifies the current product that the tank contains. When you enter a product, the system checks the current product associated with a tank. If the new product differs from the current product, you cannot enter it into the tank unless the quantity of the current product is zero. Also, when you enter a product, the system checks the Allowed Products matrix to determine if the product group that this product is attached to is allowed to enter the tank, based upon the tank's previous contents. If the tank is set up as a blending tank, there is no current product. You can enter any product.

Field	Explanation
Unpumpable Volume	This field displays the volume in the tank that is below the level of the discharge pipeline and, therefore, cannot be removed by the normal discharge pump. The system edits this volume during load confirmation, but it is not used when calculating tank dip volumes. The Unpumpable Volume quantity is used for information purposes only.
Discharge Volume	Identifies the volume of the product in a tank's discharge pipeline. The system adds this value to obtain the total ambient volume.
Pipeline Volume	Identifies the volume of product held in the pipeline that is connected to the subject tank. The tank's content capacity includes the volume capacity of the pipeline. To reflect the total product volume in the tank and pipeline, Pipeline Volume is added to the observed (ambient) volume calculated on the Tank Dip form.
Low Stock Warning	Identifies the volume of product below which a low stock warning is issued. A low stock warning indicates that the volume is close to the safety stock level.
	Enter the quantity and unit of measure that the system uses to provide a low stock warning. This field information is used during the Load Confirm process. If the quantity being loaded will bring the tank to the low stock point, a "soft" error occurs. That is, the user can press Enter and continue with load confirm.
Temperature Expiration Date	Identifies the number of hours that the tank temperature remains valid. The system uses this number to calculate the next expiration date and time on Default Tank Information. The system also checks the temperature expiration period at load confirm time to ensure that the default temperature reading is valid. If you do not require an expiration (for example, stocks are stored at a third-party site), enter 99999.
Current Tank	Indicates whether this tank is the current tank used for product sales. Only one tank per product can be the current tank. Valid values are: • Y (Yes) or 1 • N (No) or 0 The default value is N.

Field	Explanation
Stock Commingled	A stock value that identifies the type of commingled stock. If any tank for a product contains commingled stock, you must set up all tanks for that product as containing commingled stock. You also use this field to divide product in the tank into two quantities. For example, enter a value if you want to separate duty-paid from unpaid product in the same tank. If the stocks are commingled, you must record all the product movements at the "owner" level. Valid values are: Y or 1 – Stocks are commingled for custody N or 0 – Stocks are not commingled D or 2 – Stocks are commingled for duty B or 3 – Stocks are commingled for both custody and duty

What You Should Know About

Accessing Additional Tank Information from the menu	If you have already set up the tank in Tank Master Maintenance, you can choose Additional Tank Information directly from the Bulk Stock Control Setup menu to locate the tank and change information.

Setting Up Tank Strappings Information

You must set up the strappings information for the storage, blending, and holding tanks in a depot. The system uses tank strappings (reading height) when you record tank dips to convert tank dip readings to gross volumes.

For example, if you enter before and after dip readings in the Dip Volume Calculator program, the program uses the tank strappings information to calculate the volume.

You can enter information in both metric and U.S. measurements. The delimiter for U.S. measurements is the one you defined in the U.S. Increments Delimiter field on Branch/Plant Constants – Page 3.

Before You Begin

❑ Set up the tank in the Tank Master table (F41500). See *Setting Up Basic Tank Information.*

▶ **To set up tank strappings information**

On Tank Master Maintenance

1. Access Additional Tank Information.

2. On Additional Tank Information, access Tank Strapping Table Maintenance.

3. On Tank Strapping Table Maintenance, complete the following fields for each strapping point:

   - Reading Height

   - Volume at this Point

   - Volume/Per Increment

4. Complete the following optional fields:

   - Strapping Chart ID

   - Strapping Date

   - Chart Prepared By

   - Initial Volume

Field	Explanation
Reading Height	This value is a linear measurement that represents either the depth of oil or free space (Ullage) available in a tank.
Volume at this Point	The volume contained in the tank at this reading height. You can enter an amount or have the system calculate it. If you want the system to calculate the volume, you must enter information in the Volume/Per Increment field.

Field	Explanation
Volume/Per Increment	This value is the gradient above a strapping point in terms of volume increase per strapping unit. If you enter a value in this field, the system calculates the volume at this point.
Strapping Chart ID	Identifies the person responsible for the strapping. This field is for reference only.
Initial Volume	The volume of liquid below the zero reference point. The initial volume is added to the total tank volume. When taking a dip reading, this volume is added to the Volume at this point to arrive at the ambient value.

What You Should Know About

Correcting tank strapping information   You cannot change the data previously entered in the Reading Height and Volume fields.

To correct an entry, you must delete the line. Then, enter the correct reading on a new line.

Define Tank Temperature and Density

```
G4150     Bulk Stock Control
          Enter 29
```

```
G415041  Bulk Stock Control Setup
         Choose Default Tank
         Information
```
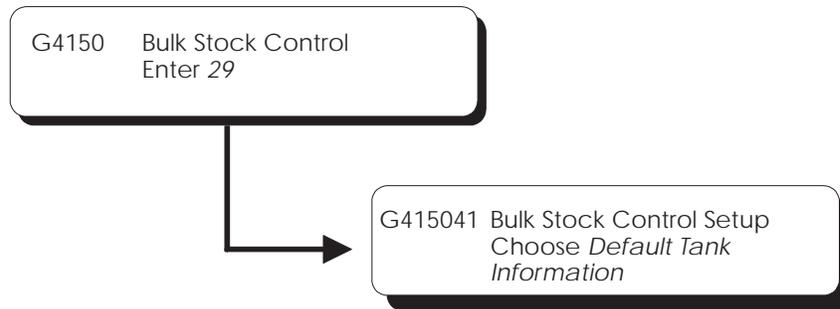
Defining Tank Temperature and Density

The system uses the default temperature and density specific to a tank to calculate volume and process stock movements. If you do not enter the temperature and density information when performing a stock movement, the system retrieves the default temperature and density for the tank from the Default Tank Information table (F41508).

Before You Begin

❑ Set up the tank. See *Setting Up a Tank*

❑ Set up the item. See *Setting Up a Bulk Item*

❑ Identify the item as the current product. See *Setting Up Additional Tank Information*

▶ **To define tank temperature and density**

On Default Tank Information

1. Complete the following fields:

    - Branch/Plant

    - Tank ID

    - Tank Temperature

    - Tank Density

    - Density Temperature

    The Tank Status and Item Number fields appear.

2. Access the fold area.

```
[415108] - Default Tank Information                                    _ □ ✕
Functions   Options   Tools   Help

                                              Branch/Plant          DEPOT1

   Date(*=All)/Time        06/30/98          (hh:mm:ss)
   Tank ID                 TKREG1    Storage Tank for Leaded Fuel
   Product

   ┌─┬─────────┬──────┬─────────┬─────────┬───┬───┬──────────────────┐
   │O│ Tank ID │ Tank │  Tank   │ Density │Cur│Tnk│   Item Number    │
   │ │         │ Temp │ Density │  Temp   │Tnk│St │                  │
   │ │ TKREG1   20.00  C   700.0 A  20.00  C Y   A   REG              │
   │ Read Date. . . .   06/30/98           Temp Expiration Date .   No Limit │
   │ Reading Time . .   15:50:58           Temp Expiration Time .   No Limit │
   │         Description Leaded Fuel                                  │
   │                                                                 │
   │ Read Date. . . .                      Temp Expiration Date .    │
   │ Reading Time . .                      Temp Expiration Time .    │
   │         Description                                             │
   │                                                                 │
   │ Read Date. . . .                      Temp Expiration Date .    │
   │ Reading Time . .                      Temp Expiration Time .    │
   │         Description                                             │
   └─────────────────────────────────────────────────────────────────┘


   ✔  ✖                                    i   ▲  ⊹  ▬   ⬆
   Opt: 6=Availability 9=Delete  F8=Multi-Tank  F20=Next Product  F24=More    MW  ⬇
```

The system calculates the temperature expiration date and time based on the temperature expiration period from Additional Tank Information.

3. Complete the following fields to calculate this information manually:

   • Temperature Expiration Date

   • Temperature Expiration Time

Field	Explanation
Tank Temperature	This field is used to indicate the temperature of the product in the tank. The temperature type specified on the Branch/Plant Constants – Page 3 is the default value. The system checks this entry against the minimum and maximum temperature range.
Tank Density	The density of the product in the tank as determined by the laboratory sample. If you leave this field blank, the system uses the density type specified on Branch/Plant Constants – Page 3.

What You Should Know About

Changing current tank values

You can change the current tank value on the Default Tank Information form. This will change the current tank value defined on the Tank Master Maintenance form. For example, if you set the current tank field to Y (Yes) in the Tank Master Maintenance program, you can enter a N (No) in Default Tank Information. This changes the value in the Tank Master Maintenance form to N (No) and in the Tank Master table (F41500).

Entering the date and time

If you enter the date and time, the system uses this information in all records added in all detail lines.

If you enter the date and time for each line in the fold area, you can display different information for each line.

Deleting records

To delete a record, choose only the detail line for the tank you want to delete.

Define Product Groups

```
G4150      Bulk Stock Control
           Enter 29
```

```
G415041  Bulk Stock Control Setup
         Choose Allowed Products
         Matrices
```
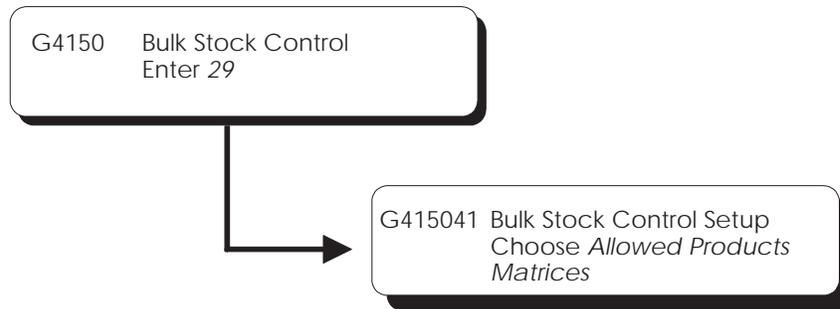
Defining Product Groups

You must define the product groups that a tank or filling line can hold. You must also specify the order in which products can be put into the tank without requiring the tank to be cleaned. The system system displays a warning message if you need to flush the tank prior to adding another product.

The system uses this information whenever you perform any of the following activities:

- Transfer product into the tank as part of a general stock movement

- Receive product into the tank

- Change the current product in the tank on the Additional Tank Information form

You can set up the product groups for individual tanks or by tank type, depending on your needs.

▶ **To define product groups**

On Allowed Products Matrices
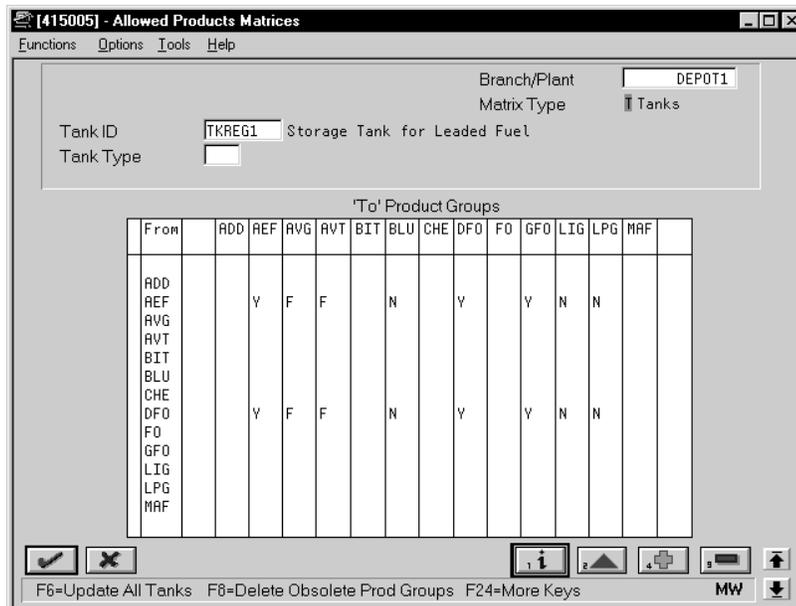
1. Complete the following field:

    • Branch/Plant

2. Complete one of the following fields:

    • Tank ID

    • Tank Type

3. For each "From" and "To" group, complete the following field:

    • Intersection Value

Field	Explanation
Intersection Value	The designation of what product groups are allowed and in what order. The valid values are: Y Can fill the tank/line/vehicle with the "To" product after the "From" product. (Default) F Can fill the tank/line/vehicle with that product group, but have to flush the tank/line/vehicle first. N Do not allow "To" product to be placed in the tank/line/ vehicle after the "From" product.

What You Should Know About

Updating information for all tanks of the same type	If you set up the allowed products by tank type and then change the product matrix, you can use a function key to quickly update the information for all tanks of this type.
Deleting obsolete records	You cannot delete a matrix. However, you can use Delete Obsolete Matrix Records to delete obsolete records from the matrix. Obsolete records have a From or To group which has been removed from the user defined codes table for either the product or dispatch group. Obsolete records do not appear on the matrix, but remain in the system until you delete them.

Processing Options for Allowed Products Matrix

```
1. Enter the type of matrix to be                    _____
   be displayed.
      'T' = Tanks (default)
      'F' = Filling Line
      'V' = Vehicle
```

Set Up a Flow Meter

```
┌──────────────────────────────────────┐
│ G4150    Bulk Stock Control          │
│          Enter 29                    │
│                                      │
└──────────────────────────────────────┘
          │
          │
          │        ┌──────────────────────────────────────┐
          └───────▶│ G415041  Bulk Stock Control Setup     │
                   │          Choose Meter Master          │
                   │          Maintenance                  │
                   └──────────────────────────────────────┘
```
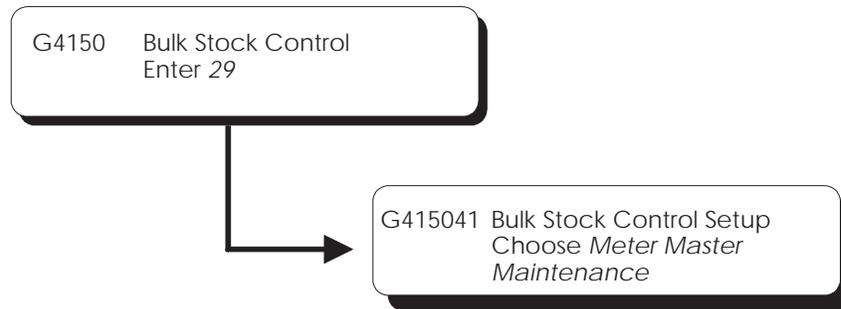
Setting Up a Flow Meter

You set up a flow meter to define such information as the current product, location, and calibration dates. The system uses this information during the throughput reconciliation process.

▶ **To set up a flow meter**

On Meter Master Maintenance

1. Complete the following fields:

   - Branch/Plant

   - Meter Number

   - Meter Status

   - Current Product

   - Meter Units

   - Unit of Measure

2. Complete the following optional fields or leave blank to accept the default values:

   - Date Last Calibrated

   - Throughput Since Last Calibration

   - Maximum Reading

   - Temperature Compensated

   - Load Rack Interface

3. Complete one or both of the following optional fields:

   - Last Product

   - Date Installed

Field	Explanation
Meter Number	Identifies the meter number.
	. . . . *Form-specific information* . . . .
	Enter the number that identifies the meter. If you leave this field blank, the Next Number program automatically assigns the next number.
Meter Units	Designates the number of meter units used to calculate the quantity that passes through the meter. Meter units can differ from the units used to calculate volume or weight. For example, one meter unit can equal three actual volumetric units.
Date Last Calibrated	The last date that the meter flow was tested and calibrated. Whenever this date is changed, the system resets the entry in the Throughput Since Last Calibration field to zero.
Throughput Since Last Calibration	Enter a valid number and the unit of measure in these fields. If you leave the first field blank, the system uses zero. You can enter values in these fields only during initial meter setup. After you have set up the meter, the total throughput is a rolling figure from the Meter Master table (F41506). As the system calculates volumes from closing readings, it adds them to the prior total to obtain a current figure for this record. If you change the date in the Date Last Calibrated field, the system clears this field.
Maximum Meter Reading	The largest reading on the meter before it rolls back to one. If you leave this field blank, the system uses the value assigned in the data dictionary for this field.
Temperature Compensated	Indicates whether the throughput volume is already at the standard temperature and a temperature conversion is required. Valid values are: Y or 1 – Yes N or 0 – No
Load Rack Interface	Indicates whether the product is being loaded via a loading rack (gantry). Valid values are: Y (Yes) or 1 – Loading rack interface in place N (No) or 0 – Loading rack interface not in place

What You Should Know About

Changing current product If you want to change the current product of an existing meter, you must enter a closing meter reading for the prior product.

Attaching notes You can attach notes about the meter.

Set Up a Filling Line

```
┌─────────────────────────────────┐
│ G4150    Bulk Stock Control      │
│          Enter 29                │
│                                  │
└─────────────────────────────────┘
                  │
                  │
                  └──────────────┐
                                 ▼
                    ┌─────────────────────────────────────┐
                    │ G415041 Bulk Stock Control Setup     │
                    │         Choose Filling Line Master   │
                    │                                      │
                    └─────────────────────────────────────┘
```
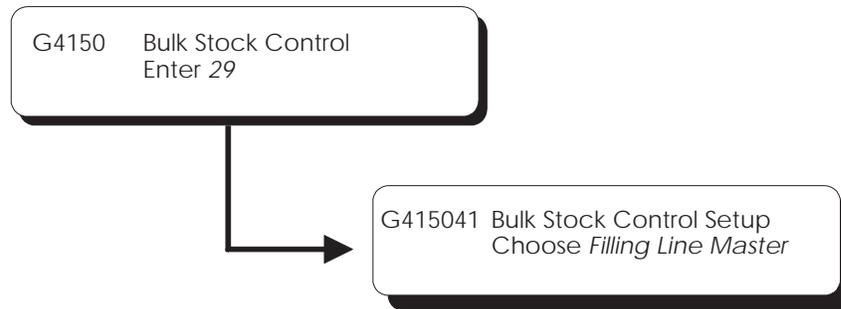
Setting Up a Filling Line

You set up a filling line to define the filling lines used at the depot. A filling line is the equipment used to fill bulk product at the depot. The Filling Line Master records information such as the availability of the filling line and location within the depot. An additional form records filling categories and fill rates.

Complete the following tasks:

❑ Add a filling line

❑ Record categories and rates
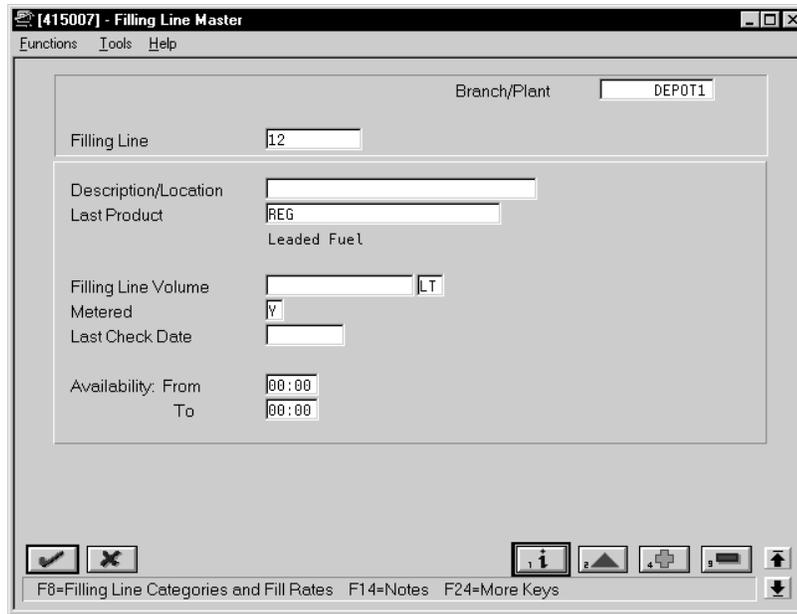
Adding a Filling Line

You add a filling line to record information, such as availability and location for a filling line within the depot.

▶ **To add a filling line**

On Filling Line Master

1. Complete the following fields:

   - Filling Line
   - Last Product
   - Metered

2. Complete the following optional fields:

   - Description/Location
   - Filling Line Volume
   - Last Check Date
   - Availability From
   - Availability To

Field	Explanation
Filling Line	The system identifier for the filling line.

Field	Explanation
Location	A user defined name or remark that describes a field.
	. . . . *Form-specific information* . . . .
	This field identifies where the filling line is located in the depot.
Filling Line Volume	The volume of product held in the filling line. This volume is informational only and does not affect inventory.

Recording Categories and Rates

Filling categories define the particular filling stock items and the allowable or compatible product groups for filling equipment. In addition to the rate of filling, you can specify the initial setup and final flush times needed to calculate manufacturing lead time.

Filling line volume is not included in calculating inventory. Do not confuse filling line volume with the pipeline volume associated with a tank, which is included in calculating inventory.

Filling line volume is not included in calculating inventory. Do not confuse filling line volume with the pipeline volume associated with a tank, which is included in calculating inventory.

▶ **To record categories and rates**

On Filling Line Master

1. Access Filling Line Categories and Fill Rates.
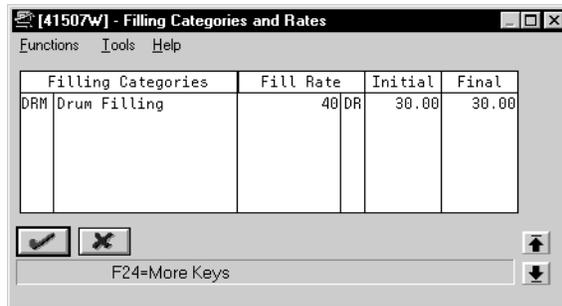
2. On Filling Line Categories and Fill Rates, complete the following fields:

    *   Filling Categories
    *   Fill Rate

- Initial

- Final

Field	Explanation
Fill Category	A user defined code (system 39/type FC) that identifies the different filling categories. Fill categories are used to specify compatible/incompatible groups for filled stock items and filling equipment. This field also identifies the different types of fillings (for example DRUM, TIN) and matches a filling of a particular stock item against the equipment (filling line) used.
Fill Rate Per Hour	The maximum rate at which the tank can be filled.

System Setup

Objectives

- To understand how to set up the controls that let you process bulk stock information

About System Setup

In order to work with the Bulk Stock Control system, you need to review or revise some basic system setup tables.

System setup includes:

❏ Understand AAIs for bulk stock

❏ Understand user defined codes for bulk stock

❏ Understand next numbers for bulk stock

Understand AAIs for Bulk Stock

About AAIs for Bulk Stock

You need to set up the automatic accounting instructions (AAIs) for the Bulk Stock Control system. The AAIs for bulk stock control identify the General Ledger (G/L) accounts that the system updates when recording transactions.

You must create AAIs for each unique combination of company, document type, and G/L class code you anticipate using.

The following identifies the AAIs used in the Bulk Stock Control system:

4122	Provides the inventory offset account. Used by the General Stock Movements program.
4124	Provides the offset account for expense or cost of goods sold. Used by the General Stock Movements program
4152	Provides the inventory account used in the reconciliations process.
4182	Provides the physical gain/loss account. Used by the General Stock Movements and Rocnciliations programs.
4184	{Provides the work-in-process account to record the interim gain or loss on bulk items. Used by the GEneral Stock Movements program.

The following illustrates the accounting transactions for these AAIs.

If decreasing inventory	Debit AAI = 4182 Gain/Loss Credit AAI = 4152 Inventory
If increasing inventory	Debit AAI = 4152 Inventory Credit AAI = 4182 Gain/Loss

See Also

- *Setting Up AAIs for General Accounting (P00121)* in the *General Accounting I Guide*

Understand User Defined Codes for Bulk Stock

About User Defined Codes for Bulk Stock

The User Defined Codes (UDCs) program allows you to establish and maintain a table that defines valid codes for various types of information. Codes are categorized by system and code type. You might need to review or revise codes for bulk stock control.

In addition, you need to define the user defined codes for the various document types used by the system.

The Bulk Stock Control system uses the following UDCs:

Blending Categories (Type BC)	Identifies valid product gorups that can be put into a specific blending tank.
Dispatch Group (Type DG)	Used by the Load and Delivery management system to gorup bulk products for dispatch.
Density Table (Type DN)	Indicates the density conversion algorithm to be used in calculations
Dip Type (Type DP)	Identifies the method of measurement when calibrating volumes form tank dips
Density Type (Type DT)	Identifies the type of density.
Fill Dategory (Type FC)	Identifies the different filling categories.
Gauging Method (Type GM)	Indicates the method used to measure product.
Meter Status (Type MS)	Indicates whether the meter is active or inactive.
Product Group (Type PG)	Identifies the line of products whose similarities allow them to be grouped.

Replenishment Type (Typr RT)	Indicates the type of supply (blended product, purchased, filled, and so on).
Tank Status (Type ST)	Indicates whether the tank is active or inactive.
Strapping Units (Type SU)	Indicates the size of the strapping table increments (centimeters, millimeters, and so on).
Tank Location (Type TL)	Identifies the location of the tank.
Temperature Type (Type TL)	Identifies the type of temperature (Celsius or Fahrenheit).
Temperature Conversion Table (Type TT)	Indicates which standard ASTM-IP-API table to invoke for calculation of standard stock accounting units.
Tank Usage (Type TU)	Indicates the primary usage for the tank (storage, blending, holding, and so on).
Tank Type (Type TY)	Identifies the physical shape of the tank (vertical, horizontal, and so on).

The following UDCs indicate document types for System 41B:

Load Confirmed Sales (Type LC)	Include all of the codes for the document types for load-confirmed sales that will go through the meter.
Other Metered Outgoings (Type OM)	Include all document types for all other types of transactions that will go through the meter.
Non-Metered Outgoings (Type NM)	Include all document types for transactions that left the tank, but did not go through the meter.
Incomings (Type IN)	Identify the document types to include in the incoming transactions.
Outgoings (Type OT)	Identify all document types to include in the outgoing transactions.
Throughput Reconciliation (Type TR)	Identify any documents for which you must complete throughput reconciliation before completing operational reconciliation.

See Also

- *Working With User Defined Codes (P00051)* in the *Technical Foundation Guide*

Understand Next Numbers for Bulk Stock

About Next Numbers for Bulk Stock

The Next Numbers program controls the automatic numbering in many J.D. Edwards systems. The program stores the increment for the next available number in the Next Numbers table (F0002) and automatically assigns the next available number when one is assigned.

Next numbers are commonly used for:

- Document number
- Address Book number

Next numbers works in conjunction with the data dictionary. Each data dictionary item that uses next numbers contains a next numbering index value, which corresponds to the line number containing the next number value for that data item.

See Also

- *Setting Up Next Numbers (P0002)* in the *Technical Foundation Guide*

Advanced & Technical

Four-Point Records Purge

Objectives

- To purge four-point analysis records from the system

About Four-Point Records Purge

When you perform a four-point analysis, the system creates records in the Four-Point Analysis Maintenance (F41509) and Four-Point Temperature Maintenance (F415091) tables. As part of your depot operations, you might need to delete four-point analysis records that have built up in the system.

See Also

- *Calculating Gain or Loss for Received Products (P41509)* for information on performing a four-point analysis

Purge Four-Point Analysis Records

```
┌─────────────────────────────────────┐
│ G4150    Bulk Stock Control          │
│          Enter 27                    │
└─────────────────────────────────────┘
        │
        │
        ▼
      ┌─────────────────────────────────────────┐
      │ G4131    Inventory Advanced and          │
      │          Technical Operations            │
      │          Choose Global Updates and Purges│
      └─────────────────────────────────────────┘
                │
                │
                ▼
            ┌──────────────────────────────────────┐
            │ G41311   Global Updates and Purges   │
            │          Choose Four-Point           │
            │          Maintenance Purge           │
            └──────────────────────────────────────┘
```
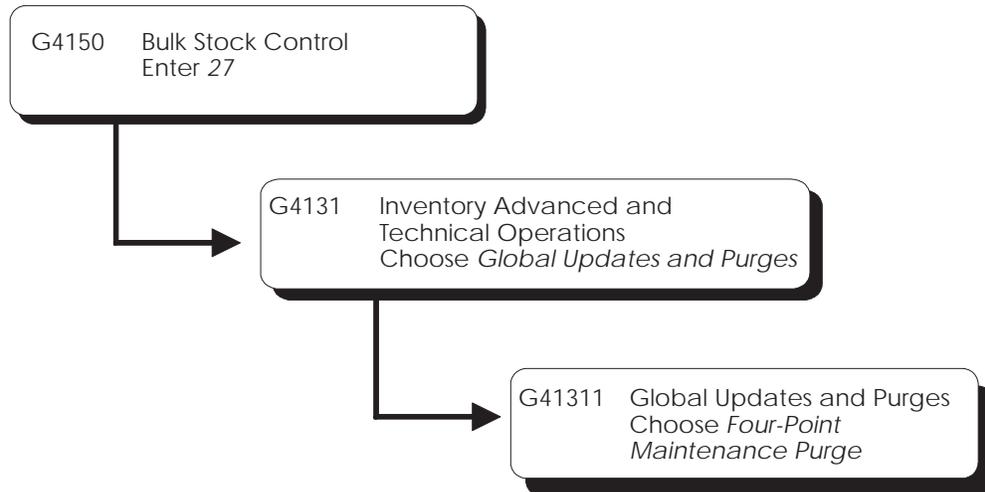
Purging Four-Point Analysis Records

When you perform a four-point analysis, the system creates records in the
Four-Point Analysis Maintenance (F41509) and Four-Point Temperature
Maintenance (F415091) tables. As part of your depot operations, you might need
to delete four-point analysis records that have built up in the system.

With this DREAM Writer program, you can specify in the processing options
whether to run the report in proof or final mode, whether to:

- Print a report of the purged records
- Save the purged records to a history table

Before You Begin

❑ Verify that you no longer need the records you specify to purge
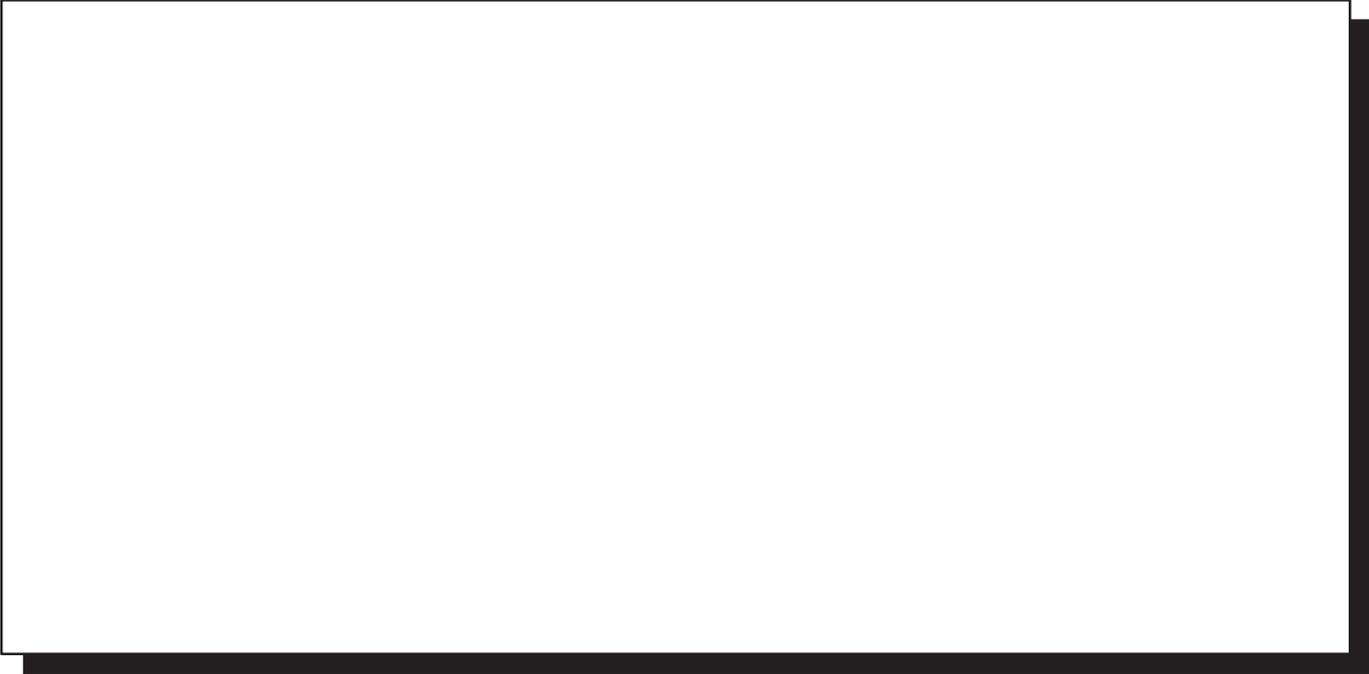
Appendices

Appendix A – Key Tables

Information used in the Bulk Stock Control system is stored in master maintenance tables and transaction processing tables.

Master Maintenance Tables

The following master maintenance tables store constants and setup information for the Bulk Stock Control System:

Item Master (F4101)	Stores basic information about each item of inventory that you stock.
Bulk Item Master (F41011)	Stores product information specific to bulk products.
Item Branch (F4102)	Stores item information specific to a depot (branch/plant).
Bulk Depot/Product Information (F41022)	Stores information specific to a depot and product for all bulk items.
Item Location (F41021)	Stores information for an item at a specific location. The main purpose of this table is to store inventory balances on an item/location level. The table also stores basic item information that is identical to information found in the Item Master table This information provides the default values for the Item Location table from the Item Master table. You can override the default values here.
Inventory Constants (F41001)	Stores various branch/plant constants. Each branch/plant represents a depot.
Unit of Measure Conversion Factors (F41002)	Stores unit of measure conversion information about each item of inventory stored in the depot.
Unit of Measure Conversion Factors – Standard (F41003)	Stores standard unit of measure conversion information.
Location Master (F4100)	Stores basic information about all warehouse and tank locations for each branch/plant.

Tank Master (F41500)	Stores structural information about the physical tank and information required for volume calculations. The system uses this table, in conjunction with the Tank Strapping table and the Defaul Tank Information table, to validate any products entered for bulk transactions.
Tank Strapping Table Maintenance (F41503)	Stores the gauging increments (physical dimensions) of the tank. This table is used in volume calculations.
Blend Category (F41501)	Stores information on the allowed blend categories for blending tanks.
Default Tank Information (F41508)	Stores the default temperature and density/gravity information used in conversion routines.
Meter Master (F41506)	Stores information concerning the flow meters in a depot. This table is required for processing and reconciliations.
Filling Line Master (F41507)	Identifies the filling lines to be used in the blending/filling cycle.
Allowed Products Matrix (F41505)	Identifies the product groups that can be contained in the tanks, and in what order they can be used.
Cost Ledger (F4105)	Stores the cost of products received into and sold out of the system.
Item Cost Components Add-Ons (F30026)	Defines the cost components to be updated when receiving product.
Location Detail (F4602)	Defines the locations used in warehousing to store product.
Lot Master (F4108)	Defines the detail lot locations that identify batches of product received.
Filling Category and Rates (F415017)	Stores the notes for filling categories.
Four-Point Analysis Maintenance (F41509)	Stores the volumes recorded at different points in the movement of products.
Four-Point Temperature Maintenance (F415091)	Stores the temperatures recorded at different points in the movement of products.

Transaction Processing Tables

The following tables record information from product transactions:

Purchase Order Header (F4301)	Stores the header information for each purchase order (purchase order number, vendor number, special instructions, expected delivery date, default receiving location, and so forth).

Purchase Order Detail Ledger (F43199)	Stores detail information for each purchase order line (item number, price, quantity ordered, and so forth).
Purchase Order Receiver (F43121)	Stores the details of volume of product received.
Sales Order Header (F4201)	Stores the header information for each sales order (sales order number, customer number, shipment date, default shipping locations, and so forth).
Sales Order Detail (F4211)	Stores detail information for each sales order line (item number, quantity ordered, price, and so forth).
Item Ledger (F4111)	Stores history information for all inventory transactions. Any change to the bulk inventory is recorded in this table. Some examples are purchase order receipt and inventory adjustment.
Bulk Product Transactions (F41511)	Stores supplemental information that pertains to bulk transactions only, such as temperature/density information, ambient and standard volumes, tank dip information, Weighbridge information, and so forth.
Gain/Loss Transactions (F41512)	Tracks all gains and losses for analysis and reconciliations. Information used in the four point analysis is tracked with a separate table.
Multi-Meter Readings (F41515)	Stores information regarding opening and closing meter readings.

Appendix B – Unit of Measure Conversions

The following tables show typical measurement conversion. The information is not necessarily what is set up in your system, but is useful for reference in setting up your own conversions.

To Convert	To Length	Multiply By
Meters	Yards	1.0936
	Feet	2.3808
	Inches	39.370
Yards	Meters	0.9144
Feet	Meters	0.3048
Inches	Centimeters	2.54

To Convert	To Weight	Multiply By
Long tons	Pounds (avoirdupois)	2240
	Short tons	1.12
	Metric tons (tonnes)	1.01605
Short tons	Pounds (avoirdupois)	2000
	Long tons	0.892857
	Metric tons (tonnes)	0.907185
Metric tons (tonnes)	Long tons	0.984206
	Short tons	1.10231
Pounds (avoirdupois)	Kilograms	0.453592
Kilograms	Pounds (avoirdupois)	2.20462

To Convert	To Volume & Capacity*	Multiply By
U.S. gallons	Cubic inches	231
	Cubic feet	0.133681
	Imperial gallons	0.832674
	U.S. barrels	0.0238095
	Liters	3.78541
U.S. barrels	U.S. gallons	42
	Cubic inches	9702
	Cubic feet	5.61458
	Imperial gallons	34.9723
	Liters	158.987
Imperial gallons	Cubic inches	277.42
	Cubic feet	0.160544
	U.S. gallons	1.20095
	U.S. barrels	0.0285941
	Liters	4.54596
Cubic feet	Imperial gallons	6.22883
	U.S. gallons	7.48052
	U.S. barrels	0.178108
	Liters	28.3169
	Cubic meters	0.0283169
Cubic inches	Imperial gallons	0.00360465
	U.S. gallons	0.0043290
	Liters	0.0163871
Liters	Cubic inches	61.0238
	Cubic feet	0.0353147
	Imperial gallons	0.219969
	U.S. gallons	0.264172
	U.S. barrels	0.00628981
Cubic meters	Imperial gallons	219.969
	U.S. gallons	264.172
	U.S. barrels	6.28981
	Cubic feet	35.3147

*These factors are solely for conversion at the same temperature.

Appendix C – Conversion Routines

Calculating Standard Volume

The following procedures illustrate how the system calculates standard volume.

❑ Calculate standard volume from ambient volume

❑ Calculate standard volume from weight

▶ **To calculate standard volume from ambient volume**

Use the following tables for ambient to standard conversions:

American Society for Testing and Materials (ASTM) Tables to use in conversions	Relative Density (where gallons or imperial gallons are used) Use tables 23B and 24B
	Absolute Density (where metric volume measure are used) Use tables 53B and 54B or 53D and 54D
	API Gravity Use tables 5B and 6B

Branch Base Temperature Equals Table Temperature

Use the following procedure when Branch Base Temperature equals Table Temperature (60F or 15C).

The following four factors must be available:

- Ambient/Observed Volume
- Temperature of the product in the tank
- Density

- Density Temperature

Complete the following steps:

1. Use the ASTM tables to locate the Corrected Density.

   Find the intersection of Density along the horizontal axis and Density Temperature along the vertical axis.

Density Temperature

Corrected
Density

Density

2. Use the second in the pair of ASTM tables to locate the Volume Conversion Factor (VCF).

   Find the intersection of Corrected Density along the horizontal axis and Temperature along the vertical axis.

Temperature

VCF
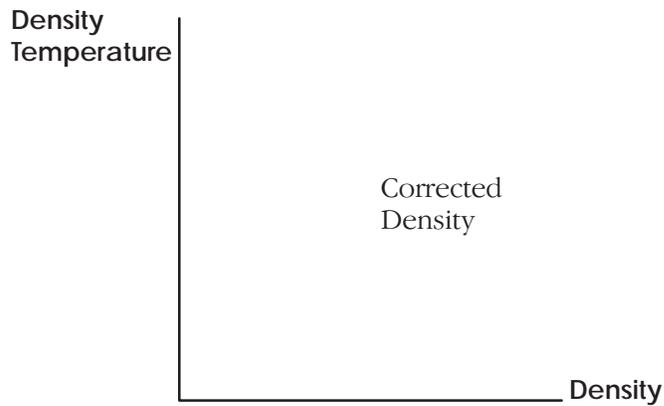
Corrected Density
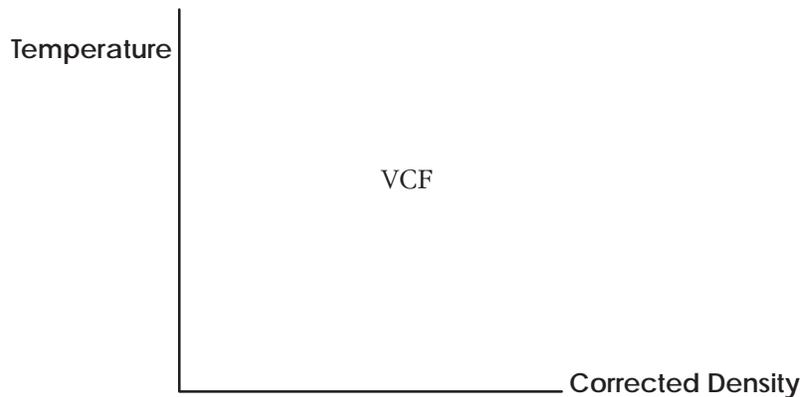
3. Multiply the VCF by the ambient Quantity to arrive at the Standard Quantity.

Branch Base Temperature Does Not Equal Table Temperature

Use the following procedure when Branch Base Temperature differs from ASTM Table Temperature.

Complete the following steps:

1. Use the ASTM tables to locate the Corrected Density.

    Find the intersection of Density along the horizontal axis and Density Temperature along the vertical axis.

    Density
    Temperature

    Corrected
    Density

    Density

2. Use the second in the pair of ASTM tables to locate the Volume Conversion Factor (VCF).

    Find the intersection of Corrected Density along the horizontal axis and Temperature along the vertical axis.

    Temperature

    VCF
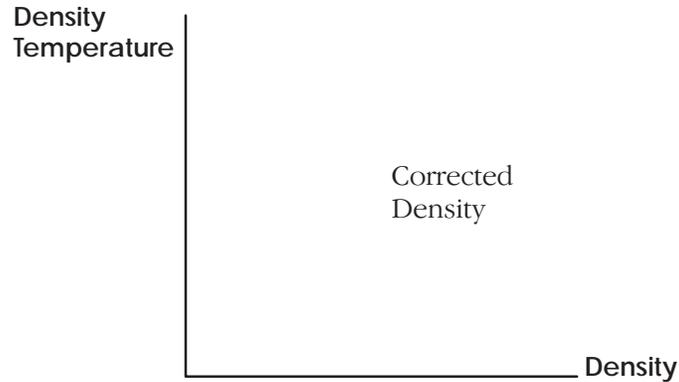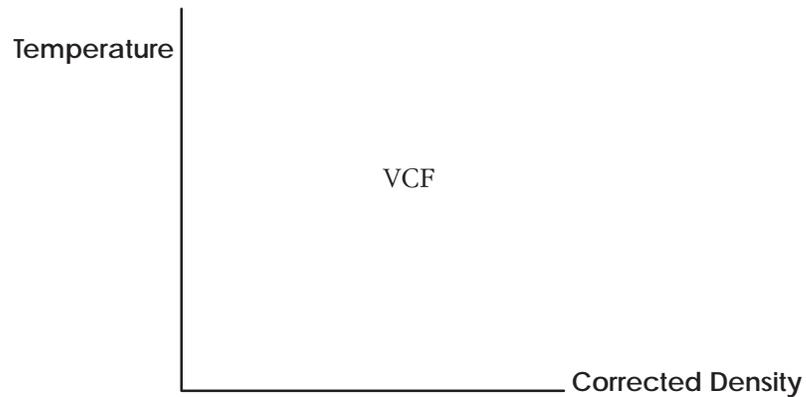
    Corrected Density

3. Use the second in the pair of ASTM tables to locate a second VCF.

    Find the intersection of the Base Temperature specified on Branch/Plant Constants – Page 3 and the Corrected Density from Step 1.

```
Base
Temperature
                              2nd VCF


                                        Corrected Density
                                        from Step 1
```
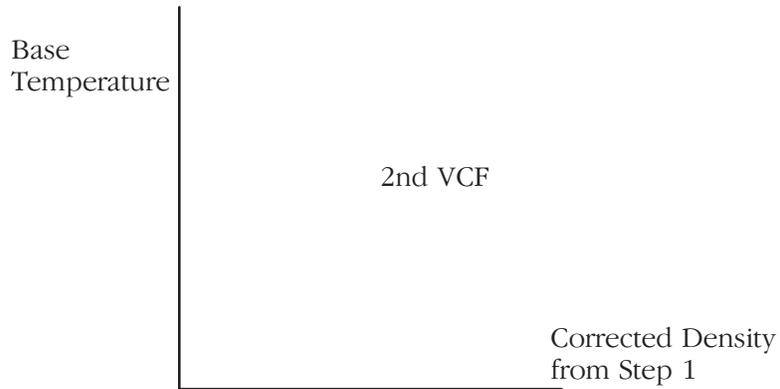
4. Divide the first VCF by the second VCF.

5. Multiply the VCF from step 4 by the ambient quantity to get the standard quantity.

◆ **To calculate standard volume from weight**

The system uses the following formulas for calculating volume from weight readings.

Weight in a vacuum   Corrected Density x Standard Volume

Weight in air   Standard Volume x (1.0001506 x Density x .0012202)

Appendix D — Functional Servers

Several J.D. Edwards programs access functional servers. The purpose of functional servers is to provide a central location for standard business rules about entering documents, such as vouchers, invoices, and journal entries. These business rules establish the following:

- Data dictionary default values

- Field edits and valid values

- Error processing

- Relationships between fields or applications

The advantages of a functional server are:

- It reduces maintenance of entry programs because edit rules reside in one central location.

- You can standardize documents across all applications because you create them using the same business rules.

- Generally, the user interface (appearance and interaction) of a form is now separate from how a program works.

The steps for setting up business rules for an entry program are:

1. Create a DREAM Writer version for a specific functional server program (for example, XT0411Z1 for voucher entry).

2. Set the processing options within the version according to your company requirements.

3. Specify the version you want the entry program to use in the processing options for that entry program.

You can have all your entry programs use the same DREAM Writer version (and thus, use the same rules) or you can set up different DREAM Writer versions. J.D. Edwards provides DREAM Writer version ZJDE0001 as the default functional server version for your entry programs.

Only the person responsible for system-wide setup should make changes to the functional server version. For more information about how to set up DREAM Writer versions, see the *Technical Foundation Guide.*

Example: Voucher Processing Functional Server

The following graphic shows the programs that use the voucher processing functional server. J.D. Edwards provides two demo versions of the functional server, ZJDE0001 and ZJDE0002.

```
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│  Speed   │ │ Standard │ │   Void   │ │  Credit  │ │  Multi-  │ │Calculate │
│ Voucher  │ │ Voucher  │ │ Payment  │ │ Tied to  │ │ Voucher  │ │  With-   │
│  Entry   │ │  Entry   │ │  Entry   │ │  Debit   │ │ P041017  │ │ holding  │
│ P041015  │ │ P04105   │ │ P04103   │ │   B.U.   │ │          │ │ P04580   │
│          │ │          │ │          │ │ P041016  │ │          │ │          │
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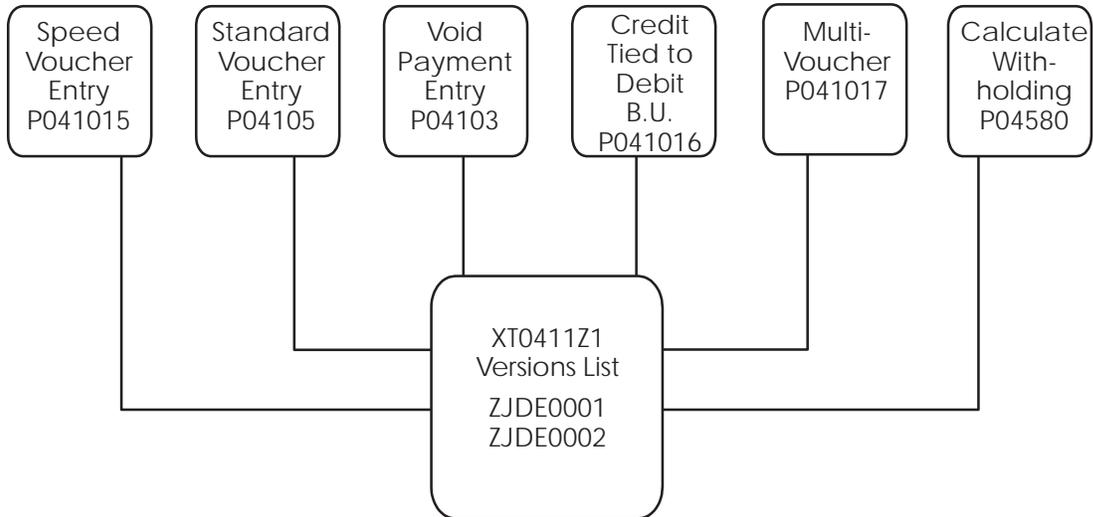
Glossary

Glossary

This glossary defines terms in the context of your use of J.D. Edwards systems and the accompanying user guide.

A/R.   Acronym for Accounts Receivable.

absorption.   The physical assimilation of one or more components of a gaseous or vapor phase into a second phase (liquid or solid). The distribution of absorbed material in absorbent tending toward homogeneity, as contrasted to the surface phenomena of adsorption.

access.   To get to the information or functions provided by the system through menus, screens, and reports.

account site.   In the invoice process, the address where an invoice is mailed. Invoices may go to a different location or account site, than the statement.

active truck.   Truck that is available for assignment scheduling.

actual demand.   Actual customer orders and allocations of items/ingredients/raw materials to production or distribution.

actual volume.   Actual output expressed as a volume of capacity. Used to calculate variances when compared to demonstrated capacity (practical capacity) or budgeted capacity.

added value.   Amount of increased worth of inventory to the corporation through manufacturing, processing, or packaging.

addition agents.   *See* additives.

additives.   Chemicals that are added in minor proportion to a parent substance to create, enhance, or suppress a certain property or properties in the parent material. Examples include antiknock compounds, antioxidants, detergents, cetane number improvers, pour point depressants, and viscosity index improvers. *—SYN.* addition agents, improvers.

adsorption.   The adhesion of molecules of gases or liquids to the surface of other bodies, usually solids, resulting in a relatively high concentration of the gas or solution at the point of contact. Silica gel and activated carbon, for example, can adsorb relatively large amounts of other gases or liquids and are used for the selective removal of impurities from petroleum products during refining.

AFRA.   *See* Average Freight Rate Assessment.

aggregate planning.   The sum of all forecasted demand (customer, distribution, manufacturing) for all items in a family for purposes of planning gross requirements. *—SYN.* aggregate forecast.

aggregate reporting.   Reporting of process hours in general, allowing the system to assign the actual hours to specific products run during the period based upon standards. *—SYN.* gang reporting.

allocation.   The amount or proportion of a product allotted to a customer or customer group over a specific period of time. It sets a maximum ceiling on the amount of a product the customer can order. The opposite of allocation is sales targeting. *See also* quotas.

alphabetic character.   Represents data by using letters and other symbols from the keyboard (such as *, & and #). Contrast with *numeric character.*

alphanumeric character.   Represents data in a combination of letters, numbers, and other symbols (such as *, & and #).

alternate feedstock. A backup supply of an item to act either as a substitute or to be used with alternate equipment. *See also* feedstock.

alternate routing. Another procedure for producing the same end-item, involving alternative pieces of equipment, differing processing times, and often, an alternative recipe or formula.

ambient. A term usually referring to surrounding conditions. Ambient temperature, for example, as used with storage tanks, is the temperature outside the tank.

ambient temperature. The temperature of the environment a product is in. For example, the temperature of product within a tank, or a compartment in a vehicle such as a barge, truck, or rail van.

ambient volume. The volume of a product measured at the ambient (surrounding) temperature. The volume of a product changes with temperature, so while volumes are measured at ambient temperatures, the volume sold is based on a standard temperature. *See also* net volume; standard temperature.

American Society for Testing and Materials (ASTM). The test procedures and specifications developed by the ASTM for petroleum products and lubricants are used worldwide.

American Tanker Rate Schedule (ATRS or A.T.R.S). An index used in lieu of the U.S.M.C. (US Maritime Commission) index. This is due to the U.S.M.C. being unsatisfactory because it covers large areas under the same rate and includes the canal tolls as a part of the basic rate.

antioxidants. Detergents, cetane number improvers, pour point depressants, and viscosity index improvers.

API gravity. Specific gravity measured in degrees on the American Petroleum Institute scale. The specific gravity of oil is normally specified not as a fraction in

relation to water taken at the figure "1," but in terms of API degrees. On the API scale, oil with the least specific gravity has the highest API gravity. Other things being equal, the higher the API gravity, the greater the value of the oil.

API. Acronym for the American Petroleum Institute.

assays. Report of physical and chemical properties of sample tested by QA. Tied by time period to a portion of production. *See also* specifications; composition.

a**ssignment scheduling.** Planning loads and assigning orders to active vehicles. Orders cannot be split and product must fit into available compartments. If an order is on hold for credit reasons, a vehicle cannot be assigned.

associated product. Product is stored at one grade, and then an additive is added to bring the product to another level at sales time.

ASTM. *See* American Society for Testing and Materials.

ASTM distillation. A distillation test made on such products as gasoline and kerosene to determine their initial and final boiling points and the boiling range.

atmosphere. The mass of air surrounding the earth. The pressure of the air at sea level is used as a unit of pressure.

atmospheric pressure. The pressure of air exerted equally in all directions. The standard pressure is that at sea level under which a mercury barometer stands at 760 mm.

ATRS. *See* American Tanker Rate Schedule.

audit trail. The detailed, verifiable history of a processed transaction. The history consists of the original documents, transaction entries, and posting of records. An audit trail usually concludes with a report.

automatic accounting instruction (AAI). A code that points to an account in the chart of accounts. AAIs define rules for programs that automatically generate journal entries. This includes interfaces between Accounts Payable, Accounts Receivable, and Financial Reporting and the General Accounting system. Each system that interfaces with the General Accounting system has AAIs. For example, AAIs can direct the Post to General Ledger program to post a debit to a certain expense account and an automatic credit to a certain accounts payable account.

availability. For packaged product, the system checks availability. For bulk product, you can assume it is in stock and available for sale.

average cost. A calculated cost of all receipts at actual cost for the period averaged with last period's average cost. Primarily used for setting the value of raw materials.

Average Freight Rate Assessment (AFRA). Shows the average cost of a ton of oil delivered. Published monthly, it is not a current index, but a mixture of current and historic costs, intended to show at any time the cost of oil in transit. AFRA is published monthly on the first business day of the month by an independent body, the London Tanker Brokers' Panel. Its AFRA rates reflect on the panel's assessment of the weighted average cost of all commercially chartered ocean-going tonnage employed for international petroleum shipment during a given period—the calculation period. These calculation periods run from the 16th of one month to the 15th of the following month. For example, the AFRA published on October 1, 1992 covers cost of vessels fixed during the period of August 16 to September 15, 1992.

average samples. A sample so taken as to contain parts from all sections of a container or pipe, in proportion to the volume of each part.

avoirdupois weight. A British and American system of weights based on a pound of 16 ounces.

B/L. *See* bill of lading.

back calculated consumption. Deductions made upon receipt of parent. The determination of usage of raw materials by multiplying receipt quantity of the parent times standard quantity per a recipe, recognizing standard yield factors.

back haul. The practice of loading an ocean-going tanker with cargo at or near the port of reloading of the previous cargo in order to maximize the vessel's profitable use.

back order. A sales order whose shipment date is uncertain due to lack of available product.

back-to-back ship. *See* direct ship orders.

backflushing. Deductions of inventory required at standard and made upon receipt of the end item. *See also* calculated usage; indirect usage.

backup copy. A copy of original data preserved on a magnetic tape or diskette as protection against destruction or loss.

balanced loading. Scheduling the production lines to accommodate the limiting rate of one piece of equipment, where line balancing is not possible or feasible. Must accommodate both previous and subsequent work stations or lines. *See also* level loading.

bareboat charter. This type of agreement provides for the delivery of a "bare" vessel to the company that charters the vessel. This company assumes responsibility for providing crew, provisions, supplies, fuel, and whatever else is needed. *See also* charter; consecutive-voyage charter.

barrel. For statistical purposes, the petroleum industry uses a barrel containing 42 US standard gallons as a volumetric unit of measure for crude oil and petroleum

products. The barrel is equivalent to 34.97 UK gallons, to 0.159 cubic meters, and to 5.61 cubic feet.

base discounts. Discounts that apply to the quantity ordered, not the quantity shipped.

base inventory level. A minimum inventory level typically set by top management.

base price. Company's beginning price, used as the foundation or base from which the actual price is derived. The base price is determined by components, like the cost of the goods, freight, tax, and so forth. A base price can change when the components change. Depending on the situation, these components may need to be shown on an invoice as separate line items, or rolled into one price.

base stock. A raw material supply for multiple end items. *See also* feedstock.

basket discount. A reduction in price that applies to a group or "basket" of products within a sales order.

batch. A group of like records or transactions that the computer treats as a single unit during processing. For identification purposes, the system usually assigns each batch a unique identifier, known as a "batch number."

batch bills. A recipe or a formula whose statement of quantity per for all resources relates to the standard batch quantity (SBQ) of the parent.

batch header. information the computer uses as identification and control for a group of transactions or records in a batch.

batch job. A task or group of tasks you submit for processing that the system treats as a single unit during processing, for example, printing reports and purging files. The computer performs these tasks with little or no user interaction.

batch processing. A method by which the computer selects jobs from the job queue, processes them, and writes output to the outqueue. Contrast with *interactive processing.*

batch quantity *See* standard batch quantity (SBQ).

batch sensitivity factor. A multiplier that is used for the rounding rules in determining the number of batches required to produce a given amount of product.

batch sheet. A list that combines the product and process definition by combining a statement of required materials as well as required manufacturing procedures. *See also* pick list; material list; routing.

batch size. *See* standard batch size.

batch type A code that designates which J.D. Edwards system the associated transactions pertain to, thus controlling what records are selected for processing. For example, in the Post General Journal process, only unposted transaction batches with a batch type of G (General Accounting) are selected for posting.

batch/lot tracing. Starting with an end item lot number and determining all lot numbers of ingredients/materials consumed to produce the end item lot number. *See also* batch/lot tracking.

batch/lot tracking. Starting with the lot number of an ingredient and determining all lots into which this lot number went.

batch/mix. A manufacturing process that primarily schedules short production runs of products. *See also* process/flow.

Baumé gravity (Be). Specific gravity expressed on the Baumé scale for liquids lighter or heavier than water. However, the API scale is now used for liquids by the petroleum industry instead of the Baumé scale. Both scales are identical for liquids as dense as water, but for very light oils, there is a difference.

beginning inventory. Used in period costing for calculating material usage. A statement of the inventory count at the end of last period, most properly based upon a physical count. —*SYN.* base inventory level.

bench scale. Testing of materials or methods on a small scale where the work can be carried out on a laboratory work table.

BFOE. Barrels of fuel oil equivalent based on a net heating value (LHV) of 6,050,000 Btu per BFOE.

bill of lading (B/L). A legal document issued by a shipping company, owner, or agent of either, to a shipper stating that certain goods received for shipment are promised to be delivered at a specified destination, either to the carrier's agent or to a particular consignee or customer. Usually three or four copies are signed, one each being kept by carrier and shipper, and a third forwarded to the consignee. Customarily abbreviated B/L. The legal importance of this document lies in its being a receipt for goods, a contract for carriage, and a title to property. As such, it is a legally negotiable instrument.

bill of materials (BOM). A table that lists all components required to produce a product. *See* formula. —*SYN.* addition agents, improvers.

bills of labor. A statement of required labor to complete a process. Stated by labor rate or craft and hours. Used in determining manpower needs. It can also state all or critical resources. —*SYN.* product load profile, bill of resources, resource profile.

black products. Products derived from the low or heavy end of the distillation process. For example, diesel oils and fuel oils. *See also* white products.

blanket order. An order that commits the purchaser to take delivery of specified products in agreed quantities over a finite period of time. —*SYN.* block order, standing order. *See also* blanket releases; contract reporting.

blanket releases. Authorization to ship (purchase order) or produce (schedule) against a blanket agreement or contract. The blanket agreement or contract covers multiple releases over a period of time. *See also* blanket order, contract reporting.

bleeding. The tendency of a liquid component to separate from a liquid-solid or semisolid product, as oil from lubricating grease in storage.

blend. *See* blending.

blend note. Document that authorizes a blending activity and describes both the ingredients for the blend and the blending steps that are to occur.

blend off. Reworking off-spec material by introducing a small percentage back into another run of the same product.

blending. The process of mixing two or more oils having different properties to obtain a product of intermediate properties. Lubricating oil stocks are blended to a desired viscosity, while naphthas and gasolines are blended to meet volatility and octane requirements.

blending tank. A tank that is designated to hold more than one product at a time.

block order. *See* blanket order.

blocked operations. A group of operations identified separately for instructions and documentation but reported only when all are complete. *See also* task.

body. Trade term for describing the consistency or viscosity of a lubricating oil. *See also* viscosity.

boiling point. The temperature at which the vapor pressure of a liquid is equal to the pressure of the atmosphere. The temperature varies with the atmospheric pressure.

boiling range.   The spread of temperatures over which an oil starts to boil or distill vapors and proceeds to complete evaporation. Boiling range is determined by test procedures for specific petroleum products.

BOL.   *See* bill of lading.

BOM.   *See* bill of materials.

bomb.   Steel cylinder with screwed-on head used as testing device for conducting oil tests under high pressure. Used for test methods such as Reid Vapor Pressure and gum in gasoline.

book inventory.   Inventory as it is shown in the computer. This shows inventory on hand, not necessarily available inventory. *See also* reconciliation; physical inventory.

Boolean logic operand.   In J.D. Edwards' DREAM Writer, the parameter of the Relationship field. The Boolean logic operand tells the system to perform a comparison between certain records or parameters. Available operands are:

    EQ = Equal To
    LT = Less Than
    LE = Less Than or Equal To
    GT = Greater Than
    GE = Greater Than or Equal To
    NE = Not Equal To
    NL = Not Less Than
    NG = Not Greater Than

borrow.   *See* loan/borrow agreement.

bottleneck operation. The point of constraint in a process, either because of rate or capacity limits.

bottom sediment and water (BS&W).   A test made on fuel oils, crude oils, and used crankcase oils to show the approximate amount of sediment and water.

bottoms.   In a distilling operation, that portion of the charge remaining in the still or flask at the end of the run. In a pipe stilling or distillation process, the portion that does not vaporize.

bounds.   — *SYN.* discount.

bracketed recall.   Recall from customers of a suspected lot number plus a specified number of lots produced before and after the suspected lot.

British thermal unit (BTU).   A unit of heat commonly used in heat engineering. It is the amount of heat necessary to raise the temperature of one pound of water by one degree Fahrenheit.

BS & W.   *See* bottom sediment and water.

BTU.   *See* British thermal unit.

BTX.   Acronym for benzene, toluene, and xylenes. These are the main aromatic compounds used as feedstocks when manufacturing petrochemicals.

budget.   A plan, often in financial terms, but also used synonymously with production plan. A statement of planned volumes by product family for a specific period.

budgeted capacity.   The volume/mix of throughput upon which financial budgets were set and overhead/burden absorption rates established. *See also* proven capacity; demonstrated capacity.

budgeted volume.   A statement of planned volumes (capacity utilization) upon which budgets for the period have been set.

build cycles.   Products run between major set up and major clean up. Cyclical scheduling of similar product with minor changes from one product/model to another. *See also* cycle length; cyclical scheduling.

bulk issue.   An issue of non-packaged product from a controlled stockroom for use on multiple schedules as needed. The product is issued in quantities more closely aligned to packaging or storage quantities than the planned required quantity for any or all schedules.

bulk order.   An order that is comprised entirely of bulk (non-packaged) products.

bulk products. A mass quantity of liquid, non-packaged product, usually in excess of 100 gallons or 100 liters.

bunker. A compartment or tank usually situated in the vicinity of a ship's boilers or machinery space, and specially constructed for stowage of fuel, such as coal or petroleum. A bunker is usually designated according to location (such as side, wing, reserve, cross, or thwartship).

bunkering. A rate per ton or sum of money charged for placing fuel on board; also the operation itself.

burning point. The lowest temperature at which a volatile oil in an open vessel will continue to burn when ignited by a flame held close to its surface. It indicates the degree of safety with which kerosene and illuminating oils can be used. *See also* fire point.

butterworth head. A mechanical hose head with revolving nozzles used to wash down tanks.

buy-back crude. In foreign producing countries, that portion of the host government's share of "participation crude" which it permits the company holding a concession to "buy back."

byproduct. Anything produced in the course of making another thing. An end item incidental to, but inevitably produced from, the actual manufacturing process. Not the intended product from a process, a byproduct has minimal potential revenue to the company. It can be garnered from any step of the manufacturing cycle, can be sold as an end item, recycled, or used as raw material for another process. *See also* co-product; waste; restricted byproduct.

C. Degrees centigrade. On the centigrade thermometer, the interval between the freezing point and the boiling point of water is divided into 100 parts. 0C corresponds to 32°F, and 100°C to 212°F.

C & F. *See* cost and freight.

CAD/CAP. Computer Aided Design/Computer Aided Programming. A set of automated programming tools for designing and developing systems. These tools automate system design, generate source code and documentation, enforce design standards, and help to ensure consistency throughout all J.D. Edwards systems.

calculated usage. The determination of usage of components or ingredients by multiplying receipt quantity of the parent times the quantity per of each component/ingredient in the bill/recipe, accommodating standard yields. *See also* backflushing.

calibration. The act of fixing, correcting or verifying the graduations of the measurement instruments used to record product volumes within a storage container.

capacity. (1) The amount of space, by weight and volume, that can be filled. Relates to bulk vehicle compartments and bulk depot tanks. (2) The ability to add value through machine or man hours.

capacity analysis. Review of the load of schedules against available capacity to determine over and under utilization by work center and by period.

capital intensive. A facility or facilities which, in order to process product, must invest so heavily in plant and equipment that the fixed costs are greater than the variable costs.

capital investment. The purchase of assets other than inventory. In most corporations, such investments require a capital expenditure authorization.

captive manufacturer. A small, independent manufacturing company that manufactures products only for one company. In J.D. Edwards' system, this would be considered a branch, plant or depot.

captive tanker fleets.   Fleets of tankers chartered to oil companies for most or all of their useful lives on a cost-of-service basis.

carrying costs.   The cost of holding, storing, insuring, controlling and handling raw, intermediate or finished inventory. Often expressed as a percentage of standard unit cost per year.

catalyst.   A substance used to accelerate or retard a chemical reaction without itself undergoing significant chemical change or changing in volume during the process.

category code.   In user defined codes, a temporary title for an undefined category. For example, if you are adding a code that designates different sales regions, you could change *category code 4* to *Sales Region*, and define E (East), W (West), N (North), and S (South) as the valid codes. Category codes were formerly known as *reporting codes*.

certificate input.   *See* direct input.

certificate of analysis.   Document designed to certify the chemical composition and conformance to standard of a particular lot or batch of product.

change over.   The refitting of equipment to neutralize the effects of the just completed production, to further prepare the equipment for production of the next scheduled product, or both. *See also* set up time; clean up; wash down.

character.   Any letter, number, or other symbol that a computer can read, write, and store.

charter.   A written agreement covering the assignment of an oceangoing tanker to transport petroleum, to which the ship owner and charterer are parties. It contains clauses that cover all details of the transaction, such as: the nature of charter (single voyage or time charter); loading/unloading ranges, with any exceptions within given ranges clearly indicated; dates; and total cost of fixture, usually stated as a percentage of worldscale. Other standard clauses in a typical charter are laytime, demurrage, force majeur. —*SYN.* fixture. *See also* bareboat charter; consecutive-voyage charter.

CIF.   *See* cost, insurance, freight.

classifications.   A sub-grouping of inventory to reflect its state of availability (for example, in-transit, in quarantine, awaiting rework).

clean cargo.   Term that refers to cargoes of gasoline and other refined products. *See also* dirty cargo.

clean up.   The neutralizing of the effects of production just completed. May involve cleaning of residues, sanitation, equipment re-fixturing. *See also* change over; set up time; wash down.

clerk.   *See* customer service representative; order taker.

COA.   *See* certificate of analysis.

COGS.   *See* cost of goods sold.

co-products.   Similar to byproducts except that revenues generated are significant. It may be possible in some instances for the planner to elect to alter the production distribution of individual products in order to balance inventories. *See also* byproduct.

cold test.   The temperature at which an oil becomes solid. Generally considered to be 5°F lower than the pour point.

color.   Color is measured for undyed commercial petroleum products ranging from colorless to opaque. It is determined by matching the transmitted light from the oil sample with specified standards. The color of an oil gives some indication of its degree of refinement.

combustible.   The general term describing any material that will burn. However, in the case of petroleum products, only those that give off flammable vapors above 80°F are classed as combustible.

command.   A character, word, phrase, or combination of keys you use to tell the computer to perform a defined activity.

commingled stock.   Stock of a product that is held in a single storage area and owned by several parties.

commodity price.   A published price for commodity products. For example, Platt's price plus some additional pricing factor.

commonality.   A condition wherein raw materials or ingredients are used in multiple formulas or parent bills of materials.

compartment.   Container attached to a vehicle designed to transport bulk products. Also the term for individual compartments within a vehicle or for a separate tank. *See also* logical compartment.

compatibility.   Indication of whether two products can be safely shipped together.

competitive thrust.   The manufacturing strategy selected by a corporation by which they will gain market share. For example, lowest unit cost and customized engineering are two strategies.

composite sample.   A sample that is a mixture of samples taken from the upper, middle, and lower thirds of a container.

composition.   The make-up of an intermediate ingredient or finished item, typically expressing chemical rather than physical properties. *See also* specifications; assays.

compound.   A distinct chemical substance formed by the combination of two or more elements in definite proportions by weight and possessing physical and chemical properties different from those of the combining elements. In lubricants, the term connotes the product formed by adding fatty oils and materials foreign to petroleum to lubricants to impart special properties.

compulsory stock.   Stock level required to be held by agreement or governmental regulations.

conflict.   The condition of being unable to run two products at the same time because of contamination or because they compete for the finite capacity of a single piece or series of equipment.

connected vehicle.   One or more vehicles joined together to form a single entity. Rail cars joined temporarily to form a train, or trucks and trailers attached to one another are examples of connected vehicles.

consecutive-voyage charter.   A written agreement covering ocean-going tanker transport. It is similar to a single-voyage charter, but covers either an extended number of consecutive trips or an extended time period. *See also* charter; bareboat charter.

consignment agreement.   A retailer acts as an agent for the company. The product sold from the retail site is owned by the company. The agent does not pay for the product upon delivery, but only upon the sale of the product (at an agreed upon price).

consigned stock.   Product stock that is held by a third party but is owned by the parent company (the stock is normally intended for distribution and consumption by the third party).

constants.   Parameters or codes that rarely change. The computer uses constants to standardize information processing by an associated system. Some examples of constants are allowing or disallowing out-of-balance postings and having the system perform currency conversions on all amounts. Once you set constants such as these, the system follows these rules until you change the constants.

consumed in operations.   Using inventory for your own purposes. For example, using fuel in delivery trucks.

consumed resource.   A raw material, ingredient, utility, or capacity used during a manufacturing process. Anything required

for production that is placed into the process (as opposed to taken out of the process).

contamination.   The addition to a petroleum product of some material not normally present, such as dirt, rust, water, or another petroleum product.

continuous process run.   A campaign of extended duration. The production is done on dedicated equipment that can produce one product (or product line of slightly varying specifications) without change over to other products also in demand. *See also* process/flow.

contract balance.   A running balance of transactions that affect a distribution contract.

contract name.   A user defined code entered on the Distribution Contract Master to describe a contract with a business partner in the Distribution Contract system.

contract of affreightment.   An agreement providing for the ocean-going transportation of a given amount of petroleum products between two ports over an extended period of time but on such vessels and at such times as the owners find advantageous. A provision in the agreement may define "min/max" limits of monthly flows. These contracts, that are not very common, are used to alleviate frictional unemployment and utilize ballasted capacity.

contract price.   A product's price is governed by a contractual agreement existing for a period of time between a buyer and seller. Contract prices protect buyers during a period of rising prices by limiting the price increases over the period of the contract.

contract reporting.   Reporting of each instance and the accumulation to date of finished production against both the individual schedule and a customer's

blanket commitments to purchase a stated quantity. *See also* blanket order; blanket releases.

contract type.   A user defined code used to indicate the general type of contract used in the Distribution Contracts system.

contract status.   A value to indicate the current status of a contract in the Distribution Contracts system.

contractor.   Third party supplier of transportation resources (for hire). —*SYN.* hauler, common carrier.

contribution to profit.   Selling price of an item minus its variable costs.

control number.   Typically the manufacturing order of schedule number used to identify a specific instance or period of production.

control technique.   A method of managing material movement and assigning usage and costs to product/process or production.

controllable loss.   Unfavorable usage or yield variance directly attributed to human or process errors, and that, once identified, can be prevented in the future.

controlled issue.   A specific transaction of a resource in a schedule or manufacturing order of an exact quantity. For example, to indicate usage of materials to a specific production run or reporting of labor/machine hours. *See also* direct usage; planned issue.

conversion.   The ratio of the quantity of feedstock converted to other products in any process.

conversion costs.   The costs of transforming raw materials (ingredients) into salable product. *See also* added value.

conversion factor.   The value used to convert one value to another.

Core.   The central and foundation systems of J.D. Edwards software, including General Accounting, Accounts Payable, Accounts

Receivable, Address Book, Financial Reporting, Financial Modeling and Allocations, and Back Office.

cost accounting.   The management discipline responsible for ascertaining product/process costs.

cost and freight (C & F).   Similar to cost, insurance, freight (CIF), but under this transaction, the buyer gets his own insurance. *See also* cost, insurance, freight (CIF).

cost center.   The lowest level of an accounting unit in an organization. For example, a cost center can be a department, a branch, warehouse, depot, job, project, and so forth. A cost center is nothing more than a small, logical grouping of general ledger and cost accounts. *See also* plants.

cost, insurance, freight (CIF).   Term that refers to a sale in which the buyer agrees to pay a unit price that includes the free on board (FOB) value at the port of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" agreement in that it is generally without duty, and the buyer accepts the quantity and quality at the loading port (as certified by the Bill of Lading and Quality Assurance Report), rather than pay on quality/quantity as determined at the unloading port. Risk and title are transferred from the seller to the buyer at the loading port, although the seller is obliged to provide insurance in a transferable policy at the time of loading.

cost of goods sold (COGS).   The cost of products sold during an accounting period including material, labor, and factory overhead expenses.

costing elements.   The individual classes of added value or conversion costs - typically material (raw, packaging) labor/machine costs, overhead (fixed, variable). Each corporation will define the necessary detail of product costs by defining and tracking cost categories and sub-categories.

count.   The quantity of finished product. May have multiple units of measure over many product lines or may be standardized across all products.

cracking.   The process by which an organic compound is split into two or more compounds of lower molecular weight. The cracking process has become increasingly important in the petroleum industry as a means for breaking down the heavier components of petroleum into gas, naphthas and distillates, thereby increasing the yield of gasoline and distillate fuels that can be obtained from crude oils. The cracking process may be carried out with heat and pressure (thermal cracking) or in the presence of a catalyst (catalytic cracking).

credit checking.   The process of reviewing the credit worthiness of the organization. Typically entails a review of the organization's Accounts Receivable balance, including its size and its relative age, as well as the net equivalent balance of any loan or borrow arrangements. May include a method of checking credit limits of the parent company (the company a product is sold to, that might be different from the company a product is shipped to).

credit memo.   *See* credit order; return order adjustment.

credit note.   The physical document used to communicate the circumstances and value of a credit order.

credit order.   A credit order is used to reflect products or equipment that's received or returned, so it may be viewed as a sales order with negative amounts. Credit orders usually add the product back into inventory. This process is linked with delivery confirmation.
—*SYN.* credit memo, return order adjustment.

crude oil assay.   A procedure for determining the distillation curve and quality characteristics of a crude oil. *See also* assays.

crude oil quality. There are two main aspects of crude oil quality that influence the price: the distillate content and the sulfur content. Additionally the price of crude oil varies with its location, the price differential naturally reflecting transportation costs.

crude oil, crude petroleum. A naturally occurring mixture, consisting predominately of hydrocarbons and organic compounds containing sulfur, nitrogen, oxygen and traces of metallic constituents, that is capable of being removed from the earth in a liquid state. Crude petroleum is commonly accompanied by varying quantities of extraneous substances such as water, inorganic matter, and gas. Basic types of crudes are asphaltic, naphthenic or paraffinic, depending on the relative proportion of these types of hydrocarbons present.

CUM. Acronym for cubic meter. One of many acronyms and abbreviations commonly used.

cumulative price. Price determined by some combination of these prices: internal list price, base price, contract price and promotional price.

current cost. Replacement cost using most recently stated recipe and process. When used in a standard costing system, current cost is synonymous to operational standard. May also be the last cost of production or an average for last period.

current tank. The tank currently being used for product sales. Only one tank per product can be designated as the current tank at one time.

cursor sensitive help. J.D. Edwards online help function, that allows you to view a description of a field, an explanation of its purpose, and, when applicable, a list of the valid codes you can enter. To access this information, move the cursor to the field and press F1.

cursor. The blinking underscore or rectangle on your screen that indicates where the next keystroke will appear.

customer business line. Describes the nature of the customer's business and controls the relationship with that customer, including such things as product pricing.

customer service representative (CSR). Clerk, order capture clerk, order taker. May be a sales person who negotiates price and trading activity. May not be authorized to change prices.

customer's usuals list. A list of the products and quantities normally ordered by a customer.
—*SYN.* product order group, order template, customer's business line.

cut. A cut is a fraction of the charge stock separated by distillation. For example, kerosene is a cut of crude oil.

cycle billing. Describes a practice of invoicing a customer on a specific date for all sales within a specified date range. For example, a customer may request that all sales between the first and the 15th of the month be invoiced on the 25th. Invoicing is not done per delivery, but per sales period. When an invoice is not sent with the delivery, a delivery ticket is sent instead. Delivery tickets don't show prices or due dates. Also called periodic invoicing, invoice cycles. *See also* delivery ticket.

cycle count tag. Document numbering system used for packaged lubricants. This number is used through the entire product transportation and invoicing process.

cycle length. The time between major setups. The time between the start of one production run of similar items/models and the start of a run of the next product/manufacturing family. —*SYN.* cycle time throughput time. *See also* build cycles.

cyclical scheduling. A method of scheduling product/manufacturing families. A technique to determine run times and quantities for each end item within the

family to produce enough of each individual product to satisfy demand until the family can be scheduled again. *See also* build cycles, product sequencing.

data dictionary. A database file consisting of the definitions, structures, and guidelines for the usage of fields, messages, and help text. The data dictionary file does not contain the actual data itself.

data. Numbers, letters, or symbols that represent facts, definitions, conditions, and situations, that a computer can read, write, and store.

database. A continuously updated collection of all information a system uses and stores. Databases make it possible to create, store, index, and cross reference information online.

date code. The labeling of products with the date of production. This is often the lot number.

de-blend. Where blend off will not result in a product accepted by customers. The further processing of product to adjust specific physical and chemical properties to within specification ranges. *See also* blend-off.

deadweight. Total weight a vessel carries when immersed to her authorized load draft, including cargo, mail, fuel, water, stores, crew, passengers, baggage, and personal effects.

decant. Activity that serves to empty product from its existing package and return it to a larger container.

default. A code, number, or parameter the system supplies when you do not enter one. For example, if an input field's default is N and you do not enter something in that field, the system supplies an N.

delayed billing. The invoicing process is delayed until the end of some designated period (for example, accumulated volume discounts, Platt's published rates at month end).

delivered. The buyer pays on the basis of delivered quality/quantity. Risk and title are borne by the seller until such time as the product passes to the buyer's installation. The seller is responsible for clearance through customs and payment of all duties. Any in-transit contamination or loss of cargo is the liability of the seller. In delivered transactions, the buyer pays only for the quantity of product actually received in storage, not on the bill of lading figures that reflect the amount loaded.

delivery confirmation. The delivery confirmation process verifies that the goods on an order or trip were delivered to their destination. Part of the confirmation may include defining the disposition of product not delivered, for example, return to tank or left on board. *See also* return confirmation.

delivery date. The date the customer receives the product.

delivery invoice. Provides the delivery instructions for a specific order or trip, specifying the products and quantities that should be delivered. Shows the product price, value added tax (VAT), and any other additional charges associated with a delivery to the customer.

delivery ticket. An itemized list of goods shipped that is sent with the product to the ship-to customer location. It is like an invoice except it has no prices or due date listed. Invoices may go to a different address than the product. Delivery tickets are used when the customer does not want prices shown, when the customer wants to pay against a periodic invoice, or when the product quantity is not known until after delivery. Several delivery tickets can roll up into a single invoice, with either separate line items or aggregate amounts shown. *See also* priced delivery ticket.

demand rate. A statement of requirements in terms of quantity per time (hours, day, week, month).

demand. A record of the relative level of requirement for a product or intermediate or raw material, without regard for the company's ability to supply it.

demonstrated capacity. Actual average capacity utilization level expressed as a rate. Excludes downtime, planned, or unplanned. *See also* proven capacity; budgeted capacity.

demurrage. A term widely used in the shipping industry to quantify the amount of (and liability for) any additional costs incurred by a loading/unloading vessel arising from delays and lost time. In international tanker trade, the charter parties specify (and thereby strictly limit) the amount of time granted to load/unload cargo. Time spent in excess of this limit is demurrage.

density. The mass of a substance per unit volume. Its numerical expression varies with the units selected, most often in grams per cubic centimeter or in pounds per cubic foot or gallon. Density is usually related to a Celsius situation, whereas gravity is usually related to a Fahrenheit situation. *See also* gravity.

depot. Location from which stock is picked up, delivered, handled or stored. Handling may include blending and packing operations. Also called branch, plant, branch/plant, terminal, or warehouse.

Derv. *See* diesel fuel.

descriptive title. *See* user defined code.

detail. The individual pieces of information and data that make up a record or transaction. Contrast with *summary*.

deterioration. Any undesirable chemical or physical change that takes place in petroleum products while in storage or use.

Deutsche Industrie Norm (DIN). Deutsche Industrie Norm. The German industry standard. The equivalent of the US ASTM and the UK BSI.

dew point. The temperature at which vaporized materials start to condense into liquid form.

diesel fuel. A general term covering light fuel oil derived from gas oil and used in diesel engines. Diesel fuel used in road diesel engines is called Derv (Diesel Engine Road Vehicle).

DIN. *See* Deutsche Industrie Norm.

dip reading. *See* gauge reading.

dip. Any one of a series of methods of product measurement that uses a device to determine the relative level of product contained in a storage container.

direct input. The system calculates the net units when you enter gross volume, temperature, and gravity or density. This data is generally entered during product receiving from the certificate prepared by an independent inspector. *—SYN.* certificate input, inspector input.

direct ship orders. A purchase order to a third-party supplier that designates the destination as the customer. Direct ship orders occur when a product is not available from a company-owned or operated source, so the system creates an order to ship the product from a third-party source directly to the customer. Such transactions can result from loan/borrow or exchange agreements. *—SYN.* drop ship, back-to-back ship, third-party supply.

direct usage. Consumption of resources attributable to specific production runs because it was directly issued to the schedule/order. *See also* controlled issue; planned issue.

dirty cargo. Term that refers to crude oil cargoes or other non-refined petroleum cargoes. *See also* clean cargo.

discharge. The physical movement that effectively transfers custody and/or ownership of the product.

dispatch group. A group products grouped by the physical characteristics that are important when storing and transporting these products.

dispatch planning. Efficient planning and scheduling of product deliveries. Considerations include dispatch groups, scheduled delivery date and time, preferred delivery date and time, average delivery time for that geographical location, available resources, and special equipment requirements at the product's source or destination.

display. 1) To cause the computer to show information on a terminal's screen. (2) A specific set of fields and information that a J.D. Edwards system might show on a screen. Some screens can show more than one display when you press a specified function key.

display field. A field of information on a screen that contains a system provided code or parameter that you cannot change. Contrast with *input field*.

disposition. The indication of what should be done with bulk product left on board a vehicle after delivery.

dissimilar exchange transactions. *See* exchange transactions.

distillate. That portion of oil that is removed as a vapor and condensed during a distillation process. Also known as the overhead fraction as distinguished from the non-vaporizing residual components left in the still.

distillation. The general process of vaporizing liquids, crude oil, or one of its fractions in a closed vessel, collecting and condensing the vapors into liquids, thereby effecting a separation between those fractions that vaporize and those that remain in the bottoms.

distribution contracts. A system to enter into and track contracts with business partners. These may be formal or informal

contractual agreements. Examples include: exchange agreements, loan and borrow agreements, tonne per tonne agreements, throughput agreements consignment agreements, storage contracts, purchase contracts, and sales contracts.

document-export. Documents required to accompany a shipment of product across national boundaries.

document-safety. Documents required to accompany a product shipment that describe the product's properties and include handling, transport and emergency instructions.

dopes. Industry parlance for substances other than petroleum added to motor fuels, diesel fuels, heating oils, and lubricating oils to improve their performance characteristics. *See also* additives.

downgrade profile. A statement of the hierarchy of allowable downgrades. Substitutions of items meeting tighter specifications for those with wider or overlapping specification ranges.

downgrading. Assigning a petroleum product for use where a lower grade of product would normally be employed, provided it meets the requirements of the lower grade. May also occur after analysis of the actual specifications achieved during production reveals that the product does not fall within *prime product* specification ranges.

downstream operation. General description of all operations that occur following the exploration and production of petroleum and natural gas. This usually includes the refining, transportation and marketing of the product and byproducts of the refining processes.

downtime. The period of time when a plant or certain equipment is idle. May be due to breakdown (unplanned) or for

preventative maintenance and/or changeover (planned). —*SYN.* idle capacity, idle time.

drawdown.   The act of reducing quantities authorized, previously committed or generally available. Typically occurs through the use of a sales order or as a release against a blanket or block order. Also called a release.

DREAM Writer.   Acronym for Data Record Extraction And Manipulation facility. This is not a report writer, but a report processor. It allows users to create up to 999 variations of standard J.D. Edwards reports and videos. The DREAM Writer is unique to the software. It is one of the most useful tools that J.D. Edwards provides to give users the flexibility to tailor the software to meet their unique needs.

drop ship.   *See* direct ship.

dry ticket.   A tank inspection record form signed by shore and ship inspectors before loading and after discharging cargo.

dummy vehicle.   A vehicle record that is created to use temporarily in place of an actual vehicle record for trip assignment.

dutiable.   Necessitating payment of a duty or tax, as imported goods.

duty.   A payment due to the government, especially a tax imposed on imports, exports or manufactured goods. Duty can be based on a product's end use and is subject to other taxes and discounts. Unlike taxes, that tend to be based on percentages, duties tend to be fixed amounts. The same ship-to customer may have two different customer ID numbers (duty-free and requires duty) to designate the duty attached to a sale. Depending upon the country, duty may be displayed as a line item on an invoice, or be built into an item's price.

duty-free.   No payment of a duty or tax required. The records for the customer receiving the product (ship-to customer) indicate duty-free sales. The same ship-to customer may have two different customer ID numbers (duty-free and requires duty) to designate the duty attached to a sale. Product item codes or the Duty Status assigned on the End Use preference determine if a product is duty-free.

earned volume.   A statement of capacity reflecting the standard hours for actual production reported during the period.

Easel.   A software product known as interactive Easel. This software product provides a bridge between AS/400 video terminals and PCs. It enhances graphics processing and provides some programmer tools. Easel is sometimes thought of as a programmer's tool that simplifies the use of OS/2's presentation manager.

economy of scale.   A phenomenon whereby larger volumes of production reduce unit cost by distributing fixed costs over a larger quantity. Variable costs are constant, but fixed costs per unit are reduced, thereby reducing total unit cost.

EDA.   Acronym for Estimated Date Available.

EDI.   Acronym for Electronic Data Interchange. It is the transmission, in a standard syntax, of a given business document from computer to computer.

edit.   (1) To make changes to a file by adding, changing, or removing information. (2) The program function of highlighting fields into which you have entered inadequate or incorrect data.

ending inventory.   A statement of on-hand quantities at the end of a period often terminated by a verification of physical inventory. —*SYN.* inventory or finished goods inventory.

EOM.   Acronym for End of Month.

equivalent fuel.   A barrel of equivalent fuel supplies six million Btu of heat. Fuel gas quantities are usually calculated as equivalent fuel barrels in economic calculations for refinery operations.

evaporation loss.   The loss of petroleum products, particularly gasoline, through the evaporation of the most volatile fractions.

excess issues.   Removal from stockroom and assignment to a schedule of a quantity higher than the quantity per times the schedule quantity. Indicative of an unfavorable usage variance.

exchange agreement.   An exchange agreement allows products to be traded between companies. The partners often agree to exchange specific quantities of product for a given time period. Exchanges involve different products or multiple products and often include a differential that one partner pays per unit of product exchange. The agreement may cover multiple locations (depots). Partners generally expect exchanges of physical product to remain roughly in balance; however, imbalances do occur and are usually monitored monthly. An annual rebalance is common and often repaid in product.

exchange transactions.   Transactions that involve an exchange of products between two companies having an exchange agreement. An exchange transaction usually involves different products and different exchange differentials. Also called dissimilar exchanges.

execute.   *See* run.

exit.   (1) To interrupt or leave a computer program by pressing a specific key or a sequence of keys. (2) An option or function key displayed on a screen that allows you to access another screen.

expense distribution.   Assignment to product cost of those expenses that are neither material nor labor. Method of assignment has traditionally been a burden rate applied based upon labor dollars or machine dollars.

export invoice.   Any one of several specially formatted invoices required for customs or commercial purposes and that contain mandated information in addition to that required by the customer.

F.   Degrees Fahrenheit. On the Fahrenheit thermometer, the boiling point of water is 212°F and the freezing point is 32°F above the zero of the scale.

facilities.   The physical plant and equipment. *See also* production facilities.

facility.   A collection of computer language statements or programs that provides a specialized function throughout a system or throughout all integrated systems. Some examples are DREAM Writer and FASTR.

family.   A group of end items whose similarity of design, composition, and manufacture facilitates being planned in aggregate, whose sales performance is monitored together, and occasionally whose cost is aggregated at this level, especially for process products whose differences are minor variations in specifications or specification ranges.
—*SYN.* manufacturing family, manufacturing group. *See also* product line.

FASTR.   Financial Analysis Spreadsheet Tool and Report Writer. A report writer that allows you to design your own report specifications using the general ledger database.

feeder work stations.   A manufacturing area whose products are planned to be available for use in a primary work area, often for final assembly of filling and packaging. Primary work area planning drives the plan for the feeder work station. This plan may be stated as a rate.

feedstock.   An intermediate product produced during the refining process. Feedstock requires additional processing to make an end product. Material supply for

multiple end items. For example, Base Grey Paint is the primary ingredient (feed stock) of all colors. *See also* feedstream.

feedstream.   A supply source for a process.

field.   (1) An area on a screen that represents a particular type of information, such as name, document type, or amount. Fields that you can enter data into are designated with underscores. (2) A defined area within a record that contains a specific piece of information. For example, a vendor record consists of the fields Vendor Name, Address, and Telephone Number. The Vendor Name field contains just the name of the vendor. *See also* display field and input field.

FIFO.   Acronym for First In, First Out. An accounting method used for inventory valuation. Physically, it is a material control technique for rotating stocks, primarily used where shelf life is a concern. *See also* LIFO.

file.   A collection of related data records organized for a specific use and electronically stored by the computer.

fill note.   Document that authorizes a filling activity and describes the ingredients, materials required, and the filling steps that are to occur.

fill.   The act of putting a blended product into a container. Alternatively, the percent of a stock that is distilled at a given temperature is referred to as the fill at that temperature.

filling line.   Equipment used to receive the bulk product that is needed to fill product containers.

finished goods reporting.   A statement of products produced in terms of end item and grade. *See also* production reporting.

finished goods.   A product ready for sale. Also used as an accounting classification of inventory for valuation and reporting. —*SYN.* end item.

finished materials.   *See* finished goods.

finite loading.   To schedule up to the stated finite availability of a resource. Traditionally used to plan capacity where machine hours are loaded in day one to the stated limit and additional requirements are pushed into subsequent periods.

fire point.   The lowest temperature at which, under specified test conditions, a petroleum product vaporizes rapidly enough to form above its surface an air-vapor mixture that burns continuously when ignited by a small flame. *See also* flash point.

fixture.   Another term for a charter. *See also* charter.

flag of convenience/necessity vessel.   A vessel registered in a nation with laws and regulations that are less restrictive than most maritime nations. The two most important flag of convenience/necessity nations are Liberia and Panama. Typically, vessel owners registered in these nations have limited liability, pay no taxes, and have the freedom to change the nationality of crews at will.

flammable liquids. Those liquids that give off combustible vapors.

flammable.   Term describing any combustible material that can be easily ignited and that will burn rapidly. Petroleum products that have a flash point of 80F or lower are classed as flammable.

flash point.   The lowest temperature at which, under specified test conditions, a petroleum product vaporizes rapidly enough to form above its surface an air-vapor mixture that gives a flash or slight explosion when ignited by a small flame. The flash point of an oil is an indication of the risk of fire or explosion associated with its use or storage. Flash point limits are included in the specifications of most products above the gasoline boiling range, but the test does not have any economic significance as long as the value recorded is inside the specification limit. *See also* fire point.

floating roof. A type of tank roof that actually floats on the surface of the oil or other liquid stored in the tank. It rides up and down inside the tank as the fluid level changes. A sealing system is used to close off the space between the roof and the inside wall. There are various designs of floating roofs in use.

floating terminal. Describes an operation wherein a water craft - often a barge - receives a load of product and delivers that product to a series of customers.

floating terminals. Boats that have an instrument or apparatus for measuring and recording the quantity of a product being unloaded. These boats are used in the Bahamas in much the same way as metered trucks are used elsewhere. *See also* metered trucks.

flush. The process of removing the last vestiges of product from a storage compartment, tank or vehicle. Clean a vehicle or tank.

fold area. In J.D. Edwards' software, it is an area on the screen that is used to display additional information associated with a particular record or data item. To view information in a fold area, press F4.

FOB. *See* free on board.

formula. A statement of ingredient requirements, although a formula may also include processing instructions and ingredient sequencing directions. —*SYN.* bill of materials (BOM), recipe.

four-point analysis. The process that captures measured quantities at four separate points in the product movement cycle and reconciles any resulting gains or losses.

fraction. A separate, identifiable part of crude oil that is a product of a refining or distillation process. A portion of distillate (having a particular boiling range) separated from other portions in the fractional distillation of petroleum products.

free on board (FOB or F.O.B). A transaction in which the seller provides a product or crude oil at an agreed unit price, at a specified loading location within a specified period. It's the buyer's responsibility to arrange for the transportation and insurance, and lift the material within the specified loading/unloading time (laytime).

freestock. The quantity of product that can be promised for sale or transfer at a particular time, taking into consideration current on-hand quantities, replenishments in process and anticipated demand.

freight (charge). Costs incurred for the transportation of product between two points, as well any charges for related services.

fuel oil. The heavy oils from the refining process that are used as fuel for power stations, industry, ships, and so forth. *See also* petroleum fuels.

full payout charter. Charter with a charter period that extends as long as the underlying debt that financed the acquisition of the vessel. At the end of the charter period, the vessel is free of all debt.

function. A separate feature within a facility that allows you to perform a specific task (for example, the field help function).

function key. A key you press to perform a system operation or action. For example, you press F4 to have the system display the fold area of a screen.

gain. (1) An increase in value of product attributed to an increase in its measured quantity. (2) An increase in profit attributable to the reduction of a transaction's quantity. (3) An increase in inventory when an actual measurement of the physical inventory is greater than the book inventory shown on the computer. As this is an unidentified gain, research might be done to determine if the gain is associated with temperature, over shipment, or for other reasons.

gallon (Imperial).   Unit of volume used in the United Kingdom and other Commonwealth countries and defined as the volume of 10 pounds of water at 62°F. It is equivalent to 277.418 cubic inches or 1.2009 US gallons or 4.54596 liters.

gallon (US).   Unit of liquid measure equal to 231 cubic inches or 3.785 liters.

gantry.   An automated device operated by a process control system that releases a set quantity of product to a transport vehicle and records the volume loaded electronically as well as in printed form. *See also* loading rack.

gas oil.   The medium oil from the refining process used as fuel in diesel engines, burned in central heating systems and used as feedstock for the chemical industry. Gas oil is the European designation for No. 2 heating oils and diesel fuels.

gasoline.   A volatile, flammable liquid hydrocarbon refined from crude oils and used universally as a fuel for internal-combustion, spark-ignition engines. —*SYN.* petrol.

gate-pass confirmation.   *See* shipping confirmation.

gauge reading.   A method used to measure products within a tank or compartment on a vehicle. An extended ruler is inserted into a tank to measure the depth of product within the container. —*SYN.* dip reading.

graded products.   An item whose specifications of critical chemical or physical properties will differentiate it from another with the same item number. The specification variation may determine its eventual use, cause alterations in other ingredients in formulas for which it is required, and/or alter its worth in the marketplace, although not necessarily its processing cost. Graded products may be raw ingredients, intermediates, or finished goods.

grades.   The sub-labeling of items to identify particular specification make-ups and separate each lot from other production lots without changing the item number.

gravity.   The displacement of the product that serves as an index of the weight of a measured volume of the product. Gravity determinations are necessary for the conversion of measured volumes to weight. Gravity is read with a hydrometer. There are two types of gravity: observed and API. Product at observed gravity will be different after it is converted to a standard temperature. Gravity is usually used in Fahrenheit situations.

gross registered tonnage.   A vessel's internal volume, figured on the basis of 100 cubic feet (cf) per ton. Abbreviation: grt.

gross volume/gross quantity.   The quantity or volume of a product at the ambient temperature. *See also* ambient temperature and standard temperature.

gross weight.   *See* weight.

hard copy.   A presentation of computer information printed on paper. —*SYN.* printout.

head box.   A storage container for feedstock. *See also* hold tanks; surge tank.

header.   Information presented at the beginning of a file or the top of a screen. It is used to identify or provide control or selection information for the group of records that follow.

heating oil.   Generic term for oils used exclusively for home heating, and widely used as a synonym for No. 2 fuel.

help instructions.   Online documentation or explanations of fields that you access by pressing the Help key or by pressing F1 with your cursor in a particular field.

helps.   *See* help instructions.

hidden selections.   Menu selections you cannot see until you enter HS in a menu's Selection field. Although you cannot see these selections, they are available from any

menu. They include such items as Display Submitted Jobs (33), Display User Job Queue (42), and Display User Print Queue (43). The Hidden Selections window displays three categories of selections: user tools, operator tools, and programmer tools.

hold order.   Suspend order, back order, or conditional order. If an order is on hold for credit reasons, a vehicle cannot be assigned.

hold tank.   *See* holding tank.

holding costs.   A calculation of the cost of money, storage, warehousing, personnel, insurance, and so forth, over the number of days material sits idle. *See also* carrying costs.

holding tank.   A storage container designed to receive a blended product after the blend process is complete and before the fill process begins. Any storage container used temporarily for intermediates, finished goods, raw ingredients, feedstocks, base stocks, and so forth.

idle capacity.   Available processing hours not used in producing products. May be budgeted in that demands do not consume the entire capacity or preventative maintenance is scheduled. May be unplanned downtime for emergency repair. This unplanned downtime may be budgeted by management knowing that they must expect some emergency downtime.
—*SYN.* idle time, downtime.

imbalance partner.   A business partner who does not meet the terms of a distribution contract.

improvers.   *See* additives.

in-line blending.   In the industry, this generally refers to a blending process done with two converging pipelines, usually under pressure. This may occur at the loading rack when a vehicle (barge or truck) is being loaded. It can also occur on a ship transporting the product. When combining products to create another product, each product may have its own unit of measure. Blending may also result in a Bill of Materials containing more than one product. *See also* splash blending.

in-process rework.   Recycling for further processing a semi-processed product that doesn't meet acceptable standards out of a given operation back into the beginning of that operation or a previous operation (for example, unreacted materials). Rework that is detected prior to receipt of finished goods and corrected during the same schedule run. *See also* return to production.

incubation period.   The length of time required to hold a product in order to verify its quality or to allow a chemical/physical change to happen before further processing (for example, fermentation). *See also* quarantine.

indented bill of material.   A multi-level statement of material requirements showing all fabrications and sub-assemblies required for end-item manufacture. It includes all bills of material for the product and its components.

indented tracing.   The following of all lot numbers of intermediates and ingredients consumed in the manufacture of a given lot of product down through all levels of the bill of material, recipe, or formula.

indirect measurement.   Determining the quantity on hand by (a) measuring the storage vessels and calculating the content's balance quantity; or (b) theoretically calculating consumption of ingredients and deducting them from the on-hand balance.

indirect usage.   Determining what should have been used by multiplying receipt quantity of the parent times the quantity per statement in the formula, recipe, or bill of material. This transaction typically affects both consumption on schedule as well as issue from on-hand balances. *See also* backflushing; key point backflushing.

infinite resource. Anything whose availability can be planned for in any quantity for any one-time period.

ingredient. A required material for the manufacture of is parent; specifically material that is purchased as opposed to a processed intermediate.
—*SYN.* component.

innage. Depth of liquid in tank, measured from the surface of the liquid to the tank bottom.

input. Information you enter in the input fields on a screen or that the computer enters from other programs and then edits and stores in files.

input field. An area on a screen, distinguished by underscores (_ _), where you type data, values, or characters. A field represents a specific type of information such as name, document type, or amount. Contrast with *display field*.

inspector input. *See* direct input.

install system code. The code that identifies a J.D. Edwards system. Examples are 01 for the Address Book system, 04 for the Accounts Payable system, and 09 for the General Accounting system.

inter-depot transfers. Stock transfers between depots.

inter-plant transfer. The movement of goods (raw ingredients, intermediates, or finished goods) from one production facility to another. The facilities are typically within a vertically integrated corporation with the receiving facility further processing the goods.

interactive processing. A job the computer performs in response to commands you enter from a terminal. During interactive processing, you are in direct communication with the computer, and it might prompt you for additional information during the processing of your request. Contrast with *batch processing. See also* online.

interface. A link between two or more computer systems that allows these systems to send information to and receive information from one another.

intermediates. A semi-processed state that is not usually available for sale to the marketplace. Comparable to a sub-assembly in the discrete manufacturer but typically held as work in process in the process world often for material handling and storage reasons. —*SYN.* component, sub assemblies.

internal list price. Price as given in an internal list or catalog used by a company's employees for reference purposes. *See also* non-list price; list price.

invoice cycles. *See* cycle billing.

invoice. An itemized list of goods shipped and/or services rendered, stating quantities, prices, fees, shipping charges, and so forth. In the energy/chemical industry, the invoice format can vary based upon product group. Also, companies often have their invoices mailed to a different address than where they ship products. In such cases, the "bill-to" address differs from the "ship-to" address. Invoices sometimes show dual units of measure (for example, gallons and barrels equivalent in liters). *See also* delivery ticket.

ISO 9000. A series of standards established by the International Standards Organization, designed as a measure of product and service quality.

items. An item in the software is a product with a corresponding number.

jargon. A J.D. Edwards term for system specific help text. You base your help text on a specific reporting code you designate in the Data Dictionary Glossary. You can display this text as part of online help.

job. A single identifiable set of processing actions you tell the computer to perform. You start jobs by choosing menu selections, entering commands, or pressing designated

function keys. An example of a computer job is check printing in the Accounts Payable system.

job costing. Determination of actual product cost by tracking material, labor, and overhead costs to each instance of production for that item. The typical control and collection mechanism is the manufacturing order or job order, consequently, the term job costing. —*SYN.* job order costing.

job queue. A screen that lists the batch jobs you and others have told the computer to process. When the computer completes a job, the system removes the job's identifier from the list.

joint-operated plant. A facility shared and managed in rotation by different companies. This is common at airports, because airports typically minimize the number of tanks and facilities.

justify. Shift information you enter in an input field to the right or left side of the field. Many of the facilities within J.D. Edwards systems justify information. The system does this only after you press Enter.

kerosene. A medium light oil from the refining process intermediate between gas oil and gasoline; used for lighting, heating, and as a fuel for jet and turbo-prop aircraft engines.

key field. A field common to each record in a file. The system uses the key field designated by the program to organize and retrieve information from the file.

key general ledger account (Key G/L). *See* automatic accounting instruction.

key point backflushing. The theoretical consumption of resources triggered not upon the receipt of the end item but through reporting an intermediate quantity produced and passed forward to the next task. The theoretical consumption will consume only the resources required for this processing task and all previous processing tasks that are defined as non-reporting (not serving as trigger points for key point backflushing). *See also* indirect usage.

labor cost. The dollar amount of added value due to labor performed during the manufacture of a product.

laytime (or layhours). Term that refers to the amount of time allotted to a tanker at berth to complete loading or discharging cargo. This time is usually expressed in running hours and is fixed by prior agreement between the vessel owner and the company chartering the vessel. Laytime is stipulated in the charter that states exactly the total number of hours granted at both loading and unloading ports, and indicates whether such time is reversible. A statement of "Seventy-Two Hours, Reversible" means that a total of 72 hours is granted overall at both ports, and any time saved at one port can be applied as a credit at the other port. For example, if the vessel uses only 32 hours instead of the 36 hours to load cargo, it can apply an additional four hours to the 36 hours allotted at the discharge port. Such considerations are important for purposes of computing demurrage.

leading zeros. A series of zeros that certain facilities in J.D. Edwards systems place in front of a value you enter. This normally occurs when you enter a value that is smaller than the specified length of the field. For example, if you enter 4567 in a field that accommodates eight numbers, the facility places four zeros in front of the four numbers you enter. The result would look like this: 00004567.

level of detail. (1) The degree of difficulty of a menu in J.D. Edwards software. Also known as *menu levels*. The levels of detail for menus are as follows:
    A = Major Product Directories
    B = Product Groups
    1 = Basic Operations
    2 = Intermediate Operations
    3 = Advanced Operations
    4 = Computer Operations

5 = Programmers
6 = Advanced Programmers
(2) The degree to which account information in the General Accounting system is summarized. The highest level of detail is 1 (least detailed) and the lowest level of detail is 9 (most detailed).

levels.   The number of times products are received to inventory during the processing of initially purchased material into an end item for sale.

LIFO.   Acronym for Last In, First Out. A stock accounting rule that assumes that each outbound movement of a product draws against the most recent inbound receipts of that same product. *See also* FIFO.

limited resource.   Anything for which requirements above and beyond stated availability must be tagged, so planners may have sufficient time to acquire the resource often through expediting and rescheduling.

line of business.   Describes a segment of the customer base and the products or product lines they typically purchase. Line of business may be a factor in pricing products.

line.   A specific physical space for the manufacture of a product. In a flow plant, layout is often represented by a straight line. This may be in actuality a series of pieces of equipment connected by piping or conveyor systems.

liquid fuel.   Any liquid used as fuel that can be poured or pumped.

list price.   Retail price as given in a list or catalog, variously discounted in sales to dealers or industrial customers. The list price is calculated from the base price. *See also* non-list price; internal list price.

liter.   Unit volume in the metric system equal to 61.025 cubic inches or 0.264178 gallons US liquid.

load balancing.   Physically arranging components of a load by weight and height to ensure the safety of the trip.

load confirmation.   *See* shipping confirmation.

load date.   Date the product leaves the plant.

load slip.   (1) A statement of required materials to fulfill a customer's order. (2) A statement of required materials to move to processing when manufacturing an end item. (3) A sub-lot control ticket designating precise production time required to bring a specific sample back to specifications.

loading note.   Document that tells the delivery driver how much of the product to load and describes how the driver should load the product (unless the order is automated). The note includes trip number, sequence number and loading sequence information. There are both packaged and bulk loading notes. Also called pick list, pick slip, packing slip.

loading rack.   The equipment used to load bulk products into a vehicle. An automated loading rack is computerized and can record and update orders and inventory based on computer entries. A non-automated loading rack simply records the information for later data entry.

loan/borrow agreement.   An agreement with a business partner usually made in response to a potential stock shortage. It normally is for the same product and does not involve product or price differentials. In a shared facility, a simple borrow and loan agreement may occur when a partner exhausts its stock of a product. If another partner at the facility has stock available, it may agree to loan the stock against a planned replenishment. In another scenario, a company may pick up product from a partner at another depot and replace the product at a later date. Normally, loans and

borrows are informal agreements settled in product. *See also* loans; borrow; exchange agreement.

loans.   Loaning product to another company. Repayment will be made by the borrower in the same product. *See also* borrow; loan/borrow agreement.

logical compartment.   One of two ways identified in the transportation constants to display compartments on vehicles. Logical display numbers the compartments sequentially. For example, if there are two vehicles on a trip and each vehicle has three compartments, the logical display is 1, 2, 3, 4, 5, 6. *See also* physical compartments.

logical file.   A set of keys or indices used for direct access or ordered access to the records in a physical file. There can be several logical files with different accesses to a physical file.

logical shelf.   A logical, not physical location for inventory, used to track inventory transactions in loan/borrow or exchange agreements with other companies. *See also* logical warehouse.

logical warehouse.   Not a physical warehouse containing actual inventory, but a means for storing and tracking information for inventory transactions in loan/borrow or exchange agreements with other companies.

long ton.   An avoirdupois weight measure equaling 2,240 pounds or 1.0160 metric tons.

long-term rework.   Rework materials that cannot be re-processed and brought up to specification immediately or within a very short period of time.

loss.   The decrease in inventory when physical inventory is less than the book inventory shown on the computer. This is an unidentified loss and further research might be done to determine if the loss is associated with temperature, under shipment, or other reasons.

lot tracking.   *See* batch/lot tracking.

lot. A quantity produced together and sharing the same resultant specifications and production costs.

LPG (Liquid Petroleum Gas).   A product that consists of propane, butane, or a mixture of the two and which may be wholly or partially liquefied under pressure for transport and storage.

LRS.   Acronym for Loading Rack System. *See also* loading rack.

lube oil.   *See* lubricants.

lube.   *See* lubricants.

lubricants.   A class of petroleum-based products that are typically stored as intermediate products, then blended and packed for delivery. Also known as lube oil.

main fuels.   Usually refers to bulk fuel products, but sometimes includes packaged products.

manual invoices.   Invoices that are generated after recording manual or "milk run" product deliveries. Recorded after-the-fact into the system.

manufacturing family.   *See* family.

manufacturing request.   Work order issued to initiate the manufacturing of product for a specific customer or to replenish stock. —*SYN.* map order.

margin.   The difference between the cost and the selling price of goods produced and sold. —*SYN.* profit margin.

marginal cost.   The cost of making one more than the planned or stated volume; in essence, variable cost only, with the pricing strategy relying on originally planned production to absorb all fixed costs.

marketing unit.   The unit of measure (UOM) for sales. UOM in which sales price is stated and customer orders are booked. May require conversion from stocking UOM and/or planning UOM.

master file.   A computer file that a system uses to store data and information that is permanent and necessary to the system's operation. Master files might contain data or information such as paid tax amounts and vendor names and addresses.

master schedule.   A statement of production, input into the material plan and the driver of requirements. —*SYN.* master production schedule.

material.   General description applied to any blending or filling process component that is not petroleum based.

material list.   A statement of ingredients (materials) required out of storage to support production. *See also* batch sheet.

material usage variance.   The difference between planned or standard requirements for materials to produce the parent and the actual quantity used for a particular manufacturing run. Typically valued at standard dollars (purchase price variance stripped at receipt time) or at a calculated average cost whereupon a rate variance is also possible. —*SYN.* efficiency variance.

menu.   A screen that displays numbered selections. Each of these selections represents a program or another menu. To access a selection from a menu, type the selection number and then press the Enter key.

menu levels.   *See* level of detail.

menu masking.   A security feature of J.D. Edwards systems that lets you prevent individual users from accessing specified menus or menu selections. The system does not display the menus or menu selections to unauthorized users.

menu message.   Text that appears on a screen after you make a menu selection. It displays a warning, caution, or information about the requested selection.

metal content.   A series of properties of a blended product that help to determine its suitability for a prescribed purpose.

metals management.   Term applied to the process of maintaining information about the location and status of durable product containers such as liquid petroleum gas (LPG) cylinders.

meter.   There are two types of meters: regular meters that measure the amount of flowing product, and temperature compensating meters that measure the temperature of the flowing product and convert it to standard temperature.

meter readings.   The reported number from the meter used to calculate the actual inventory quantity of materials.

metered issue.   A quantity of consumption wherein the determination of actual quantity used was not counted by hand, but rather by meters.

metered trucks.   Trucks having an instrument or apparatus for measuring and recording the quantity of a product being unloaded. Metered trucks are often used for milk runs or topping off, where the truck follows some routes and delivers a product on-site to customers. *See also* milk run; unmetered trucks; floating terminals.

method of payment.   Describes the financial instrument that can be used to retire the debt incurred. This may be cash, check, post-dated check, letter of credit, and so forth.

metric ton.   A weight measure equal to 1,000 kilograms, 2,204.62 pounds. (avoir.) and 0.9842 long tons. For approximate conversion purposes, there are about 7.55 barrels of No. 2 distillate fuel in one metric ton, 8.51 barrels of gasoline, and 6.7 barrels of residual fuel.

milk runs.   Industry terminology for delivering products to customers along an established route. The product is loaded into the vehicle at a depot, and the driver follows a regular route, topping off tanks for customers. The driver measures the amount of each delivery and creates manual invoices. The amount sold to a customer is

not known until the driver returns to the depot with manual invoices. Although metered trucks or barges are most frequently used on milk runs, packaged products may be delivered as well. *See also* manual invoices; metered trucks.

mixing.   Blending or stirring.

MMbpd.   Abbreviation for Million Barrels Per Day. A measure of crude oil consumption.

mobile inventory.   Inventory transferred from a depot to a barge or truck for milk-run deliveries.

MOD.   Acronym for Method Of Delivery.

mogas.   Industry abbreviation for motor gasoline.

multiple stocking locations.   Authorized storage locations for the same item number at locations in addition to the primary stocking location.

national flag vessel.   A vessel registered in a nation other than a flag of convenience/necessity nation. National flag vessels are under the jurisdiction of the maritime authority of the nation and are bound by its laws and regulations.

net registered tonnage. The internal volume of a vessel's cargo-carrying spaces, measured at 100 cubic feet per ton.

net volume calculator.   A program that converts product quantities to standard as the information to reduce inventory is entered. The net volume calculator can also be used to calculate entries for review without affecting inventory. *See also* standard temperature.

net volume.   The volume of a product adjusted to reflect its volume at a standard (defined) temperature. For example, 100 gallons of a product measured at a temperature of 25°C might actually be 80 gallons at 15°C. There are different standard temperatures based on country. For multinational companies, local standards apply. There may be a difference between booked inventory and what is billed. Billing can be based on the customer's standard. *See also* ambient; ambient volume.

net volume/net quantity.   The quantity or volume of a product converted to standard. *See also* standard temperature.

net weight.   *See* weight.

new buildings.   Count of new vessels under construction.

next number facility.   A J.D. Edwards software facility you use to control the automatic numbering of such items as new G/L accounts, vouchers, and addresses. It lets you specify your desired numbering system and provides a method to increment numbers to reduce transposition and typing errors

next numbers.   An automatic numbering feature built into J.D. Edwards' software products. When users enter data, J.D. Edwards' software frequently assigns unique numbers to documents or records. These might be invoice numbers, document numbers, employee numbers, and so forth.

non-list price.   A price for bulk products that's determined by its own algorithms, such as a rolling average, commodity price plus. *See also* internal list price; list price.

non-prime product.   A manufactured product with a revenue potential less than the product planned for, scheduled, and thought to be produced. *See also* off-specification; off spec product.

NOR.   *See* notice of readiness.

notice of readiness (NOR).   In international maritime practice, the ship captain is obligated to cable the receiver at port that his vessel is "ready, willing and able" to proceed to berth. In most Charter Parties, the official tendering of the notice of readiness to the receiver determines the commencement of laytime. Usually, laytime commences upon the arrival at berth of the vessel and its connection to receiver's hose connection or at the expiration of six full

hours after tendering the notice of readiness, berth or no berth, whichever first occurs.

numeric character.   Represents data using the numbers 0 through 9. Contrast with *alphabetic character* and *alphanumeric character*.

off specification (off spec).   Term describing a product that fails to meet requirements of applicable specifications.

off-spec product.   A product whose physical or chemical properties fall outside the acceptable range(s). —*SYN.* offgrade.

offline.   Computer functions that are not under the continuous control of the system. For example, if you were to run a certain job on a PC and then transfer the results to a host computer, that job would be considered an offline function. Contrast with *online*.

oil.   General term for a water-insoluble viscous liquid.

olefins.   A class of unsaturated (hydrogen deficient) paraffinic hydrocarbons having one or more double bonds per molecule. Although not normally found in crude petroleum, they are produced by various cracking processes. The most important olefins are ethylene, propylene, and the diolefins isoprene and butadiene. All are important petrochemical feedstocks.

online.   Computer functions over which the system has continuous control. Each time you work with a J.D. Edwards screen, you are online with the system. Contrast with *offline*. *See also* interactive processing.

online information.   Information the system retrieves, usually at your request, and immediately displays on the screen. This information includes items such as database information, documentation, and messages.

operand.   *See* Boolean logic operand.

operating efficiency.   A ratio of the actual operating level of a piece of equipment, department, or plant as compared to the planned or standard level.

operating expense.   The cost to run the facilities, maintain equipment, and carry a staff prepared to manufacture product.

operating point.   The rate of output of a piece of equipment, department or plant.

operational reconciliation.   The measured physical stock levels are compared with the book inventory values, and any differences can be reconciled, and any operational gains or losses recorded. This is the second reconciliation stage. *See also* throughput reconciliation.

operational standard.   The statement of planned consumed resources and their quantity per relationship (with or without cost) to manufacture a product using the most recently authorized Production Model (BOM/ Batch Sheet), versus the Production Model (PM) used to generate financial standards at the beginning of the fiscal year.

optimal quantity.   The quantity that meets demand, satisfies inventory and distribution requirements between this production run and the next cycle for this product, and also balances per unit production costs versus carrying costs.

option.   A numbered selection from a J.D. Edwards screen that performs a particular function or task. To select an option, you enter its number in the Option field next to the item you want the function performed on. When available, for example, option 4 allows you to return to a prior screen with a value from the current screen.

order capture clerk.   *See* order taker.

order consolidation.   *See* trip building.

order splitting.   Process by which a single order is split into two or more orders. There may be various reasons for splitting an order, including: terms of trade (payment

terms), dispatch group, method of delivery, order size and vehicle capacity. *See also* trip building.

order taker.   Referred to as clerk, order capture clerk, order taker or customer service representative. May be a sales person who negotiates price and trading activity. May not be authorized to change prices.

order-based pricing.   Pricing strategy that grants reductions in price to a customer based upon the contents and relative size (volume or value) of the order as a whole.

outage.   The difference between the full or rated capacity of a barrel, tank, or other container and the actual contents. With many petroleum products, it is important that some appreciable difference exist between a tank's capacity and its contents to allow the contents to expand with a rise in temperature.

output. Information the computer transfers from internal storage to an external device, such as a printer or a computer screen.

output queue.   A screen that lists the spooled files (reports) you have told the computer to write to an output device, such as a printer. After the computer writes a file, the system removes that file's identifier from the online list. *See also* input queue.

outturn.   Term that refers to the quantity of oil actually received into a buyer's storage tanks when a vessel is unloaded. For various reasons (vaporization, clingage to vessel tank walls, and so forth) the amount of a product pumped into shore tankage at unloading is often less than the quantity originally loaded onto the vessel, as certified by the Bill of Lading. Under a delivered or CIF outturn transaction, the buyer pays only for the barrels actually "turned out" by the vessel into storage. When a buyer is paying CIF Bill of Lading figures, a loss of 0.5% of total cargo volume is considered normal. Losses in excess of 0.5%, however, are either chargeable to the

seller, or are covered by specialized insurance that covers partial as well as total loss of the cargo.

overhead. In the distillation process, that portion of the charge that leaves the top of the distillation column as vapor.

overhead distribution,   allocation, assignment. The apportionment of overhead expenses as a rate or percent of dollar cost of a resource that is directly costed to actual production.

overlap quantity.   The amount of product that needs to be run and sent ahead to the following operation before the following "overlap" operation can begin.

override.   The process of entering a code or parameter other than the one provided by the system. Many J.D. Edwards systems offer screens that provide default field values when they appear. By typing a new value over the default code, you can *override* the default. *See also* default.

pack. Process that fills containers with bulk product, attaches outer labels, and places containers in one or more outer cartons or shipping containers.

package total.   The total number of cartons or shipping containers on an order or shipment.

packaged products.   Products which by their nature must be delivered to the customer in containers suitable for discrete consumption or resale. —*SYN.* packed products.

packed products.   *See* packaged products.

pallet.   A low, portable platform, usually double-faced, on which materials are stacked for storage or transportation.

pallet ticket.   A sub-lot label to track pallet size quantities of end-items produced at a precise time. Used to match the sub-lot with specifications determined by periodic sampling and analysis during production.

parameter.   A number, code, or character string you specify in association with a command or program. The computer uses parameters as additional input or to control the actions of the command or program.

partner.   The name or Address Book number of a business partner in a distribution contract.

password.   A unique group of characters that you enter when you sign onto the system to identify you as a valid user.

payment terms.   Terms of trade. These can vary by product, customer and customer type. Many types of terms can be set up (for example, 30 days, first Friday of the following month, and so forth). Payment terms are specified during order capture.

pc.   Personal computer.

pegging.   A technique used to identify the parent that generated a specific requirement.

period costing.   The costing of product in aggregate determined for a period of time by assigning costs to all production for a specific period.

periodic billing.   Billing cycle in which the due date of an invoice is based on the delivery date of the product. *See also* cycle billing.

petrochemical.   A chemical compound or intermediate chemical recovered from petroleum or natural gas or derived, in whole or in part, from petroleum or natural gas hydrocarbons and intended for chemical markets. Examples include ethylene, propylene, xylene, toluene, benzene.

petroleum.   A generic name for hydrocarbons, including crude oils, natural gas liquids, natural gas, and their products. *See also* crude oil, crude petroleum.

physical compartment.   One of two ways identified in the transportation constants to display compartments on

vehicles. Physical display numbers the compartments by vehicle. For example, if there are two vehicles on a trip and each vehicle has three compartments, the physical display is 1/1, 1/2, 1/3, 2/1, 2/2, 2/3. *See also* logical compartments.

physical inventory.   Actual inventory in a storage location. *See also* book inventory; reconciliation.

pick list, pick slip, picking list.   List that tells warehouse personnel what inventory to pick up and where it is located. Used for packed (packaged) products to let depot/warehouse personnel know what products to pull from inventory for an order. *See also* batch sheet; loading note; material list.

pickup order.   Customer collects (or picks up) the order at the source, using a customer-owned or third-party vehicle. For pickup orders, shipping confirmation and delivery confirmation are combined into one step.

pipeline delivery.   The product is delivered in a pipeline.

plant-to-plant transfer.   Remove product from one location in a plant to another tank in a different plant (for example, to transfer from a sea port to an airport). Two basic types of transfers have been identified: planned and after-the-fact. Planned transfers work almost like sales/purchase orders, requiring formal documentation to initiate the transfer. Transfer pricing may be needed. After-the-fact transfers are informal transfers entered into the system after a transfer has occurred.

plants.   A separate factory or production facility that may be physically separate or may be used only for planning or accounting purposes. *See also* cost center.

plastics.   A large and varied group of materials that consists of, or contains as an essential ingredient, an organic substance of large molecular weight and which, while solid in the finished state, at some stage in

its manufacture has been or can be formed into various shapes by flow, usually through applications of heat and pressure or both.

post order assignment.   A system function that produces suggested vehicle assignments that can be modified or confirmed by the dispatcher.

post-dated check slot.   The system logs and tracks post-dated check payments that must be tracked for deposit and credited against a customer's account. Allows customers to provide post-dated checks for product.

post-deduct.   Deduction of inventory required, at standard, made upon the start of production of an end item.

pour point.   The lowest temperature at which an oil will pour when chilled without disturbance under specified conditions. It is the temperature at which an oil solidifies plus 5°F. Although widely used to indicate the temperature below which it may not be possible to use an oil without some heating to maintain flow from storage, the test is relatively imprecise. For residual fuel oils, the viscosity and pumpability are the important parameters, and for gas, oils, and kerosene, it is the cloud point that is important.

PPAT.   Acronym for "People, Places and Things," J.D. Edwards' electronic mail system. This E-mail system provides an effective internal communications tool for sending and receiving messages online.

PPM.   Acronym for Parts Per Million, usually by weight.

practical capacity.   A statement of production rate or available capacity that can reasonably be expected for actual production, excluding all (anticipated) idle and non-productive time. *See also* proven capacity.

pratique.   Permission from health authorities to proceed.

pre-planned order.   An order, generated automatically by the system, that specifies either the purchase of material or the manufacture of product to meet anticipated future demand.

prepaid terms.   Terms of trade (payment terms) that bypass the standard credit limit, because a credit check was done by product line.

price.   *See* base price; commodity price; contract price; cumulative price; internal list price; list price; non-list price; promotional price; standard price.

price adjustment.   A discount or surcharge added to the base price. May be based on factors such as contracts, customer line of business, duty status, payment terms, and so forth.

price calculation.   The series of calculations required to derive the amount to be charged to a customer for the product that has been delivered.

priced delivery ticket.   Provides the delivery instructions for an order or trip, specifying the products and quantities that should be delivered. Shows product price, value added tax (VAT), and any other additional charges associated with the delivery. A priced delivery ticket is also used to record information about what was actually delivered. The prices are for display purposes only, and no generations are made to accounts receivable. *See also* delivery ticket.

print queue.   An online list (screen) of written files that you have told the computer to print. Once the computer prints the file, the system removes the file's identifier from the online list. *See also* output queue.

printout.   A presentation of computer information printed on paper. —*SYN.* hard copy.

process controllers.   Sophisticated, custom-programmed computers designed to monitor the manufacturing cycle during

production. Often with the capability to modify conditions (temperature, flow, pressure, and so forth) to return the production to prescribed ranges.

process hours. The time required for any specific operation or task to process product. A resource usually considered finite and corresponding to traditional statements of capacity requirements. *See also* run time.

process list. A listing of procedures in the manufacture of product that may or may not also include a statement of material requirements. *See also* product/process definition; routing; spec sheet.

process sheet. *See* process list, spec sheet.

process steps. The operations or stages within the manufacturing cycle required to transform raw ingredients into intermediate or finished goods. *See also* process list; spec sheet.

process stocks. Raw intermediate ingredients available for further processing into marketable products. *See also* feedstock.

process time. The hours, minutes, and seconds required to perform a specific task or operation.

process. The manufacturing procedure. *See also* process steps.

process/flow. Manufacturing technique with minimal interruptions in any one production run or between production runs of products that exhibit process characteristics such as liquids, fibers, powders, gases. Characterized by the difficulty of planning and controlling quantity and quality yield variances. Process manufacturing differs from discrete manufacturing. *See also* continuous process run; batch/mix.

processing options. A feature of the J.D. Edwards DREAM Writer that allows you to supply parameters to direct the functions of a program. For example, processing options

allow you to specify defaults for certain screen displays, control the format in which information gets printed on reports, change the way a screen displays information, and enter "as of " dates.

product grade. The categorization of different lots of the same end item based upon each lot's specifications and where these lie within the range of acceptable specifications.

product group. *See* product line.

product line. A group of products whose similarity in manufacturing procedures, marketing characteristics, or specification allow them to be aggregated for planning, marketing, and occasionally, costing. *See also* family.

product mix. The proportion of one end item versus another inside the aggregate production output.

product mix variance. The difference in actual contribution or potential contribution of an actual production mix versus the planned mix of the original aggregated statement of production.

product quality giveaway. Product quality that exceeds specifications and results in higher manufacturing costs. The quality of petroleum products is strictly controlled. They are blended to manufacturing specifications that may cover one or more product or brand specifications. Most specification clauses are readily met without any economic incentive to make a blend nearer the specification limit. However, there may be a clause on which failure to blend near the limit does incur a cost penalty, examples being the sulfur content of fuel oil and the octane number of gasoline. For example, to market motor gasoline of 99 research octane, a target level of 99.4 may be used to ensure that 99% of blends have octane numbers greater than 99. This product giveaway of 0.4 octane numbers would result in higher manufacturing costs.

product sequencing. A natural progression from one product to another within a family to minimize set-up and clean-up (switch over) costs. *See also* cyclical scheduling; wash down.

product specification. A statement of acceptable physical and chemical properties or an acceptable range of properties that distinguish one product from another or one product grade from another. *See also* specifications.

product tank file. The program file that describes what product is in inventory, in which tanks it is stored, the gravity for the tank, the temperature of the tank, and when the temperature expires.

product transfer. *See* plant-to-plant transfer.

product variation. A phenomenon wherein actual finished product may differ in grade.

product/process definition. A combination of bill of material (recipe/formula) and the routing (process list). Organized into tasks with a statement of required consumed resources and produced resources. *See also* process list.

production model. A product/process definition that is organized into tasks with a statement of required consumed resources and produced resources.

production rate. A statement of output from a facility, department, or piece of equipment by product as a statement of product output per process hour. —*SYN.* production levels.

production reporting. A statement of production received from the manufacturing floor that may or may not have all quality assurance performed and may or may not be a final statement of production in terms of grade or end- item number. *See also* finished goods reporting.

program. A collection of computer statements that tells the computer to perform a specific task or group of tasks.

program specific help text. Glossary text that describes the function of a field within the context of the program.

projected cost. The target expenditure in adding value for material, labor and so forth during manufacture. *See also* standard cost.

promotional price. Special discount pricing during a specific time period done for advertising or promotional purposes. Promotional pricing can affect contract **pricing.** Although typically its effect is additive, promotional pricing can also replace contract prices. Products sold during the promotional period must be invoiced at the promotional rate, even though they may be delivered and invoiced after the promotional period has ended. Promotional pricing is normally handled through price adjustments.

prompt. (1) A reminder or request for information displayed by the system. When a prompt appears, you must respond in order to proceed. (2) A list of codes or parameters or a request for information provided by the system as a reminder of the type of information you should enter or action you should take.

proven capacity. The historically average availability of capacity for production excluding all idle maintenance time. *See also* demonstrated capacity; budgeted capacity; practical capacity; rated capacity.

PSI. Acronym for Pounds Per Square Inch.

PSIA. Acronym for Pounds Per Square Inch Absolute. Total pressure including that of the atmosphere.

PSIG. Acronym for Pounds Per Square Inch Gauge. Pressure above that of the atmosphere.

PTF. Acronym for Program Temporary Fix. A representation of changes to J.D. Edwards software that your organization receives on magnetic tapes or diskettes.

pumpability. The property of a fluid, especially any petroleum based product, that allows it to flow under pressure through the line, nozzle, and fittings of a product-dispensing system.

purchase contract. An agreement with a vendor to purchase specific products. It can govern volume rebates, based upon the amount ordered.

purchase price variance (PPV). The difference between actual invoice price per unit and the standard cost per unit.

purge. The process of removing records or data from a system file.

quad. A quad is one quadrillion Btus or roughly about 25 million tons of oil.

qualified petroleum products. Products that have successfully passed certain tests required to determine whether or not they conform to all qualification test requirements of applicable specifications.

qualitative test. Laboratory procedure to determine the nature of a compound or mixture or the identity of the constituents, without regard to the amounts present.

quality assurance (QA). The discipline or function of verifying conformance to specification. May also include the responsibility for standard specification.

quantitative test. Laboratory procedure to determine the amount of the constituents present in a compound or mixture.

quarantine (QC- hold). The setting aside from availability for use or sale of finished product or raw ingredients until all required quality tests have been performed and conformance to specification or regulations certified. *See also* incubation period.

quotas. The practice of limiting the volume of product that may be delivered to a particular customer site during a specified period of time. *See also* allocation.

rate variance. The difference between actual output rate of product and planned or standard.

rated capacity. A statement of capacity reasonably expected to be available from a given piece of equipment. More narrowly, the statement of output performance as a rate, either from the manufacturer or from the internal engineering studies. *See also* proven capacity; demonstrated capacity.

raw materials. Purchased materials (ingredients) to which no processing has been done in house. In accounting, reporting of inventory valuations as a sub-class of inventory that may include intermediates.

rebate. Refund, calculated after the original pricing, on the stated price of a product or service.

reblend. The process of adding components to the results of a failed blend order in an attempt to produce a conforming blend product.

rebrand. The act of changing the identifier associated with a given lot, batch or container of product for the purpose of selling it as though it were a lesser product.

recipe. A statement of material requirements for the parent item. May include sequencing of ingredients and/or processing instructions. *See also* formula; bill of materials.

recon crude. Reconstituted crude. A crude oil that has been blended, usually in a producing country, to meet the needs of a refinery in a consuming country. A reconstituted crude often has a lower sulfur or higher distillate content than the natural crude oil.

reconciliation. The balancing of physical, actual, on- hand inventory to book inventory. Any difference between the two is written to a variance account for physical inventory adjustments. *See also* book inventory; physical inventory; operational reconciliation; throughput reconciliation.

record. A collection of related, consecutive fields of data the system treats as a single unit of information. For example, a vendor record consists of information such as the vendor's name, address, and telephone number.

reference height. The distance from the reference point to the datum plate or the bottom of the tank. It should be stamped on the fixed benchmark plate or stenciled on the tank roof near the gauging hatch. —*SYN* gauge height.

reference point. (1) The point at which a tape is lowered and read on a tank, usually at the rim of the hatch, manway, or expansion dome. (s) a point to which all subsequent measurements are related. (3) The point from which the reference height is determined and from which the ullages/innages are taken. —*SYN* gauge point, zero point.

reformulate. The practice of altering the percentage of one or more components of a formula as a first step in reblending a blend product.

regrade. The practice of mixing a product with one or more additional products to produce a third product. This is normally done when the first product no longer meets specifications.

release. Being able to associate a particular order with a block order. Also called a drawdown.

reletting. The practice of oil companies chartering out owned or chartered-in tonnage to competitors.

remote site. A site that cannot support an AS/400. Electronic interfacing with remote sites is needed. For example, efficient aviation transactions would allow airports to communicate directly with the head office rather than with an intermediary clearinghouse.

repack. Activity whose purpose is to remove product from one size or type of container and place it in a different size or type.

replacement cost. A method for setting the value of inventories based upon the cost of the next purchase.

reporting code. *See* category code.

reprice, repricing. The process of examining unshipped, uninvoiced orders and applying the most current pricing rules. Also includes finding orders that should have different pricing and applying a final price to them. Repricing occurs when the price of a product changes. *See also* time-based repricing.

resource availability. The act of predicting the availability of all the resources needed for an operation and scheduling the operation based on that prediction.

resource commitment. The act of reserving the resources required to accomplish a blending, filling, or delivery procedure.

restricted byproduct. A restricted secondary or incidental product produced while making another product. Such byproducts cannot be sold because they are restricted from sale by government policies. The company may have to forego making a product if a restricted byproduct is produced.

return confirmation. Recording the fact that product loaded on a vehicle and destined for a customer ship-to site was not delivered. *See also* delivery confirmation.

return order adjustment. Also called credit order, credit memo. *See also* credit order.

return to production (RTP). The removal of goods from a finished goods status for purposes of rework or recoup to bring the product into specification compliance. *See also* in-process rework.

revenue cost center. *See* cost center.

reverse image. Screen text that displays in the opposite color combination of characters and background from what the screen typically displays (for example, black on green instead of green on black).

routing. *See* process steps, process list.

run out list. A statement of ingredients required to use up an available resource. For example, how much of ingredient "A" is required to consume 300 pounds of ingredient "X."

run size. Production quantity as stated on a schedule. May be calculated as number of batches times standard batch quantity (SBQ), or number of days times daily rate. Determined in planning to best match demand. *See also* standard batch quantity (SBQ).

run. Cause the computer system to perform a routine, process a batch of transactions, or carry out computer program instructions.

run time. The length of time equipment is in use producing product. Distinct from set up and clean up. A portion of the total in use time of capacity. *See also* process hours.

sales contract. A commitment to supply a given product to a customer. The customer normally agrees to take a certain volume of product from a specific location over a specified time period. The contract can guarantee quantities of product, product price, or both. If a product reservation is made, the customer normally pays the agreed upon price at the commencement of the agreement in return for guaranteed product availability during the term of the contract. It is critical to track the delivered quantities against the reserved quantities to ensure they don't exceed the reservation.

sales targeting. Attempting to sell as much product as possible to a customer. This is the opposite of allocation.

sampling. Removing a portion of material from receiving in process or finished goods for quality assurance analysis. —*SYN.* periodic sampling.

scheduled downtime. Planned shutdown of equipment plant for maintenance or to adjust to softening demand.

scrap. Produced material outside acceptable range of material and of such characteristics that rework is impossible or impractical. Not waste, which is an anticipated byproduct. Must be used in addition to yield loss in determining good output to input. *See also* waste.

scroll. Use the roll keys to move screen information up or down a screen at a time. When you press the Rollup key, for instance, the system replaces the currently displayed text with the next screen of text, if more text is available.

seasonal specifications. Product specifications that are dependent on the season. The most important of these changes in product specifications with the season are those for motor gasoline. Low vapor pressure specifications in the summer permit the use of little or no butanes in the gasoline, whereas winter specifications may permit butanes to be blended. Butanes that cannot be blended into gasoline might otherwise have to be used for fuel at much reduced values.

sediment. Deposits of material that settle to the bottom of a tank or storage container. Several sediment tests are used to indicate the tendency of an oil to deposit sediment during storage. *See also* bottom sediment and water (BS & W).

sediment and water. Solids and aqueous solutions that may be present in an oil and that either settle out on standing or may be separated more rapidly by a centrifuge.

selection. Found on J.D. Edwards menus, numbered selections represent functions that you can access from a given menu. To make a selection, you type its associated number in the Selection field and press Enter.

self-billing invoice. A document produced by the consignor as the official record of freight charges attributable to a trip conducted by a contractor, hauler or common carrier.

sequencing. The prioritizing of products within a family that is scheduled cyclically. Prioritization is intended to minimize lost time due to clean-up/set-up time between products.

set-up time. Preparing equipment and tools for the processing of product. For most process companies, this is tracked separately from clean-up time. *See also* change over; clean up; wash down.

shared facilities. *See* shared tankage; joint-operated plant.

shared tankage. An operating environment that requires that two or more companies share storage facilities simultaneously, so tracking product in/out movement is important. *See also* joint-operated plant.

shelf life control. A technique of physical FIFO aimed at reducing stock obsolescence through deterioration over time. Also the tracking of the number of days in storage.

shelf life. The expected number of days a product can be kept in storage and still retain acceptable properties within the standard range of specifications.

shift. The regular work period of a work group. Minimum time unit of planning for allocating human resources.

ship. Generally, any decked vessel that is used in deep water navigation.

shipment building. *See* trip building.

shipping confirmation. Confirm and capture actual shipping arrangements. The following information is recorded at shipping confirmation: vehicle ID, trip or voyage, standard/observed load volumes, seal numbers, weight. —*SYN.* gate pass confirmation, load confirmation.

short ton. An avoirdupois measure of weight equal to 2,000 pounds.

shrinkage. Component yield loss planning factor applied to the parent's required quantity. Cannot be used where yield loss is parent component specific.

single-level backflushing. Deduction from on hand balance of only those components or ingredients in the immediate recipe or formula. For example, it will not explode sub-assemblies or intermediates to consume their components. May or may not explode phantom intermediates. *See also* superflush.

single-level tracking. Finding all immediate parents where a specific lot has been used (consumed). Parallel logic to single-level pegging in planning.

single-voyage (spot) charter. An agreement for a single voyage between two ports. The payment is made on the basis of tons of product delivered. The owner of the vessel is responsible for all expenses.

softcoding. The characteristic of computer software that allows it to be user-programmable, so it can be tailored to a specific company's needs. This capability is a key component of J.D. Edwards' software, so a company can define its own menus, processing options, data dictionaries, vocabulary, DREAM Writer parameters, security levels, and so forth.

software. The operating system and application programs that tell the computer how and what tasks to perform.

spec sheet.   A routing expanded to include ingredients with specific detailed instructions as to their point and method of introduction into the process. —*SYN.* process sheet.

special character.   Representation of data in symbols that are neither letters nor numbers. Some examples are *, &, # and /.

specific gravity.   The ratio of the weight of a given volume of material to the weight of an equal volume of some standard substance. In the case of oil, the standard reference material is distilled water and the temperature of both the oil and water is 60F.

specifications.   Statement of acceptable ranges for physical and chemical properties of a raw material, intermediate, or finished product. Specifications refer to the properties of a given crude oil or petroleum product that are "specified," because properties often vary widely even within the same grade of product. Guaranteed specifications are part of the normal process of negotiation. The seller guarantees the buyer that a product or crude to be sold will meet certain specified limits, and the seller agrees to have such limits certified in writing (certificate of analysis). A seller may also declare typical specifications to the buyer that indicate the typical properties. Since most guarantees are conservative, a product, for example, that is sold as 1.0% sulfur max., may be actually 0.6% sulfur. This latter figure is the product's "typical" sulfur that is well within the contractual limits. For buyers who blend products, typical specifications are essential in order to compute blend percentages. *See also* product specification.

splash blending.   This generally refers to a blending process done by pouring products together, for example, manually pouring an additive into a shipping compartment. This may occur at the loading rack when a vehicle (barge or truck) is

being loaded, or enroute. Typically, analysis is only done for the splash blending of lubricants.

split order.   An order that results from the analysis and segregation of portions of an order as originally submitted by a customer. *See also* order splitting.

spool.   The function by which the system puts generated output into a storage area to await printing and processing.

spooled file. A holding file for output data waiting to be printed or input data waiting to be processed.

spot charter.   *See* single-voyage charter.

spot hire.   The use of other than a contracted resource for the transportation of product.

stability.   Property of petroleum product that enables it to retain its physical and chemical properties intact even during extended storage. Gum stability in gasoline means resistance to gum formation while in storage. Oxidation stability in lubricating oils and other products means resistance to oxidation to form sludge or gum in use.

staging.   Preparing materials ahead of actual processing. Physically moving to point of use prior to schedule commencing.

standard batch quantity (SBQ). The normal quantity of production. All ingredient quantities required for the production are stated in terms of the SBQ. *See also* run size.

standard cost.   The target cost for a product if purchase price is held and it is manufactured per standard recipe and routing. *See also* projected cost.

standard price.   The current, international price of a product. Used in negotiations.

standard temperature.   Ambient volumes are converted to a standard temperature in order to record product volumes at a common base for all inventory calculations. The ambient measurement is converted to the standard temperature. For example, 1000 gallons of gasoline measured at an 80

F ambient temperature and converted to a 60 F would equal only 990 gallons of accountable inventory. In the US and many other countries, custody transfer of bulk petroleum products is at a base temperature (for example, 60°F and 15°C).

standardization. The function of bringing a raw ingredient into the standard (acceptable) specification prior introduction to the main process.

standardized ingredient. A raw ingredient that has been preprocessed to bring all specifications within standard ranges prior to introduction to the main process. Used to minimize variability in recipes. *See also* standardization.

standing order *See* blanket order.

stock checking. The act of physical verification of on-hand product quantities.

stock transfers. *See* plant-to-plant transfers.

storage contract. An agreement in which one business partner in a distribution contract provides storage facilities for another, and charges a fee based on the quantity stored (cost per unit volume) and for the time the product is stored or the storage space is reserved.

strapping. Measuring a tank in order to obtain certain of its dimensions, such as the depth of the tank inside and outside, the circumference of each ring on the tank, and the height of the liquid in the tank. Tanks are seldom perfectly round, are generally cone shaped at the bottom to hold water and sediment below the product line, and might have numerous dents. Therefore, circumference strapping points are measured and marked the length of the tank (1/16th inch US). Measurements are taken at every strapping point to account for the variances throughout the tank.

strapping tables. *See* strapping.

striking point. A spot on the bottom of a storage tank or on the datum plate that is directly below the reference point on the hatch. This location is where the innage bob comes to rest when the tank is gauged and serves as the zero point for all innage measurements.

stripping lines. Small suction lines from the pump room to each tank for removing the last of the cargo from the tank bottom.

subfile. An area on the screen where the system displays detailed information related to the header information at the top of the screen. Subfiles might contain more information than the screen can display in the subfile area. If so, use the roll keys to display the next screen of information. *See also* scroll.

submit. *See* run.

substitution. Act of selling a different product than was ordered or using a different component product in a formula. In such instances, the substituted product is always of comparable or higher quality or chemical composition than the product originally specified.

substitutions. An ingredient which may be used in a recipe/formula when standard ingredient is unavailable. *See also* substitution.

sumax tanker. A cargo ship with 50,000 - 60,000 deadweight tonnage. —*SYN.* super tanker.

summary. The presentation of data or information in a cumulative or totaled manner in which most of the details have been removed. Many of the J.D. Edwards systems offer screens and reports that are summaries of the information stored in certain files.

superflush. Theoretical consumption through multiple levels in the recipe or formula. Typically allows for consumption of sub-assemblies from stock in the discrete

world, but may be used to explode through intermediates in the process world, therefore, not expecting on-hand balances.

supersession.   Specification that an active product is being replaced by a new product at a specified effective date.

supply point.   Generic term used to describe all of the various kinds of physical facilities—terminals, depots and warehouses—that may be used to store and distribute product.

supply-point differential.   A factor in pricing a product is the location from which the product is supplied. The price differential that is based on a product's source is called the supply-point differential.

swash plates.   Vertical dividing plates in cargo tanks. They reduce the amount of movement of the oil when in a seaway and reduce the possibility of bulkhead damage.

switch loading.   The mixing of products. As this can be dangerous, controls are put in the system to check for mixing. For example, if you try to receive a product other than what is specified in the Tank Master file, an error message is displayed.

switching cost.   The cost of tearing down and setting up from one production cycle to another, or from one product to another.

system.   A collection of computer programs that allows you to perform specific business tasks. Some examples of applications are Accounts Payable, Inventory, and Order Processing. —*SYN.* application.

T-2 equivalent.   A rough measure of a vessel's capacity. In the absence of size homogeneity, the industry often uses the T-2 as a measure of capacity. To convert into T-2 equivalents, one has to multiply the deadweight by the speed of a vessel and divide by 16,500 x 14.5.

tailings.   Remains or residues of final byproducts from refining crude petroleum or its fractions.

tank inventory.   Goods stored in tanks or silos. These goods may be raw intermediates or finished. The description of the inventory as tank inventory indicates the necessity of calculating the quantity on hand from the levels within the tanks.

tank master file.   The program file that describes the physical make-up of the tank, its dimensions, holding volume, and its shared pipeline volume. Information on the assigned plant and the current product is also included.

tank strapping.   *See* strapping.

tank-to-tank-transfer. To take product from one specific tank and transfer it to another tank. Typically done at the same location.

tankage capacity.   The capacity of a designated group of tanks. It's important to track customer tankage capacity and usage.

tare weight.   *See* weight.

tariff.   A scale or list of prices. Also, a system of taxes placed by a government on exports or, more often, imports. Additionally, the tables that describe the charges that will accrue for the transport of specific products over a given distance.

tax.   A compulsory payment, usually a percentage, levied on income, property value, sales price, and so forth for the support of a government. Taxes can be displayed on invoices as separate items or can be rolled into the product's price. Each tax has its own unit of measurement. Taxes for rents and loans associated with bulk product sales change daily and are converted by indexes. *See also* duty.

temperature variance. The difference between gross volume or quantity and net volume or quantity due to temperature. For example, if 1000 gallons of product at 80 F

is 990 gallons at 60 F and no spillage occurred, this is a temperature variance of ten gallons.

template. A standard, user-defined form used during the order entry process. Templates are defined by type of transaction, for example, bulk, packaged, direct shipment, or customer transfers.

terminal. Term used for a large depot. Terminals can normally feed depots, but not vice-versa.

terms of trade. Payment terms. These can vary by product, customer and customer type. Many terms can be set up: for example 30 days, first Friday of the following month. Payment terms are specified during order capture.

theoretical consumption. *See* indirect usage, key point backflushing.

third-party supply. *See* direct ship order.

throughput. A volume of product movement based upon computing the difference between the meter reading at the beginning of a period and the reading taken at the end of that period. This is then modified by additions or withdrawals that were known not to have passed through the meter.

throughput agreement. A service agreement in which a business partner agrees to store and manage product for another business partner for a specified time period. The second partner actually owns the stock stored in the first partner's depot, but the first partner monitors the stock level, suggests replenishments, unloads, stores, and delivers product to the partner or its customers. The first partner charges a fee for storing and managing the product.

throughput reconciliation. Reconcile confirmed sales figures in a given period with the measured throughput based on the meter readings. This process is designed to catch discrepancies due to transactions not

being entered, theft, and/or faulty meters. This is the first reconciliation stage. *See also* operational reconciliation.

time charter. A contract of longer duration than a single voyage. The rent (hire) is paid usually on the basis of deadweight tons per month, and it does not include fuel for propulsion, port charter, or canal tolls.

time-based repricing. Procedure wherein the unit price charged for certain products for certain customers is restated periodically and all invoices previously generated using a null or original price are credited and rebilled. In some markets, the price is not known until the end of the month.

tolerance. An allowable variation from a specified limit for a product property.

tonne per tonne agreement. An agreement which involves moving product for a partner. Partner A transports its product, along with Partner B's product, and then unloads, stores, and delivers product to Partner B. Partner B does the same for Partner A at a different location. Imbalances usually are settled with a financial transaction, rather than transfers of physical product.

tonnes. Metric tons.

tons. Unless further qualified could be short tons, long tons, or metric tons. When used with tankers, the ton is most likely to be a long ton. A short ton contains 2,000 pounds and a long ton contains 2,240 pounds.

topping-off. Trading activities. Used to access the standard prices for use in negotiations.

transactions. Individual events reported to the computer system (for example, issue, receipts, transfers, adjustments).

trip. A scheduled delivery of one or more orders.

trip building. Process by which two or more orders are consolidated into shipments to optimize deliveries and keep transportation costs down. One order may also be split into two or more shipments, especially if the order contains both bulk and packaged products.
—*SYN.* order consolidation, shipment building. *See also* order splitting.

truck capacity. A product of the cubic capacities of all of the compartments, if any, on the truck.

truck history. Record of what product was last carried in the truck and whether or not the truck has been cleaned. The purpose of maintaining a truck history is to minimize the necessity of cleaning and avoid product contamination.

UDC. Acronym for user defined code. J.D. Edwards has created a simple, flexible method to allow companies to define specific codes, relate them to code descriptions and assign valid values. Sometimes this is referred to as a generic code table. Examples of such codes are: unit of measure code, state or country abbreviations, employee type codes, accounts receivable credit messages and so forth. User defined codes provide another means of tailoring the software to a company's specific needs.

ullage. The space in a tank not occupied by its contents, measured by the distance of the oil level from the top of the tank. It is used to measure the amount of oil in the tank. Opposite of innage.

unmetered trucks. Trucks that do not have an apparatus for measuring or "metering" the amount of product that is unloaded. Unmetered trucks can only deliver full compartment loads. *See also* metered trucks.

unpaid cash sales. Situation that can occur when the terms of trade (payment terms) for a sale are for cash on delivery. An unpaid cash sale occurs when the product is delivered and no payment is made. For example, the manager went home before the delivery was made, so no cash was collected.

UOM. Abbreviation for unit of measure. Also abbreviated U/M, UM, or Um.

user defined code (type). The identifier for a table of codes with a meaning you define for the system (for example, ST for the Search Type codes table in Address Book). J.D. Edwards systems provide a number of these tables and allow you to create and define tables of your own. User defined codes were formerly known as descriptive titles.

user defined code. The individual codes you create and define within a user defined code type. Code types are used by programs to edit data and allow only defined codes. These codes might consist of a single character or a set of characters that represents a word, phrase, or definition. These characters can be alphabetic, alphanumeric, or numeric. For example, in the user defined code type table ST (Search Type), a few codes are C for Customers, E for Employees, and V for Vendors. *See also* UDC.

user identification (user ID). The unique name you enter when you sign on to a J.D. Edwards system to identify yourself to the system. This ID can be up to ten characters long and can consist of alphabetic, alphanumeric, and numeric characters.

usuals, usuals list record. Indicates what products and quantities a customer normally or usually purchases. This is based on the customer's past order history. *See also* template.

valid codes. The allowed codes, amounts, or types of data that you can enter in a specific input field. The system checks or edits, user defined code fields for accuracy against the list of valid codes.

valuation. The technique of determining worth, typically of inventory. Valuation of inventories may be expressed in standard dollars, replacement dollars, current average dollars, or last purchased price dollars.

value-added tax. A form of indirect sales tax paid on products and services at each stage of production or distribution, based on the value added at that stage and included in the cost to the ultimate consumer. A VAT charge is not rolled up into the price, but shown on an invoice as a separate line item with both the amount and the rate shown. Customers need the VAT shown separately, so that a portion can be reclaimed.

variance. The difference between planned (standard) and actual performance.

VAT. See value-added tax.

vehicle identification number (VIN). A unique VIN is attached to each vehicle when it is manufactured. Companies can use the VIN to track all vehicles, including third-party vehicles, used to transport products. This becomes critical under certain responsible care situations. For example, in certain countries, the company may be responsible for the safety of the product's transportation, even if the customer provides the vehicle.

very large crude carrier (VLCC). Tanker over 200,000 deadweight tonnage.

video. The display of information on your monitor screen. Normally referred to as the *screen*.

VIN. *See* vehicle identification number (VIN).

viscosity index (VI). An empirical index relating the change in viscosity of an oil with a change in temperature. The higher the viscosity index, the less the change in viscosity with temperature. Used for evaluating lubricating oils.

viscosity. A critical property that describes a product's relative thickness as well as its ability to adhere to a surface.

vocabulary overrides. A form of softcoding provided by J.D. Edwards' software that lets a company change the vocabulary and terminology on J.D. Edwards' video displays and reports. It allows you to adapt the software to your corporate culture or national language and to override field, row, or column title text on a screen by screen or report by report basis.

volatility. A measure of the tendency for a material to vaporize, that is, the ease with which it changes from a liquid to a gaseous state. The more volatile a component, the easier it is vaporized and the higher its vapor pressure. For petroleum oils, it is determined by the volume percentage recovered at a specified temperature in a standard distillation test.

volume discount. A discount based on the monetary amount, weight, or quantity of an item or group of items on an order.

walk-in price. Standard list price of a product. Also known as posted price, scheduled price and published price.

warehouse. A physical location for storage of materials. A logical grouping of locations of specific materials. May or may not be within a production facility. One or more warehouses may supply one production facility.

wash down. Sometimes more specifically a minor cleanup between similar product runs. Sometimes used in reference to the sanitation process of a food plant. *See also* clean up; change over; set-up time.

waste. A byproduct with negative value. Waste whose disposal is controlled, or a byproduct of a process or task with unique characteristics requiring special management control. Has a negative value. Waste production can usually be planned

and somewhat controlled. Scrap (off-spec) is typically not planned and may result from the same production run as waste. *See also* byproduct; restricted byproduct; scrap; off-spec material.

water level.   The level of water found in a tank or other container. Water should be excluded when reading volume. To determine water level, measure product from the top of the water level to the top of the product. Measure from the top of the water level to the top of the container.

weighbridge.   A device designed to capture the gross weight of the truck that is parked on it. From this weight is subtracted the weight of the truck itself to derive the weight of the product it is carrying.

weight (gross, net, and tare).   Gross weight is the total weight of the product and the vehicle. Tare weight is the weight of the product. Net weight is the difference between gross weight and tare weight and is the weight used for net reduction of inventory.

weighted due date.   Invoice due date is based on the amount owed.

where-used tracking.   A procedure to determine every instance of use or sale of a specific lot number, including the use and or sale of all parent lot number's. Parallels the logic of where used tracing for ingredients/components on bills of materials.

white products.   Products from the high or light end of the distillation process. This includes, gasoline, naphtha, kerosene, and gas oil. *See also* black products.

window.   A software feature that allows a part of your screen to function as if it were a screen in itself. Windows serve a dedicated purpose within a facility, such as searching for a specific valid code for a field.

WIP.   Acronym for work in process.

withdrawals.   Removal of material from stores. A transaction issuing material to a specific location, run, or schedule.

working petroleum fleet.   The working petroleum fleet is equal to the total fleet less government owned (commercial) vessels, special-purpose ships, and vessels idle because of tie-ups or repairs over 30 days.

worldscale.   A schedule of tanker shipping rates published by an independent body, covering costs of transportation between any two ports. The basic rate established for any given voyage expressed in dollars per ton, and referred to as WS 100, is subject to negotiation.

zone.   A defined geographic area.

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