

Guide  
June 1996



# Forecasting

Release A7.3

**JDEdwards**<sup>®</sup>



Item # A73CEAFC



J.D. Edwards & Company  
8055 E. Tufts Avenue  
Denver, CO 80237

©J.D. Edwards & Company 1995, 1996  
All Rights Reserved

The information in this guide is confidential and a proprietary trade secret of J.D. Edwards & Company. It may not be copied, distributed, or disclosed without prior written permission. This guide is subject to change without notice and does not represent a commitment on the part of J.D. Edwards & Company. The software described in this guide is furnished under a license agreement and may be used or copied only in accordance with the terms of the agreement. J.D. Edwards & Company uses an automatic software disabling routine to monitor the license agreement. For more details about this routine, please refer to the *Technical Foundation Guide*.



## Where Do I Look?



## Guides





## **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

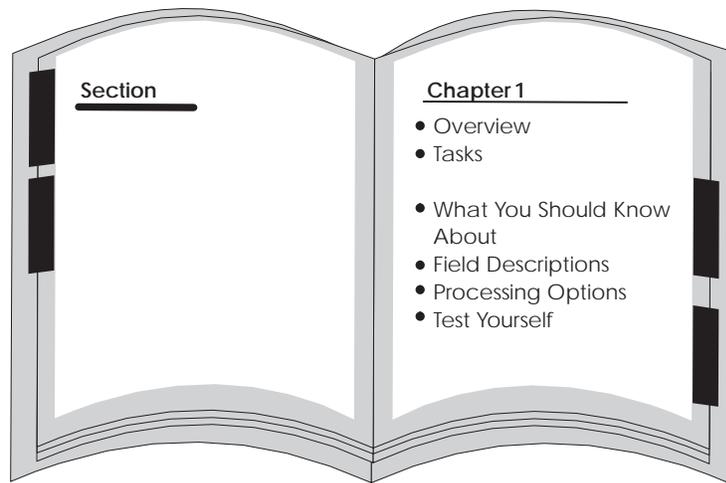
This guide is intended primarily for the following audiences:

- 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.

# Table of Contents

---

## Forecasting Overview

System Integration .....	1-3
Features .....	1-6
Forecasting Levels and Methods .....	1-7
Best Fit .....	1-7
Forecasting Methods .....	1-8
Demand Patterns .....	1-10
Six Typical Demand Patterns .....	1-10
Forecast Accuracy .....	1-11
Forecast Considerations .....	1-11
Forecasting Process .....	1-12
Major Tables .....	1-14
Supporting Tables .....	1-14
Menu Overview .....	1-15
Fast Path Command Table .....	1-15

## Detail Forecasts

About Detail Forecasts .....	2-1
Set Up Detail Forecasts .....	2-3
Setting Up Detail Forecasts .....	2-3
Setting Up Supply/Demand Inclusion Rules .....	2-4
Setting Up Fiscal Date Patterns .....	2-7
Setting Up the 52 Period Date Pattern .....	2-10
Setting Up Forecast Types .....	2-12
Work with Sales Order History .....	2-15
Working with Sales Order History .....	2-15
Copying Sales Order History .....	2-16
Processing Options for Extract Sales Order History .....	2-18
Reviewing and Revising Sales Order History .....	2-19
Example: Reviewing and Revising Sales Order History .....	2-19
Work with Detail Forecasts .....	2-25
Working with Detail Forecasts .....	2-25
Generating Detail Forecasts .....	2-26
Processing Options for Generate Detail Forecast .....	2-27
Reviewing Detail Forecasts .....	2-28
Processing Options for Forecast Review .....	2-32
Revising Detail Forecasts .....	2-32
Example: Revising a Detail Forecast .....	2-33
Processing Options for Enter/Change Forecast .....	2-35

## Summary Forecasts

About Summary Forecasts .....	3-1
Comparing Summaries of Detail Forecasts and Summary Forecasts .....	3-2
Example: Company Hierarchy .....	3-3
Hierarchy of Company 100 .....	3-5
Summary Codes .....	3-6
Set Up Summary Forecasts .....	3-9
Setting Up Summary Forecasts .....	3-9
Defining the Distribution Hierarchy .....	3-10
Example: Distribution Hierarchy for Company 100 .....	3-11
Revising Address Book Records .....	3-15
Reviewing Branch/Plant Data .....	3-19
Reviewing Item Location Records .....	3-22
Work with Summary Sales Order History .....	3-25
Working with Summary Sales Order History .....	3-25
Copying Summary Sales Order History .....	3-26
Records for Large Customers .....	3-27
Processing Options for Extract Sales Order History .....	3-28
Reviewing and Revising Summary Sales Order History .....	3-29
Processing Options for Enter/Change Summaries .....	3-33
Generate Summary Forecasts .....	3-35
Generating Summary Forecasts .....	3-35
Processing Options for Summary Forecast Generation .....	3-37
Generate Summaries of Detail Forecasts .....	3-41
Generating Summaries of Detail Forecasts .....	3-41
Processing Options for Summary Forecast Update - Batch .....	3-44
Revise Summaries of Forecasts .....	3-45
Revising Summaries of Forecasts .....	3-45
Reviewing the Summary Forecast .....	3-46
Revising the Summary Forecast .....	3-48
Processing Options for Enter/Change Summaries .....	3-53
Revising Summary Forecasts Using the Force Changes Program ...	3-53
Example: Using the Force Changes Program .....	3-53
Processing Options for Force Changes .....	3-55

## Planning Bill Forecasts

About Planning Bill Forecasts .....	4-1
Example: Pseudo Parent Item .....	4-2
Exploding the Forecast to the Item Level .....	4-3
Example: Exploding the Forecast .....	4-3
Set Up a Planning Bill .....	4-5
Setting Up a Planning Bill .....	4-5
Setting up Item Master Information .....	4-5
Entering a Planning Bill .....	4-9
Generate Planning Bill Forecasts .....	4-15
Generating Planning Bill Forecasts .....	4-15
Processing Options for Master Planning Schedule .....	4-15

---

## Appendices

Appendix A — Data Model .....	A-1
Appendix B — Forecast Calculation Examples .....	B-1
Method 1 - Percent Over Last Year .....	B-1
Method 2 - Calculated Percent Over Last Year .....	B-2
Method 3 - Last Year to This Year .....	B-4
Method 4 - Moving Average .....	B-6
Method 5 - Linear Approximation .....	B-9
Method 6 - Second Degree Approximation .....	B-11
Method 7 - Flexible Method .....	B-14
Method 8 - Weighted Moving Average .....	B-15
Method 9 - Exponential Smoothing with Moving Weight .....	B-18
Method 10 - Exponential Smoothing 2 with Seasonality .....	B-19
Best Fit for the Forecast Methods .....	B-21
Appendix C — Functional Servers .....	C-1
Example: Voucher Processing Functional Server .....	C-2

## Glossary

## Index

## Exercises



# Forecasting Overview



# Forecasting Overview

## About Forecasting

Effective management of your distribution and manufacturing activities begins with understanding and anticipating the needs of the market. The J.D. Edwards Forecasting system allows you to balance supply and demand by quickly assessing current market trends and sales so that you can make informed decisions about your company.

Forecasting is projecting past sales demand into the future. An accurate forecast helps you to make economical decisions. For this reason, forecasting should be a central activity in your operations. You can use forecasts to make planning decisions about:

- Customer orders
- Inventory
- Delivery of goods
- Work load
- Capacity requirements
  - Warehouse space
  - Labor
  - Equipment
- Budgets
- Development of new products
- Workforce requirements
- Fiscal date patterns

The Forecasting system can generate the following types of forecasts, depending on the kind of input information on which they are based:

**Detail forecasts**

Detail (or disaggregated) forecasts are based on individual items.

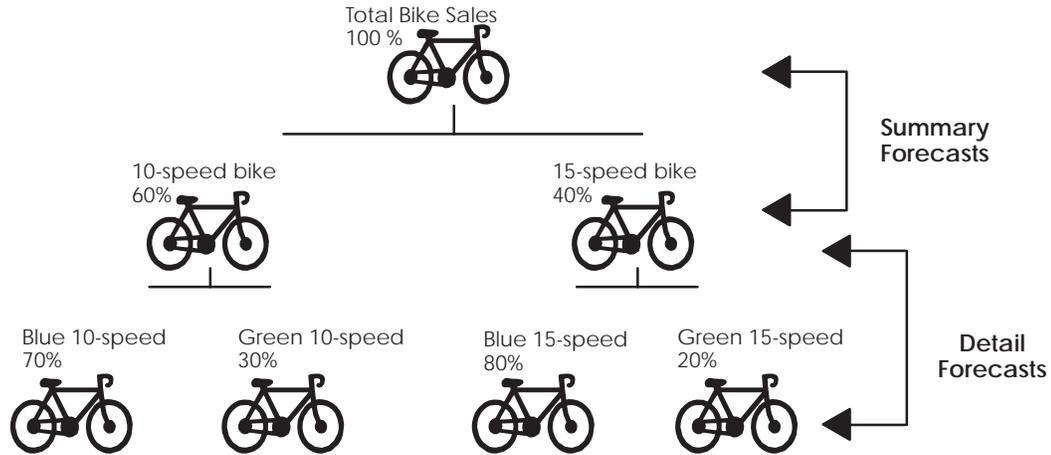
**Summary forecasts**

Summary (or aggregated) forecasts are based on larger groups, such as a product line.



**Planning bill forecasts** Planning bill forecasts are based on groups of items in a bill of material format that reflect how an item is sold, not how it is built.

The following graphic illustrates a bike manufacturer's past sales orders.

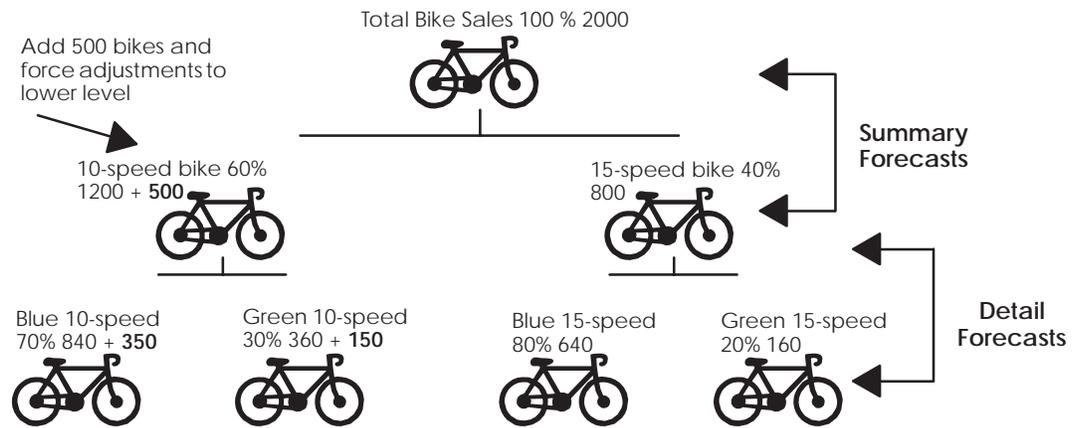


This manufacturer produces 10-speed and 15-speed bikes in two colors, blue and green. The manufacturer knows from sales order history what percentage of the total bike sales are 10-speeds and 15-speeds, and what percentage of each type of bike is blue and green.

In this example, you can generate a detail forecast to project the color of the 10-speed and 15-speed bikes that will sell. You can also generate a summary forecast to project the total number of bikes that will sell.

The Forecasting system also allows you to force manual changes to the summarized forecasts down through the detail levels that make up the summary and up through the levels above the summary.

For example, if you plan to sell 500 additional 10-speed bikes during a promotion, you can add 500 to the 10-speed bike level and force the forecast down to the detail level to predict the number of bikes you will sell by color.



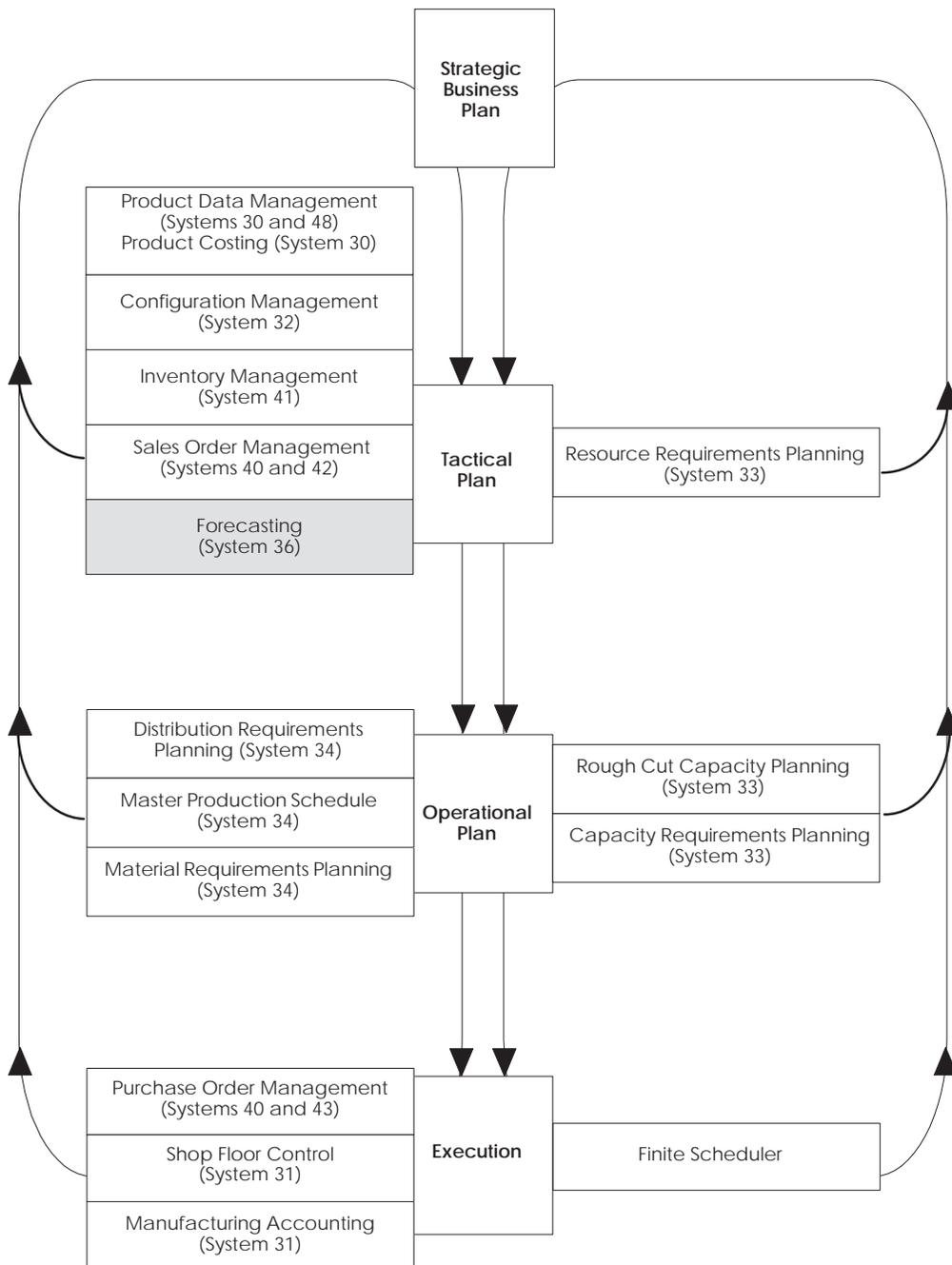
## System Integration

Forecasting is one of many systems that make up the Enterprise Requirements Planning and Execution (ERP<sub>x</sub>) system. Use the ERP<sub>x</sub> system to coordinate your inventory, raw material, and labor resources to deliver products according to a managed schedule. ERP<sub>x</sub> is fully integrated and ensures that information is current and accurate across your business operations. It is a closed-loop manufacturing system that formalizes the activities of company and operations planning, as well as the execution of those plans.

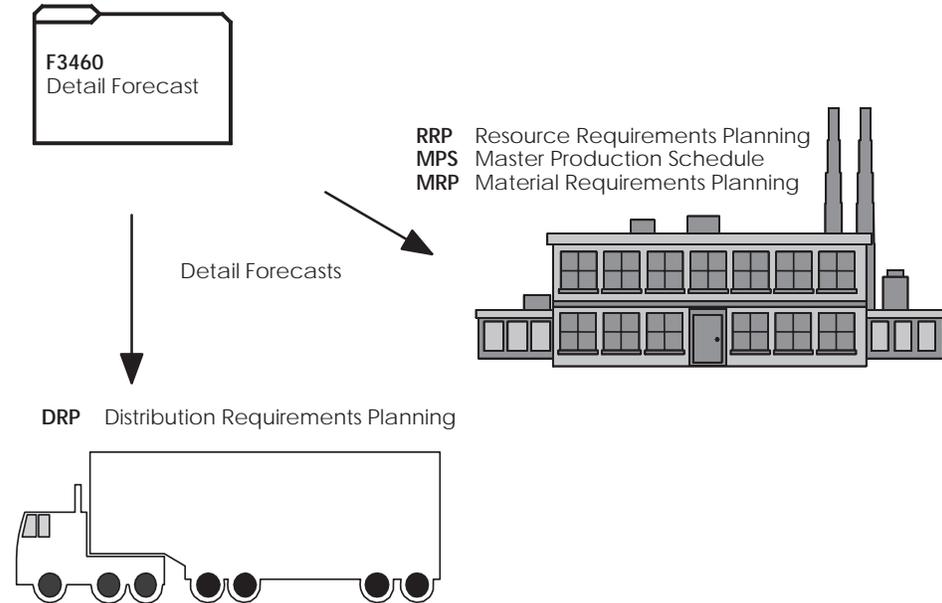
The following systems make up the J.D. Edwards ERP<sub>x</sub> product group.

ERP<sup>x</sup>

Enterprise Requirements Planning and Execution



The Forecasting system generates sales projections that can be used as input for J.D. Edwards planning and scheduling systems. These systems calculate material requirements for all component levels, from raw materials to complex subassemblies.



The Resource Requirements Planning (RRP) system uses a forecast of future sales to estimate the time and resources needed to make a product.

The Master Production Schedule (MPS) system plans and schedules what a company expects to manufacture. Data from the Forecasting system is one MPS input that helps determine demand before production plans are executed.

Material Requirements Planning (MRP) is an ordering and scheduling system that explodes the requirements of all MPS parent items to the components. You can also use forecast data as demand input for lower-level MRP components that are service parts with independent demand (demand not directly or exclusively tied to sales of a particular product at a particular branch/plant).

Distribution Requirements Planning (DRP) is a management system that plans and controls the distribution of finished goods. Forecasting data can be used as input for DRP so you can more accurately plan the demand that you supply through distribution.

### Features

You can use the Forecasting system to:

- Generate forecasts
- Enter forecasts manually
- Maintain both manually entered forecasts and forecasts generated by the system
- Summarize the sales order history data in weekly or monthly time periods
- Generate forecasts based on any or all of 10 different formulas that address a variety of forecast situations you might encounter
- Calculate which of the 10 formulas provides the best fit forecast
- Define the hierarchy that the system uses to summarize sales order histories and/or detail forecasts
- Create multiple hierarchies of address book category codes and item category codes, which you can use to sort and view records in the detail forecast and sales order history
- Review and adjust both forecasts and sales order histories at any level of the hierarchy
- Integrate the detail forecast records into DRP/MPS/MRP generations
- Force changes made at any component level to both higher levels and lower levels
- Set a bypass flag to prevent changes generated by the force program being made to a level
- Store and display both original and adjusted quantities and amounts
- Attach descriptive text to a forecast at the detail and summary levels

Flexibility is a key feature of the J.D. Edwards Forecasting system. The most accurate forecasts take into account quantitative information, such as sales trends and past sales order history, as well as qualitative information, such as changes in trade laws, competition, and government. The system processes quantitative information and allows you to adjust it with qualitative information through review and revise programs for both the actual sales order histories and the generated forecasts. When you aggregate or summarize forecasts, the system uses input or changes you make at any level of the forecast to automatically update all other levels.

You can perform extensive “what if” changes to the initial forecast, which allows you to easily compare different situations. After you accept a forecast, the system updates your distribution and manufacturing plan with any changes you have made.

The system will write zero or negative detail records. For example, if Extract Sales Order History, Detail Forecast Generation, or Enter/Change Actuals contain zero or negative quantities or amounts, the system will create zero or negative records in the detail table (F3460).

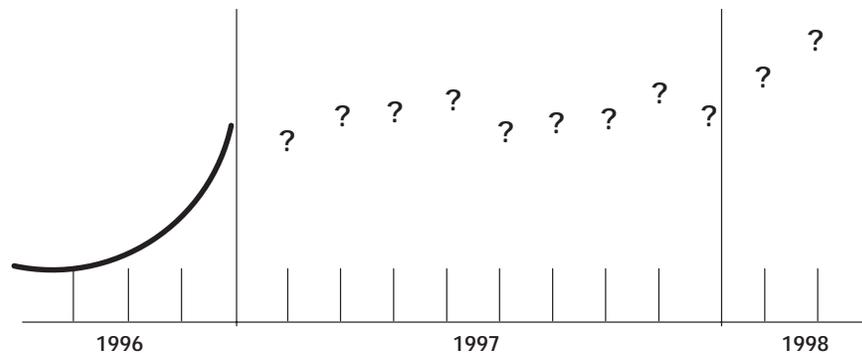
## Forecasting Levels and Methods

You can generate both single-item (detail) forecasts and product line (summary) forecasts that reflect your product demand patterns. Select from 10 industry-standard forecasting methods, and the system analyzes up to 24 months of past sales to calculate the forecast.

### Best Fit

The system recommends the best fit forecast by applying the selected forecasting method to past sales order history and comparing the forecast simulation to the actual history. When you generate a forecast, the system compares actual sales order histories to forecasts for the past three months and computes how accurately each of the 10 forecasting methods (assuming you select all 10 as processing options) would have predicted sales. Then, the system recommends the most accurate forecast as the best fit. The forecast includes detail information at the item level and higher-level information about a branch or the company as a whole.

The system recommends the best fit forecast by applying the selected forecasting method to past sales order history and comparing the forecast simulation to the actual history. When you generate a forecast, the system compares actual sales order histories to forecasts for the months you indicate in the processing option and computes how accurately each of the 10 forecasting methods (assuming you select all 10 as processing options) would have predicted sales. Then, the system recommends the most accurate forecast as the best fit. The forecast includes detail information at the item level and higher-level information about a branch or the company as a whole.



The system determines the best fit in the following sequence:

1. Uses each of the methods you selected in processing options to generate a forecast based on the appropriate past sales data.
2. Uses a second calculation to determine how accurately each method would have predicted actual sales from the past three months.
2. Uses a second calculation to determine how accurately each method would have predicted actual sales from the months you indicated.
3. Determines the percent of accuracy to find which forecasting method generated a forecast that came closest to the past actual sales.
4. Recommends a best fit forecast by the percent of accuracy that is closest to 100% (over or under).

### Forecasting Methods

The Forecasting system uses 10 methods for quantitative forecasting. The system also indicates which of the methods provides the best fit for your forecasting situation.

**Method 1 –**

**Percent Over Last Year**

This method uses the Percent Over Last Year formula to multiply each forecast month by a percentage increase or decrease that you specify in a processing option. This method requires at least 15 months of sales order history and is recommended for seasonal items with growth or decline.

**Method 1 –**

**Percent Over Last Year**

This method uses the Percent Over Last Year formula to multiply each forecast month by a percentage increase or decrease that you specify in a processing option. This method requires the months for the best fit plus 12 months and is recommended for seasonal items with growth or decline.

**Method 2 –**

**Calculated Percent Over Last Year**

This method uses the Calculated Percent Over Last Year formula to compare the most recent three months of past sales to the same three months of past sales of the previous year and determines a percentage increase or decrease. Then, the system multiplies each month by the percentage to determine the forecast.

This method requires 18 months of sales order history and is recommended for short-term demand forecasts of seasonal items with growth or decline.

---

<b>Method 2 – Calculated Percent Over Last Year</b>	<p>This method uses the Calculated Percent Over Last Year formula to compare the most recent three months of past sales to the same three months of past sales of the previous year and determines a percentage increase or decrease. Then, the system multiplies each month by the percentage to determine the forecast.</p> <p>This method requires the larger of the months of sales order history indicated in the processing option plus 12 months or 18 months and is recommended for short-term demand forecasts of seasonal items with growth or decline.</p>
<b>Method 3 – Last Year to This Year</b>	<p>This method uses last year's sales for the following year's forecast. This method requires 15 months of sales order history and is recommended for mature products with level demand or seasonal demand without a trend.</p>
<b>Method 3 – Last Year to This Year</b>	<p>This method uses last year's sales for the following year's forecast. This method requires the months indicated in the processing option plus 12 months of sales order history and is recommended for mature products with level demand or seasonal demand without a trend.</p>
<b>Method 4 – Moving Average</b>	<p>This method uses the Moving Average formula to average the previous three months to project the next month. This method requires six months of sales order history. You should have the system recalculate it monthly or at least quarterly to reflect changing demand level. This method is recommended for mature products without a trend.</p>
<b>Method 4 – Moving Average</b>	<p>This method uses the Moving Average formula to average the months you indicate in the processing option to project the next month. This method requires two times the number of months from the processing option of sales order history. You should have the system recalculate it monthly or at least quarterly to reflect changing demand level. This method is recommended for mature products without a trend.</p>
<b>Method 5 – Linear Approximation</b>	<p>This method uses the Linear Approximation formula to compute a trend from the last three months of sales order history and projects this trend to the forecast. You should have the system recalculate the trend monthly to detect changes in trends.</p> <p>This method requires six months of sales order history and is recommended for new products or products with consistent positive or negative trends that are not due to seasonal fluctuations.</p>

**Method 5 -  
Linear Approximation**

This method uses the Linear Approximation formula to compute a trend from the months of sales order history indicated in the processing options and projects this trend to the forecast. You should have the system recalculate the trend monthly to detect changes in trends.

This method requires two times the number of months you indicate in the processing option of sales order history and is recommended for new products or products with consistent positive or negative trends that are not due to seasonal fluctuations.

**Method 6 -  
Second Degree  
Approximation**

This method uses the Second Degree Approximation formula to plot a curve based on the previous 9 periods of sales to project 3-month blocks of forecast. This method requires 12 months of sales order history and is recommended for short-term forecasts.

**Method 6 -  
Second Degree  
Approximation**

This method uses the Second Degree Approximation formula to plot a curve based on the previous 9 periods of sales to project the months best fit forecast. This method requires four times the number of months indicated in the processing option of sales order history and is recommended for short-term forecasts.

**Method 7 -  
Flexible Method  
(Percent Over n Months  
Prior)**

The Flexible Method allows you to select a three-month block of sales order history starting  $n$  months prior and a percentage increase or decrease with which to modify it. This method is similar to Method 1, Percent Over Last Year, except that you can specify the three-month block used as the base.

Depending on what you select as  $n$ , this method requires 6 to 18 months of sales data and is recommended for a planned trend.

**Method 7 -  
Flexible Method  
(Percent Over n Months  
Prior)**

The Flexible Method allows you to select the months best fit block of sales order history starting  $n$  months prior and a percentage increase or decrease with which to modify it. This method is similar to Method 1, Percent Over Last Year, except that you can specify the three-month block used as the base.

Depending on what you select as  $n$ , this method requires 6 to 18 months of sales data and is recommended for a planned trend.

---

**Method 8 –  
Weighted Moving  
Average**

The Weighted Moving Average formula is similar to the Method 4, Moving Average formula, because it averages the previous three months to project the next month's block. However, with this formula, you can assign weights for each of the three prior blocks in a processing option.

This method requires six months of sales data. Similar to Moving Average, this method lags demand trends, so it is not recommended for products with strong trends or seasonality. This method is recommended for mature products with demand that is relatively level.

**Method 8 –  
Weighted Moving  
Average**

The Weighted Moving Average formula is similar to the Method 4, Moving Average formula, because it averages the previous three months to project the next month's block. However, with this formula, you can assign weights for each of the three prior blocks in a processing option.

This method requires six months of sales data. Similar to Moving Average, this method lags demand trends, so it is not recommended for products with strong trends or seasonality. This method is recommended for mature products with demand that is relatively level.

The months best fit, indicated in the processing option, must be 3 for this method to work.

**Method 9 –  
Exponential Smoothing  
with Moving Weight**

This method calculates a weighted average of past sales data. You can specify the number of months of sales order history to use in the calculation (from 1 to 12) in a processing option. The system uses a mathematical progression to weight each month in the range from the first (least weight) to the final (most weight). Then, the system projects this information to each month in the forecast.

Depending on the number of months of sales order history used in the calculation, this method requires 6 to 15 months of sales data.

**Method 10 –  
Exponential Smoothing  
2 with Seasonality**

The Exponential Smoothing 2 with Seasonality method calculates a trend, a seasonal index, and an exponentially smoothed average from the sales order history. The system then applies a projection of the trend to the forecast and adjusts for the seasonal index. This method requires 24 months of sales data and is recommended for items that have both trend and seasonality in the forecast.

**Method 10 –  
Exponential Smoothing  
2 with Seasonality**

The Exponential Smoothing 2 with Seasonality method calculates a trend, a seasonal index, and an exponentially smoothed average from the sales order history. The system then applies a projection of the trend to the forecast and adjusts for the seasonal index. This method requires 24 months plus the months best fit indicated in the processing option of sales data and is recommended for items that have both trend and seasonality in the forecast. Use the processing options to enter the alpha and beta factor rather than have the system calculate them.

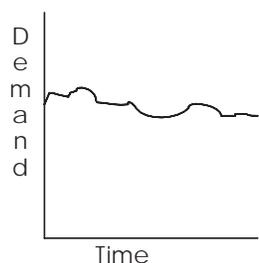
**See Also**

- *Appendix B – Forecast Calculation Examples*

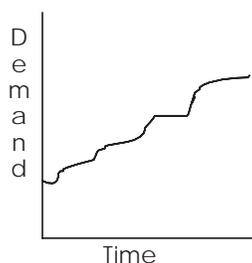
**Demand Patterns**

The Forecasting system uses sales order history to predict future demand. Different examples of demand are illustrated below. Forecast methods available in the J.D. Edwards Forecasting system are tailored for these demand patterns.

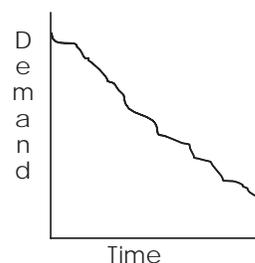
**Six Typical Demand Patterns**



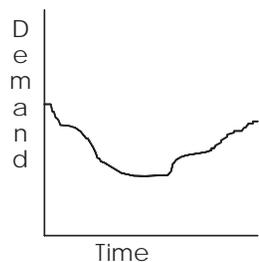
**Horizontal Demand**



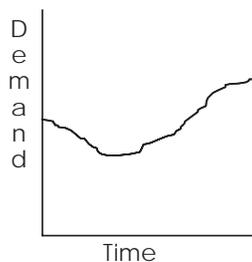
**Positive Trend Demand**



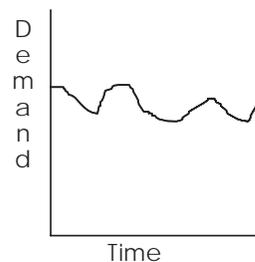
**Negative Trend Demand**



**Seasonal Demand**



**Trend-Seasonal Demand**



**Non-Annual Cycle**

You should forecast the independent demand of the following items for which you have past data:

- Samples
- Promotional items
- Customer orders
- Service parts
- Inter-plant demands

You should also forecast demand for the following item types determined by the manufacturing environments in which they are produced:

<b>Make-to-stock end items</b>	End items that meet customers' demand after the product is completed
<b>Assemble-to-order options and major subassemblies</b>	Subassemblies for planning bills or kit distribution that meet customers' demand after subassemblies are completed
<b>Make-to-order and engineer-to-order raw materials and components</b>	Raw materials and components that meet customers' demand before the product is produced and require forecasts of capacity, such as machinery or skilled labor

## Forecast Accuracy

The following statistical laws govern the accuracy of a forecast:

- A summary forecast is more accurate than a detail forecast. It is more accurate to forecast at a group level and explode the information down the hierarchy than to forecast at the item level and roll up the information. Forecasts of planning families (groups of related items) are more accurate than forecasts of individual items.
- A short-term forecast is more accurate than a long-term forecast, because the farther into the future you project the forecast, the more variables can impact the forecast.

## Forecast Considerations

You should not rely exclusively on past data to forecast future demands. The following circumstances might affect your business and require you to review and modify your forecast:

- New products that have no past data
- Plans for future sales promotion
- Changes in national and international politics
- New laws and government regulations
- Weather changes and natural disasters
- Innovations from competition
- Economic changes

You might use any of the following kinds of long-term trend analysis to influence the design of your forecasts:

- Market surveys
- Leading economic indicators
- Delphi panels

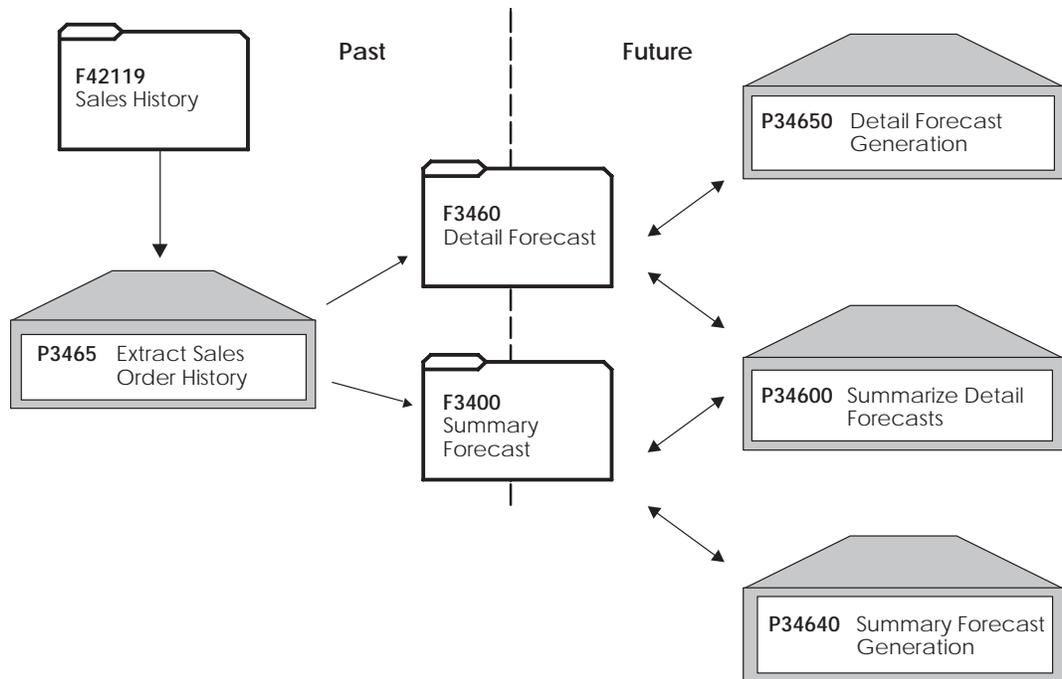
### See Also

- *Appendix B – Forecast Calculation Examples*

## Forecasting Process

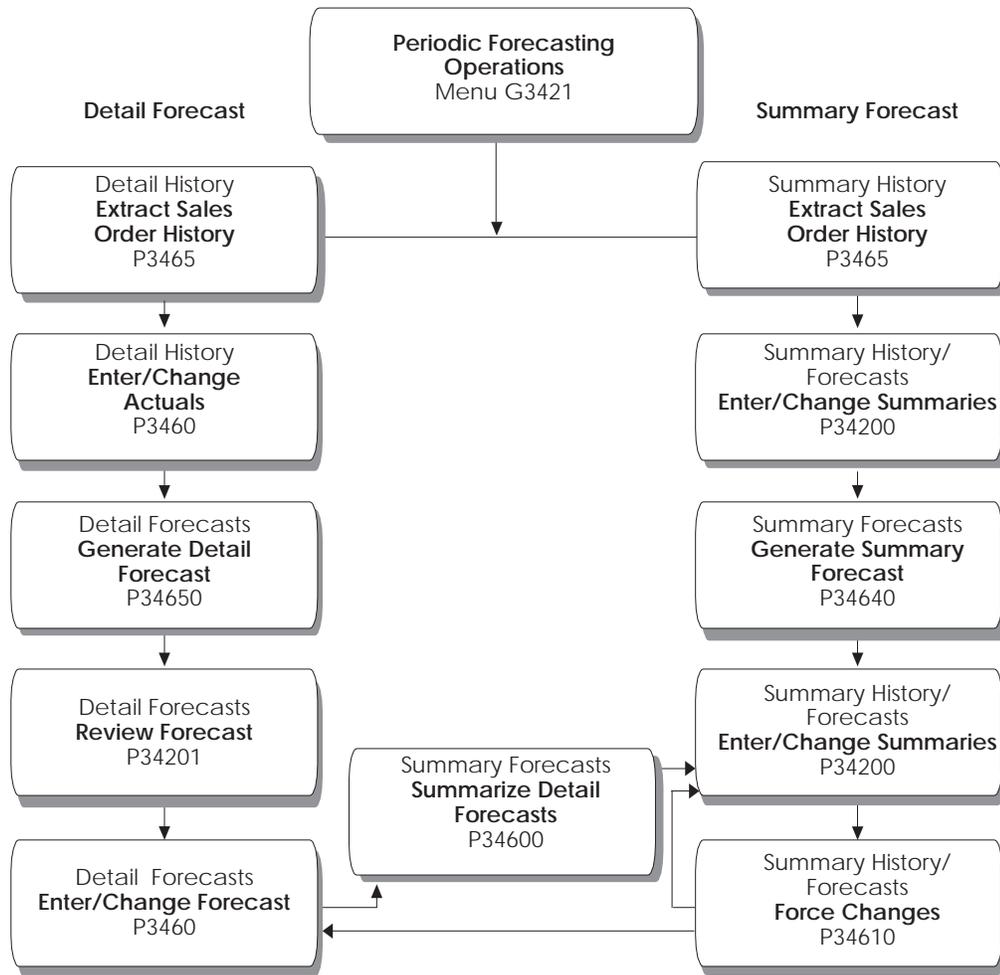
You use the Extract Sales Order History program to copy data from the Sales History table (F42119) into either the Detail Forecast table (F3460) or the Summary Forecast (F3400) table, depending on the kind of forecast you plan to generate.

You can generate detail forecasts or summaries of detail forecasts based on data in the Detail Forecast table. You generate summary forecasts based on data in the Summary Forecast table. Data from your forecasts can then be used to revise the forecast tables, and you can generate new forecasts based on the revised data. The process is illustrated in the following graphic.



The following graphic illustrates the sequences you follow when you use the Forecasting programs. The detail forecast sequence appears on the left of the graphic. The summary forecasting sequence appears on the right of the graphic. Summaries of detail forecasts are based on data copied and revised from detail programs but are revised using summary programs.

This graphic appears at the beginning of each chapter. The programs used in each chapter appear in black.



## Major Tables

<b>Summary Forecast (F3400)</b>	Contains the summary forecasts generated by the system and the summarized sales order history updated by the Extract Sales Order History program.
<b>Detail Forecast (F3460)</b>	Contains the detail forecasts generated by the system and the sales order history updated by the Extract Sales Actuals program.
<b>Summary Constants (F4091)</b>	Stores the summary constants that you have set up for each product hierarchy.
<b>Sales History (F42119)</b>	Contains past sales data, which provides the basis for the forecast calculations.
<b>Sales Order Detail (F4211)</b>	Provides sales order demand by the requested date. The system uses this table to update the Sales History table for forecast calculations.

## Supporting Tables

<b>Item Master (F4101)</b>	Stores basic information about each defined inventory item, such as item numbers, description, category codes, and units of measure.
<b>Branch/Plant Master (F4102)</b>	Defines and maintains warehouse or plant level information, such as costs, quantities, physical locations, and branch level category codes.
<b>Business Unit Master (F0006)</b>	Identifies branch, plant, warehouse, or business unit information, such as company, description, and assigned category codes.
<b>Address Book (F0101)</b>	The central repository for all address information pertaining to customers, vendors, employees, prospects, and other information.
<b>Forecast Summary Work (F34006)</b>	Ties the summary records (F3400) to the detail records (F3460).

## Menu Overview

J.D. Edwards classifies the Forecasting system's menus according to frequency of use.

G3421  
Periodic Forecasting  
Operations

G3441  
Forecasting Setup

### Fast Path Command Table

The following table illustrates the fast path commands you can use to move among the Forecasting menus. From any menu, enter the fast path command at the command line.

<b>Fast Path Command</b>	<b>Menu</b>	<b>Title</b>
PFOR	G3421	Periodic Forecasting Operations
SFOR	G3441	Forecasting Setup

# Detail Forecasts



# Detail Forecasts

## Objectives

- To set up supply/demand inclusion rules
- To set up fiscal date patterns
- To set up a 52 period date pattern
- To set up forecast types
- To copy a sales order history into the Detail Forecast table
- To review and revise a copied sales order history
- To generate detail forecasts
- To review detail forecasts
- To revise detail forecasts

## About Detail Forecasts

You use detail forecasts to project demand at the single-item level according to each item's individual history. Detail forecasts are also called disaggregate forecasts.

Forecasts are based on past sales data from the Sales Order History table (F42119), which is updated regularly with sales order demand information from the Sales Order History table (F4211). Before you generate forecasts, you use the Extract Sales Order History program to copy sales order history information from the Sales Order History table into the Detail Forecast table (F3460). This table also stores the forecasts when they are generated.

Complete the following tasks:

- Set up detail forecasts*
- Work with sales order history*
- Work with detail forecasts*

- 





# Set Up Detail Forecasts

---

## Setting Up Detail Forecasts

Before you generate a detail forecast, you set up criteria for the dates and kinds of data on which the forecasts will be based, as well as what time periods the system should use to structure the forecast output.

To set up detail forecasts, you must:

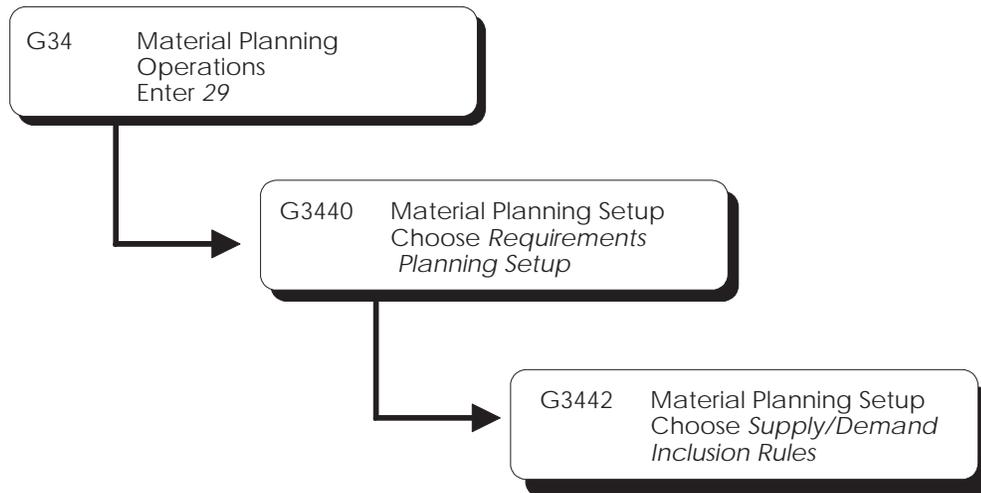
- Set up inclusion rules to specify the sales history records on which you want to base the forecast
- Specify beginning and end dates for the forecast
- Indicate the date pattern on which you want to base the forecast
- Add any forecast types not already provided by the system

Complete the following tasks:

- Set up supply/demand inclusion rules*
- Set up fiscal date patterns*
- Set up the 52 period date pattern* (optional)
- Set up forecast types*

## Setting Up Forecasting Supply/Demand Inclusion Rules

## Setting Up Supply/Demand Inclusion Rules



The Forecasting system uses supply/demand inclusion rules to determine which records from the Sales History table (F42119) to include or exclude when you run the Extract Sales Order History program. Supply/demand inclusion rules allow you to specify the status and type of items and documents to include in the records. You can set up as many different inclusion rule versions as you need for forecasting.

You should set up inclusion rules only for sales order records with status codes of 999 from the Sales History table.

To forecast by weeks, set up a 52 period calendar.

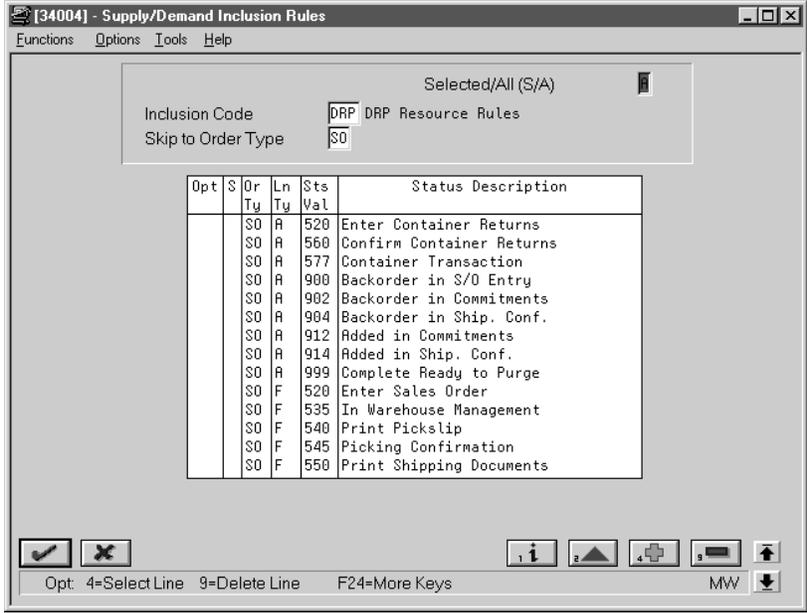
### See Also

- *Setting Up Supply/Demand Inclusion Rules (P34004)* in the *Manufacturing and Distribution Planning Guide*
- *Setting Up 52 Period Date Pattern (P0008B)* in the *General Accounting II Guide*
- *Setting Up Supply/Demand Inclusion Rules* in the *Manufacturing and Distribution Planning Guide*
- *Setting Up 52 Period Date Pattern* in the *General Accounting II Guide*

### ► To set up supply/demand inclusion rules

---

On Supply/Demand Inclusion Rules



1. Complete the following field:
  - Inclusion Code
2. Review the following fields:
  - Order Type
  - Line Type
  - Status Value
3. Select the lines you want to include.

On Supply/Demand Inclusion Rules

1. Complete the following field:
  - Inclusion Code
2. Review the following fields:
  - Order Type
  - Line Type
  - Status Value
3. Select the lines you want to include.

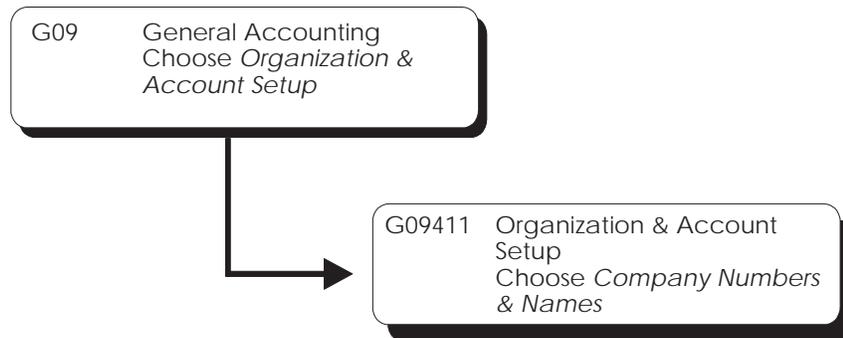
Field	Explanation
Inclusion Code	<p>A user defined code (system 40/type RV) that identifies an inclusion rule that you want the system to use for this branch/plant. The Manufacturing and Advanced Warehouse Management systems use inclusion rules as follows:</p> <ul style="list-style-type: none"> <li>• For Manufacturing Allows multiple versions of resource rules for running MPS, MRP, or DRP.</li> <li>• For Advanced Warehouse Management Allows multiple versions of inclusion rules for running putaway and picking. The system processes only those order lines that match the inclusion rule for a specified branch/plant.</li> </ul>
Order Type	<p>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.)</p> <p>The following document types are defined by J.D. Edwards and should not be changed:</p> <p>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</p> <p>..... <i>Form-specific information</i> .....</p> <p>If you are using the Skip to Order Type field, you can enter an order type code and press Enter to display only rules about that order type. To see the whole set of order types included in the resource rules, leave this field blank and use the Roll keys.</p>
Line Type	<p>A code that controls how the system treats lines on a transaction. It controls the systems with which the transaction interfaces (General Ledger, Job Cost, Accounts Payable, Accounts Receivable, and Inventory Management). It also specifies the conditions under which a line prints on reports and is included in calculations. For example:</p> <p>S     Stock item  J     Job cost  N     Non-stock item  F     Freight  T     Text information  M     Miscellaneous charges and credits</p>

---

<b>Field</b>	<b>Explanation</b>
Status - Line	A user defined code (system 40/type AT) that indicates the status of the line.

## Setting Up Forecast Fiscal Date Patterns

### Setting Up Fiscal Date Patterns



The Forecasting system uses fiscal date patterns to determine the time periods into which the sales order history is grouped. Before you can generate a detail forecast, set up a standard monthly date pattern. The system will divide the sales history into weeks or months, depending on the processing option you have chosen. If you want to forecast by months, you must set up the fiscal date pattern, but you do not need to set up another date pattern. If you want to forecast by weeks, you must set up both the fiscal date pattern and a 52 period date pattern.

To set up fiscal date patterns, specify the beginning fiscal year, current fiscal period, and which date pattern to follow. The Forecasting system uses this information during data entry, updating, and reporting.

J. D. Edwards recommends that you do the following to ensure valid forecasts:

- Establish a fiscal date pattern specifically for forecasting purposes. This is especially important if the company's fiscal year for financial reporting is different from the forecast planning year.
- Use the same date pattern for all forecasted items. A mix of date patterns across items that will be summarized at higher levels in the hierarchy causes unpredictable results.
- Set up fiscal date patterns for as far back as your sales history extends, and as far forward as you want to forecast.

## What You Should Know About

### Controlling the date pattern

J. D. Edwards recommends you set up a separate fiscal date pattern for forecasting only, so you can control the date pattern. If you use the date pattern already established in the Financials system, the financial officer will control the date pattern.

## See Also

- *Setting Up the 52 Period Date Pattern (P0008B) in the General Accounting II Guide*
- *Setting Up Fiscal Date Patterns (P0008) in the General Accounting I Guide*
- *Setting Up the 52 Period Date Pattern in the General Accounting II Guide*
- *Setting Up Fiscal Date Patterns in the General Accounting I Guide*

### ► To set up fiscal date patterns

#### On Company Numbers & Names

1. Access Date Pattern Revisions.

2. On Date Pattern Revisions, complete the following fields:

- Fiscal Date Pattern Code

- Fiscal Year Beginning Date
- Fiscal Year Beginning Century
- Date Pattern Type
- End of Period Date
- End of Period Century

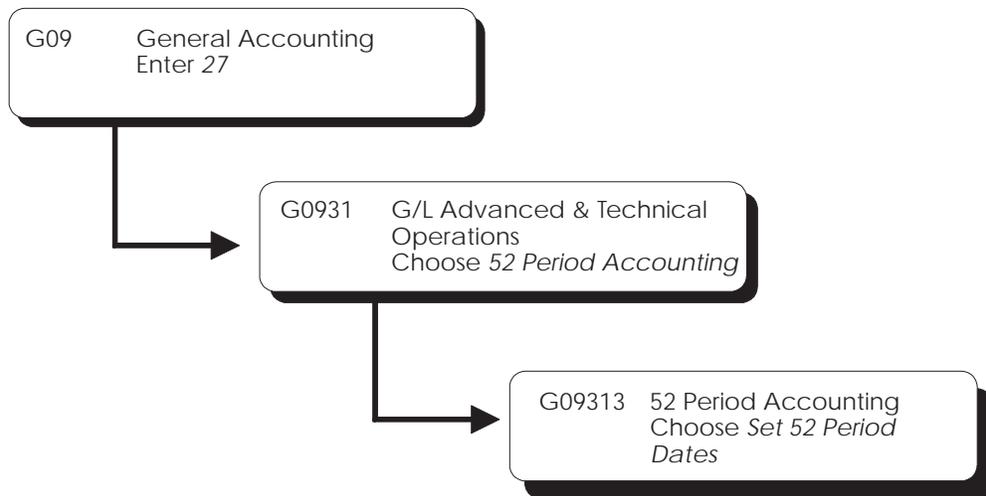
### On Company Numbers & Names

1. Access Date Pattern Revisions.
2. On Date Pattern Revisions, complete the following fields:
  - Fiscal Date Pattern Code
  - Fiscal Year Beginning Date
  - Fiscal Year Beginning Century
  - Date Pattern Type
  - End of Period Date
  - End of Period Century

<b>Field</b>	<b>Explanation</b>
Fiscal Date Pattern Code	A code that identifies date patterns. You can use one of 15 codes. You must set up special codes (letters A through N) for 4-4-5, 13 period accounting, or any other date pattern unique to your environment. An R, the default, identifies a regular calendar pattern.
Fiscal Year Beginning Date	The first day of the fiscal year. A fiscal year spanning 1998 – 1999 and beginning September 1 would be entered as 090198 (US date format).
Fiscal Year Beginning Century	This is the century associated with the fiscal year. The century number is the first two digits of the fiscal year. For example, if the fiscal year is 1998, the century number is 19. If the fiscal year is 2003, the century is 20.
Date Pattern Type	This field is used by FASTR to determine the column headings to be printed on reports. It differentiates normal calendar patterns from 4-4-5 and 13 period accounting patterns. You can maintain headings for non-standard patterns in vocabulary override records R83360Mx, where x represents the value for this field.

Field	Explanation
End of Period Date	<p>The month end date in 12 period (monthly) accounting. The period end date in 13 period, 52 period, or 4-4-5 period accounting.</p> <p>..... <i>Form-specific information</i> .....</p> <p>You can use period 13 for audit adjustments in 12-period accounting by setting up period 12 to end on December 30 and period 13 to end on December 31. You can set up period 14 in the same way for 13 period or 4-4-5 accounting. The system validates the dates you enter.</p>
End of Period Century	<p>This is the century associated with the period ending date. The century number is the first two digits of the year. For example, if the year is 1998, the century is 19. If the year is 2003, the century is 20.</p>

### Setting Up the 52 Period Date Pattern



After you have set up forecasting fiscal date patterns, you must set up a 52 period pattern for each code if you want to forecast by weeks. When you set up a 52 period date pattern for a forecast, the period-ending dates are weekly instead of monthly.

#### See Also

- *Setting Up 52 Period Dates (P0008B)* in the *General Accounting II Guide*
- *Setting Up 52 Period Dates* in the *General Accounting II Guide*

► **To set up the 52 period date pattern**

On Set 52 Period Date

Fiscal Date Pattern Code: R

Beginning of Fiscal Year: 01/01/98 19

Date Pattern Type:

Period End Dates/Centuries:		01-	01/02/98	19	02-	01/09/98	19				
03-	01/16/98	19	04-	01/23/98	19	05-	01/30/98	19	06-	02/06/98	19
07-	02/13/98	19	08-	02/20/98	19	09-	02/27/98	19	10-	03/06/98	19
11-	03/13/98	19	12-	03/20/98	19	13-	03/27/98	19	14-	04/03/98	19
15-	04/10/98	19	16-	04/17/98	19	17-	04/24/98	19	18-	05/01/98	19
19-	05/08/98	19	20-	05/15/98	19	21-	05/22/98	19	22-	05/29/98	19
23-	06/05/98	19	24-	06/12/98	19	25-	06/19/98	19	26-	06/26/98	19
27-	07/03/98	19	28-	07/10/98	19	29-	07/17/98	19	30-	07/24/98	19
31-	07/31/98	19	32-	08/07/98	19	33-	08/14/98	19	34-	08/21/98	19

F21=Print Date Patterns F24=More Keys MW

Fiscal Date Pattern Code: R

Beginning of Fiscal Year: 01/01/98 19

Date Pattern Type:

Period End Dates/Centuries:		01-	01/02/98	19	02-	01/09/98	19				
03-	01/16/98	19	04-	01/23/98	19	05-	01/30/98	19	06-	02/06/98	19
07-	02/13/98	19	08-	02/20/98	19	09-	02/27/98	19	10-	03/06/98	19
11-	03/13/98	19	12-	03/20/98	19	13-	03/27/98	19	14-	04/03/98	19
15-	04/10/98	19	16-	04/17/98	19	17-	04/24/98	19	18-	05/01/98	19
19-	05/08/98	19	20-	05/15/98	19	21-	05/22/98	19	22-	05/29/98	19
23-	06/05/98	19	24-	06/12/98	19	25-	06/19/98	19	26-	06/26/98	19
27-	07/03/98	19	28-	07/10/98	19	29-	07/17/98	19	30-	07/24/98	19
31-	07/31/98	19	32-	08/07/98	19	33-	08/14/98	19	34-	08/21/98	19

F21=Print Date Patterns F24=More Keys MW

Complete the following fields:

- Fiscal Date Pattern Code
- Beginning of Fiscal Year

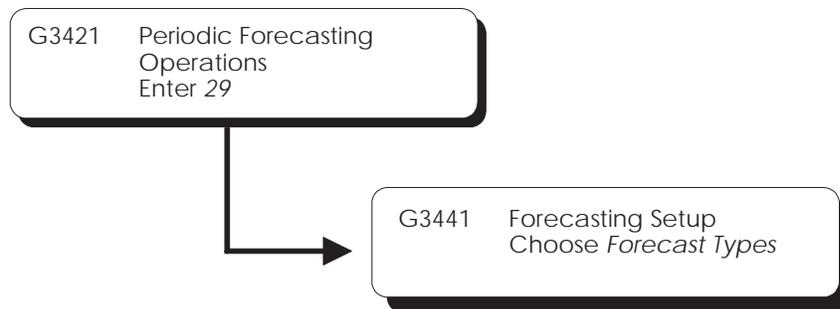
- Beginning of Fiscal Year (Century)
- Date Pattern Type
- Period End Dates
- Period End Centuries

On Set 52 Period Date

Complete the following fields:

- Fiscal Date Pattern Code
- Beginning of Fiscal Year
- Beginning of Fiscal Year (Century)
- Date Pattern Type
- Period End Dates
- Period End Centuries

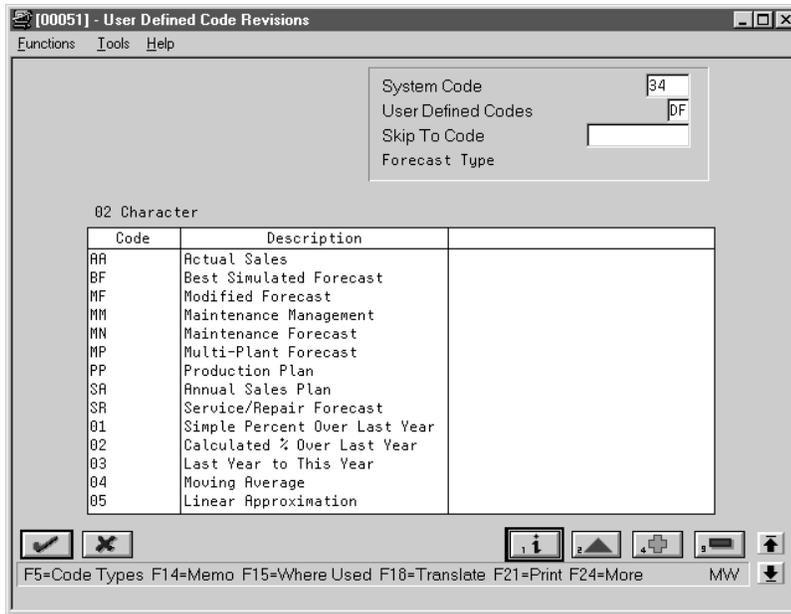
## Setting Up Forecast Types



You can add codes to the user defined code table (system 34/type DF) that identifies forecast types, such as BF for Best Fit and AA for sales order history. The Forecasting system uses forecast type codes to determine which forecasting types to use when calculating a forecast. Processing options in DRP, MPS, and MRP allow you to enter forecast type codes to define which forecasting types to use in calculations. You can also use forecast type codes when generating forecasts manually. Forecast Types 01 through 10 are hard-coded.

### ▶ To set up forecast types

On Forecast Types



Complete the following fields:

- Character Code
- Description

On Forecast Types

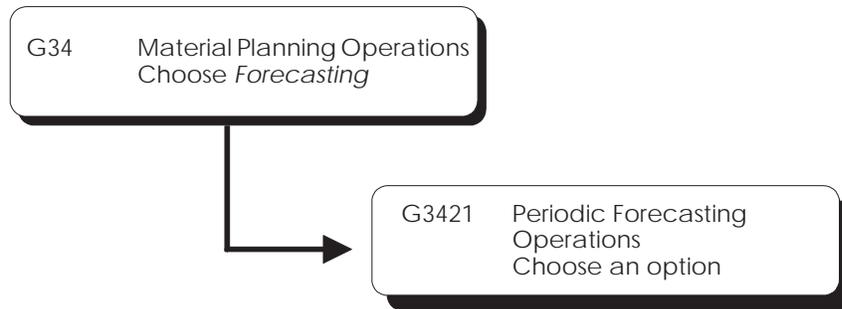
Complete the following fields:

- Character Code
- Description

Field	Explanation
User Defined Code	This column contains a list of valid codes for a specific user defined code table. The number of characters permitted for a code appears in the column title.
Description	A user defined name or remark that describes a field.

# Work with Sales Order History

---

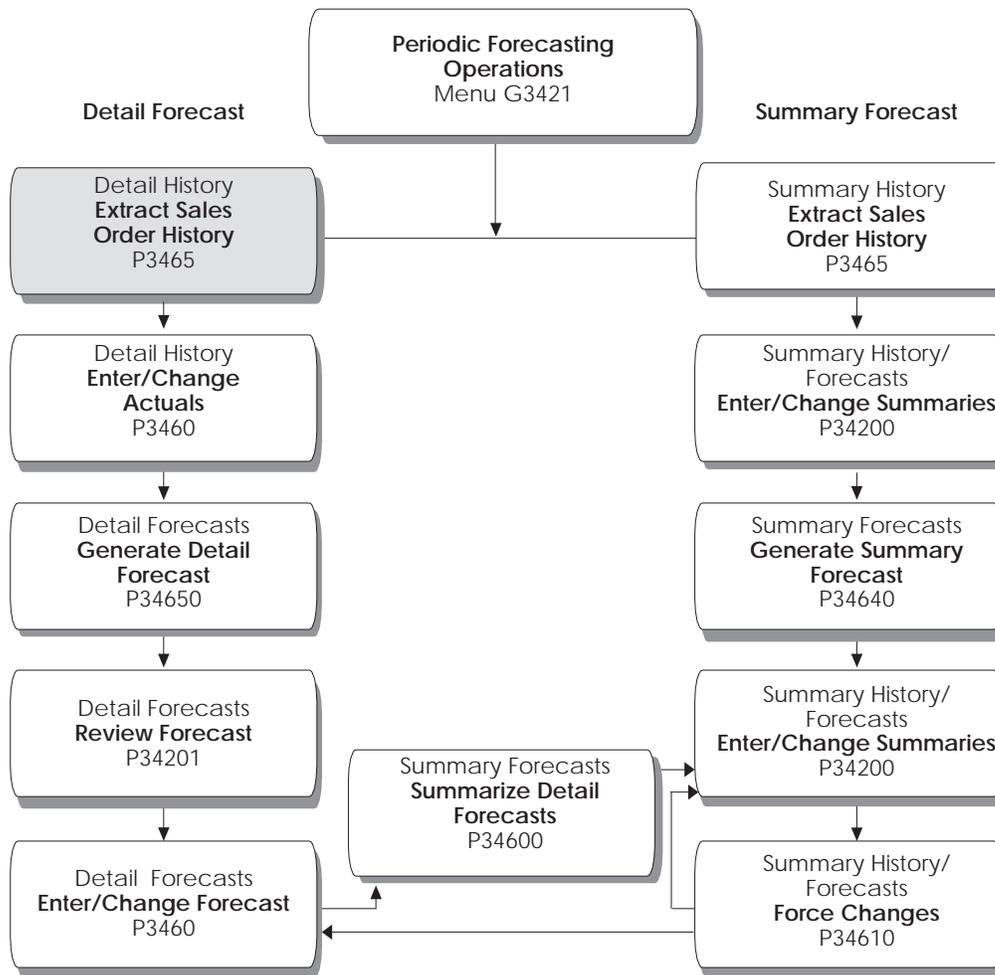


## Working with Sales Order History

The system generates detail forecasts based on sales history data that you copy from the Sales History table (F42119) into the Detail Forecast table (F3460). When you copy the sales history, you specify a date range based on the request date of the sales order. The sales history data can be distorted, however, by unusually large or small values (spikes or outliers), data entry errors, or missing demand (sales orders that were cancelled due to lack of inventory). You should review the data in the date range you specified to identify missing or inaccurate information. You then revise the sales order history to account for inconsistencies and distortions when you generate the forecast.

Complete the following tasks:

- Copy sales order history*
- Review and revise sales order history*



## Copying Sales Order History

The system generates detail forecasts based on data in the Detail Forecast table. Use Extract Sales Order History to copy the sales order history (type AA if you use the system's code) from the Sales History table to the Detail Forecast table based upon criteria you specify.

This DREAM Writer program lets you:

- Select a date range for the sales order history
- Select a version of the inclusion rules to determine which sales history to include
- Generate monthly or weekly sales order histories
- Generate a separate sales order history for a large customer

---

You do not need to clear the Detail Forecast table before you run this program. The system automatically deletes any records that are:

- Within the same period as the actual sales order histories to be generated
- For the same items
- For the same sales order history type
- For the same branch/plant

### Before You Begin

- Set up the detail forecast generation program. See *Setting Up Detail Forecasts*.
- Update sales order history. See *Updating Sales Information* in the *Sales Order Management Guide*.

### See Also

- *Updating Sales Information (P42800)* in the *Sales Order Management Guide* for more information on processes related to the daily updates of sales order history
- *Updating Sales Information* in the *Sales Order Management Guide* for more information on processes related to the daily updates of sales order history

## Processing Options for Extract Sales Order History

PROCESS CONTROL:

1. Enter the Forecast Type for creating Actuals. \_\_\_\_\_
  
2. Enter the specific time period to create both the Actuals in the Forecasting File and for creating Summarized Forecasts. (From Date is Required).  
From Date . . . . . \_\_\_\_\_  
Thru Date . . . . . \_\_\_\_\_

PROCESS CONTROL (Con't) :

3. Enter the version of Supply/Demand Inclusion Rules to be used for processing. (Required) \_\_\_\_\_
  
4. Enter a '1' to specify weekly planning. If left blank, monthly planning will be used. \_\_\_\_\_

SUMMARY RECORDS:

5. Enter a '1' to create summary records for large customers (ABC type = 'A'). \_\_\_\_\_

SUMMARY FORECASTS:

6. Enter a '1' to create summarized forecast records as well as detail forecast records. Enter a '2' to create only the summarized forecast records. If left blank the detail forecast records only will be created. \_\_\_\_\_
  
7. Enter the Summary Code to be used to create summarized forecasts. \_\_\_\_\_

SUMMARY FORECASTS (Con't) :

8. Enter a '1' if you want the Address Book number from the Forecast File to be used to retrieve the Address Book Category Codes. If left blank, the Cost Center will be used to determine which Address Book number to use to retrieve the Category Codes. \_\_\_\_\_

FISCAL PATTERN:

9. Enter the Fiscal Date Pattern to use for creating actuals. If left blank, the pattern specified for company '00000' will be used. Fiscal Patterns used must include the 'Begin Date'. For best results pattern must extend to include last Sales Order History date. \_\_\_\_\_

---

## Reviewing and Revising Sales Order History

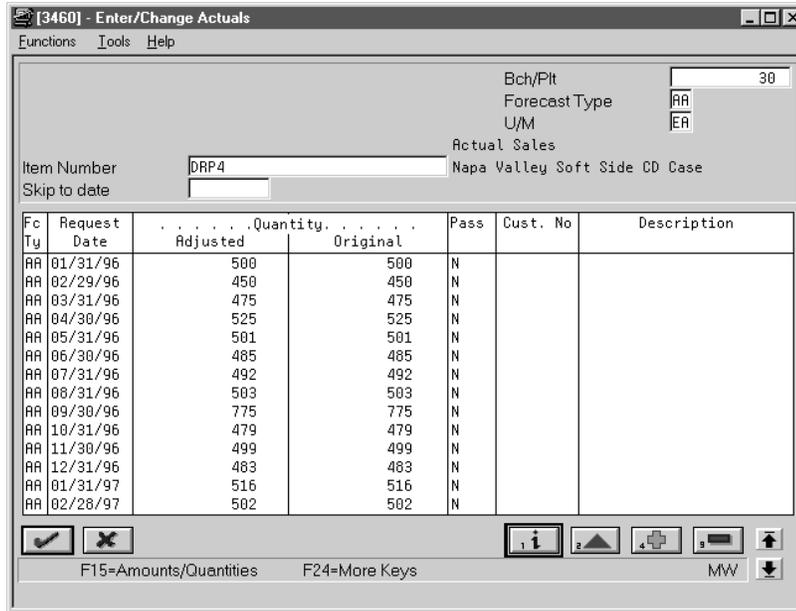
After you copy the sales order history into the Detail Forecast table, you should review the data for spikes, outliers, entry errors, or missing demand that might distort the forecast. You can then revise the sales order history manually to account for these inconsistencies before you generate the forecast.

Enter/Change Actuals allows you to create, change, or delete a sales order history manually. You can:

- Review all entries in the Detail Forecast table
- Review the records by quantities or amounts
- Revise the sales order history
- Remove invalid sales history data, such as outliers or missing demand
- Enter descriptive text for the sales order history, such as special sale or promotion information

### Example: Reviewing and Revising Sales Order History

You run Extract Sales Order History. The program identifies the actual quantities shown in the following graphic.



In the Quantity Adjusted field, the 775 value is an obvious outlier. It could be a data entry error or a one-time demand that is unlikely to occur again. You use Enter/Change Actuals to remove the invalid outlier from the actual sales history so you can generate an accurate forecast.

Use Enter/Change Actuals to tie the forecasted quantities to the forecasted amounts. The system reflects the changes made to a quantity in it's corresponding amount and an amount in it's corresponding quantity. It does so by retaining the same ratio that existed before the change. For example, a quantity of 15 and an amount of 100 becomes a quantity of 24 and an amount of 160 when a change increases the quantity to 24.

► **To review and revise sales order history**

On Enter/Change Actuals

[3460] - Enter/Change Actuals

Functions Tools Help

Bch/Pit: 10  
Forecast Type: AA  
U/M: EA  
Actual Sales: Napa Valley Cassette Box

Item Number: DRP1  
Skip to date: [ ]

Fc Ty	Request Date	Quantity		Pass	Cust. No	Description
		Adjusted	Original			
AA	01/19/96	500	500	N		
AA	02/16/96	450	450	N		
AA	03/15/96	475	475	N		
AA	04/19/96	525	525	N		
AA	05/17/96	501	501	N		
AA	06/21/96	485	485	N		
AA	07/19/96	492	492	N		
AA	08/16/96	503	503	N		
AA	09/20/96	515	515	N		
AA	10/18/96	479	479	N		
AA	11/15/96	499	499	N		
AA	12/20/96	483	483	N		
AA	01/17/97	516	516	N		
AA	02/21/97	502	502	N		

F15=Amounts/Quantities F24=More Keys MW

1. Complete the following fields:

- Forecast Type
- Item Number
- Pass
- Customer Number

The following field contains default information:

- Unit of Measure

2. Review the following fields:

- Request Date
- Quantity Adjusted
- Quantity Original

3. Access Amounts Adjusted.

4. On Amounts Adjusted, enter adjusted amounts.

5. Review the following field:

- Amount Original

6. Choose the Generic Text function to access text window 0016.

7. Review the following fields for item information:

- Item Number (short)
- Business Unit
- Forecast Type (Fc Ty)

8. Complete the following field to add descriptive information:

- Text

On Enter/Change Actuals

1. Complete the following fields:

- Forecast Type
- Item Number
- Pass
- Customer Number

The following field contains default information:

- Unit of Measure

2. Review the following fields:

- Request Date
- Quantity Adjusted
- Quantity Original

3. Access Amounts Adjusted.

4. On Amounts Adjusted, enter adjusted amounts.

5. Review the following field:

- Amount Original

6. Choose the Generic Text function to access text window 0016.

7. Review the following fields for item information:

- Item Number (short)
- Business Unit
- Forecast Type (Fc Ty)

8. Complete the following field to add descriptive information:

- Text

---

<b>Field</b>	<b>Explanation</b>
Forecast Type	A code from the user defined code table 34/DF indicating either: <ul style="list-style-type: none"><li>• The forecasting method used to calculate the numbers displayed about the item</li><li>• The actual historical information about the item</li></ul>

---

Field	Explanation
Item Number	A number that the system assigns to an item. It can be in short, long, or 3rd item number format.
Pass	This indicates whether to bypass the force changes program. A Y indicates that the quantity and amount of a forecast should not be changed by an adjustment made to a forecast higher or lower in the hierarchy.
Customer Number	<p>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.</p> <p>..... <i>Form-specific information</i> .....</p> <p>On this form, the code identifies the customer to whom this item quantity is to be sold. If the field is blank, there is no current customer for the item.</p>
Unit of Measure	<p>A user defined code (system 00/ type UM) that indicates in what quantity an inventory item is expressed; for example, CS (case) or BX (box).</p> <p>..... <i>Form-specific information</i> .....</p> <p>The Material Requirements Planning system converts this to the primary unit of measure for planning purposes.</p>
Request Date	<p>The date that an item is to arrive or that an action is to be complete.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Header: Enter a date in the Skip to Date field to display all quantities forecasted on or after that date.</p> <p>Detail: The date on which the items are expected to arrive at a work center.</p>
Quantity – Adjusted	The quantity of units forecasted for production during a planning period.
Quantity – Original	<p>The quantity of units affected by this transaction.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The original quantity of units forecasted for production during a planning period.</p>
Item Number	A number that the system assigns to an item. It can be in short, long, or 3rd item number format.
Branch/Plant	<p>Identifies a branch or plant.</p> <p>NOTE: You can enter numbers and characters in this field. The system right-justifies them (for example, C0123 appears as ___ C0123). You cannot locate business units for which you have no authority.</p>

<b>Field</b>	<b>Explanation</b>
Forecast Type	A code from the user defined code table 34/DF indicating either: <ul style="list-style-type: none"><li>• The forecasting method used to calculate the numbers displayed about the item</li><li>• The actual historical information about the item</li></ul>
Generic Text Window Line	The actual line of text used in the Generic Text Window program.  ..... <i>Form-specific information</i> .....  A field where you can enter descriptive text to be associated with a forecast date and quantity.

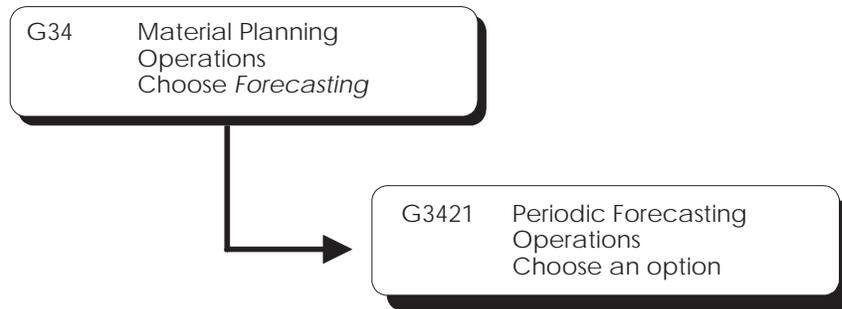


### Exercises

See the exercises for this chapter.

# Work with Detail Forecasts

---

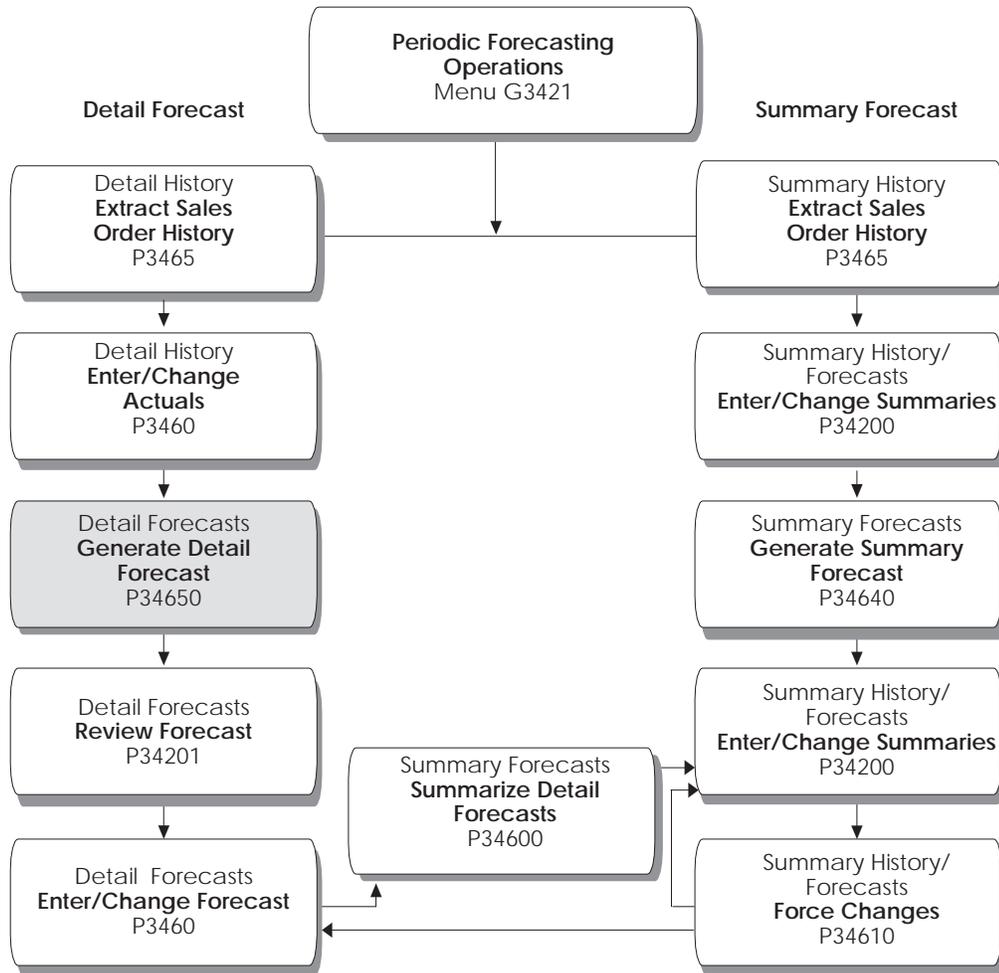


## Working with Detail Forecasts

After you have set up the actual sales history on which you plan to base your forecast, you generate the detail forecast. You can then revise the forecast to account for any market trends or strategies that might make future sales deviate significantly from the actual sales history.

Working with detail forecasts includes the following tasks:

- Generating detail forecasts*
- Reviewing detail forecasts*
- Revising detail forecasts*



## Generating Detail Forecasts

Generate Detail Forecast is a DREAM Writer program that applies multiple forecasting methods to past sales histories and generates a forecast based on the method that is calculated to provide the most accurate prediction of future demand. The program can also calculate a forecast based on any specific method you specify.

When you run Generate Detail Forecast, the system:

- Extracts sales order history information from the Detail Forecast table
- Calculates the forecasts using methods you selected
- Determines the percent of accuracy for each selected forecast method
  - Generates a simulated forecast for the months indicated in the processing option
  - Divides this simulated forecast for the months indicated by the sales order history for the same time period

- Recommends the best fit forecast method
- Generates the detail forecast in both dollars and units from the best fit forecast

The system designates the extracted actual records as type AA and the best fit model as BF. (The codes for these forecast types are not hard-coded, so you can specify your own codes.) The system stores both types of records in the Detail Forecast table. The system doesn't automatically save the other forecast types 01 through 10 unless you set the processing options to do so.

## Processing Options for Generate Detail Forecast

### FORECASTING METHODS:

Enter a '1' by the Methods desired.

1. Percent Over Last Year \_\_\_\_\_  
     Enter the percentage increase \_\_\_\_\_  
     over last year (eg. 1.10 for \_\_\_\_\_  
     a 10% increase, 0.97 for a 3% \_\_\_\_\_  
     decrease).
2. Calculated Percent Over Last Year \_\_\_\_\_
3. Last Year to This Year \_\_\_\_\_
4. Moving Average \_\_\_\_\_
5. Linear Approximation \_\_\_\_\_
6. Second Degree Approximation \_\_\_\_\_
  
7. Flexible Method (Percent over \_\_\_\_\_  
     N months prior.) \_\_\_\_\_  
     Enter the no. of months prior. \_\_\_\_\_  
     Enter the percent over the \_\_\_\_\_  
     prior months. \_\_\_\_\_
8. Weighted Moving Average \_\_\_\_\_  
     Enter the weight for one \_\_\_\_\_  
     period prior. \_\_\_\_\_  
     Enter the weight for two \_\_\_\_\_  
     periods prior. \_\_\_\_\_  
     Enter the weight for three \_\_\_\_\_  
     periods prior. \_\_\_\_\_  
     (The weights must add up to 1 \_\_\_\_\_  
     eg. .6, .3 and .1)
9. Exponential Smoothing with \_\_\_\_\_  
     Moving Weight. \_\_\_\_\_  
     Enter the number of months N \_\_\_\_\_
10. Exponential Smoothing with \_\_\_\_\_  
     Trend and Seasonality factors. \_\_\_\_\_

### RECORD TYPES TO USE:

11. Enter the 'Actual Type' in which \_\_\_\_\_  
     the actual information is stored. \_\_\_\_\_
12. Enter the Forecast Type to use \_\_\_\_\_  
     when creating forecasts. \_\_\_\_\_

### SUMMARY RECORDS:

13. Enter a '1' to create summary \_\_\_\_\_  
     records for large customers. \_\_\_\_\_  
     (ABC type = 'A'.)

### FORECAST TYPE AND RANGE:

14. Enter a '1' to specify weekly \_\_\_\_\_  
     forecasts. (Default is monthly.)

15. Enter the date to start forecasts  
(Default will be Today's Date.) \_\_\_\_\_

16. Enter the number of periods to  
forecast. (Blanks will default to  
3 Periods. Maximum of one year  
eg. 12 Months or 52 Weeks.) \_\_\_\_\_

FISCAL DATE PATTERN:

17. Enter the Fiscal Date Pattern  
Type to use for forecast dating.  
If left blank, the type specified  
for company '00000' will be used.  
(See Company Names-Fiscal Patterns  
'P00105' for more information). \_\_\_\_\_

FORECAST AMOUNTS/QUANTITIES

18. Enter a '1' to forecast using  
amounts. A default of blanks will  
forecast using quantities. \_\_\_\_\_

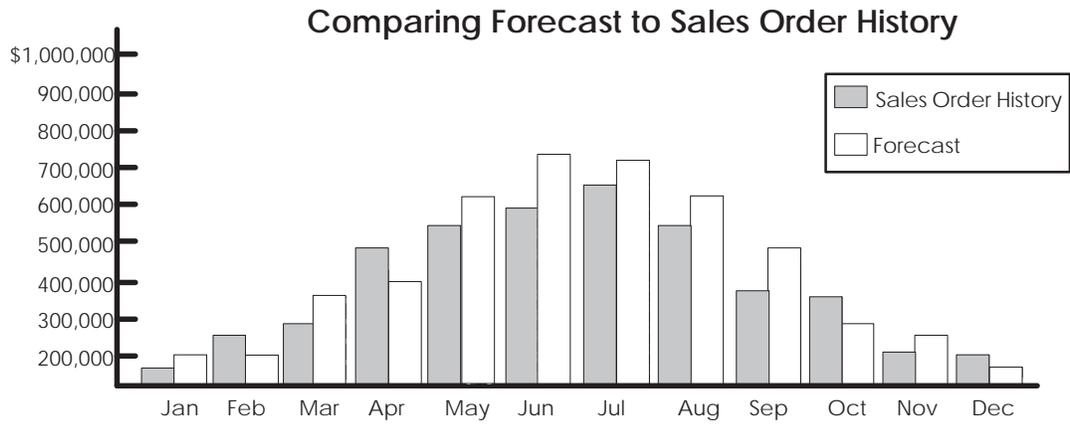
### What You Should Know About Processing Options

**Saving records for  
forecast types 01 to 10  
to the Detail Forecast  
table (F3460)**

To save records for any of the forecast types to the Detail Forecast table (F3460), enter the corresponding number in the processing options (01 for type 01, 04 for type 04, and so on). To include any forecast types in a best fit calculation without saving the records, enter 1 (without the 0 preceding it) in the processing options for each type you want to include.

### Reviewing Detail Forecasts

Use Review Forecast to compare the actual sales to the detail forecast. The system displays the forecast values and actual quantities or sales order extended price for an item for the year you specify.

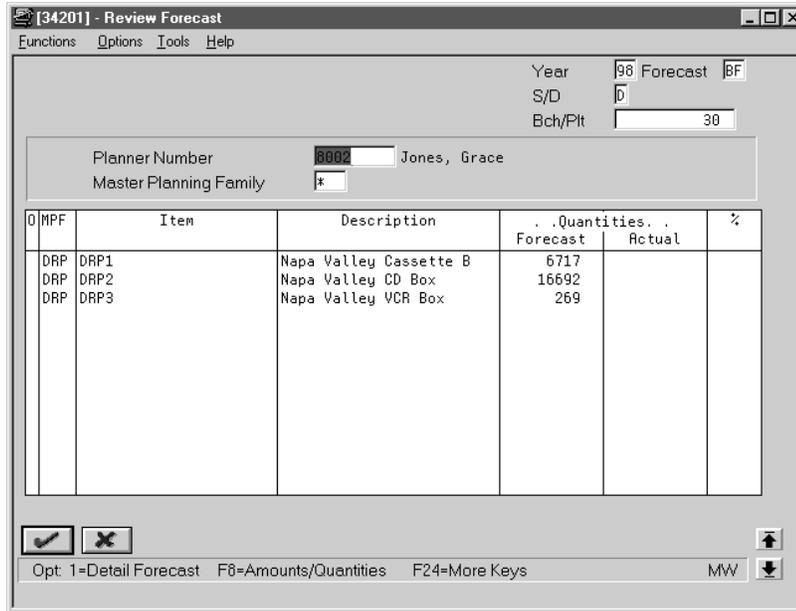


You can display information by planner, master planning family, or both. You can then change the forecast type to compare different forecasts to the actual demand. You can also:

- Display the data in summary or detail mode. Detail mode lists all item numbers. Summary mode consolidates data by master planning family.
- Display all information stored in the Detail Forecast table.
- Choose between quantities and amounts to review.

**▶ To review a detail forecast**

On Review Forecast



1. Complete the following fields:
  - Year
  - Forecast Type
  - Branch/Plant
2. Complete one of the following fields:
  - Master Planning Family
  - Planner Number
3. Review the following fields:
  - Quantities Forecast
  - Quantities Sales Order History
  - Percent (%)
4. Choose Amounts/Quantities to access the amounts fields.
5. Review the following fields:
  - Amounts Forecast
  - Amounts Sales Order History
6. Choose the Detail selection on an item line to display data in detail mode.

On Review Forecast

1. Complete the following fields:
  - Year
  - Forecast Type

- Branch/Plant
2. Complete one of the following fields:
    - Master Planning Family
    - Planner Number
  3. Review the following fields:
    - Quantities Forecast
    - Quantities Sales Order History
    - Percent (%)
  4. Choose Amounts/Quantities to access the amounts fields.
  5. Review the following fields:
    - Amounts Forecast
    - Amounts Sales Order History
  6. Choose the Detail selection on an item line to display data in detail mode.

Field	Explanation
Year – Calendar Year	The calendar year.
Forecast Type	<p>A code from the user defined code table 34/DF indicating either:</p> <ul style="list-style-type: none"> <li>• The forecasting method used to calculate the numbers displayed about the item</li> <li>• The actual historical information about the item</li> </ul>
Branch/Plant	<p>Identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, or branch/plant. The Business Unit field is alphanumeric.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, and so on, for purposes of responsibility reporting. For example, the system provides reports of open A/P and A/R by business units, to track equipment by responsible department.</p> <p>Business unit security can prevent you from locating business units for which you have no authority.</p> <p>NOTE: The system uses this value for Journal Entries if a value is not entered in the AAI table.</p> <p>..... <i>Form-specific information</i> .....</p> <p>On this form, this is the branch/plant for which you are reviewing and revising a forecast.</p>

Field	Explanation
Master Planning Family	<p>A code (table 41/P4) that represents an item property type or classification, such as commodity type, planning family, or so forth. The system uses this code to sort and process like items.</p> <p>This field is one of six classification categories available primarily for purchasing purposes.</p>
Planner Number	<p>The address number of the material planner for this item.</p> <p>..... <i>Form-specific information</i> .....</p> <p>You can use this field, along with the Master Planning Family and Year fields, to display specific forecast items. For example, you can show items within a planning family that were forecasted by a specific planner for a specific year.</p>
Quantity – Forecast	<p>The quantity of units forecasted for production during a planning period.</p>
Quantity – Sales Order History	<p>The quantity of units affected by this transaction.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The quantity of units in the sales order history on which a forecast is based.</p>
Percent	<p>In costing, the percent difference between the frozen cost and the simulated cost.</p> <p>In forecasting, the percent of the forecast that has been consumed by actual sales.</p>
Amount – Forecast	<p>The current amount of the forecasted units for a planning period.</p>
Amount – Sales Order History	<p>The number of units multiplied by the unit price.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The original dollar amount of the sales order history on which a forecast is based.</p>

### Processing Options for Forecast Review

1. Forecasts are driven by quantities.  
    Enter a 1 if you would prefer to see  
    amounts as the primary forecast. \_\_\_\_\_
2. You may have multiple concurrent  
    forecasts. Enter the default  
    forecast type \_\_\_\_\_
3. Enter the forecast type for  
    displaying the actual quantities and  
    amounts. \_\_\_\_\_

---

## Revising Detail Forecasts

After you generate and review a forecast, you need to revise the forecast to account for changes in consumer trends, market conditions, competitors' activities, your own marketing strategies, and so on. When you revise a forecast, you can:

- Manually change information in an existing forecast
- Add a forecast
- Delete a forecast
- Enter descriptive text for the forecast

You can access forecasts you want to revise by item number, branch plant, forecast type, or any combination of these elements. If your forecast is extensive, you can specify a beginning request date to limit the display.

As you revise the forecast, be aware that the following combination must be unique for each item number and branch record:

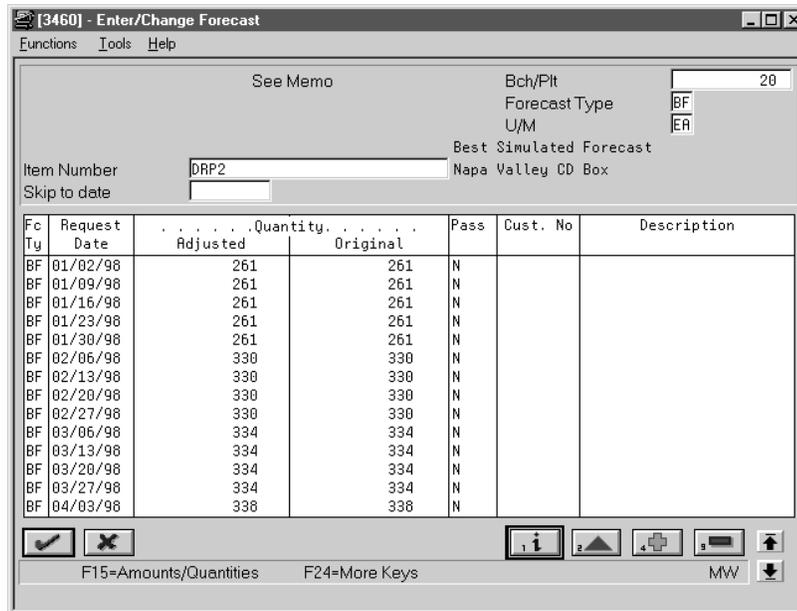
- Forecast type
- Request date
- Customer number

For example, if two records have the same request date and customer number, they must have different forecast types.

### Example: Revising a Detail Forecast

You are having a sales promotion for a specific month. On Enter/Change Forecast, you manually increase the forecast for that month, and add a qualitative forecast for new items with no sales history.

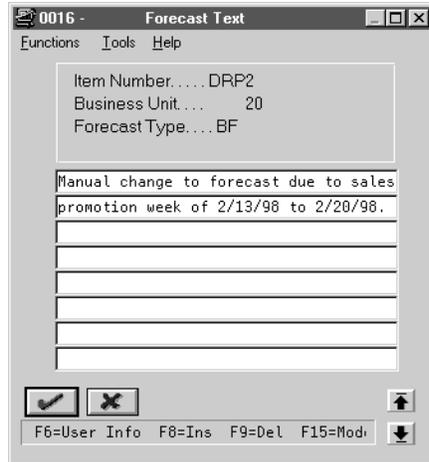
In the example below, the forecast for the CD boxes has been increased for the week of 2/13/98 from 330 to 500 to accommodate the sales promotion.



**▶ To revise a detail forecast**

On Enter/Change Forecast

1. Complete the following fields to choose the forecast you want to revise:
  - Branch/Plant
  - Forecast Type
  - U/M (Unit of Measure)
  - Item Number
2. Complete the following field:
  - Quantity Adjusted
3. Choose Amounts/Quantities to access amounts.
4. Revise the following field:
  - Amount Adjusted (F15)
5. To enter descriptive text, access Forecast Text.



0016 - Forecast Text

Functions Tools Help

Item Number....DRP2  
Business Unit... 20  
Forecast Type....BF

Manual change to forecast due to sales  
promotion week of 2/13/98 to 2/20/98.

F6=User Info F8=Ins F9=Del F15=Mod.

6. On Forecast Text, enter any descriptive text for the forecast.

#### On Enter/Change Forecast

1. Complete the following fields to choose the forecast you want to revise:
  - Branch/Plant
  - Forecast Type
  - U/M (Unit of Measure)
  - Item Number

2. Complete the following field:
  - Quantity Adjusted
3. Choose Amounts/Quantities to access amounts.
4. Revise the following field:
  - Amount Adjusted (F15)
5. To enter descriptive text, access Forecast Text.
6. On Forecast Text, enter any descriptive text for the forecast.

Field	Explanation
Branch/Plant	<p>Identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, or branch/plant. The Business Unit field is alphanumeric.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, and so on, for purposes of responsibility reporting. For example, the system provides reports of open A/P and A/R by business units, to track equipment by responsible department.</p> <p>Business unit security can prevent you from locating business units for which you have no authority.</p> <p>NOTE: The system uses this value for Journal Entries if a value is not entered in the AAI table.</p> <p>..... <i>Form-specific information</i> .....</p> <p>On this form, this is the branch/plant for which you are reviewing and revising a sales order history or forecast.</p>
Forecast Type	<p>A code from the user defined code table 34/DF indicating either:</p> <ul style="list-style-type: none"> <li>• The forecasting method used to calculate the numbers displayed about the item</li> <li>• The actual historical information about the item</li> </ul>
Unit of Measure	<p>A user defined code (system 00/ type UM) that indicates in what quantity an inventory item is expressed; for example, CS (case) or BX (box).</p> <p>..... <i>Form-specific information</i> .....</p> <p>The Material Requirements Planning system converts this to the primary unit of measure for planning purposes.</p>
Item Number	<p>A number that the system assigns to an item. It can be in short, long, or 3rd item number format.</p>
Quantity – Adjusted	<p>The quantity of units forecasted for production during a planning period.</p>

Field	Explanation
Amount - Adjusted	The current amount of the forecasted units for a planning period.
Generic Text Window Line	The actual line of text used in the Generic Text Window program.  ..... <i>Form-specific information</i> .....  A field where you can enter descriptive text to be associated with a forecast date and quantity.

### Processing Options for Enter/Change Forecast

DEFAULT VALUES:

1. You may have multiple concurrent forecasts. Enter the default forecast type. \_\_\_\_\_
  
2. Enter a '1' to default the forecast type from the heading into the detail records on an add. \_\_\_\_\_

DISPLAY MODE:

3. The forecast is driven by quantities. Enter a '1' if you would prefer to see amounts as the primary forecast. \_\_\_\_\_



#### Exercises

See the exercises for this chapter.



# Summary Forecasts



# Summary Forecasts

## Objectives

- To define the distribution hierarchy
- To revise address book records
- To review branch/plant data
- To review item location records
- To copy summary sales order history into the Summary Forecast table
- To review and revise summary copied sales order history
- To generate summary forecasts
- To generate summaries of detail forecasts
- To revise summaries of forecasts
- To revise summaries of forecasts using the Force Changes program

## About Summary Forecasts

You use summary forecasts to project demand at a product group level. Summary forecasts are also called aggregate forecasts. You can generate a summary of a detail forecast based on detail sales histories or a summary forecast based on summary data.

The system updates the Sales History table (F42119) with sales order demand from the Sales Order table (F4211). You copy the sales history into the Summary Forecast table (F3400) to generate summary forecasts and into the Detail Forecast table (F3460) to generate summaries of detail forecasts. The system generates summary forecasts that provide information for each level of the hierarchy that you set up with summary constants. These constants are stored in the Summary Constants table (F4091). Both summary forecasts and summaries of detail forecasts are stored in the Summary Forecast table.

Complete the following tasks:

- Set up summary forecasts*
- Work with summary sales order history*
- Generate summary forecasts*



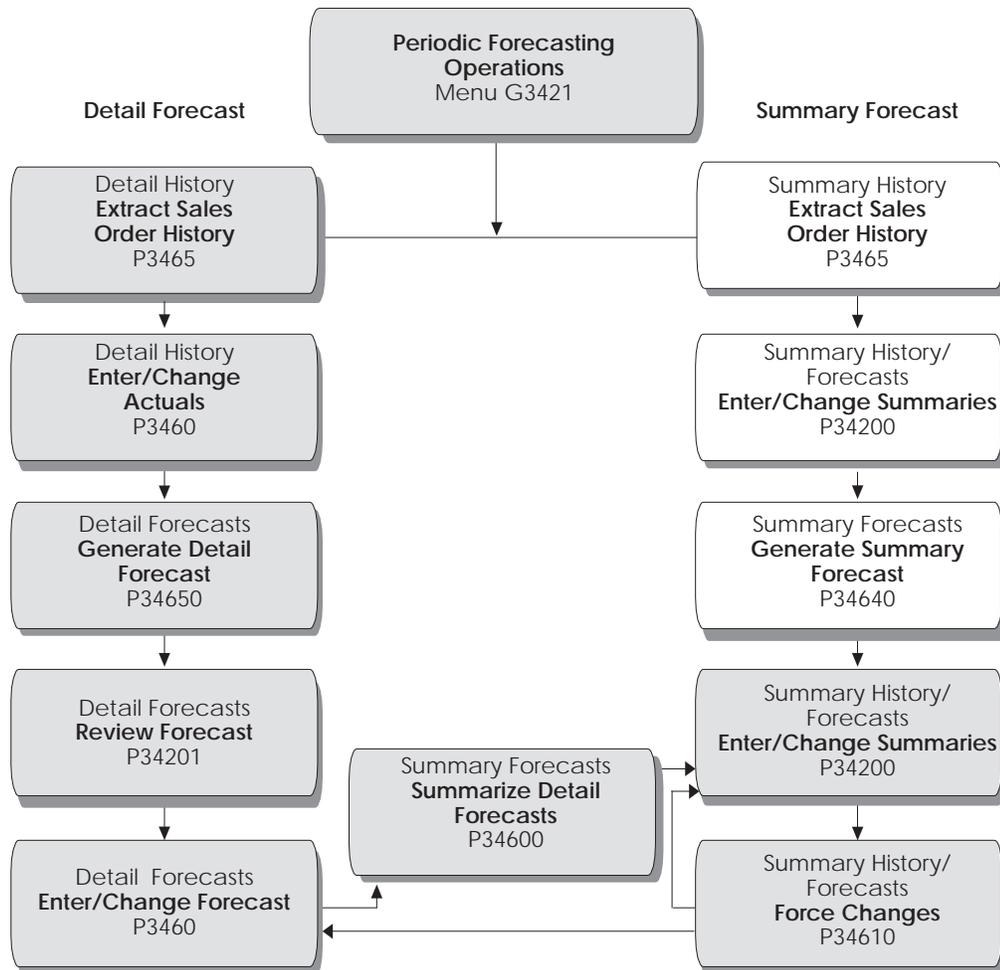
- ❑ *Generate summaries of detail forecasts*
- ❑ *Revise summaries of forecasts*

### Comparing Summaries of Detail Forecasts and Summary Forecasts

A summary of a detail forecast uses item-level data and predicts future sales in terms of both item quantities and sales amounts. The shaded blocks of the graphic show this process.

A summary of a detail forecast uses item-level data and predicts future sales in terms of both item quantities and sales amounts.

The shaded blocks of the graphic show this process.

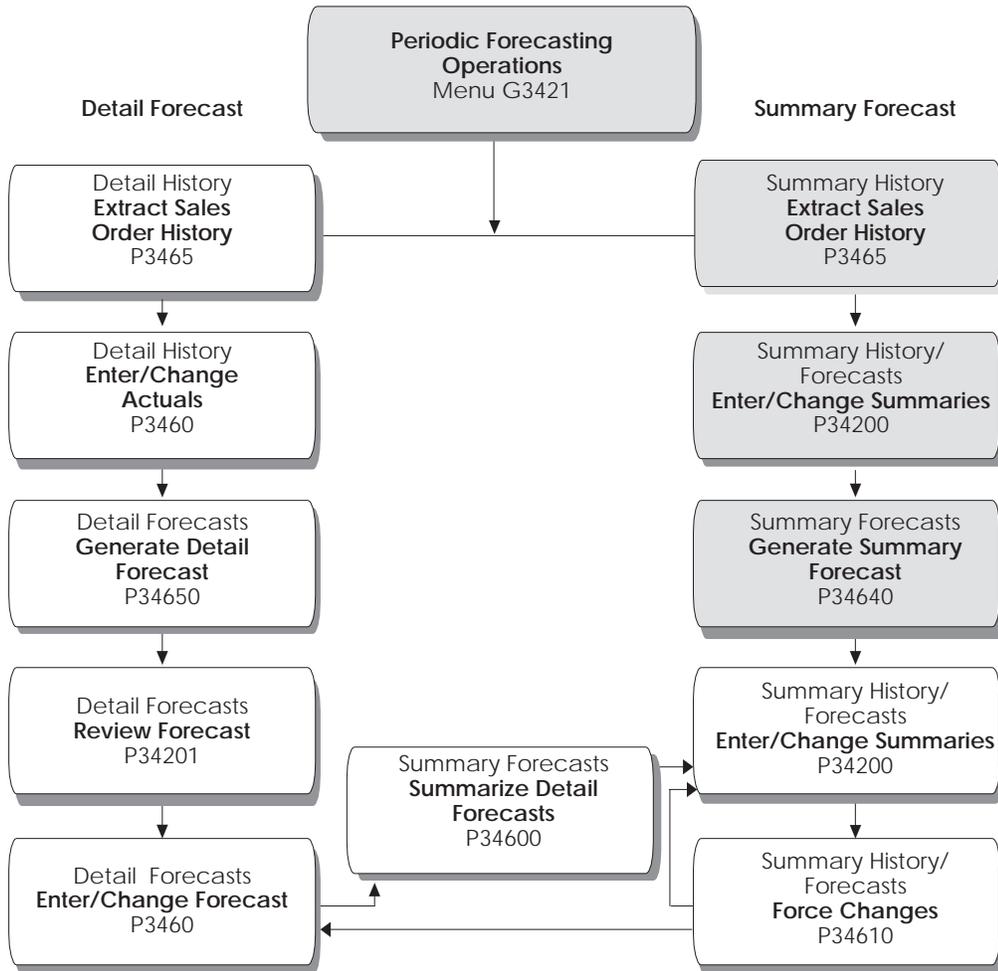


---

A summary forecast uses summary data to predict future sales. This method is most commonly used for generating quick simulations of several different scenarios. The shaded blocks of the graphic show this process.

A summary forecast uses summary data to predict future sales. This method is most commonly used for generating quick simulations of several different scenarios.

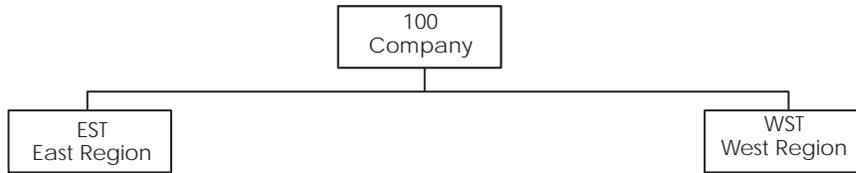
The shaded blocks of the graphic show this process.



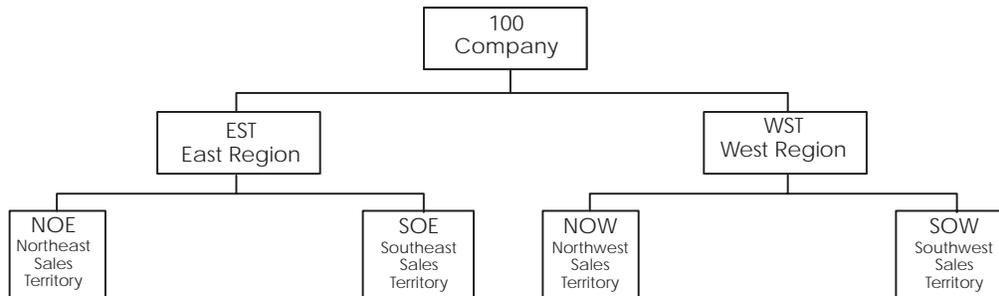
### Example: Company Hierarchy

You need to define your company's hierarchy before you generate a summary forecast. J.D. Edwards recommends that you organize the hierarchy by creating a diagram or storyboard. The following example illustrates this process.

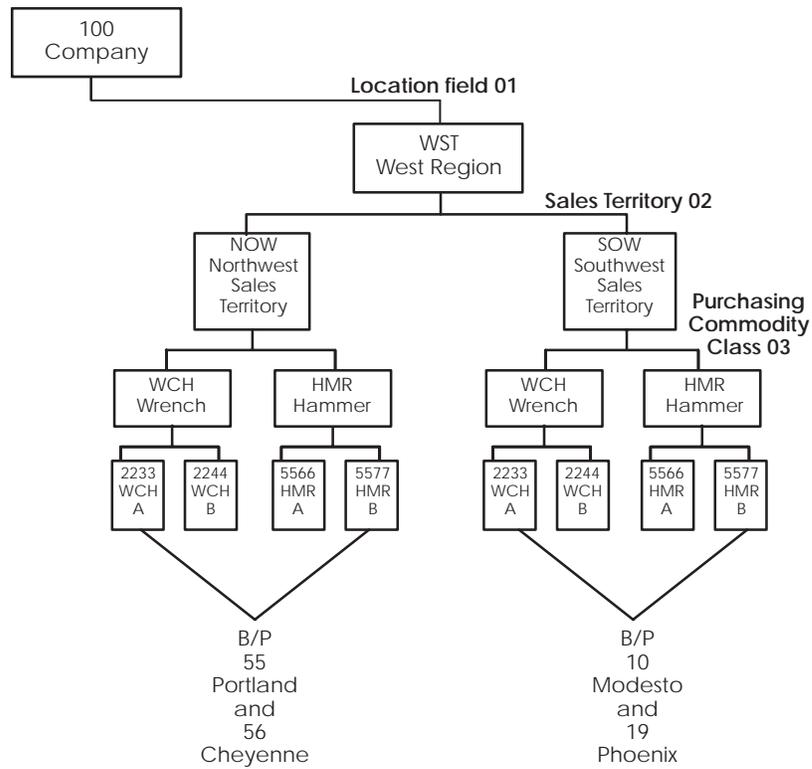
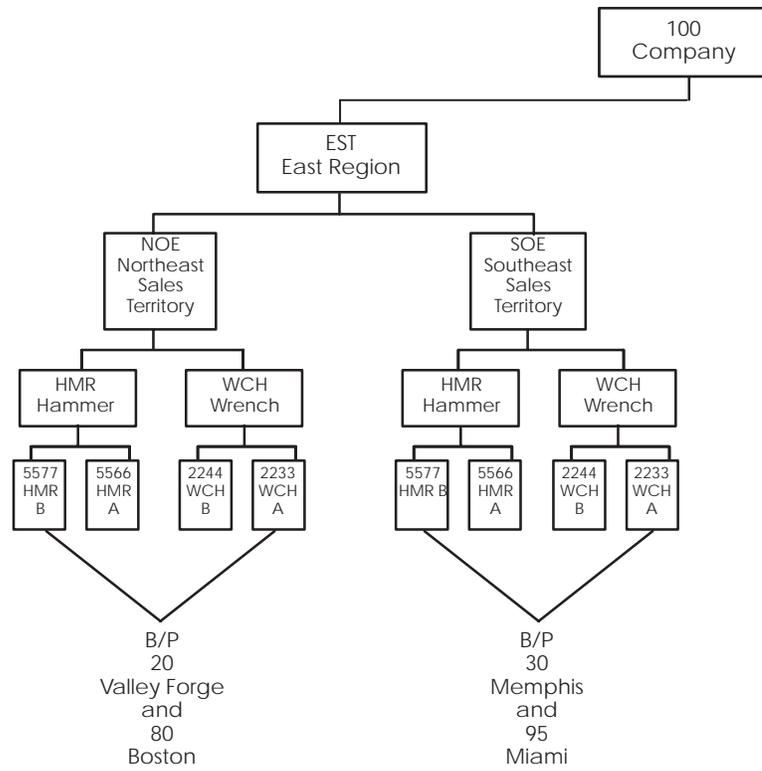
- Company 100 consists of two regions East (EST) and West (WST).



- Within the East Region, there are two sales territories, Southeastern (SOE) and Northeastern (NOE).
- Within the West Region, there are two sales territories, Southwestern (SOW) and Northwestern (NOW).



- Each Sales Territory consists of two branch/plants:
  - SOE: B/P 30 (Memphis) and B/P 95 (Miami)
  - NOE: B/P 20 (Valley Forge) and B/P 80 (Boston)
  - SOW: B/P 10 (Modesto) and B/P 19 (Phoenix)
  - NOW: B/P 55 (Portland) and B/P 56 (Cheyenne)



Each branch/plant distributes hand tools (TLS), including hammers (HMR) and wrenches (WCH). The following item numbers represent the four main products.

Item	Master Planning Family	Commodity Class
2233	TLS	WCH
2244	TLS	WCH
5566	TLS	HMR
5577	TLS	HMR

## Hierarchy of Company 100

The user defined hierarchy for Company 100 is:

- 01 = Location field (for example, a region). Specified by category code 01 in Address Book.
- 02 = Sales Territory. Specified by category code 03 in Address Book.
- 03 = Purchasing Commodity Class. Specified by category code P1 in Branch/Plant.

Each item rolls up to an appropriate Purchasing Commodity Code. The lowest level is the sales order history or forecast for an item at the branch/plant level.

## Summary Codes

For each hierarchy you define, you must specify a unique identifier called a summary code. You can define for each summary code what each level of the hierarchy represents. Then, you can enter the summary code during summary forecasting programs to indicate which hierarchy you want to work with.

The chart shows a sample hierarchy defined for Company 100.

Branch/Plant Region or Territory	Address Book Number	Description	Location	Sales Territory
WST	100676	West Region		
EST	100677	East Region		
NOE	100678	Northeast	EST	
SOE	100680	Southeast	EST	
NOW	100679	Northwest	WST	
SOW	100681	Southwest	WST	
10	1063	Modesto	WST	SOW
19	100675	Phoenix	WST	SOW
20	1064	Valley Forge	EST	NOE
30	1062	Memphis	EST	SOE

55	100672	Portland	WST	NOW
56	100674	Cheyenne	WST	NOW
80	100669	Boston	EST	NOE
95	100671	Miami	EST	SOE

The sample data in the chart includes two sets of user defined codes. You can access the codes at the level you choose. The location level (UDC 01/01) contains WST and EST.

The following sample form illustrates codes set at the location level.

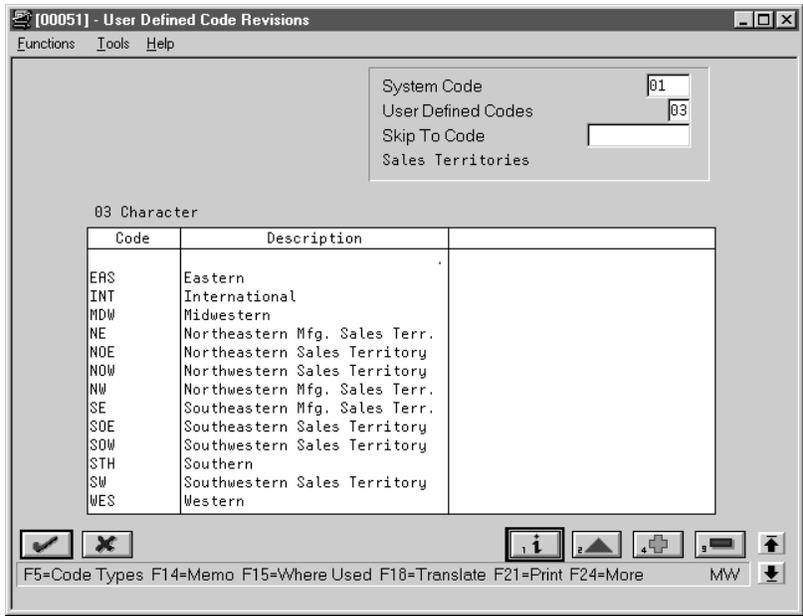
The screenshot shows a window titled "[00051] - User Defined Code Revisions". It has a menu bar with "Functions", "Tools", and "Help". Below the menu bar, there are input fields for "System Code" (value: 01), "User Defined Codes" (value: 01), "Skip To Code" (empty), and "Branches" (empty). Below these fields is a section labeled "03 Character" containing a table with two columns: "Code" and "Description".

Code	Description
ATL	Atlanta Branch
CHI	Chicago Branch
DAL	Dallas Branch
DEN	Denver Branch
ES	Eastern Mfg. Region
EST	Eastern Region
NYC	New York Branch
SFO	San Francisco Branch
WS	Western Mfg. Region
WST	Western Region
100	Airport
200	County Courthouse
300	Cemetery

At the bottom of the window, there are several icons and a status bar with the following text: "F5=Code Types F14=Memo F15=Where Used F18=Translate F21=Print F24=More MW".

The Sales Territory level (UDC 01/03) contains NOW, SOW, NOE, and SOE.

The following sample form illustrates codes set at the sales territory level.



The Purchasing Commodity Class level (UDC 41/P1) contains HMR and WCH.

## See Also

- *Defining the Distribution Hierarchy (P4091)*
- *Defining the Distribution Hierarchy*



# Set Up Summary Forecasts

---

## Setting Up Summary Forecasts

In addition to the information set up for detail forecasts, the Forecasting system requires sales order history information for the whole company hierarchy to generate a summary forecast.

To set up summary forecasts, you must:

- Define the hierarchy with codes and constants
- Enter address book, branch/plant, and item location data

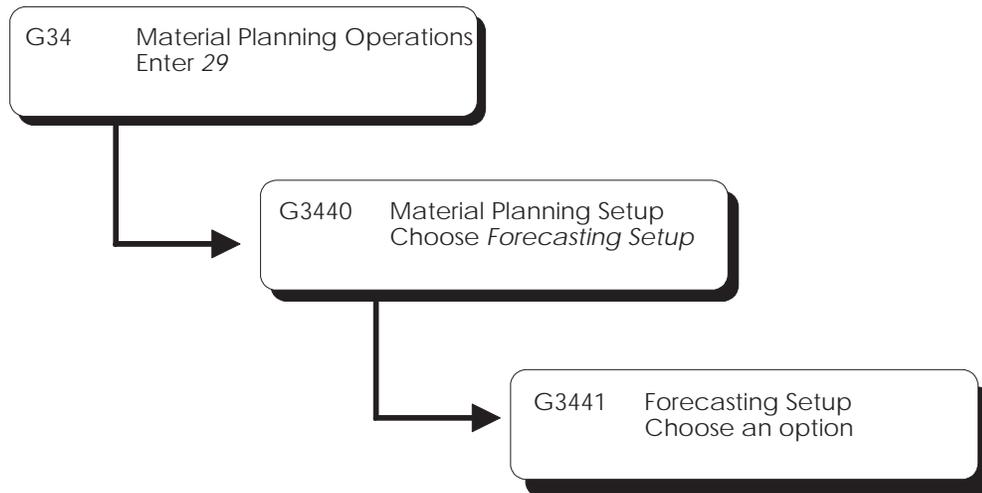
Complete the following tasks:

- Define the distribution hierarchy*
- Revise address book records*
- Review branch/plant data*
- Review item location records*

### Before You Begin

- Set up detail forecasts. See *Setting Up Detail Forecasts*.
- Create on paper a map or storyboard diagramming your definition of the company hierarchy. See *Summary Forecasts*.

## Defining the Distribution Hierarchy



The Forecasting system generates a summary forecast based on the distribution hierarchy you define and select.

To define the distribution hierarchy, complete the following tasks:

- *Set up summary codes*
- *Assign summary constants*

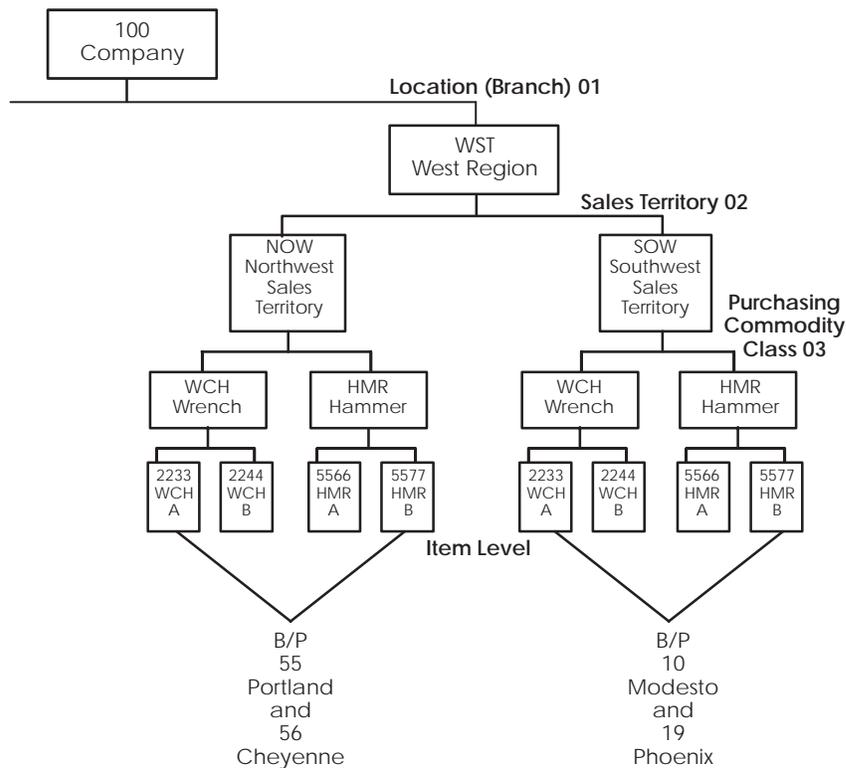
You assign a summary code to each hierarchy you define. For each summary code, you should identify the levels of the hierarchy by assigning them summary constants from the Summary Constants table. For each summary code, you can define up to 14 levels, as follows:

- You can define the top level as the global summary level. You determine whether to summarize forecasts globally across multiple companies in the hierarchy at the global level.
- You can define the next level the company summary level. You determine whether to summarize forecasts for an entire company at the company summary level.
- You can define up to 10 middle levels, which include the category codes and the customer level. You can choose from 20 address book category codes and 20 item balance category codes that you can assign to different levels in the hierarchy. The available codes all appear in the Summary Constants table. In the Customer Level field, you can specify the address book number of a customer as a level in the hierarchy.

- You can define two bottom levels. The lowest level you can define is the item level. In the Item Number field, you can indicate that the forecast should extend to the item level. And, although the branch/plant item detail records are automatically placed at the bottom level, the system does not include these as a level in the hierarchy.

### Example: Distribution Hierarchy for Company 100

The following chart shows an example of a distribution hierarchy for the West Region of Company 100 (the East Region section of the chart would extend to the left).



In this example, you define the hierarchy for the West Region as follows:

1. You assign the West Region the summary code WST.

You then assign levels to constants from the Summary Constants table for summary code WST as follows:

2. You assign 01 to Location or Branch.
3. You assign 02 to Sales Territory.
4. You assign 03 to Purchase Commodity Class.

5. You assign the lowest level to individual branch/plant records for each item.

You specify each level you have assigned in the address book so that all levels of the hierarchy are properly linked to each other and your summary forecast includes all levels.

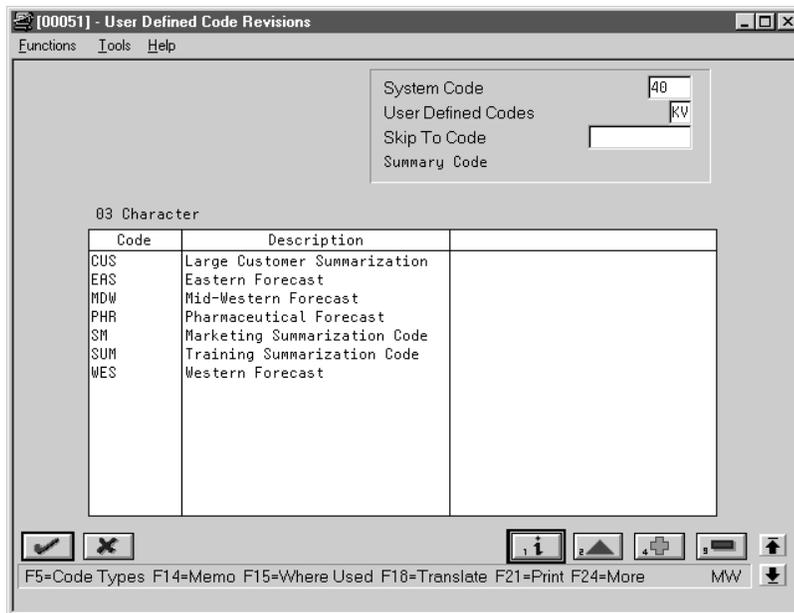
### Before You Begin

- Update the Sales history. See *Updating Sales Information* in the *Sales Order Management Guide*.

### ▶ To set up summary codes

You use the summary codes entered in the Character Code fields to define the summary hierarchy when you set up summary constants.

#### On Summary Codes



Complete the following fields:

- Character Code — Summary Code
- Description

#### On Summary Codes

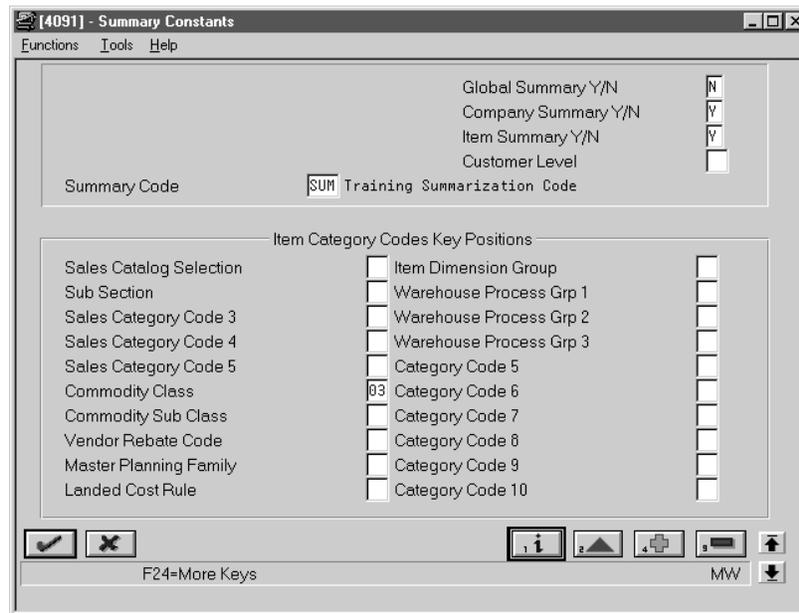
Complete the following fields:

- Character Code — Summary Code
- Description

Field	Explanation
User Defined Code	This column contains a list of valid codes for a specific user defined code table. The number of characters permitted for a code appears in the column title.
Description	A user defined name or remark that describes a field.

► **To assign summary constants**

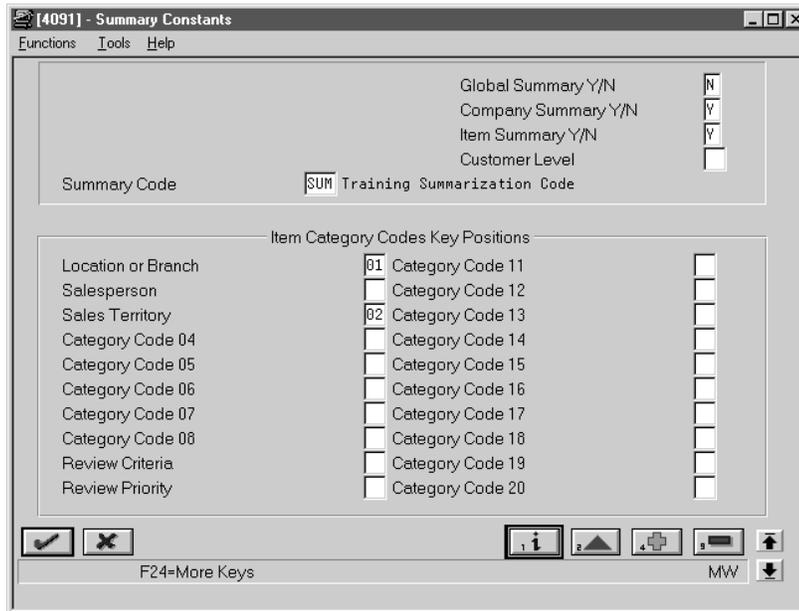
On Summary Constants



1. Enter SUM in the following field to display the sample summary constants:
  - Summary Code
2. Complete the following field (for your own code):
  - Summary Code
3. Complete the following fields:
  - Global Summary Y/N
  - Company Summary Y/N

- Item Summary Y/N
  - Customer Level
4. Complete Category Code fields to specify the hierarchy levels.

Use the roll keys to display and enter additional summary constants.



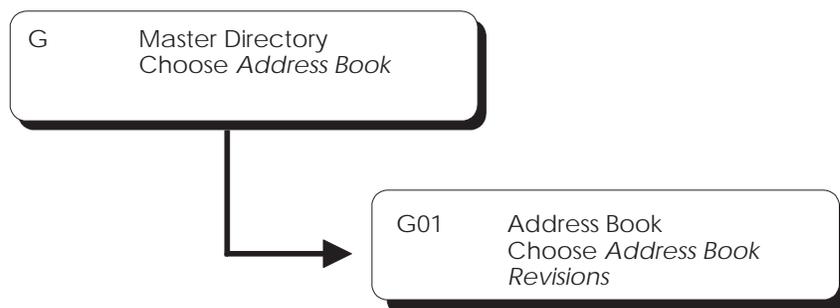
#### On Summary Constants

1. Enter SUM in the following field to display the sample summary constants:
  - Summary Code
2. Complete the following field (for your own code):
  - Summary Code
3. Complete the following fields:
  - Global Summary Y/N
  - Company Summary Y/N
  - Item Summary Y/N
  - Customer Level
4. Complete Category Code fields to specify the hierarchy levels.

Use the roll keys to display and enter additional summary constants.

Field	Explanation
Summary Code	The key to distinguish between different forecasting hierarchies.
Global Summary Y/N	This flag indicates whether the forecast should be summarized to the global level. This level is the top level of the forecasting hierarchy and represents a summarization of all levels.
Company Summary Y/N	This flag indicates whether the forecast should be summarized to the Company level. This level is the next level above the level indicated as number one in the hierarchy. All forecasts within the company will be summarized into this level.
Item Number Summary Y/N	This flag indicates whether the forecast should be summarized down to the item number level. This level is the last level in the hierarchy. All forecast detail records for an item will be summarized into this level.
Customer Level	To use Customer Number as one of the levels in the forecasting hierarchy, enter that level number here.
Key Position – Code	An indicator that specifies which level in the forecasting hierarchy a specific category code should be.

## Revising Address Book Records



After you have defined the company hierarchies with summary codes and constants, you need to revise the address book records so they include the new information. You must also enter summary constants in the Category Codes table.

The address book maintains the links between all levels of the distribution hierarchy. When you generate a summary forecast, the system will properly apply the forecast to the entire hierarchy only if you have assigned each level the appropriate code in the address book.

For example, you have assigned a purchasing category code to an individual product belonging to a branch. If you have entered appropriate codes for each level of the hierarchy in the address book, the category code for the branch record will link the individual product at the branch to a commodity class, which links to a sales territory, which links to a region, which links to the whole company.

To revise address book records, complete the following tasks:

- *Enter address book records*
- *Enter category codes*

### Before You Begin

- Enter new records for all locations and customers defined in your distribution hierarchy that are not included in your address book

### See Also

- *Working with Basic Address Book Information (P01051)* in the *Address Book Guide*
- *Working with Basic Address Book Information* in the *Address Book Guide*

### ▶ To enter address book records

#### On Address Book Revisions

The screenshot shows a software window titled "[01051] - Address Book Information". The window contains the following fields and controls:

- Long Addr No**: [ ]
- Resp. Bus. Unit**: [ 1 ]
- Address Number**: [ 1062 ]
- Alpha Name**: [ Memphis Warehouse #30 ]
- Phone Number**:
  - (303) [ 448--4000 ] [ ]
  - (FAX) [ 773--3806 ] [ ]
- Mailing Name**: [ Memphis Warehouse Center ]
- Address**: [ 910 Southern Belle Rd. ]
- Postal Code**: [ 70505 ]
- City**: [ Memphis ]
- State**: [ TN Tennessee ]
- Country**: [ USA ]
- Search Type**: [ F ]
- Payables Y/N/M**: [ N ]
- Receivables Y/N**: [ N ]
- Employee Y/N**: [ N ]
- User Code**: [ ]
- Subldgr Inact**: [ N ]
- Eff Date**: [ ]

At the bottom of the window, there is a toolbar with icons for save, delete, help, and other functions. A status bar at the very bottom contains the text: "F2=Fmt F5=Who F11=CIF Index F12=Phones F13=Add'l Info F24=More" and the initials "MW".

Complete the following fields:

- Alpha Name
- Mailing Name
- Search Type
- Payables
- Receivable

On Address Book Revisions

Complete the following fields:

- Alpha Name
- Mailing Name
- Search Type
- Payables
- Receivable

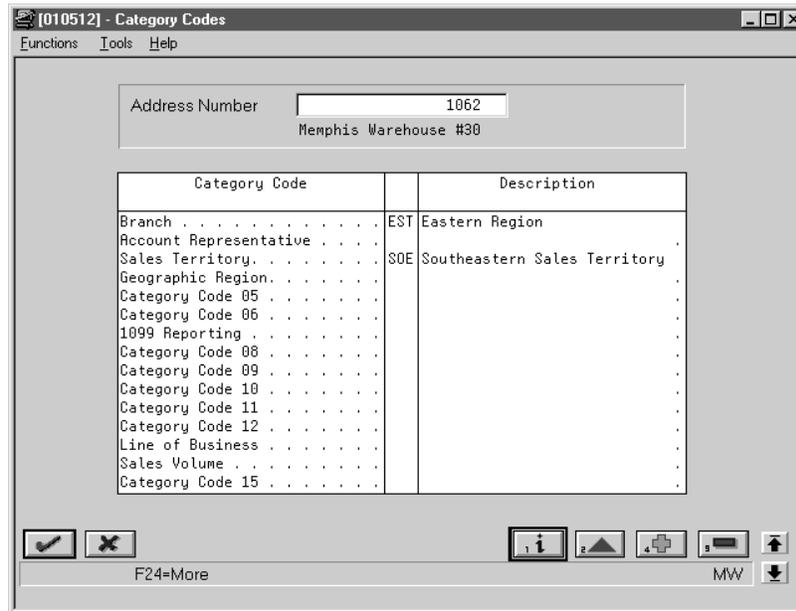
Field	Explanation
Alpha Name	The text that names or describes an address. This 40-character alphabetic field appears on a number of forms and reports. You can enter dashes, commas, and other special characters, but the system cannot search on them when you use this field to search for a name.
Mailing Name	The company or person to whom billing or correspondence is addressed.  ..... <i>Form-specific information</i> .....  The company or person to whom billing or correspondence is addressed.
Search Type	A user defined code (01/ST) that identifies the kind of address book record you want the system to select when you search for a name or message. For example: E Employees X Ex-employees V Suppliers C Customers P Prospects M Mail distribution lists  ..... <i>Form-specific information</i> .....  J.D. Edwards recommends that you use T as the search type for each tax authority.

Field	Explanation
Payables	<p>A code that identifies the address as a supplier. Valid codes are:</p> <ul style="list-style-type: none"> <li data-bbox="721 321 1349 411">Y Yes, this is a supplier. A processing option determines whether the supplier master record automatically displays after you add an address.</li> <li data-bbox="721 415 1317 506">N No, this is not a supplier. This code does not prevent you from entering a voucher for the address.</li> <li data-bbox="721 510 1284 537">M This is a miscellaneous, one-time supplier.</li> <li data-bbox="721 541 1360 632">F This is a supplier with a foreign address. The IRS requires U.S. companies to identify suppliers with foreign addresses for 1099 reporting.</li> </ul> <p>You should code tax authorities as suppliers.</p> <p>Code N is informational only, unless you set a processing option. In this case, a warning message appears if both the Payables and Receivables fields are N.</p>
Receivables	<p>A code that identifies the address as a customer. Valid codes are:</p> <ul style="list-style-type: none"> <li data-bbox="721 877 1349 968">Y Yes, this is a customer. A processing option determines whether the customer master record automatically displays after you add an address.</li> <li data-bbox="721 972 1317 1062">N No, this is not a customer. This code does not prevent you from entering an invoice for the address.</li> </ul> <p>Code N is informational only, unless you set a processing option. In this case, a warning message appears if both the Receivables and Payables fields are N.</p>

► **To enter category codes**

On Address Book Revisions

1. Access Category Codes.



2. On Category Codes, complete the following fields:

- Address Number
- Category Codes

The following field contains default information:

- Alpha Name

On Address Book Revisions

1. Access Category Codes.
2. On Category Codes, complete the following fields:

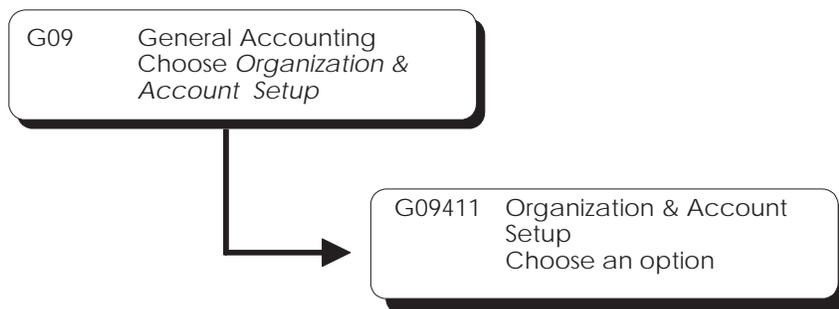
- Address Number
- Category Codes

The following field contains default information:

- Alpha Name

Field	Explanation
Company Address Number	The address number you want to retrieve. You can use the short format, the long format, or the tax ID (preceded by the indicators listed in the Address Book constants).
Category Code – Address Book 01	One of thirty reporting codes that you can assign to an address in the Address Book system. Use these codes to identify addresses for reports, mailings, and so on. Category codes are user-defined (system 01, types 01 through 30). Examples: Category code 01 – Location or Branch Category code 02 – Salesperson Category code 03 – New tenant Category code 04 – Credit officer
Name – Alpha	The text that names or describes an address. This 40-character alphabetic field appears on a number of forms and reports. You can enter dashes, commas, and other special characters, but the system cannot search on them when you use this field to search for a name.

## Reviewing Branch/Plant Data



Before the system can generate a summary forecast, the business units must correspond to the level of detail in the hierarchy you defined. Reviewing the company business units and business unit address numbers allows you to ensure the business units and corresponding address numbers have been set up correctly.

To verify branch/plant data, complete the following tasks:

- *Review company business units*
- *Review business unit address numbers*

## Before You Begin

- Set up all address book location records as business units
- Set up the address numbers for each business unit

## See Also

- *Setting Up Business Units (P0006A)* in the *General Accounting I Guide*
- *Setting Up Business Units* in the *General Accounting I Guide*

## ▶ To review company business units

### On Business Units by Company

Business Unit	Description	L	Comp	Div	Reg	Gro	Brn	Dpt	Asp	CAT
99	Board of Directors	1	00100							
100	Balance Sheet	1	00100							
DC-PKG	DC Packaging	9	00100							
27-PKG	Packaging - 27	9	00100							
DC-ASSY	DC Final Assembly	9	00100							
27-ASSY	Final Assembly - 27	9	00100							
419	Administration	1	00100		D			ADM		
110	Headquarters	2	00100	EXE	D					
140	Finance Department	3	00100	EXE	D					
90	Administrative Department	4	00100	EXE	D					
141	Human Resources Department	4	00100	EXE	D					
142	Information Systems	4	00100	EXE	D					
143	Payroll Department	4	00100	EXE	D					
451	Accounting Department	4	00100	EXE	D					

1. Complete the following field:
  - Company
2. Review the following field to verify that the business units correspond to the level of detail in the distribution hierarchy you set up:
  - Level of Detail (LD)

### On Business Units by Company

1. Complete the following field:
  - Company

2. Review the following field to verify that the business units correspond to the level of detail in the distribution hierarchy you set up:
  - Level of Detail (LD)

► **To review business unit address numbers**

On Single Business Unit Revisions

The screenshot shows a window titled "[0006] - Single Bus. Unit Revisions". It contains several input fields and checkboxes. The "Business Unit" field is set to "EST" with "Eastern Region" displayed below it. The "Company" field is "00100" with "Model Finan/Distrib Co (Mktg)" below it. The "Type Business Unit" is "Simple Business Unit". The "Address Number" is "100677" with "EST" below it. There are checkboxes for "Posting Edit", "Subledger Inactive", and "Model/Consolidated". The "Level of Detail" is set to "2". Below these are "Category Codes" from 07 to 20, with "MIS Miscellaneous" selected for Category Code 07. The bottom of the window has a toolbar with icons and a status bar with function keys: F5=BU Dup, F9=BU Search, F11=A/B, F16=Exp Cat Cds, F24=More Keys, and MW.

1. Complete the following field:
  - Business Unit
2. Review the following field to verify the appropriate address book number:
  - Address Number

On Single Business Unit Revisions

1. Complete the following field:
  - Business Unit
2. Review the following field to verify the appropriate address book number:
  - Address Number

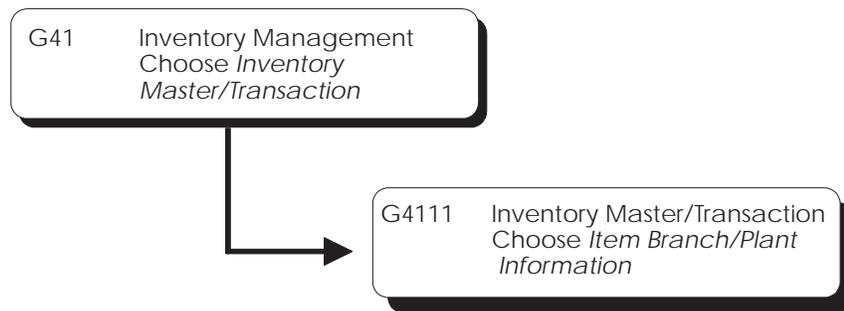
Company	<p>A code that identifies a specific organization, fund, entity, and so on. This code must already exist in the Company Constants table (F0010). It must identify a reporting entity that has a complete balance sheet. At this level, you can have intercompany transactions.</p> <p>NOTE: You can use company 00000 for default values, such as dates and automatic accounting instructions (AAIs). You cannot use it for transaction entries.</p>
Level of Detail	<p>A code that identifies the relationship of parent and subordinate business units in a hierarchy. Up to nine levels of detail are available.</p> <p>An example would be a project number 10000 for Office Parks that has a level of detail of 2. Subordinate to the Office Parks project are the North and the South Office Parks with job numbers of 10010 and 10020, respectively, and each with a level of detail of 3. Subordinate to the North and South Office Parks are Buildings A and B and Buildings C and D, respectively, and each with a level of detail of 4.</p>
Branch/Plant	<p>Identifies a branch or plant.</p> <p>NOTE: You can enter numbers and characters in this field. The system right-justifies them (for example, C0123 appears as _ _ _ C0123). You cannot locate business units for which you have no authority.</p>
Address Number	<p>The address number you want to retrieve. You can use the short format, the long format, or the tax ID (preceded by the indicators listed in the Address Book constants).</p>

## What You Should Know About

### **Business unit levels**

The specific numbers assigned to the business unit levels are not important, but the relative placement of the levels should correspond to the levels in the forecast hierarchy.

## Reviewing Item Location Records



Information for an item at a specific branch is maintained in item branch records. The system stores this information in the Item Branch table (F4102). You should review the item branch records to verify that the items in each of your branch/plants are assigned to the level you set up on the Summary Constants form.

For example, you select Commodity Class as part of the hierarchy for summary code SUM in Company 100. If you want to include Wrench A (item 2233) in summary code SUM, you must verify that the value WCH appears in the Item Branch/Plant Information record for item 2233 as the category code for Commodity Class.

### See Also

- *Defining the Distribution Hierarchy (P4091)*
- *Defining the Distribution Hierarchy*

### ▶ **To review item location records**

---

On Item Branch/Plant Information

1. Complete the following field:
  - Item Number
2. Access Item Branch Class Codes.

3. On Item Branch Class Codes, verify the item Purchasing Commodity Class code.

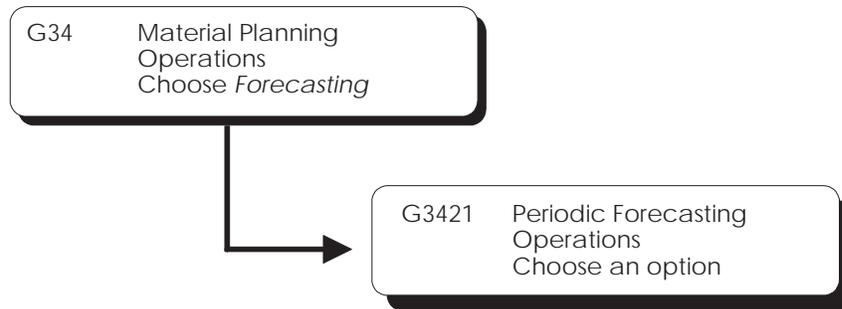
On Item Branch/Plant Information

1. Complete the following field:

- Item Number
2. Access Item Branch Class Codes.
  3. On Item Branch Class Codes, verify the item Purchasing Commodity Class code.

# Work with Summary Sales Order History

---



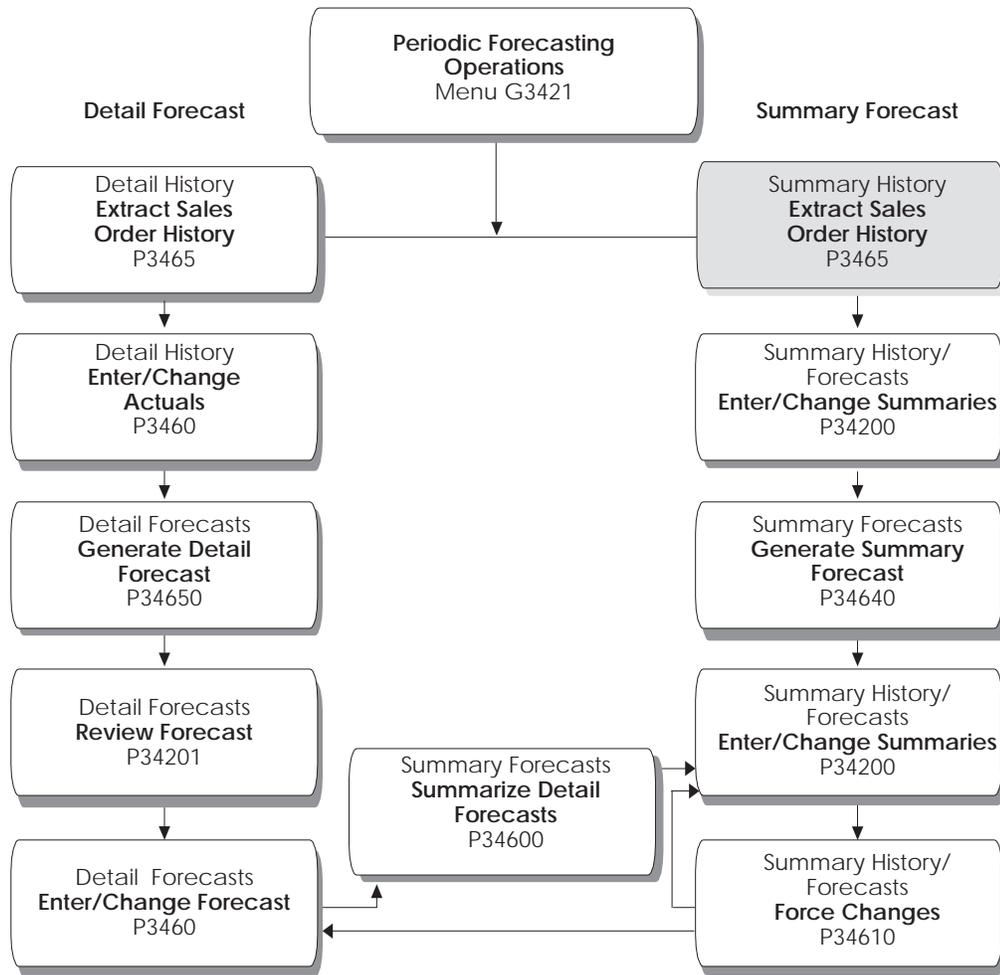
## Working with Summary Sales Order History

The system generates summary forecasts based on sales history data that you copy from the Sales History table (F42119) into the Summary Forecast table (F3400). When you copy the sales history, you specify a date range based on the request date of the sales order. The sales history data can be distorted, however, by unusually large or small values (spikes or outliers), data entry errors, or missing demand (sales orders that were cancelled due to lack of inventory).

You should review the data in the date range you specified to identify missing or inaccurate information. You then revise the sales order history to account for inconsistencies and distortions when you generate the forecast. If you want to account for changes in sales order activity for an especially large customer, the J.D. Edwards Forecasting system allows you to work with that customer's changes separately.

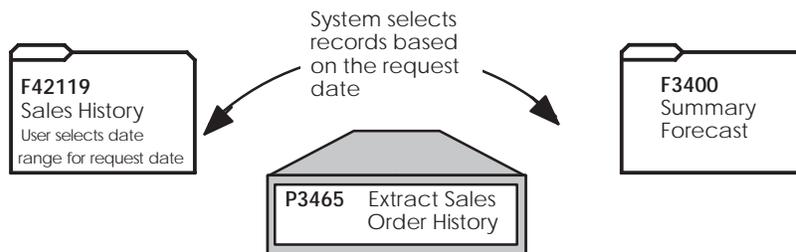
Complete the following tasks:

- Copy summary sales order history*
- Review and revise summary sales order history*



### Copying Summary Sales Order History

The system generates summary forecasts based on data in the Summary Forecast table. Use Extract Sales Order History to copy the sales order history (type AA) from the Sales History table to the Summary Forecast table based upon criteria you specify.



You can also choose to enter the actual sales histories manually using the Enter/Change Summaries program. The system stores sales order histories in the Summary Forecast table with forecast type AA or a type code you designate.

---

This DREAM Writer program lets you:

- Summarize the sales order history from the Sales History table
- Select a date range for the sales order history
- Select a version of the inclusion rules to determine which sales history to include
- Generate monthly or weekly sales order histories
- Generate a separate sales order history for a large customer

You do not need to clear the Summary Forecast table before you run this program. The system automatically deletes any records that are:

- Within the same period as the actual sales order histories to be generated
- For the same items
- For the same sales order history type (AA)
- For the same branch/plant

NOTE: The Extract Sales Order History program converts sales orders into the primary unit of measure and adjusts the resulting quantities.



The Extract Sales Order History program converts sales orders into the primary unit of measure and adjusts the resulting quantities.

## Records for Large Customers

For your larger or more active customers, you can create a separate set of sales order histories in the table. To define a customer as a large customer, you set up the customer as a type A customer in the ABC Code Sales field on Customer Master Information.

After you have set up the customer, select the appropriate processing option so that the system searches the sales history table for sales to that customer and creates separate sales order history records. The program excludes those sales order histories from the total for all other sales for that period.

Use a processing option to enable the system to process larger customers by Ship To instead of Sold To.

## Before You Begin

- Set up detail forecasts. See *Setting Up Detail Forecasts*.
- Set up the summary forecast. See *Setting Up Summary Forecasts*.

### See Also

- *Entering Customer Information (P01053) in the Accounts Receivable Guide*
- *Entering Customer Information in the Accounts Receivable Guide*

---

## Processing Options for Extract Sales Order History

### PROCESS CONTROL:

1. Enter the Forecast Type for creating Actuals. \_\_\_\_\_

2. Enter the specific time period to create both the Actuals in the Forecasting File and for creating Summarized Forecasts. (From Date is Required).

From Date . . . . . \_\_\_\_\_  
Thru Date . . . . . \_\_\_\_\_

### PROCESS CONTROL (Con't) :

3. Enter the version of Supply/Demand Inclusion Rules to be used for processing. (Required) \_\_\_\_\_

4. Enter a '1' to specify weekly planning. If left blank, monthly planning will be used. \_\_\_\_\_

### SUMMARY RECORDS:

5. Enter a '1' to create summary records for large customers (ABC type = 'A'). \_\_\_\_\_

### SUMMARY FORECASTS:

6. Enter a '1' to create summarized forecast records as well as detail forecast records. Enter a '2' to create only the summarized forecast records. If left blank the detail forecast records only will be created. \_\_\_\_\_

7. Enter the Summary Code to be used to create summarized forecasts. \_\_\_\_\_

### SUMMARY FORECASTS (Con't) :

8. Enter a '1' if you want the Address Book number from the Forecast File to be used to retrieve the Address Book Category Codes. If left blank, the Cost Center will be used to determine which Address Book number to use to retrieve the Category Codes. \_\_\_\_\_

### FISCAL PATTERN:

9. Enter the Fiscal Date Pattern to use for creating actuals. If left blank, the pattern specified for company '00000' will be used. Fiscal Patterns used must include the 'Begin Date'. For best results pattern must extend to include last Sales Order History date. \_\_\_\_\_

## Reviewing and Revising Summary Sales Order History

After you copy the sales order history into the Summary Forecast table (F3400), you should review the data for spikes, outliers, entry errors, or missing demand that might distort the forecast. You can then revise the sales order history manually to account for these inconsistencies before you generate the forecast.

When you review and revise summary sales order history, you can also:

- Enter or revise sales order history quantities and amounts at the summary levels
- Maintain sales order history in the Summary Forecast table
- Review all entries in the Summary Forecast table

### Before You Begin

- Run the Extract Sales Order History program
- To view the sales order history for a particular summary code, enter the code in the processing options

**▶ To review and revise summary sales order history**

### On Enter/Change Summaries

From Date: \*  
Thru Date: \*  
Company: 00100

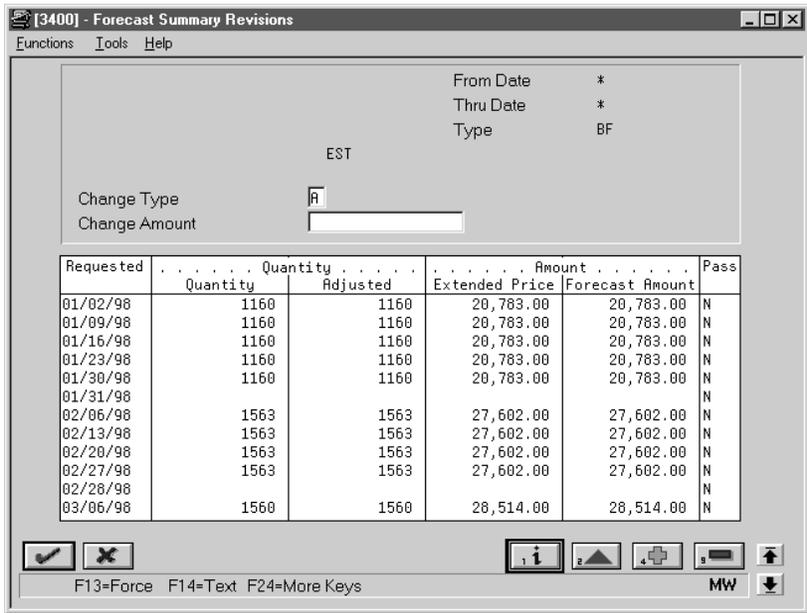
Location or Branch:   
Commodity Class:

Item Number:

Level	Forecast Quantity		Actual Quantity	
	Original	Adjusted	Original	Adjusted
00100	117601	117601	165304	165304
EST	10214	10214	99816	99816
WST	66406	66406	65488	65488

Opt 1=Detail 2=Next 3/4=Revise F8=Amount/Qty F12=Previous F24=More Keys MW

1. Complete the following fields:
  - From Date
  - Thru Date
  - Company
  - Forecast Type
2. Access Next to view the next level lower in the hierarchy.
3. Complete the fields that appear based on summary constants.
4. Review the following fields for summary information:
  - Level
  - Forecast Quantity Original
  - Forecast Quantity Adjusted
  - Actual Amount Original
  - Actual Amount Adjusted
5. Access Forecast Summary Revisions.



6. On Forecast Summary Revisions, complete the following fields to change information for the entire forecast summary:
  - Change Type
  - Change Amount

7. Complete the following fields to change information for individual lines:
  - Requested Date
  - Quantity Adjusted
  - Amount Forecast Adjusted
  - Pass
8. Access the fold area.
9. Complete the following fields:
  - Change Type
  - Change Amount
10. Access Forecast Summary Detail.

The screenshot shows a window titled "[34200W] - Forecast Summary Detail". It contains a table with the following data:

Requested	Forecasted Quantity	Adjusted	Actual Quantity	Forecast Quanti
01/31/96			2848	2848
02/29/96			3137	3137
03/31/96			3286	3286
04/30/96			3529	3529
05/31/96			3796	3796
06/30/96			2746	2746
07/31/96			3332	3332
08/31/96			3579	3579
09/30/96			3520	3520
10/31/96			3374	3374

Below the table are navigation controls: a checkmark icon, an 'X' icon, and up/down arrow icons. A status bar at the bottom indicates "F8=Amount/Qty F24=More Keys".

11. On Forecast Summary Detail, review the following fields:
  - Actual Quantity
  - Actual Quantity Adjusted
12. Toggle to display amount information.
13. Review the following fields:
  - Sales Amount
  - Sales Amount Adjusted

On Work With Summary Forecasts

1. Complete the following fields:

- 
- Summary Code
  - From Date
  - Thru Date
  - Actual Type
  - Forecast Type
2. Click Find.
  3. Choose the line for which you want the system to display the next level of the hierarchy. Repeat until you are at the level you want.
  4. Review the following fields for summary information:
    - Forecast Original Quantity
    - Forecast Adjusted Quantity
    - Actual Original Amount
    - Actual Adjusted Amount
  5. From the Row menu, choose Revise Forecasts.
  6. On Summary Forecast Revisions, complete the following fields to change information for the entire forecast summary:
    - Change Type
    - Change Amount
  7. Complete the following fields to change information for individual lines:
    - Requested Date
    - Adjusted Quantity
    - Adjusted Amount
    - Bypass Forcing

<b>Field</b>	<b>Explanation</b>
Date – From	The beginning date of the range in a search. If you do not specify a beginning date, the system uses the current date.
Date – Thru	Identifies either the period number or the date that you want to locate. If you leave this field blank, the system uses the ending date of the current period that is set up for the company. Valid period numbers are 1 through 14.

Field	Explanation
Company	<p>A code that identifies a specific organization, fund, entity, and so on. This code must already exist in the Company Constants table (F0010). It must identify a reporting entity that has a complete balance sheet. At this level, you can have intercompany transactions.</p> <p>NOTE: You can use company 00000 for default values, such as dates and automatic accounting instructions (AAIs). You cannot use it for transaction entries.</p>
Description	<p>A code from the user defined code table 34/DF indicating either:</p> <ul style="list-style-type: none"> <li>• The forecasting method used to calculate the numbers displayed about the item</li> <li>• The actual historical information about the item</li> </ul>
Change Type	<p>A field that tells the system whether the number in the Change Amount field is an amount or a percentage. Valid codes for this field are:</p> <p>A      Increase or decrease the current amount and quantity by the number in the Amount field</p> <p>%      Increase or decrease the current amount and quantity by the percentage in the Amount field</p> <p>*      Update the current amount and quantity to the number in the Amount field (flat amount)</p>
Change Amount	<p>The amount of the future change in unit price. This number can be either a dollar amount or a percentage value. If the next field (Column Title = PT) is a \$ sign, the change is in dollars; if the value is a % sign, the change is to be a percentage of the current price.</p> <p>NOTE: When entering a percentage, enter it as a whole number. For example:</p> <p>..... <i>Form-specific information</i> .....</p> <p>The change type determines whether this value is expressed as an amount or percentage.</p>
Request Date	<p>The date that an item is to arrive or that an action is to be complete.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Header: Enter a date in the Skip to Date field to display all quantities forecasted on or after that date.</p> <p>Detail: The date on which the items are expected to arrive at a work center.</p>
Pass	<p>This indicates whether to bypass the force changes program. A Y indicates that the quantity and amount of a forecast should not be changed by an adjustment made to a forecast higher or lower in the hierarchy.</p>

---

## What You Should Know About

### Deleting data

When you use the Delete option on Forecast Summary Revisions, the system deletes all lines of data for the item number.

## Processing Options for Enter/Change Summaries

### DEFAULT INFORMATION :

- 1.) Enter the default Summary Code to be used. \_\_\_\_\_
  
- 2.) Enter the default type for the following :  
    Forecasts. . . . . \_\_\_\_\_  
    Actuals. . . . . \_\_\_\_\_
  
- 3.) Enter a '1' if you want the Quantity format to display first. If left blank the Amount format will display. \_\_\_\_\_

### DREAM WRITER VERSIONS:

- 4.) Enter the version of the Detail Revisions program to call. If left blank version ZJDE0001 will be used. \_\_\_\_\_



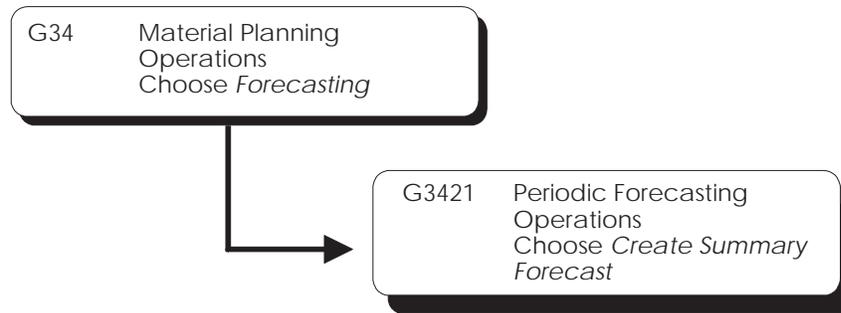
### Exercises

See the exercises for this chapter.



# Generate Summary Forecasts

---



## Generating Summary Forecasts

Generate Summary Forecast is a DREAM Writer program that allows you to test simulated versions of future sales scenarios without having to run full detail forecasts. You can use this program to simulate and plan long-range trends, because this program does not update information in the Detail Forecast table (which is used as input to DRP/MPS/MRP generation).

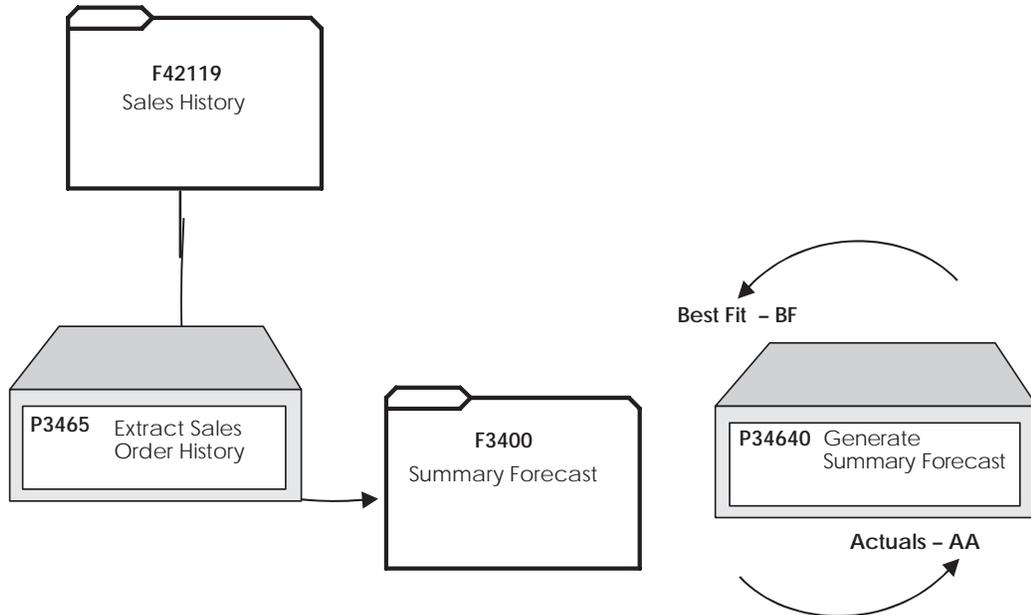
You can simulate multiple forecasting methods, including the system's 10 hard-coded methods, with past sales order histories and select the best fit determined by the system or another appropriate model to generate a forecast of future sales amounts. You can also select a specific forecasting method and use that model to generate the current forecast. The system generates forecasts of sales amounts for each level in the hierarchy and stores them in the Summary Forecast table.

This program uses the same 10 forecasting models used to create detail forecasts. However, the system creates forecast information for each level in the hierarchy.

You can also use this program to:

- Specify the summary code for the hierarchy for which you want to forecast
- Generate summary forecasts based on sales history
- Select a best fit forecast

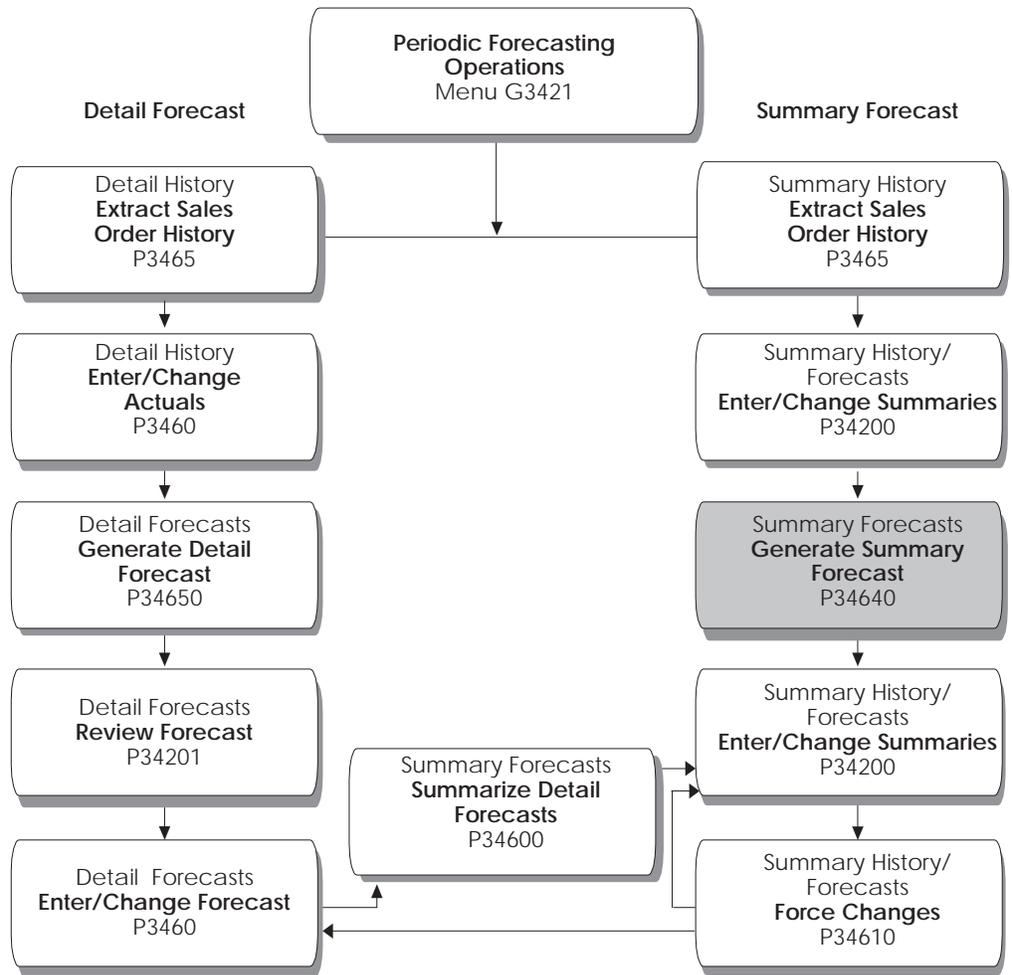
- Store any or all of the forecast methods in the Summary Forecast table
- Generate the forecast in a fiscal date pattern you select



If you use the default type codes in the system's processing options, the actual sales history records are indicated by type AA, and the best fit model is indicated by type BF. The system saves the BF type and AA records (or corresponding type codes you have designated) in the Summary Forecast table. However, the other forecast types 01 through 10 are not automatically saved unless you set a processing option to do so.

When you run Generate Summary Forecast, the system:

- Extracts sales order history information from the Summary Forecast table
- Calculates the forecasts using methods you selected
- Determines the percent of accuracy for each selected forecast method
  - Generates a simulated forecast for the past three months
  - Divides this simulated forecast for the past three months by the sales order history for the same time period
- Recommends the best fit forecast method
  - Generates the summary forecast in both dollars and units from the best fit forecast



NOTE: To generate summary forecasts for item quantities on all levels of the hierarchy, first generate a detail forecast, then run the Summarize Detail Forecasts program.



To generate summary forecasts for item quantities on all levels of the hierarchy, first generate a detail forecast, then run the Summarize Detail Forecasts program.

### Before You Begin

- Run the Extract Sales Order History program
- Make any changes to the sales order history with the Enter/Change Summaries program
- In Generate Summary Forecast, set processing option “Dollar/Unit Forecast” to forecast summary amounts

## Processing Options for Summary Forecast Generation

### FORECASTING METHODS:

Enter a '1' by the Methods desired.

- 1. Percent Over Last Year \_\_\_\_\_  
     Enter the percentage increase \_\_\_\_\_  
     over last year (eg. 1.10 for \_\_\_\_\_  
     a 10% increase, 0.97 for a 3% \_\_\_\_\_  
     decrease).
- 2. Calculated Percent Over Last Year \_\_\_\_\_
- 3. Last Year to This Year \_\_\_\_\_
- 4. Moving Average \_\_\_\_\_
- 5. Linear Approximation \_\_\_\_\_
- 6. Second Degree Approximation \_\_\_\_\_
  
- 7. Flexible Method (Percent over \_\_\_\_\_  
     N months prior.) \_\_\_\_\_  
     Enter the no. of months prior. \_\_\_\_\_  
     Enter the percent over the \_\_\_\_\_  
     prior months. \_\_\_\_\_
- 8. Weighted Moving Average \_\_\_\_\_  
     Enter the weight for one \_\_\_\_\_  
     period prior. \_\_\_\_\_  
     Enter the weight for two \_\_\_\_\_  
     periods prior. \_\_\_\_\_  
     Enter the weight for three \_\_\_\_\_  
     periods prior. \_\_\_\_\_  
     (The weights must add up to 1 \_\_\_\_\_  
     eg. .6, .3 and .1)
- 9. Exponential Smoothing with \_\_\_\_\_  
     Moving Weight. \_\_\_\_\_  
     Enter the number of months N \_\_\_\_\_
- 10. Exponential Smoothing with \_\_\_\_\_  
     Trend and Seasonality factors. \_\_\_\_\_

### RECORD TYPES TO USE:

- 11. Enter the Forecast Type to use \_\_\_\_\_  
     when creating forecasts.

### FORECAST TYPE AND RANGE:

- 12. Enter a '1' to specify weekly \_\_\_\_\_  
     forecasts. (Default is monthly.)
- 13. Enter the date to start forecasts \_\_\_\_\_  
     (Default will be Today's Date.)
- 14. Enter the number of periods to \_\_\_\_\_  
     forecast. (Blanks will default to \_\_\_\_\_  
     3 Periods. Maximum of one year \_\_\_\_\_  
     eg. 12 Months or 52 Weeks.)

### FISCAL DATE PATTERN:

- 15. Enter the Fiscal Date Pattern \_\_\_\_\_  
     Type to use for forecast dating. \_\_\_\_\_  
     If left blank, the type specified \_\_\_\_\_  
     for company '00000' will be used. \_\_\_\_\_  
     (See Company Names-Fiscal Patterns \_\_\_\_\_  
     'P00105' for more information).

### DOLLAR/UNIT FORECAST

- 16. Enter a '1' to use the Amount to \_\_\_\_\_  
     drive the forecast. The default \_\_\_\_\_  
     is to use Units to drive the \_\_\_\_\_  
     forecast.



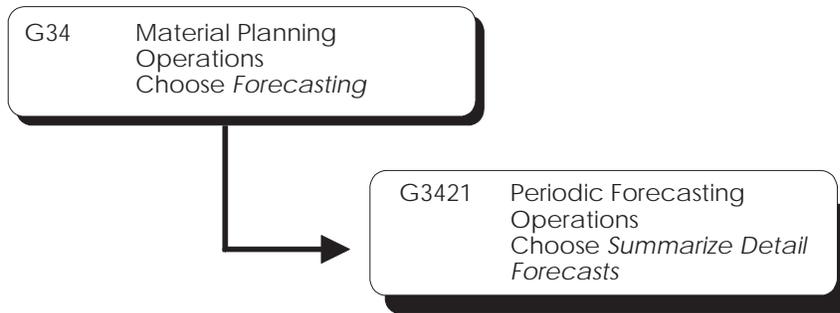
## Exercises

See the exercises for this chapter.



# Generate Summaries of Detail Forecasts

---



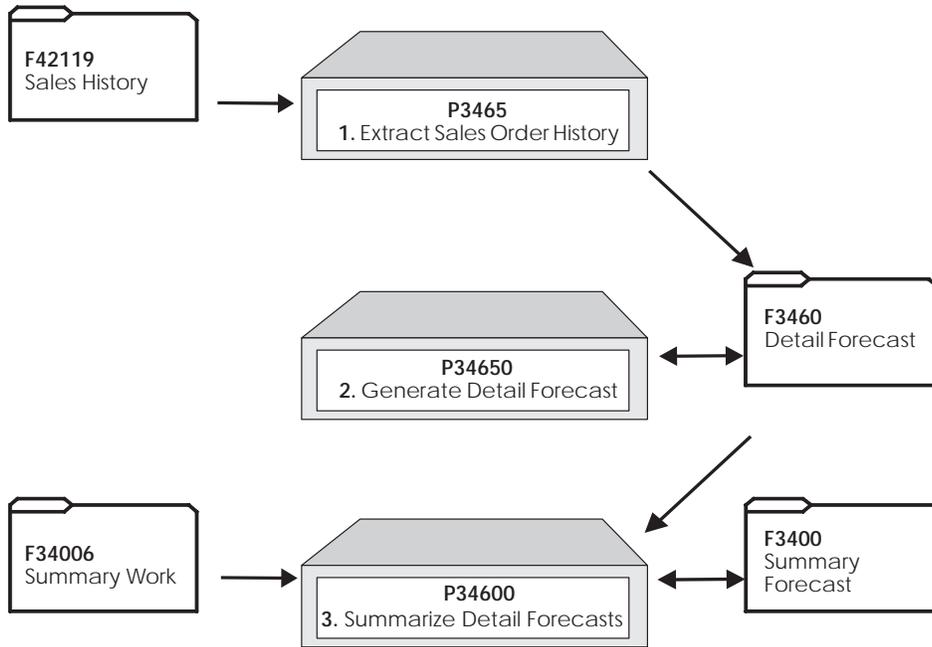
## Generating Summaries of Detail Forecasts

Summarize Detail Forecasts is a DREAM Writer that generates summary forecasts, which are stored in the Summary Forecast table (F3400), based on data from the Detail Forecast table (F3460).

This program allows you to use detail data to generate summary forecasts that provide both sales amount and item quantity data. Unlike summary forecasts that are usually used to run numerous simulations of “what if” scenarios, summaries of detail forecasts require more detailed data and are more often used to project actual sales.

This program uses the 10 forecast types and the Best Fit from the Detail Forecast table along with the product hierarchy from the Summary Constants table to generate forecast records for sales amount and item quantity in the Summary Forecast table.

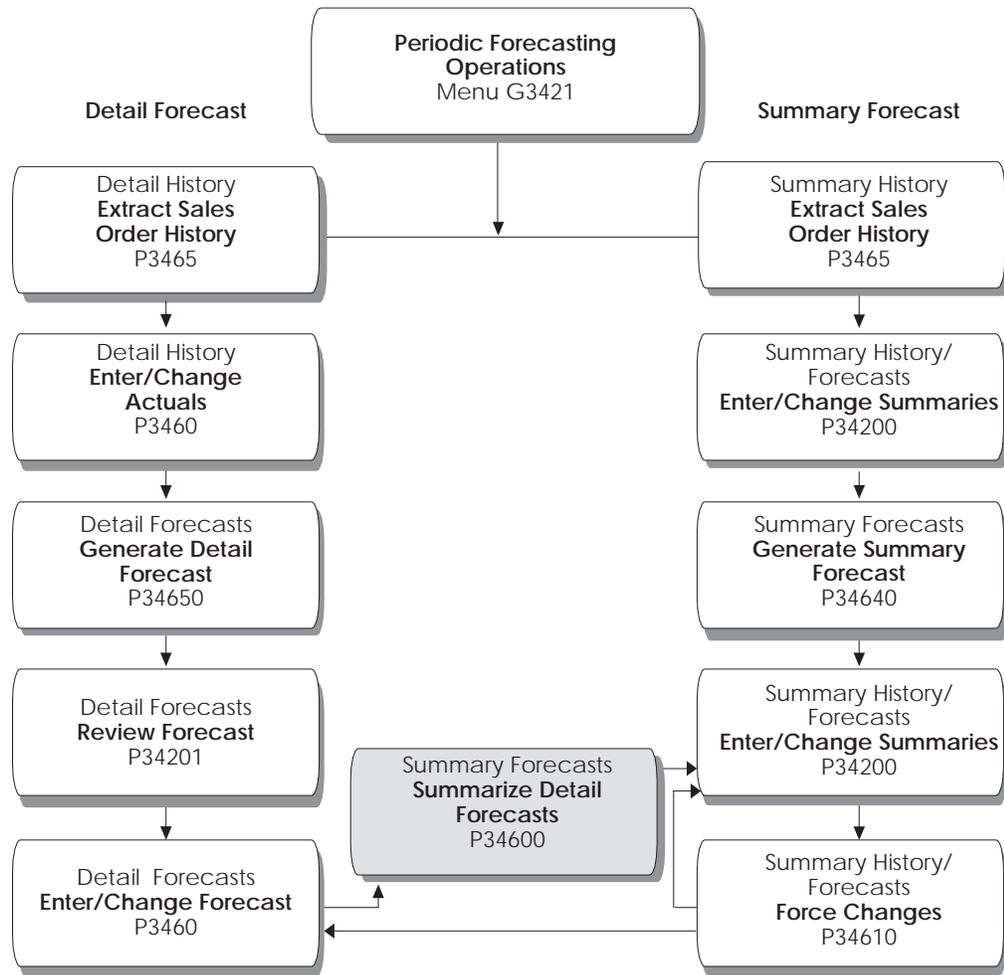
The Detail Forecast table is based on both input copied from the Sales History table (F42119) using Extract Sales Order History and input generated by the Generate Detail Forecast program.



Each record stores two numbers that indicate which records are immediately above and below it in the structure. These numbers link all levels of forecast record hierarchy. The system uses these numbers when forcing changes and displaying levels of the forecast.

The system creates a Summary Work table (F34006) to link the last level of the hierarchy to the detail forecast records. This table contains the summary code, business unit, item number, and child number from the last level.

You do not need to clear the Summary Forecast table before you run this DREAM Writer version. The program deletes any forecasts in the table for the summary code you specify. If you entered From/Thru dates, then the system only deletes those forecasts within the date range. The program adds the forecast amounts to the selected record and then to every record in the hierarchy above it.



### Before You Begin

- Run the Generate Detail Forecast program

### What You Should Know About

**Items from summary constants**

Proper data selection is critical to accurate processing. You should include only items in the summary constants hierarchy.

**Summary constant code**

Do not use the summary constant code (SUM) as a selection criterion.

**Bypassing records**

After you create summary forecasts you can use the Force Changes program to bypass a record by setting the bypass flag to Y on Enter/Change Summaries.

See also *Revising Summary Forecasts Using the Force Changes program.*

**Processing Options for Summary Forecast Update – Batch**

PROCESS CONTROL :

- 1.) Enter the Summary Code you wish to run the summary for. \_\_\_\_\_
  
- 2.) Enter the Forecast Type you wish to run the Summary for. \_\_\_\_\_
  
- 3.) If you wish the Forecast to include only a specific time period, enter the from and thru date.  
From Date. . . . . \_\_\_\_\_  
Thru Date. . . . . \_\_\_\_\_

PROCESS CONTROL (Cont) :

- 4.) Enter a '1' if you want the Address Book number from the Forecast File to be used to retrieve the Address Book Category Codes. If left blank the Cost Center will be used to determine which Address Book number to use to retrieve the Category Codes. \_\_\_\_\_

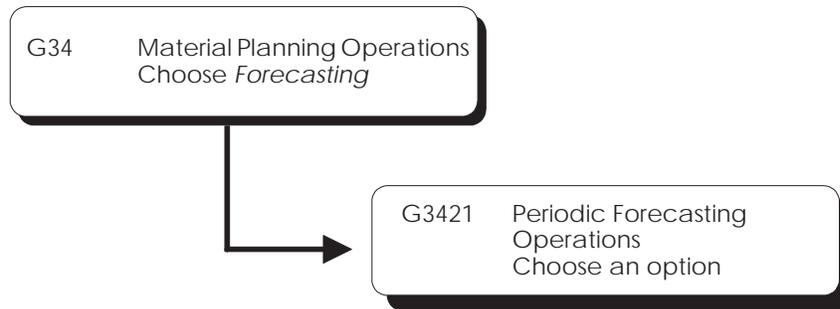


**Exercises**

See the exercises for this chapter.

# Revise Summaries of Forecasts

---



## Revising Summaries of Forecasts

After reviewing the forecasts, you can compare them to actual sales order histories. You can then revise both history and forecast data according to your own criteria.

When you review summaries of forecasts, you can also access a previously generated forecast. You can access a date range to display the sales order history and the forecast of item quantities or sales amounts. Then, you can compare actual sales to the forecast.

You can also specify the summary code (SUM) in the processing option to access records by planner, master family, or both.

When you revise summaries of forecasts, you revise information in a specific level of the forecast. You can also use the Force Changes program to apply changes you made to the summary up the hierarchy, down the hierarchy, or in both directions.

Complete the following tasks:

- Review the summary forecast*
- Revise the summary forecast*
- Revise the summary forecast using the Force Changes program (optional)*

### Before You Begin

- Generate a summary forecast or a summary of detail forecast. See *Generating Summary Forecasts* or *Generating Summaries of Detail Forecasts*.
- Enter the summary code you want to access in the appropriate processing option.

### Reviewing the Summary Forecast

When you review summaries of forecasts, you can also access a previously generated forecast. You can access a date range to display the sales order history and the forecast of item quantities or sales amounts. Then, you can compare actual sales to the forecast.

► **To review the summary forecast**

#### On Enter/Change Summaries

The screenshot shows a window titled "34200 - Enter/Change Summaries" with a menu bar (Functions, Options, Tools, Help) and several input fields for "From Date", "Thru Date", "Company", "Location or Branch", "Commodity Class", and "Item Number". Below these fields is a table with two sections: "Type BF" and "Type AA".

Level	Forecast Quantity		Actual Quantity	
	Original	Adjusted	Original	Adjusted
00100	117601	117601	165304	165304
EST	10214	10214	99816	99816
WST	8627	8627	65488	65488

At the bottom of the window, there are navigation buttons (checkmark, X) and a status bar with the text: "Opt 1=Detail 2=Next 3/4=Revise F8=Amount/Qty F12=Previous F24=More Keys MW".

1. Complete the following fields:
  - Company
  - Location or Branch
2. Review the following fields:
  - Level
  - Forecast Quantity Original
  - Forecast Quantity Adjusted
  - Sales History Original
  - Sales History Adjusted
3. Toggle to display amount information.
4. Review the following fields:
  - Forecast Amount Original
  - Forecast Amount Adjusted
  - Sales Amount Original
  - Sales Amount Adjusted
5. Access Forecast Summary Detail.

[34200W] - Forecast Summary Detail

Functions Tools Help

From Date \*

Thru Date \*

EST

Requested	Type	BF	Fore	AA
		Forecasted Quantity		Actual Quantity
		Quantity	Adjusted	Quantity
		Forecast Quanti		
09/30/97				5470
10/31/97				3970
11/30/97				4106
12/31/97				5150
01/02/98		164	164	
01/09/98		164	164	
01/16/98		164	164	
01/23/98		164	164	
01/30/98		164	164	
02/06/98		200	200	

F8=Amount/Qty F24=More Keys

6. On Forecast Summary Detail, review the following fields:
  - Forecast Quantity
  - Forecast Quantity Adjusted
  - Actual Quantity
  - Actual Quantity Adjusted
7. Toggle to display amount information.
8. Review the following fields:
  - Forecast Amount
  - Forecast Amount Adjusted
  - Sales Amount
  - Sales Amount Adjusted

### On Work With Summary Forecasts

1. Complete the following fields:
  - Summary Code
  - From Date
  - Thru Date
  - Actual Type
  - Forecast Type
2. Click Find.
3. Choose the line for which you want the system to display the next level of the hierarchy. Repeat until you are at the level you want.

4. Review the following fields:
- Forecast Original Quantity
  - Forecast Adjusted Quantity
  - Actual Original Amount
  - Actual Adjusted Amount
  - Forecast Original Amount
  - Forecast Adjusted Amount
  - Actual Original Quantity
  - Actual Adjusted Quantity

Field	Explanation
Company	<p>A code that identifies a specific organization, fund, entity, and so on. This code must already exist in the Company Constants table (F0010). It must identify a reporting entity that has a complete balance sheet. At this level, you can have intercompany transactions.</p> <p>NOTE: You can use company 00000 for default values, such as dates and automatic accounting instructions (AAIs). You cannot use it for transaction entries.</p>
Location or Branch	<p>One of thirty reporting codes that you can assign to an address in the Address Book system. Use these codes to identify addresses for reports, mailings, and so on. Category codes are user-defined (system 01, types 01 through 30). Examples:</p> <ul style="list-style-type: none"> <li>Category code 01 – Location or Branch</li> <li>Category code 02 – Salesperson</li> <li>Category code 03 – New tenant</li> <li>Category code 04 – Credit officer</li> </ul>

## Revising the Summary Forecast

After reviewing the forecasts, you can compare them to actual sales order histories. You can then revise both history and forecast data according to your own criteria.

You can access other revision forms, such as Force Changes, by entering options from Enter/Change Summaries. The formats vary, depending on the summary level you are viewing. Subsequent revision forms maintain the hierarchy level and From/Thru dates from Enter/Change Summaries.

If you run the Generate Summary Forecast program to update the Summary Forecast table, the revision forms do not display lower-level forecasts of item quantities. However, if you run Summarize Detail Forecasts to update the

Summary Forecast table, these forms display the lower-level forecasts of item quantities.

► **To revise the summary forecast**

On Enter/Change Summaries

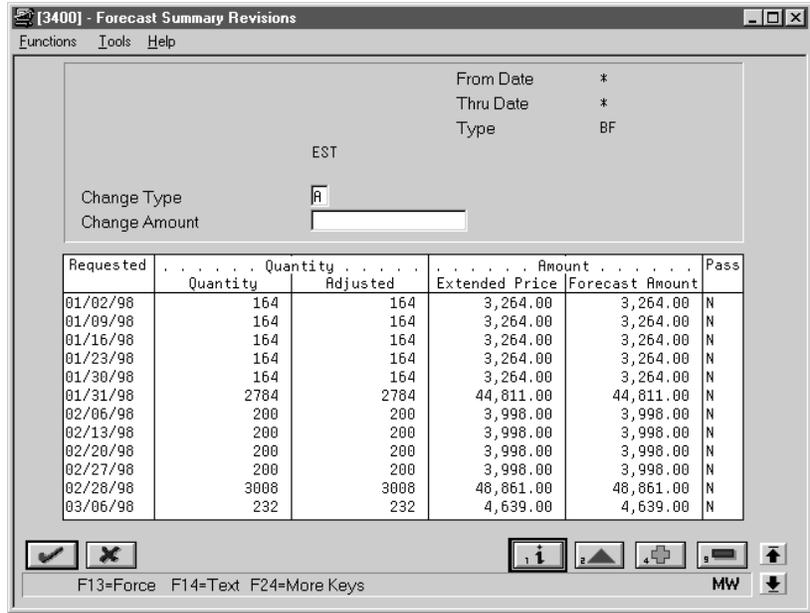
The screenshot shows a window titled "[34200] - Enter/Change Summaries" with a menu bar (Functions, Options, Tools, Help) and several input fields. The "From Date" and "Thru Date" fields contain an asterisk (\*), and the "Company" field contains "00100". The "Location or Branch" field contains "EST". Below these are fields for "Commodity Class" and "Item Number".

Two "Type" buttons are visible: "BF" and "AR". The main data is presented in a table with the following structure:

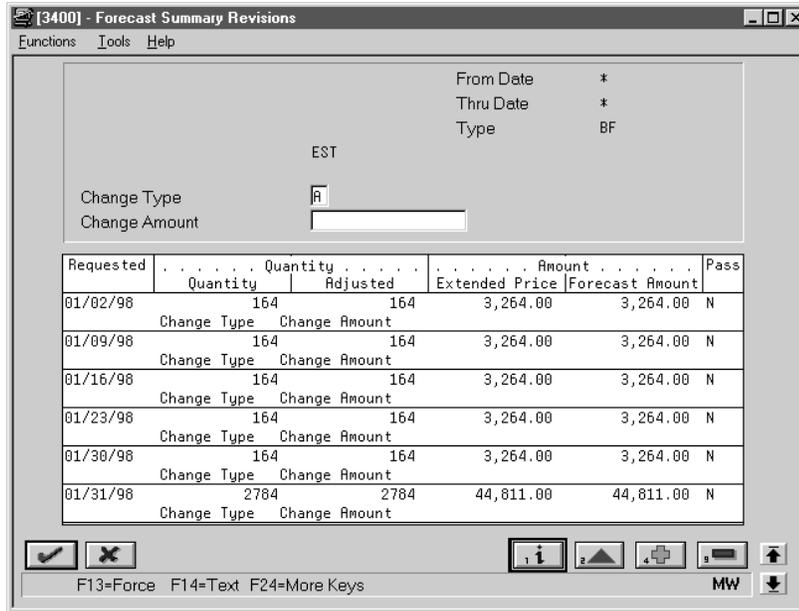
0	Level	Forecast Quantity		Actual Quantity	
		Original	Adjusted	Original	Adjusted
	EST	73462	73462	99816	99816
	NOE	33758	33758	56928	56928
	SOE	39704	39704	42888	42888

At the bottom of the window, there are navigation buttons (checkmark, X) and a status bar with the text: "Opt 1=Detail 2=Next 3/4=Revise F8=Amount/Qty F12=Previous F24=More Keys MW".

1. Complete the following fields:
  - Company
  - Location or Branch
2. Access Forecast Summary Revisions.



3. On Forecast Summary Revisions, complete the following fields:
  - From Date
  - Thru Date
  - Change Type
  - Change Amount
  - Requested
  - Quantity Adjusted
  - Amount Forecast Adjusted
4. Complete the fields that appear based on summary constants.
5. Access the fold area.



6. Complete the following fields:
  - Change Type
  - Change Amount
  - Pass
7. Access Force Changes to submit adjustments to the Force Changes program if you want to apply the changes to higher or lower levels in the hierarchy.

*See Revising Summary Forecasts Using the Force Changes Program*

On Enter/Change Summaries

1. Complete the following fields:
  - Company
  - Location or Branch
2. Access Forecast Summary Revisions.
3. On Forecast Summary Revisions, complete the following fields:
  - From Date
  - Thru Date
  - Change Type
  - Change Amount
  - Requested
  - Quantity Adjusted

- Amount Forecast Adjusted
4. Complete the fields that appear based on summary constants.
  5. Complete the following fields:
    - Change Type
    - Change Amount
    - Pass
  6. Access Force Changes to submit adjustments to the Force Changes program if you want to apply the changes to higher or lower levels in the hierarchy.

See *Revising Summary Forecasts Using the Force Changes Program*

Field	Explanation
Date – From	The beginning date of the range in a search. If you do not specify a beginning date, the system uses the current date.
Date – Thru	Identifies either the period number or the date that you want to locate. If you leave this field blank, the system uses the ending date of the current period that is set up for the company. Valid period numbers are 1 through 14.
Change Type	<p>A field that tells the system whether the number in the Change Amount field is an amount or a percentage. Valid codes for this field are:</p> <ul style="list-style-type: none"> <li>A     Increase or decrease the current amount and quantity by the number in the Amount field</li> <li>%     Increase or decrease the current amount and quantity by the percentage in the Amount field</li> <li>*     Update the current amount and quantity to the number in the Amount field (flat amount)</li> </ul>
Change Amount	<p>The amount of the future change in unit price. This number can be either a dollar amount or a percentage value. If the next field (Column Title = PT) is a \$ sign, the change is in dollars; if the value is a % sign, the change is to be a percentage of the current price.</p> <p>NOTE: When entering a percentage, enter it as a whole number. For example:</p> <p>..... <i>Form-specific information</i> .....</p> <p>The change type determines whether this value is expressed as an amount or percentage.</p>

Field	Explanation
Quantity – Sales Order History	The quantity of units affected by this transaction. <i>Form-specific information</i> The quantity of units in the sales order history on which a forecast is based.
Quantity – Adjusted	The quantity of units forecasted for production during a planning period.
Amount – Extended Price	The number of units multiplied by the unit price. <i>Form-specific information</i> The original dollar amount of the forecasted units for a planning period.
Amount – Forecast	The current amount of the forecasted units for a planning period.
Pass	This indicates whether to bypass the force changes program. A Y indicates that the quantity and amount of a forecast should not be changed by an adjustment made to a forecast higher or lower in the hierarchy.

### Processing Options for Enter/Change Summaries

- DEFAULT INFORMATION :
- 1.) Enter the default Summary Code to be used. \_\_\_\_\_
  - 2.) Enter the default type for the following :
    - Forecasts. . . . . \_\_\_\_\_
    - Actuals. . . . . \_\_\_\_\_
  - 3.) Enter a '1' if you want the Quantity format to display first. If left blank the Amount format will display. \_\_\_\_\_
- DREAM WRITER VERSIONS:
- 4.) Enter the version of the Detail Revisions program to call. If left blank version ZJDE0001 will be used. \_\_\_\_\_

### Revising Summary Forecasts Using the Force Changes Program

Force Changes is a DREAM Writer program that enables you to apply the manual changes you made to the summary of a forecast either up the hierarchy (aggregation), down the hierarchy (disaggregation), or in both directions. The system stores these changes in the Summary Forecast table. You can access the Force Changes program in the following ways:

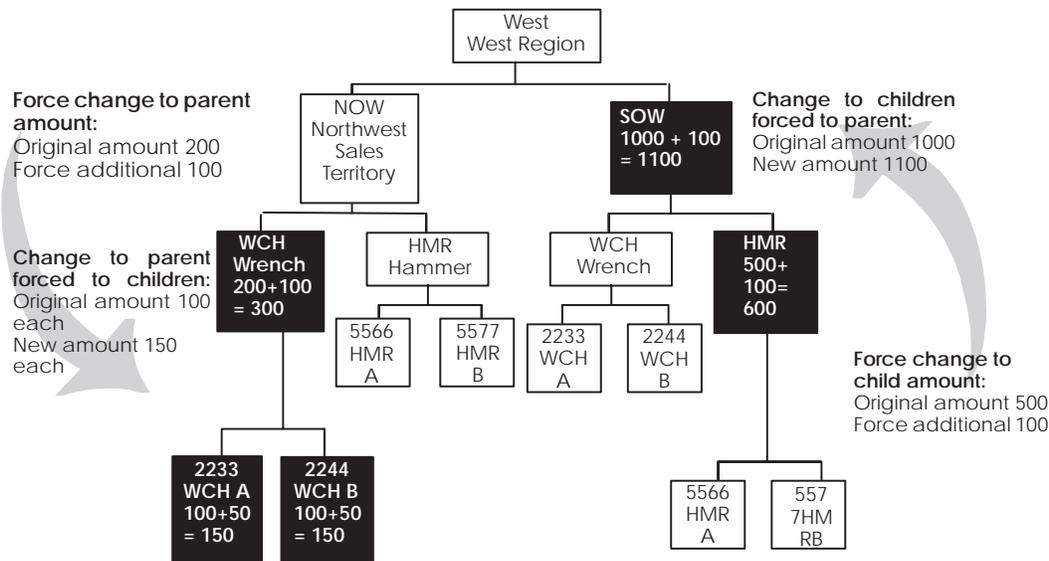
- From Periodic Forecasting
- From Forecast Summary Revisions, after you revise forecast data

If you stored the sales order history in the Detail Forecast table (F3460), changes that the program makes down the hierarchy to the lowest detail level are also updated in the Detail Forecast table. If you used Generate Summary Forecast to update the Summary Forecast table (F3400), then the program does not update the Detail Forecast table.

### Example: Using the Force Changes Program

The Force Changes program makes manual adjustments down the hierarchy by calculating what percentage each child level's original quantity/amount is of the parent level's original quantity/amount. For example:

- The parent's original amount is 200 and its two children in the next level have an original amount of 70 and 130, respectively. The program calculates that the first child is 35% of the parent and the second child is 65% of the parent.
- The system maintains the parent/child ratio when the parent quantity changes. When the adjusted amount of the parent increases to 280, the adjusted amounts for the children become  $70 + (35\% \text{ of } 80) = 98$  and  $130 + (65\% \text{ of } 80) = 182$ , respectively.



When forcing the changes up the hierarchy, the program summarizes each record again so that the summarized total of the records above it reflects the adjusted amount.

Because a summarized forecast is more accurate than a detailed forecast, the forecast of wrenches is not as accurate as a forecast of total tools.

## Before You Begin

- Review and revise the summary forecast
- Choose processing options to indicate:
  - The summary code for the hierarchy you want to work with
  - A specific forecast type with which to make changes
  - The direction you want to make changes

## What You Should Know About

### **Specifying bypassed records**

In the fold area of Enter/Change Summaries, you can set the Bypass Force flag for records in the hierarchy below an adjusted record. The system subtracts the bypassed record's amounts and quantities from the parent's amounts and quantities before calculating the percentages. The system distributes only the remaining amounts to the other children in the hierarchy. You can only bypass records when you are making changes down the hierarchy.

### **Setting the Revised Flag processing option**

When you make changes both up and down the hierarchy, use the Revised Flag processing option to reset the flag that indicates you manually changed a record. If you are forcing changes in only one direction, do not reset the flag. You will lose the ability to make changes in the other direction.

## Processing Options for Force Changes

### PROCESS CONTROL:

1. Enter one of the below to indicate which direction to force changes:
  - 1 - Up the hierarchy
  - 2 - Down the hierarchyIf left blank, changes will be forced both directions. \_\_\_\_\_
2. Enter a '1' to reset the Revised flag on the records in the file. If left blank, the flag will only be reset if you have chosen to force both directions in the option above. \_\_\_\_\_



## Exercises

See the exercises for this chapter.



# Planning Bill Forecasts





# Planning Bill Forecasts

## Objectives

- To explode a forecast for a pseudo parent item down to the component level

## About Planning Bill Forecasts

Planning bills are groups of items in a bill of material format that reflect how an item is sold, rather than how it is built. Planning bills allow you to account for the variety of possible options and features that might be included as components in a saleable end item.

You use a planning bill to configure a hypothetical average parent item that is not actually manufactured, but represents the components needed to satisfy demand for all the combinations of options and features you expect to sell. For example, if your sales history shows that of all the bikes you sell, 60% are 10-speeds and 40% are 15-speeds, your planning bill will include an average parent bike that is neither a 10-speed nor a 15-speed, but a hybrid pseudo bike that is 60% 10-speed and 40% 15-speed.

Planning bills are used during master scheduling and/or material planning. You can forecast with a planning bill to determine component demand within the Master Production Scheduling, Material Requirements Planning, and Distribution Requirements Planning systems.

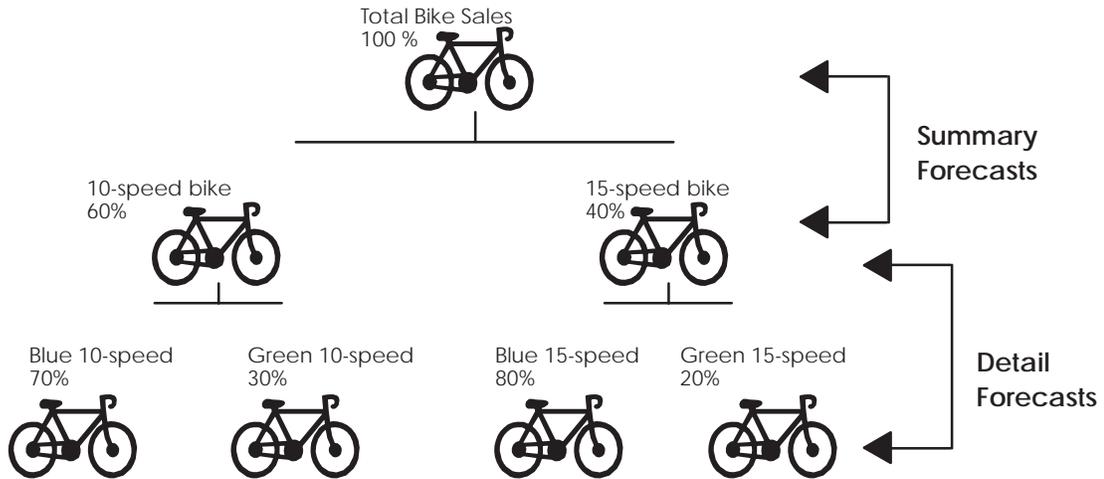
Complete the following tasks:

- Set up a planning bill*
- Generate planning bill forecasts*



### Example: Pseudo Parent Item

Your sales history shows that 60% of the bikes you sell are 10-speeds and 40% are 15-speeds. For 10-speeds, 70% are blue and 30% are green. For 15-speeds, 80% are blue and 20% are green. You use these percentages to configure a pseudo parent item.



The average parent bike will be:

- 60% 10-speed
- 40% 15-speed
  - 42% blue 10-speed (70% of 60%)
  - 18% green 10-speed (30% of 60%)
  - 32% blue 15-speed (80% of 40%)
  - 8% green 15-speed (20% of 40%)

You decide to manufacture or purchase at these percentages.

Summary forecasts are more accurate than detail forecasts. A forecast for the total number of bikes that will sell in 1998 is more accurate than a forecast for blue 10-speed bikes in 1998.

The forecast is based upon total bike sales history. This is the summary forecast.

The option percentages produce a production (or purchase) forecast for each of the options. This is the detail forecast.

---

## Exploding the Forecast to the Item Level

You use the planning bill to explode a forecast for the total number of products down to the level of the specific combination of options and features included in each saleable end item.

As you set up a planning bill, you designate each level of the item hierarchy above the end item level as a phantom parent with a planning code of 4. You designate the saleable end items as components of the phantom parents with a planning code of 5.

As you generate the planning bill forecast, you use processing options to designate a forecast type to be read as input and a forecast type to be calculated for the components. You also designate the latter forecast type as the second type to be read so that it can be exploded down through each level of the hierarchy until the forecast is applied to the saleable end items.

### Example: Exploding the Forecast

You use a planning bill to configure an average parent item that represents total bike sales. This pseudo parent bike represents the top level of the item hierarchy and is configured as follows:

- 60% 10-speed
- 40% 15-speed

Because bikes with both the 10-speed and 15-speed options can be further divided into blue and green bikes, both the total of all 10-speed bikes and the total of all 15-speed bikes are represented by phantom parent bikes on the second level of the item hierarchy. These phantom parents are configured as follows:

- 10-speed:
  - 70% blue
  - 30% green
- 15-speed:
  - 80% blue
  - 20% green

The system enables you to process multiple parent items as in this example. You use planning code 4 to designate each of the phantom products on the two higher levels of the hierarchy (total bikes on the top level and total 10-speeds and total 15-speeds on the second level) as parent items. You use planning code 5 to designate the end item bikes (for example, blue 15-speeds) on the bottom level as components of the phantom parent items.

You assign user defined codes to several additional forecast types you want to include in the processing options to supplement the types that come with the system. For this forecast, you plan to use forecast types you have defined and assigned to codes 13 and 16. You designate 16 in processing options as the forecast type to be read as input for the top-level parent item and 13 as the forecast type to be created for calculating the forecast for the components.

The system will read the forecast for total bike sales determined by forecast type 16 and assign a percentage of the total forecast to each of the portions of the total on the next level of the hierarchy (total 10-speed and total 15-speed sales).

These percentages are based on “feature planned percents,” the percentage of total products that include particular features that differentiate some products in the total from others. You define the feature planned percent on the Enter/Change Bill form. (In this example, the feature planned percents are 60% for the 10-speed feature and 40% for the 15-speed feature.)

The system then calculates a forecast based on forecast type 13 that it applies to the next level. You also designate 13 as the second forecast type to be read as input so the system will read the forecast for the second level, which it will then apply to the saleable end items (blue and green 10-speeds and blue and green 15-speeds).

The system reads forecast type 16 and calculates a type 13 forecast of 20,000 total bikes. The system then reads the forecast and explodes it down the hierarchy to the end item level as follows:

- 60% of the 20,000 total bikes = 12,000 10-speed bikes
- 40% of the 20,000 total bikes = 8,000 15-speed bikes
  - 70% of the 12,000 10-speeds (42% of total bike sales) = 8,400 blue 10-speed bikes
  - 30% of the 12,000 10-speeds (18% of total bike sales) = 3,600 green 10-speed bikes
  - 80% of the 8,000 15-speeds (32% of total bike sales) = 6,400 blue 15-speed bikes
  - 20% of the 8,000 15-speeds (8% of total bike sales) = 1,600 green 15-speed bikes

### See Also

- *What are Planning Bills?* in the *Manufacturing and Distribution Planning Guide*

# Set Up a Planning Bill

---

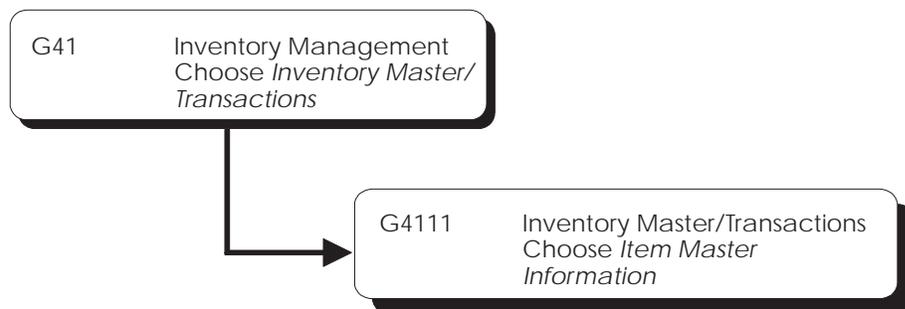
## Setting Up a Planning Bill

You must set up a planning bill before you generate a planning bill forecast. You use the Product Data Management system to set up a planning bill. The system uses the planning bill to generate a forecast for the hypothetical average parent item, which it explodes to the component level.

Setting up forecasting with a planning bill includes the following tasks:

- Setting up item master information*
- Entering a planning bill*

## Setting up Item Master Information



Before entering the criteria you want to use on the planning bill, you must set up item master information on which your planning is based. The system stores this information in the Item Master table (F4101).

The Branch/Plant Master table (F4102) also stores the item information. After you add item master records for appropriate part numbers, the system retrieves item information from the Branch/Plant Master table.

### See Also

- *Entering Item Master Information (P4101) in the Inventory Management Guide*

- *Entering Item Master Information in the Inventory Management Guide*

► **To set up item master information**

On Item Master Information

1. Complete the following fields:
  - Product Number
  - Description
  - Stocking Type
  - General Ledger (G/L) Class
2. Access Item Branch Information.

**[41026] - Item Branch Information**

Functions Tools Help

Branch/Plant 10

Item Number BIKE Bike Parent

Stocking Type K Line Type

G/L Class IN20

Item Price Group  Sales Taxable Y

Basket Reprice Group  Purchasing Taxable

Order Reprice Group

Backorders Allowed Y Serial No. Required N

Check Availability Y/N Y Lot Status Code

Shelf Life Days  Lot Process Type

ABC Codes C - C - C Commitment Method I

Margin Maintenance (%)

Country of Origin  USA

Planner Number 8002 Jones, Grace

Buyer Number

Supplier

Print Message

F5=Codes F6=Cost F9=Price F10=Manufacturing F15=Bulk Info F24=Keys MW

3. On Item Branch Information, complete the following field:
  - Branch/Plant
4. Access Plant Manufacturing Data.

**[41027] - Plant Manufacturing Data**

Functions Tools Help

Branch/Plant 10

Item Number BIKE Bike Parent

Order Policy Code I Issue Type Code I

Value Order policy  Planning Code 4

MFG Leadtime Quantity  Planning Fence Rule H

Accounting Cost Qty  Fixed/Variable F

Planning Fence 999

Freeze Fence  Leadtime Level

Message Display Fence  Leadtime Manufacturing

Time Basis 4 Leadtime Cumulative

Queue Hours  Leadtime Per Unit

Setup Labor

ECO Reason  Shrink Factor

ECO Number  Shrink Factor Method %

ECO Date  Item Revision Level

Potency Control N Grade Control N

Standard Potency  Standard Grade

From - Thru Potency  -  From - Thru Grade  -

F3=Exit F12=Previous F24=More Keys MW

5. On Plant Manufacturing Data, complete the following field:
  - Planning Code
6. Exit to Branch/Plant Information by pressing F3.
7. Access Branch/Plant Class Codes.

8. On Item Branch Class Codes, complete the following field:
  - Master Planning Family

On Item Master Information

1. Complete the following fields:
  - Product Number
  - Description
  - Stocking Type
  - General Ledger (G/L) Class
2. Access Item Branch Information.
3. On Item Branch Information, complete the following field:
  - Branch/Plant
4. Access Plant Manufacturing Data.
5. On Plant Manufacturing Data, complete the following field:
  - Planning Code
6. Exit to Branch/Plant Information by pressing F3.
7. Access Branch/Plant Class Codes.

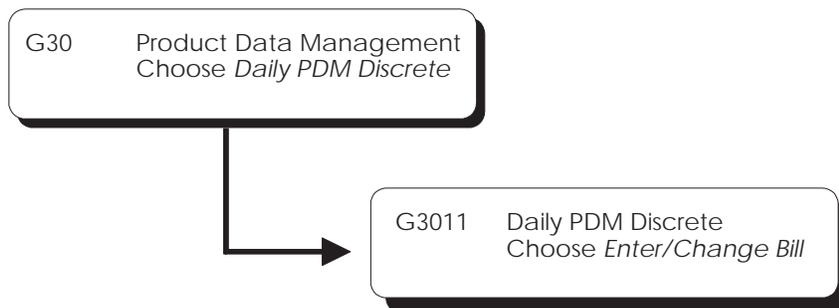
8. On Item Branch Class Codes, complete the following field:

- Master Planning Family

Field	Explanation												
Product No	<p>The system provides three separate item numbers plus an extensive cross-reference capability to alternate item numbers. These item numbers are:</p> <ol style="list-style-type: none"> <li>1. Item Number (short) – An 8-digit, computer-assigned item number.</li> <li>2. 2nd Item Number – The 25-digit, free-form, user defined, alphanumeric item number.</li> <li>3. 3rd Item Number – Another 25-digit, free-form, user defined, alphanumeric item number.</li> </ol> <p>In addition to these three basic item numbers, an extensive cross-reference search capability has been provided (see XRT). Numerous cross-references to alternate part numbers can be user defined (for example, substitute item numbers, replacements, bar codes, customer numbers, or supplier numbers).</p> <p>..... <i>Form-specific information</i> .....</p> <p>The second of three identifiers that you can assign to an item. This field is alphanumeric.</p> <p>If you leave the third identifier field blank, the system copies this number to that field.</p>												
Stocking Type	<p>A user defined code (system 41/type I) that indicates how you stock an item(for example, as finished goods, or as raw materials). The following stocking types are hard coded and you should not change them:</p> <table data-bbox="776 1247 1045 1404"> <tr> <td>B</td> <td>Bulk Floor Stock</td> </tr> <tr> <td>C</td> <td>Configured item</td> </tr> <tr> <td>F</td> <td>Feature</td> </tr> <tr> <td>K</td> <td>Kit parent item</td> </tr> <tr> <td>N</td> <td>Non-stock</td> </tr> </table>	B	Bulk Floor Stock	C	Configured item	F	Feature	K	Kit parent item	N	Non-stock		
B	Bulk Floor Stock												
C	Configured item												
F	Feature												
K	Kit parent item												
N	Non-stock												
Planning Code	<p>A code that indicates how Master Production Schedule (MPS), Material Requirements Planning (MRP), or Distribution Requirements Planning (DRP) processes this item. Valid codes are:</p> <table data-bbox="776 1556 1386 1772"> <tr> <td>0</td> <td>Not Planned by MPS, MRP, or DRP</td> </tr> <tr> <td>1</td> <td>Planned by MPS or DRP</td> </tr> <tr> <td>2</td> <td>Planned by MRP</td> </tr> <tr> <td>3</td> <td>Planned by MRP with additional independent forecast</td> </tr> <tr> <td>4</td> <td>Planned by MPS, Parent in Planning Bill</td> </tr> <tr> <td>5</td> <td>Planned by MPS, Component in Planning Bill</td> </tr> </table> <p>These codes are hard coded.</p>	0	Not Planned by MPS, MRP, or DRP	1	Planned by MPS or DRP	2	Planned by MRP	3	Planned by MRP with additional independent forecast	4	Planned by MPS, Parent in Planning Bill	5	Planned by MPS, Component in Planning Bill
0	Not Planned by MPS, MRP, or DRP												
1	Planned by MPS or DRP												
2	Planned by MRP												
3	Planned by MRP with additional independent forecast												
4	Planned by MPS, Parent in Planning Bill												
5	Planned by MPS, Component in Planning Bill												

Field	Explanation
Master Planning Family	<p>A code (table 41/P4) that represents an item property type or classification, such as commodity type, planning family, or so forth. The system uses this code to sort and process like items.</p> <p>This field is one of six classification categories available primarily for purchasing purposes.</p>

### Entering a Planning Bill



You enter a planning bill in the Product Data Management system to change the percentages on which the hypothetical average parent item is based. This allows you to account for any planning variations on which you might want to base forecasts.

▶ **To enter a planning bill**

---

On Enter/Change Bill

[3002] - Enter/Change Bill

Functions Options Tools Help

Branch/Plant: 10  
 Bill Type: M  
 Item Rev. Level:

Parent Item: BIKE10 10 Speed Bike  
 Batch Quantity: ER  
 As of Date: \*  
 Drawing #:   
 Skip to Comp Line No:

0	Component Item	Description	Quantity Per	UM	V	I
	BIKE10B	10 Speed Bike-Blue	1	EA	V	I
	BIKE10G	10 Speed Bike-Green	1	EA	V	I

Opt: 1=Item Master 2=Next Lvl 6=Subs 7=Text F8=Inquiry F12=Prv Lvl F24=More MW

1. Complete the following fields:

- Branch/Plant
- Parent Item

2. Access the fold area.

[3002] - Enter/Change Bill

Functions Options Tools Help

Branch/Plant: 10  
 Bill Type: M  
 Item Rev. Level:

Parent Item: BIKE10 10 Speed Bike  
 Batch Quantity: ER  
 As of Date: \*  
 Drawing #:   
 Skip to Comp Line No:

0	Component Item	Description	Quantity Per	UM	FV	I
	BIKE10B	10 Speed Bike-Blue	1	EA	V	I
	Effective From	11/05/93	Feature Planned %	70.00	Stocking Type	P
	Effective Thru	12/31/10	Feature Cost %	100.00	Line Type	S
	Leadtime Offset		Unit Price		Revision Level	
	Comp. Br/Pl	10	Unit Cost	.0000	From Grade	
	Operation Sequence	1.00	Standard/Optional/Feature		S Thru Grade	
	Percent of Scrap		Required (Y/N)		N From Potency	
	Operation Scrap %	.00	Default Component		Thru Potency	
	Component Line Nr	1.0	Remark			
	Bubble Sequence		Drawing Number			
	Partials Allowed (Y/N)	Y				

Opt: 1=Item Master 2=Next Lvl 6=Subs 7=Text F8=Inquiry F12=Prv Lvl F24=More MW

3. Complete the following fields:

- Component Item
- Quantity Per
- Feature Plan Percent

The following field contains default information:

- Issue Type Code

4. Exit to Daily PDM Discrete by pressing F3.

5. Access Multi Level Bill Inquiry.

[30200] - Multi Level Bill Inquiry

Functions Options Tools Help

Branch/Plant: 10  
 Type Bill: M  
 Mode: 3  
 As of: 04/15/96  
 Revision Level:   
 Bike Parent:   
 Parent Item: BIKE  
 Requested Quantity: 1 EA  
 Skip to Comp Line:   
 Drawing:

0 Level	Component	Description	Quantity Per	UM	T	Line
1	BIKE10	10 Speed Bike	1	EA	M	1.0
.2	BIKE10B	10 Speed Bike-Blue	1	EA	P	1.0
.2	BIKE10G	10 Speed Bike-Green	1	EA	P	2.0
1	BIKE15	15 Speed Bike	1	EA	M	2.0
.2	BIKE15B	15 Speed Bike-Blue	1	EA	P	1.0
.2	BIKE15G	15 Speed Bike-Green	1	EA	P	2.0

Opt 1=Item Master 2=Next Lvl F5=Extended F12=Prev Lvl F24=More Keys MW

6. On Multi Level Bill Inquiry, complete the following fields:

- Parent Item
- Branch/Plant

7. Access the fold area to review exploded percentages.

[30200] - Multi Level Bill Inquiry

Functions Options Tools Help

Branch/Plant: 10  
 Type Bill: M  
 Mode: 3  
 As of: 04/15/96  
 Revision Level:   
 Bike Parent

Parent Item: BIKE  
 Requested Quantity: 1 EA  
 Skip to Comp Line:   
 Drawing:

Level	Component	Description	Quantity	Per	UM	T	Line	
0	BIKE10	10 Speed Bike	1		EA	M	1.0	
Effective From		11/05/93	Feat Plan %	60.00	Issue Type Code			I
Effective Thru		12/31/10	Feat Cost %	100.00	Line Type			S
Leadtime Offset Days		Unit Price		Revision Level				
Comp. Br/Pl		10	Unit Cost		From Grade			
Operations Sequence		1.00	Std/Opt/Feature		S Thru Grade			
Scrap Percent		Required Y/N		N From Potency				
Bubble Sequence		Default Component		Thru Potency				
Remark								
Drawing Number								

Opt: 1=Item Master 2=Next Lvl F5=Extended F12=Prev Lvl F24=More Keys MW

### On Enter/Change Bill

1. Complete the following fields:
  - Branch/Plant
  - Parent Item
2. Access the fold area.

3. Complete the following fields:

- Component Item
- Quantity Per
- Feature Plan Percent

The following field contains default information:

- Issue Type Code

4. Exit to Daily PDM Discrete by pressing F3.

5. Access Multi Level Bill Inquiry.

6. On Multi Level Bill Inquiry, complete the following fields:

- Parent Item
- Branch/Plant

7. Access the fold area to review exploded percentages.

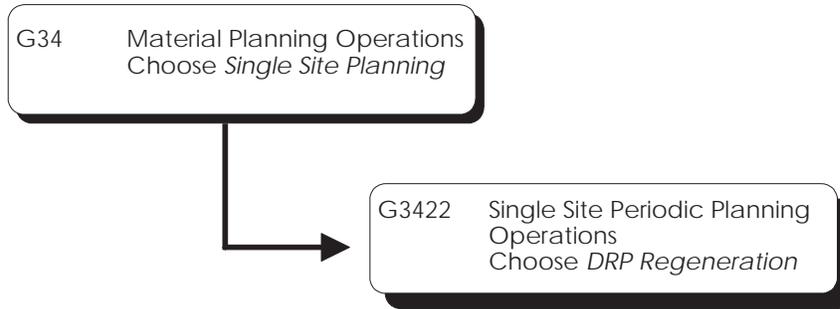
Field	Explanation
Branch	<p>Represents a high-level business unit. It can be used to reference a branch or plant that might have departments or jobs, which represent lower-level business units (data item MCU), subordinate to it. For example:</p> <ul style="list-style-type: none"> <li>• Branch/Plant (MMCU)</li> <li>• Dept A (MCU)</li> <li>• Dept B (MCU)</li> <li>• Job 123 (MCU)</li> </ul> <p>Business unit security is based on the higher-level business unit.</p> <p>..... <i>Form-specific information</i> .....</p> <p>An inquiry field for a branch or plant code to which an item is assigned. This field is required.</p>
Item Number	<p>A number that the system assigns to an item. It can be in short, long, or 3rd item number format.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Header: The Parent field contains the item number of the parent item.</p> <p>Detail: The Component Item field contains the item number of the component item listed.</p>

Field	Explanation
Quantity Per	<p>The number of units to which the system applied the transaction.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Indicates how many of a component is used to manufacture the parent item. A quantity of zero is valid. The default value is 1.</p>
Feature Planned Percent	<p>The percentage of demand for a specified feature based on projected sales. For example, a company might sell 35% of their computers with a standard keyboard and 65% of them with an extended keyboard, based on customer demand.</p> <p>The Material Planning system uses this percentage to accurately plan for a feature's component items. Enter percents as whole numbers: 5% as 5.0. The default value is 100%.</p>
Issue Type Code	<p>A code that defines how each component in the bill of material is issued from stock. In shop floor control, it indicates how a part is issued to a work order. Valid codes are:</p> <ul style="list-style-type: none"> <li>I Manual issue (default)</li> <li>F Floor stock (no issue)</li> <li>B Backflush (when part is reported as complete)</li> <li>P Preflush (when parts list is generated)</li> <li>U Super backflush (at pay-point operation)</li> <li>S Sub-contract item (send to supplier)</li> <li>Blank Shippable end item</li> </ul> <p>You can issue a component in more than one way within a specific branch/plant by using a different code on the bill of material and work order parts list. The bill of material code overrides the branch/plant value.</p>



# Generate Planning Bill Forecasts

---



## Generating Planning Bill Forecasts

After setting up a planning bill, you can generate a planning bill forecast to help you plan configurations for end products. The material planning generation program reads the detail forecast for the selected parent planning bill items and explodes it to create a forecast for the planning bill components for the same time periods.

### Before You Begin

- Enter a planning bill. See *Entering a Planning Bill*.
- Run the Enter/Change Forecast program manually to add the forecast for the parent item.

### Processing Options for Master Production Schedule

BUCKET INFORMATION:

1. Enter the Generation Start Date. \_\_\_\_\_  
(Default is current date)
2. Enter the number of past due periods, (0, 1 or 2). \_\_\_\_\_  
(Default is 0)
3. Enter the planning horizon periods. (maximum of 52 periods):
  - a. Days (e.g. 5 ) \_\_\_\_\_
  - b. Weeks (e.g. 25) \_\_\_\_\_
  - c. Months (e.g. 6 ) \_\_\_\_\_

GENERATION DEFINITION:

- 4. Enter the Generation Mode: \_\_\_\_\_
  - 1 - Net Change
  - 2 - Gross Regeneration
  
- 5. Enter the Generation Type: \_\_\_\_\_
  - 1 - Single Level MPS/DRP
  - 2 - Planning Bill-Creates Forecast
  - 3 - Multi Level MPS Items
  - 4 - MRP with/without MPS
  - 5 - MRP with Frozen MPS

PHANTOM ITEMS:

- 6. Enter a '1' to generate messages and time series records for phantoms. \_\_\_\_\_

ON HAND ADJUSTMENTS:

- 7. Enter a '1' to decrease beginning available by safety stock quantity. \_\_\_\_\_
  
  - 8. Enter the lot hold codes (up to 5) to be considered on hand, or enter a '\*' to consider all held lots as on hand. If left blank, held lots will not be considered on hand. \_\_\_\_\_
  
  - 9. Enter a '1' by the following Receipt Routing quantities to be considered on hand.
    - a. Quantity in Transit \_\_\_\_\_
    - b. Quantity in Inspection \_\_\_\_\_
    - c. User Defined Quantity 1 \_\_\_\_\_
    - d. User Defined Quantity 2 \_\_\_\_\_
- NOTE: Any quantity not included will be placed in the On Receipt bucket.

DAMPER DAYS:

- 10. Enter the Defer Damper days, (no defer message if less than 'X' number of days). \_\_\_\_\_
  
- 11. Enter the Expedite Damper days, (no expedite message if less than 'X' number of days). \_\_\_\_\_

SAFETY LEADTIME:

- 12. Enter the purchased item leadtime days. \_\_\_\_\_
  
- 13. Enter the manufactured item leadtime days. \_\_\_\_\_

FORECASTING INFORMATION:

- 14. Enter the Forecast Type to include. Up to 5 types can be included, (e.g. '0102BF'). If left blank, no forecast will be included. \_\_\_\_\_
  
- 15. Enter the Forecast Type for MPS to create when using Planning Bills. \_\_\_\_\_

RATE BASED SCHEDULING INFORMATION:

- 16. Enter the Schedule Type for rate \_\_\_\_\_

---

based items. (Default is 'AC')

17. Enter a '1' to extend rate based adjustments to lower level items. \_\_\_\_\_

PURCHASE ORDER INFORMATION:

18. Enter the Document Type for purchase orders. (Default is 'OP') \_\_\_\_\_

WORK ORDER INFORMATION:

19. Enter the Document Type for work orders. (Default is 'WO') \_\_\_\_\_

20. Enter the Work Order Status at which messages will no longer be exploded to lower level items. If left blank, all messages will be exploded to lower level items. \_\_\_\_\_

INCLUSION RULES:

21. Enter the Version of Demand/Supply Inclusion Rules to be used. \_\_\_\_\_

PERFORMANCE ISSUES:

22. Enter a '1' to initialize the MPS/MRP Print Code. This Code is used for selecting records during the MPS/MRP print. \_\_\_\_\_  
(See glossary for MRPD.)

NOTE: If left blank, the run time of the generation will be reduced.

23. Enter the User Defined Code Type that contains the list of quantity types to be calculated & written to the Time Series File (F3413). User Defined Code 34/QT contains a master list of quantity types that can be written and will be used as the default. \_\_\_\_\_

24. Enter a '1' clear the DRP/MPS/MRP Files before a Regeneration. This option should be used with EXTREME CAUTION. It will totally clear the following files: \_\_\_\_\_

F3411 - Message Detail File  
F3412 - Pegging File  
F3413 - Time Series File

NOTE: If a '1' is entered, it will improve performance and clean up any bad data in the files.

PROCESS PLANNING:

25. Enter a '1' to generate planning in Process Mode. \_\_\_\_\_

NOTE: If left blank, the run time of the generation will be reduced.

LOT EXPIRATION:

26. Enter a '1' to consider lot expiration dates in calculations. \_\_\_\_\_

FORECAST CONSUMPTION PROCESSING:  
27. Enter a '1' to use Forecast  
Consumption logic.

### What You Should Know About Processing Options

#### **Designating the Forecast Type to be read (14 and 15)**

When you choose a Forecast Type for the system to use with a planning bill, you must also enter the type code for this forecast as a Forecast Type to be read. This allows the system to read the forecast and explode it down to the component level. You can designate up to five Forecast Types to be read in a sequence you specify. Enter the types in sequence on the same line without separating them.

Enter the Forecast Type to be read: 1613

Enter the Forecast Type for MPS to create when using Planning Bills: 13

In the above example of processing option entries, the system will read Forecast Type 16 as input. Type 13 will be used to calculate a forecast for components on the next level. Then, for each subsequent level, the system will read Forecast Type 13 as input and create a Type 13 forecast to be calculated for the next level. The system will repeat this process until the forecast has been exploded all the way down the hierarchy to the end item level.



#### **Exercises**

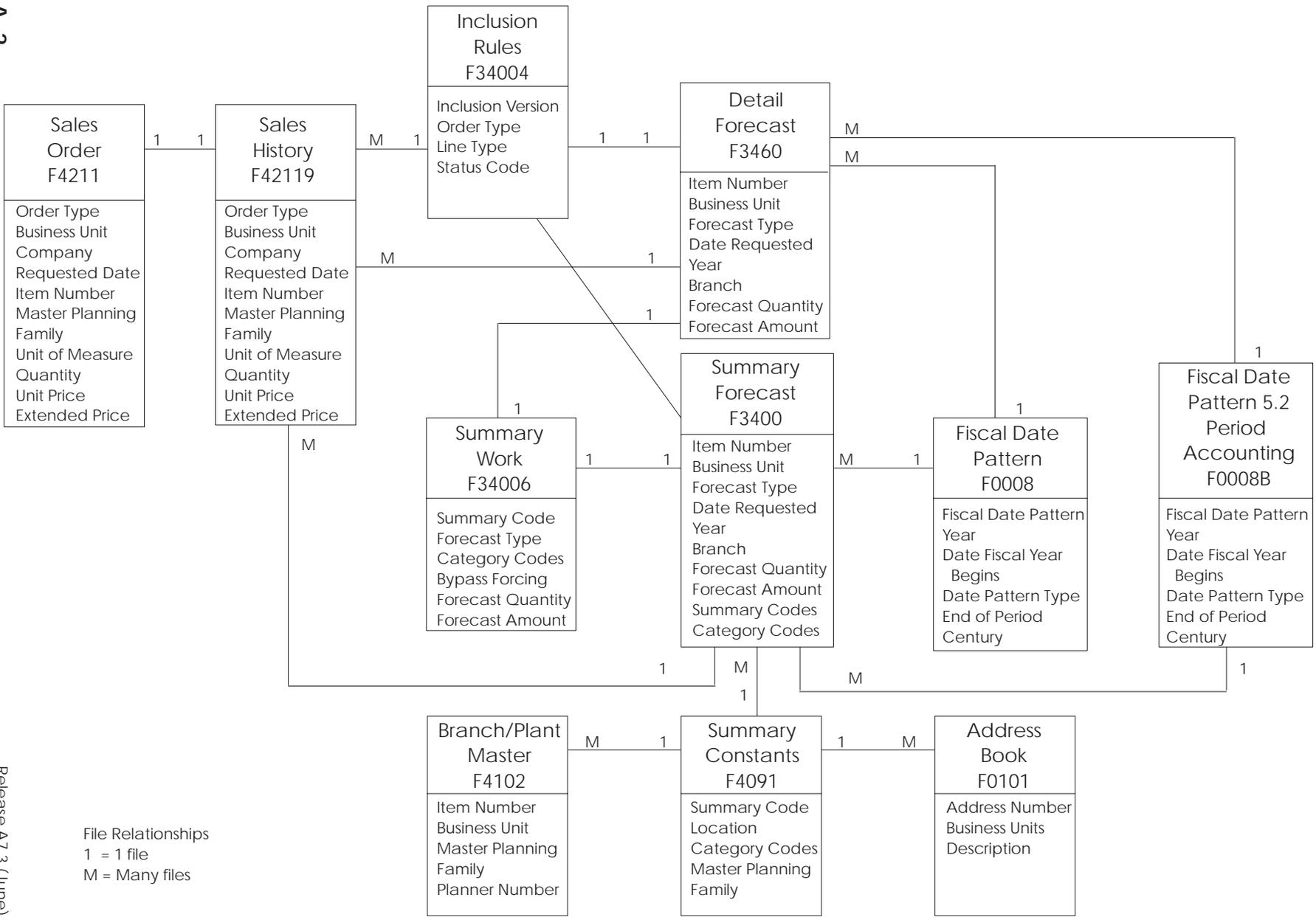
See the exercises for this chapter.

# Appendices



# Appendix A — Data Model

---



File Relationships  
 1 = 1 file  
 M = Many files

# Appendix B — Forecast Calculation Examples

---

## About Forecast Calculation Examples

The following examples use the same sample data from 1996 and 1997. The 1998 forecast varies, depending on the different forecasting methods.

Each forecasting example contains:

- Sample sales data for 1996 and 1997
- Forecast calculation
- Forecast for 1998
- Percent of accuracy calculation

The forecasting methods are as follows:

- Method 1 – Percent Over Last Year
- Method 2 – Calculated Percent Over Last Year
- Method 3 – Last Year to This Year
- Method 4 – Moving Average
- Method 5 – Linear Approximation
- Method 6 – Second Degree Approximation
- Method 7 – Flexible Method
- Method 8 – Weighted Moving Average
- Method 9 – Exponential Smoothing with Moving Weight
- Method 10 – Exponential Smoothing 2 with Seasonality

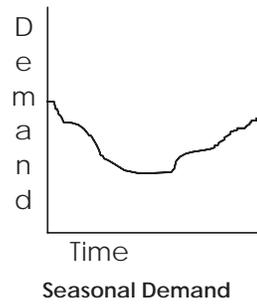
### See Also

- *Forecasting Methods* in *Forecasting Overview*

## Method 1 - Percent Over Last Year

The Percent Over Last Year formula multiplies each forecast month by a percentage increase or decrease that you specify in a processing option. This

method requires the months for the best fit plus twelve months and is recommended for seasonal items with growth or decline.



**Past Sales Data**

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

<b>Actuals</b>	1996 / 1997
<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119

**December**

133 / 137

### Forecast Calculation

- Specify 1.15 (a 15% increase) in the processing option. Multiply each month in 1997 by 1.15 to determine the 1998 forecast:

1997	Jan	Feb	Mar
Actuals	128	117	115

**Actuals** 1997

**January** 128

**February** 117

**March** 115

$$128 \times 1.15 = 147.2$$

$$117 \times 1.15 = 134.55$$

$$115 \times 1.15 = 132.25$$

1998	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Forecast	147	135	132	144	140	158	148	161	151	131	137	158

**Forecast** 1998

**January** 147

**February** 135

**March** 132

**April** 144

**May** 140

**June** 158

<b>July</b>	148
<b>August</b>	161
<b>September</b>	151
<b>October</b>	131
<b>November</b>	137
<b>December</b>	158

### Percent of Accuracy Calculation

- Calculate the sum of the last three months of 1997:

$$114 + 119 + 137 = 370$$

- Calculate the sum of the last three months of 1996:

$$123 + 139 + 133 = 395$$

- Multiply by the percentage factor:

$$395 \times 1.15 = 454.25$$

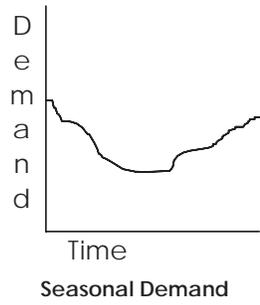
- Divide the calculated forecast by the 1997 sales data:

$$454.25 / 370 = 122.770 \% \text{ accuracy}$$

## Method 2 - Calculated Percent Over Last Year

The Calculated Percent Over Last Year formula compares the most recent three months of past sales to the same three months of past sales of the previous year and determines a percentage increase or decrease. Then, the system multiplies each month by the percentage to determine the forecast.

This method requires the larger of the months of sales order history indicated in the processing option plus twelve months or 18 months and is recommended for short-term demand forecasts of seasonal items with growth or decline. For accurate results, run this method every three months.



### Past Sales Data

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

<b>Actuals</b>	1996 / 1997
<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137



---

<b>April</b>	117
<b>May</b>	114
<b>June</b>	128
<b>July</b>	121
<b>August</b>	131
<b>September</b>	123
<b>October</b>	107
<b>November</b>	111
<b>December</b>	128

### Percent of Accuracy Calculation

- Calculate the sum of the final three months of 1997:

$$114 + 119 + 137 = 370$$

- Calculate the percentage increase or decrease for the previous block (July, August, September) for 1996 and 1997:

<b>1996</b>	July	Aug	Sept
<b>Actuals</b>	141	128	118
<b>1997</b>	129	140	131
<b>Actuals</b>			

**Actuals**                      1996 / 1997

**July**                              141 / 129

**August**                         128 / 140

**September**                    118 / 131

$$129 + 140 + 131 = 400$$

$$141 + 128 + 118 = 387$$

$$400 / 387 = 1.0335917$$

- Multiply the sum of the final three months of 1996 by the percentage. The result is a projection for 1997, not a forecast:

$$123 + 139 + 133 = 395$$

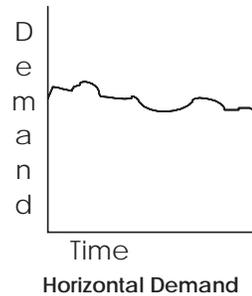
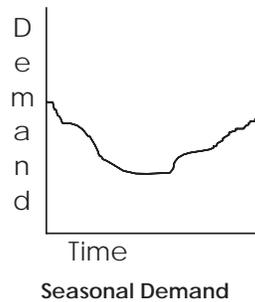
$$395 \times 1.0335917 = 408.26872$$

- Divide the 1997 projection by the sum of the last three months of 1997:

$$408.26872 / 370 = 110.342 \% \text{ accuracy}$$

### Method 3 - Last Year to This Year

The Last Year to This Year formula uses last year's sales for the following year's forecast. This method requires the months indicated in the processing option plus twelve months of sales history and is recommended for mature products with level demand or seasonal demand without a trend.



#### Past Sales Data

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

**Actuals** 1996 / 1997

**January** 125 / 128

---

<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137

### Forecast Calculation

- Use 1997 sales for the 1998 forecast:

1997	Jan	Feb	Mar
Actuals	128	117	115

<b>Actuals</b>	1997
<b>January</b>	128
<b>February</b>	117
<b>March</b>	115

$$1/97 = 1/98 = 128$$

$$2/97 = 2/98 = 117$$

$$3/97 = 3/98 = 115$$

**1998 Forecast**

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Forecast</b>	128	117	115	125	122	137	129	140	131	114	119	137

<b>Forecast</b>	1998
<b>January</b>	128
<b>February</b>	117
<b>March</b>	115
<b>April</b>	125
<b>May</b>	122
<b>June</b>	137
<b>July</b>	129
<b>August</b>	140
<b>September</b>	131
<b>October</b>	114
<b>November</b>	119
<b>December</b>	137

**Percent of Accuracy Calculation**

- Calculate the sum of the final three months of 1997:

<b>1997</b>	Oct	Nov	Dec
<b>Actuals</b>	114	119	137

<b>Actuals</b>	1997
----------------	------

---

**October** 114

**November** 119

**December** 137

$$114 + 119 + 137 = 370$$

- Calculate the sum of the same three months of 1996:

1996	Oct	Nov	Dec
Actuals	123	139	133

**Actuals** 1996

**October** 123

**November** 139

**December** 133

$$123 + 139 + 133 = 395$$

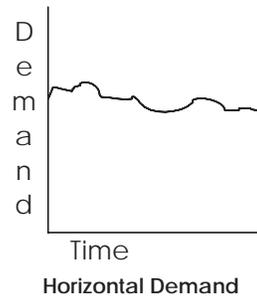
- Divide the value for 1996 by the value for 1997:

$$395 / 370 = 106.756\% \text{ accuracy}$$

## Method 4 - Moving Average

The Moving Average formula averages the months you indicate in the processing option to project the next month. For example, the forecast for January 1998 uses the average of October, November, and December 1997. The forecast for February 1998 uses the average of January 1998 forecast and the sales from November and December 1997.

This method requires two times the number of months from the processing option of sales order history. You should have the system recalculate it monthly or at least quarterly to reflect changing demand level. This method is recommended for mature products without a trend.



**Past Sales Data**

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

<b>Actuals</b>	1996 / 1997
<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137

---

## Forecast Calculation

- For each month of the 1998 forecast, average the previous three months of data:

1997	Oct	Nov	Dec
Actuals	114	119	137

**Actuals** 1997

**October** 114

**November** 119

**December** 137

January 1998 forecast:

$$114 + 119 + 137 = 370$$

$$370 / 3 = 123.333$$

Actuals and Forecasts	Nov	Dec	Jan
	119	137	123

### Actuals and Forecasts

**November** 119

**December** 137

**January** 123

February 1998 forecast:

$$119 + 137 + 123 = 379$$

$$379 / 3 = 126.333$$

Actuals and Forecasts	Dec	Jan	Feb
	137	123	126

**Actuals and Forecasts**

**December**                    137

**January**                     123

**February**                    126

March 1998 forecast:

$$137 + 123 + 126 = 386$$

$$386 / 3 = 128.666$$

**1998 Forecast**

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Forecast</b>	123	126	129	126	127	127	127	127	127	127	127	127

**Forecast**                    1998

**January**                    128

**February**                  117

**March**                      115

**April**                        125

**May**                         122

**June**                        137

**July**                         129

**August**                    140

**September**                131

**October**                    114

---

**November** 119

**December** 137

### Percent of Accuracy Calculation

- Calculate the sum of the last three months of 1997:

1997 Actuals	Oct	Nov	Dec
	114	119	137

**Actuals** 1997

**October** 114

**November** 119

**December** 137

$$114 + 119 + 137 = 370$$

- Calculate the sum of the three months prior to that block:

1997 Actuals	Jul	Aug	Sept
	129	140	131

**Actuals** 1997

**July** 129

**August** 140

**September** 131

$$129 + 140 + 131 = 400$$

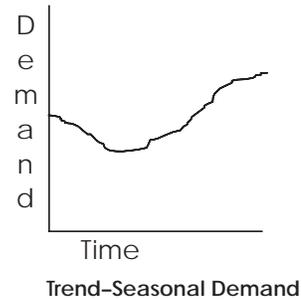
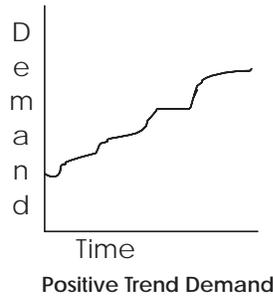
- Divide that block by the last three-month average:

$$400 / 370 = 108.108\% \text{ accuracy}$$

## Method 5 - Linear Approximation

The Linear Approximation formula computes a trend from the months of sales history indicated in the processing option and projects this trend to the forecast. This method requires two times the number of months you indicate in the processing option of sales order history. You should have the system recalculate it monthly to detect changes in trends.

This method is recommended for new products or products with consistent positive or negative trends that are not due to seasonal fluctuations.



### Past Sales

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

<b>Actuals</b>	1996 / 1997
<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129

<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137

### Forecast Calculation

- Determine the growth trend by using the last three months' actuals:

<b>1997</b>	Oct	Nov	Dec
<b>Actuals</b>	114	119	137

<b>Actuals</b>	1997
<b>October</b>	114
<b>November</b>	119
<b>December</b>	137

$$(12/97 - 11/97) + (11/97 - 10/97)$$

$$(137 - 119) + (119 - 114) = 18 + 5 = 23$$

$$23 / 2 = 11.5 \text{ growth trend for the three-month period}$$

- The system increments each month's forecast by the growth trend (approximately 11.5). To forecast accurately, the system rounds this value up one month, then down the next:

$$137 + 12 \text{ (growth trend)} = 149 \text{ forecast for January 1998}$$

$$149 + 11 \text{ (growth trend)} = 160 \text{ forecast for February 1998}$$

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Forecast</b>	149	160	172	183	195	206	218	229	241	252	264	275

<b>Forecast</b>	1998
<b>January</b>	149
<b>February</b>	160
<b>March</b>	172
<b>April</b>	183
<b>May</b>	195
<b>June</b>	206
<b>July</b>	218
<b>August</b>	229
<b>September</b>	241
<b>October</b>	252
<b>November</b>	264
<b>December</b>	275

- If the three-month base period produces a negative amount, then the sales trend reflects a declining forecast.

### Percent of Accuracy Calculation

- Calculate the sum of the last three months of 1997:

<b>1997</b>	Oct	Nov	Dec
<b>Actuals</b>	114	119	137

<b>Actuals</b>	1997
<b>October</b>	114
<b>November</b>	119

---

**December** 137

$$114 + 119 + 137 = 370$$

- Calculate the increase or decrease ratio from the prior three months:

1997	Jul	Aug	Sept
Actuals	129	140	131

**Actuals** 1997

**July** 129

**August** 140

**September** 131

$$(9/97 - 8/97) + (8/97 - 7/97)$$

$$(131 - 140) + (140 - 129) = -9 + 11 = 2$$

$$2 / 2 = 1$$

- Increment each of the following three months by the ratio, 1. Thus, 10/97 becomes 132, 11/97 becomes 133, and 12/97 becomes 134. Calculate the sum of these values:

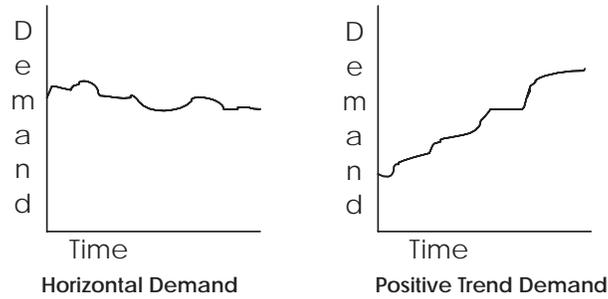
$$132 + 133 + 134 = 399$$

- Divide this figure by the sum of the last three months' actual sales:

$$399 / 370 = 107.837\% \text{ accuracy}$$

## Method 6 - Second Degree Approximation

The Second Degree Approximation formula computes a relative curve based on the previous 9 months of sales history to project the months best fit forecast. The system uses this curve to project three-month blocks of forecast. This method requires four times the number of months indicated in the processing option of sales order history. This method is recommended for short-term forecasts.



This method plots a relative curve for short-term forecasts. The curve is accurate in the near future. However, the curve reaches either positive or negative infinity in the distant future. Therefore, you should run this forecast every month and use projections for the near future only. Use an alternate method for long-range forecasts.

**Past Sales Data**

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

<b>Actuals</b>	1996 / 1997
<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114

**November** 139 / 119

**December** 133 / 137

### Forecast Calculation

- Use the previous nine months (4/97 through 12/97) in three-month blocks in the following equation:

$$F_{(X)} = A + BX + CX^2$$

Where

X = The position of a three-month period in a sequence that begins with the three quarters of actual sales used to calculate the forecast. For the first period forecast, X = 4, for the second period X = 5, and so on.

$F_{(X)}$  = The forecast for the three-month period.

A, B, C = Relative values calculated to fit the graphed curve to the past three quarters of actual data. In the example, A = 322, B = 85, and C = -23.

- For X = 4

$$322 + 85(4) - 23(16) = 294/\text{quarter or } 98/\text{month}$$

- For X = 5

$$322 + 85(5) - 23(25) = 172/\text{quarter or } 57/\text{month}$$

- For X = 6

$$322 + 85(6) - 23(36) = 4/\text{quarter or } 1/\text{month}$$

1998	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Forecast	98	98	98	57	57	57	1	1	1			

**Forecast** 1998

**January** 98

**February** 98

**March** 98

<b>April</b>	57
<b>May</b>	57
<b>June</b>	57
<b>July</b>	1
<b>August</b>	1
<b>September</b>	1
<b>October</b>	
<b>November</b>	
<b>December</b>	

### How the System Calculates A, B, and C

The system determines values for A, B, and C in the forecast formula  $F_{(x)} = A + BX + CX^2$  as follows:

This method converts the most recent nine months of sales history into three quarters (Q). In the example, the last nine months of 1997, beginning with April, are combined into quarters Q1, Q2, and Q3:

- $Q1 = 125 + 122 + 137 = 384$
- $Q2 = 129 + 140 + 131 = 400$
- $Q3 = 114 + 119 + 137 = 370$

“A” represents an estimate for sales at the moment that the history on which the forecast is based begins. The formula for “A” uses the most recent quarter of actual sales (Q3) and adjusts it for the apparent trend from previous quarters (Q1 and Q2). A  $-3$  multiplier is used to project the trend back three periods to the beginning of the sales history:

- $A = Q3 - 3(Q2 - Q1)$

In the example,  $A = 370 - 3(400 - 384) = 322$ . This means that at the origin of the time series ( $X = 0$ ) which constitutes the sales history on which the forecast is based, the curve that depicts sales will be positioned at 322.

“B” represents an estimate of the coefficient of the linear trend in sales. The following formula bases this coefficient on the difference between the first two quarters (Q2 – Q1). It then subtracts the effect of any curve that might have existed in the historical data. The curve is described by “C” (explained below). Multiplying C by –3 accounts for the instantaneous rate of slope change (2C) in effect for 1 1/2 periods (the midpoint position for the first two quarters):

- $B = (Q2 - Q1) - 3 (C)$

In the example,  $B = (400 - 384) - 3 (-23) = 85$ . This means that the linear trend is estimated to have a positive slope of 85.

“C” represents an estimate of the average rate of slope change and serves as a coefficient of a quadratic curve. The formula subtracts the estimated slope determined by the first two quarters (Q2–Q1) from the estimated slope determined by the two most recent quarters (Q3–Q2) and divides by 2 to average the differences. (If these slopes are the same, the data history will be depicted as a straight line, the slope does not change, and  $C = 0$ .)

- $C = [(Q3 - Q2) - (Q2 - Q1)] / 2$

In the example,  $C = [(370 - 400) - (400 - 384)] / 2 = -23$

### Percent of Accuracy Calculation

- Calculate the sum of the final three months of sales history:

1997	Oct	Nov	Dec
Actuals	114	119	137

<b>Actuals</b>	1997
<b>October</b>	114
<b>November</b>	119
<b>December</b>	137

$$114 + 119 + 137 = 370$$

- Use the relative curve calculated from the prior three quarters to project a forecast for the fourth quarter of 1997:

$$F_{(x)} = A + BX + CX^2$$

$$F_{(Q4)} = 328 + (36 \times 4) + (-4) (4)^2$$

Q4 = 408

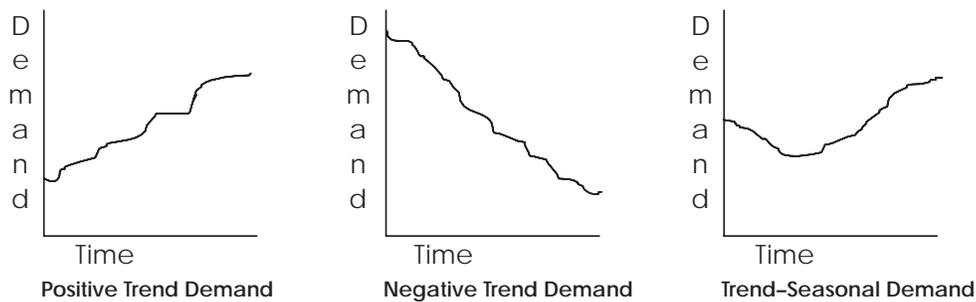
- Divide this figure by the sum of the last three months of 1997:

$$408 / 370 = 110.270\% \text{ accuracy}$$

## Method 7 - Flexible Method

The Flexible Method (Percent Over  $n$  Months Prior) formula allows you to select the months best fit block of actuals starting  $n$  months prior and a percentage increase or decrease with which to modify it. This method is similar to Method 1, Percent Over Last Year, except that you can specify the three-month block used as the base.

This method requires six to eighteen months of sales data and is recommended for a planned trend.



### Past Sales Data

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

**Actuals** 1996 / 1997

**January** 125 / 128

**February** 132 / 117

**March** 115 / 115

**April** 137 / 125

---

<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137

### Forecast Calculation

- Select the number of months prior to use (in this example, three, which are 10/97, 11/97, and 12/97). The percentage growth is 1.15:

1997	Oct	Nov	Dec
Actuals	114	119	137

<b>Actuals</b>	1997
<b>October</b>	114
<b>November</b>	119
<b>December</b>	137

$$10/97 \times 1.15 = 1/98$$

$$114 \times 1.15 = 131.1$$

$$11/97 \times 1.15 = 2/98$$

$$119 \times 1.15 = 136.85$$

$$12/97 \times 1.15 = 3/98$$

$$137 \times 1.15 = 157.55$$

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Forecast</b>	131	137	158	151	157	181	173	181	208	199	208	240

<b>Forecast</b>	1998
<b>January</b>	131
<b>February</b>	137
<b>March</b>	158
<b>April</b>	151
<b>May</b>	157
<b>June</b>	181
<b>July</b>	173
<b>August</b>	181
<b>September</b>	208
<b>October</b>	199
<b>November</b>	208
<b>December</b>	240

The system rounds the results to the nearest whole number.

### Percent of Accuracy Calculation

- Calculate the sum of the three-month block you selected:

<b>1997</b>	Oct	Nov	Dec
<b>Actuals</b>	114	119	137

<b>Actuals</b>	1997
----------------	------

---

**October** 114

**November** 119

**December** 137

$$114 + 119 + 137 = 370$$

- Calculate the sum of the three-month block prior to the block you selected:

1997	Jul	Aug	Sept
Actuals	129	140	131

**Actuals** 1997

**July** 129

**August** 140

**September** 131

$$7/97 + 8/97 + 9/97$$

$$129 + 140 + 131 = 400$$

$$400 \times 1.15 = 460$$

- Divide the prior block by the selected block:

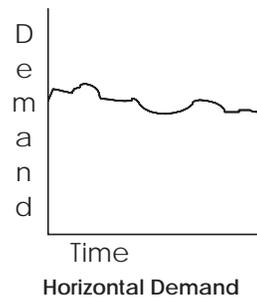
$$460 / 370 = 124.324\% \text{ accuracy}$$

## Method 8 - Weighted Moving Average

The Weighted Moving Average formula is similar to Method 4, Moving Average, because it averages the previous three months to project the next month's block. However, with this Weighted Moving Average formula, you can assign weights for each of the three prior blocks in a processing option.

This method requires six months of sales data. If you determine a demand trend, you can assign more weight to the most recent month. Similar to Moving Average, this method flattens demand trends, so it is not recommended for

products with seasonality. This method is recommended for mature products with demand that is relatively level.



**Past Sales Data**

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

<b>Actuals</b>	1996 / 1997
<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114

---

**November** 139 / 119

**December** 133 / 137

### Forecast Calculation

- Select the weight for each of the three prior months. The total of the three weights must equal 1.0:

One month's prior weight = 0.6

Two months' prior weight = 0.3

Three months' prior weight = 0.1

- Calculate the weighted average with 1997 sales data. For each month of the forecast, calculate the weighted average with the prior three months:

1997	Oct	Nov	Dec
Actuals	114	119	137

**Actuals** 1997

**October** 114

**November** 119

**December** 137

January 1998 forecast:

$$(12/97 \times 0.6) + (11/97 \times 0.3) + (10/97 \times 0.1)$$

$$(137 \times 0.6) + (119 \times 0.3) + (114 \times 0.1)$$

$$82.2 + 35.7 + 11.4 = 129.3$$

Forecast and	Jan	Dec	Nov
Actuals	129	137	119

**Forecast and Actuals** 1998

**January** 129

**December** 137

**November** 119

February 1998 forecast:

$$(1/98 \times 0.6) + (12/97 \times 0.3) + (11/97 \times 0.1)$$

$$(129 \times 0.6) + (137 \times 0.3) + (119 \times 0.1)$$

$$77.4 + 41.1 + 11.9 = 130.4$$

<b>Forecast and</b>	Feb	Jan	Dec
<b>Actuals</b>	130	129	137

**Forecast and Actuals** 1998

**February** 130

**January** 129

**December** 137

March 1998 forecast:

$$(2/98 \times 0.6) + (1/98 \times 0.3) + (12/97 \times 0.1)$$

$$(130 \times 0.6) + (129 \times 0.3) + (137 \times 0.1)$$

$$78 + 38.7 + 13.7 = 130.4$$

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Forecast</b>	129	131	131	131	131	131	131	131	131	131	131	131

**Forecast** 1998

**January** 129

---

<b>February</b>	131
<b>March</b>	131
<b>April</b>	131
<b>May</b>	131
<b>June</b>	131
<b>July</b>	131
<b>August</b>	131
<b>September</b>	131
<b>October</b>	131
<b>November</b>	131
<b>December</b>	131

### Percent of Accuracy Calculation

- Calculate the average of the last three months of 1997:

<b>1997</b>	Oct	Nov	Dec
<b>Actuals</b>	114	119	137

<b>Actuals</b>	1997
<b>October</b>	114
<b>November</b>	119
<b>December</b>	137

$$114 + 119 + 137 = 370$$

$$370 / 3 = 123.333$$



---

<b>January</b>	125 / 128
<b>February</b>	132 / 117
<b>March</b>	115 / 115
<b>April</b>	137 / 125
<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137

### Forecast Calculation

- Select the weighted periods (3, 2, and 1 for the past three periods, respectively). These numbers represent x in the equation below.
- Select the number of months (set for 3 in the processing options). This number represents n in the equation below.
- Calculate the period weight:

$$(n^2 + n) / 2$$

$$(3^2 + 3) / 2 = (9 + 3) / 2 = 12 / 2 = 6$$

- $x/6 =$  period weight
- Calculate the forecast for January 1998 using the period weight. The system weights December, the most recent month, more than the previous months of November and October:

<b>1997</b>	Oct	Nov	Dec
Actuals	114	119	137

**Actuals** 1997

**October** 114

**November** 119

**December** 137

$$(137 \times 3/6) + (119 \times 2/6) + (114 \times 1/6)$$

$$68.5 + 39.67 + 19 = 127.17$$

The system rounds the forecast to the nearest whole number:

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Forecast	127	129	130	129	129	129	129	129	129	129	129	129

**Forecast** 1998

**January** 127

**February** 129

**March** 130

**April** 129

**May** 129

**June** 129

**July** 129

**August** 129

**September** 129

---

**October** 129

**November** 129

**December** 129

### Percent of Accuracy Calculation

- Calculate the average of the last three months in 1997:

1997	Oct	Nov	Dec
Actuals	114	119	137

**Actuals** 1997

**October** 114

**November** 119

**December** 137

$$114 + 119 + 137 = 370$$

$$370 / 3 = 123.333$$

- Calculate the value of the three months prior to that block:

1997	Jul	Aug	Sept
Actuals	129	140	1231

**Actuals** 1997

**July** 129

**August** 140

**September** 131

$$(131 \times .50) + (140 \times .33) + (129 \times .17)$$

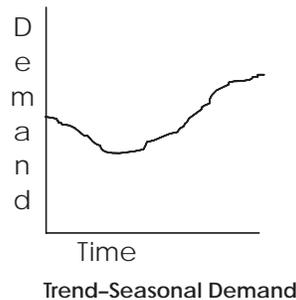
$$65.6 + 46.66 + 21 = 133.66$$

- Divide the weighted block by the average of the last three months of 1997:

$$133.66 / 123.333 = 108.378\% \text{ accuracy}$$

## Method 10 - Exponential Smoothing 2 with Seasonality

The Exponential Smoothing 2 with Seasonality method calculates a trend, a seasonal index, and an exponentially smoothed average from the sales history. The system then applies a projection of the trend to the forecast and adjusts for the seasonal index. This method requires 24 months plus the months best fit indicated in the processing option of sales data and is recommended for items that have both trend and seasonality in the forecast.



### Past Sales Data

<b>1996</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Actuals</b>	125	132	115	137	122	130	141	128	118	123	139	133
<b>1997</b>	128	117	115	125	122	137	129	140	131	114	119	137
<b>Actuals</b>												

**Actuals** 1996 / 1997

**January** 125 / 128

**February** 132 / 117

**March** 115 / 115

**April** 137 / 125

---

<b>May</b>	122 / 122
<b>June</b>	130 / 137
<b>July</b>	141 / 129
<b>August</b>	128 / 140
<b>September</b>	118 / 131
<b>October</b>	123 / 114
<b>November</b>	139 / 119
<b>December</b>	133 / 137

### Forecast Calculation

- Calculate the exponentially smoothed average:

$$24\text{-month smoothed average} = 127.5$$

- Calculate the smoothed estimate of the monthly trend:

$$\text{trend} = +0.27$$

- Calculate the seasonal index for each month:

$$\text{January 1996 } 125/1543 = 8.1\%$$

$$\text{January 1997 } 128/1514 = 8.5\%$$

$$\text{Average seasonal index for January } (8.1\% + 8.5\%)/2 = 8.3\%$$

- The same process calculates a seasonal index of 8.1% for February and 7.5% for March.
- Project the adjustments for trend and seasonality into the forecast based on the formula:

$$\text{Month Forecast} = [\text{Smoothed Average} + (\text{Trend} \times \text{number of months into the forecast})] \times \text{Month Seasonal Index} \times 12 \text{ (months per year)}$$

$$\text{January Forecast} = [127.5 + (0.27 \times 1)] \times (8.3\% \times 12) = 127$$

$$\text{February Forecast} = [127.5 + (0.27 \times 2)] \times (8.1\% \times 12) = 125$$

$$\text{March Forecast} = [127.5 + (0.27 \times 3)] \times (7.5\% \times 12) = 116$$

<b>1998</b>	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
<b>Forecast</b>	127	125	116	132	123	135	137	136	127	121	132	139

**Forecast** 1998

**January** 127

**February** 125

**March** 116

**April** 132

**May** 123

**June** 135

**July** 137

**August** 136

**September** 127

**October** 121

**November** 132

**December** 139

**Percent of Accuracy Calculation**

- Calculate the average of the last three months of 1997:

<b>1997</b>	Oct	Nov	Dec
<b>Actuals</b>	114	119	137

**Actuals** 1997

---

**October** 114

**November** 119

**December** 137

$$114 + 119 + 137 = 370$$

$$370 / 3 = 123.333$$

- Calculate the value of the three months prior to that block and adjust to match seasonal fluctuations:

$$\text{Average value} = 133.9$$

- Divide the weighted block by the average of the last three months in 1997:

$$133.9 / 123.333 = 108.567\% \text{ accuracy}$$

## Best Fit for the Forecast Methods

For the examples described in this section, the Forecasting system would select Method 3 - Last Year to This Year as the best fit for the sample data because its percent of accuracy (106.756%) is closest to 100%.



## Appendix C — 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.

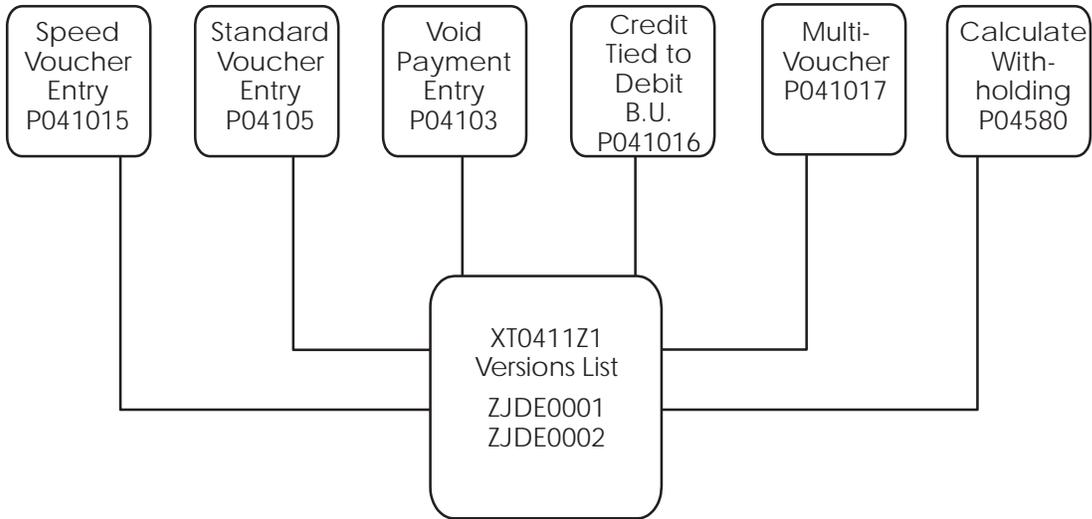
You can have all your entry programs use the same DREAM Writer version (and thus, use the same rules) or you can set up different DREAM Writer versions. J.D. Edwards provides DREAM Writer version ZJDE0001 as the default functional server version for your entry programs.



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.



# Glossary



# Glossary

---

This glossary defines terms in the context of your use of JDE systems and the accompanying user guide.

**access.** To get to the information or functions provided by the system through menus, screens, and reports.

**allocated material.** Material on hand or on order that is assigned to specific future production or customer orders. Synonymous with *reserved material*.

**alphabetic character.** Represents data by using letters and other symbols from the keyboard (such as \*&#). Contrast with *numeric character*.

**alphanumeric character.** Represents data in a combination of letters, numbers, and other symbols (such as \*&#).

**alternate operation.** Replacement for a normal step in the manufacturing process or routing for an item.

**alternate routing.** A routing, usually less preferred than the primary routing, but resulting in an identical item.

**assemble-to-order.** A make-to-order product for which key components (bulk, semi-finished, intermediate, subassembly, fabricated, purchased, packaging, etc.) used in the assembly or finishing process are planned and stocked in anticipation of a customer order. Receipt of an order initiates assembly of the finished product. This is useful when a large number of finished products can be assembled from common components.

**assembly.** A group of subassemblies and/or parts that are put together and constitute a major subdivision for the final product. An assembly may be an end item or a component of a higher level assembly.

**audit trail.** The detailed, verifiable history of a processed transaction. The history consists of the original documents, transaction entries, and posting of records, and 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.

**backflush.** The deduction from inventory records of the component parts used in an assembly or subassembly by exploding the bill of material by the production count of assemblies produced.

**back scheduling.** A technique for calculating operation start dates and due dates. The schedule is computed starting with the due date for the order and working backward to determine the required start date and/or due dates for each operation.

**backup copy.** A copy of original data preserved on a magnetic tape or diskette as protection against destruction or loss.

**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 bill of material.** A bill of material in which the statement of quantity per is based on the standard batch quantity 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 type.** A code that designates which JDE 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 for General Accounting are selected for posting.

**bill of material (BOM).** A listing of all the subassemblies, parts, and raw materials that go into a parent assembly showing the quantity of each required to make the assembly. It is used in conjunction with the master production schedule to determine the items for which purchase requisitions and production orders must be released. There is a variety of display formats for bills of material, including: single level, multi level, indented, planning, and costed. Synonymous with *formula*, *recipe*, and *ingredients list*.

**Boolean logic operand.** In JDE's 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

**bubble chart.** A diagram that attempts to display the interrelationships of systems, functions, or data in sequential flow. It derives its name from the circular symbols used to enclose the statements on the chart.

**bucketed system.** An MRP, DRP, or other time-phased system in which all time-phased data are accumulated into time periods or "buckets." If the period of accumulation is one week, then the system is said to have weekly buckets.

**bucketless system.** An MRP, DRP, or other time-phased system in which all time-phased data are processed, stored, and usually displayed using dated records rather than defined time periods or "buckets."

**bulk issue.** Parts issued from stores to work-in-process inventory, but not based on a job order. They are issued in quantities estimated to cover requirements of individual work centers and production lines. The issue may be used to cover a period of time or to fill a fixed-size container.

**by-product.** A material of value produced as residual of or incidental to the production process. The ratio of by-product to primary product is usually predictable. By-products may be recycled, sold as is, or used for other purposes.

**CAD/CAP.** Computer Assisted Design/Computer Assisted 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 JDE systems.

---

**capacity requirements planning (CRP).**

The function of establishing, measuring, and adjusting limits or levels of capacity. It is the process of determining in detail how much labor and machine resources are required to accomplish the tasks of production. Open shop orders and planned orders in the MRP system are input to CRP, which "translates" these orders into hours of work by work center and by time period.

**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*.

**character.** Any letter, number, or other symbol that a computer can read, write, and store.

**closed-loop MRP.** A system built around material planning that includes the additional planning functions of sales and operations (production planning, master production scheduling, and capacity requirements planning). Once this planning phase is complete and the plans have been accepted as realistic and attainable, the execution functions come into play. These include the manufacturing control functions of input-output (capacity) measurement, detailed scheduling and dispatching, as well as anticipated delay reports from both the plant and supplier. The term "closed loop" implies that not only is each of these elements included in the overall system, but also that feedback is provided by the execution functions so that the planning can be kept valid at all times.

**command.** A character, word, phrase, or combination of keys you use to tell the computer to perform a defined activity.

**component.** Raw material, ingredient, part, or subassembly that goes into a higher level assembly, compound, or other item. This term may also include packaging materials for finished items.

**component availability.** The availability of component inventory for the manufacture of a specific parent order or group of orders or schedules.

**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.

**Core.** The central and foundational systems of JDE software, including General Accounting, Accounts Payable, Accounts Receivable, Address Book, Financial Reporting, Financial Modeling and Allocations, and Back Office.

**costed bill of material.** A form of bill of material that extends the quantity per of every component in the bill by the cost of the components.

**crew size.** The number of people required to perform an operation. The associated standard time should represent the total time for all crew members to perform the operation, not the net start to finish time for the crew.

**cumulative leadtime.** The longest planned length of time involved to accomplish the activity in question. For any item planned through MRP, it is found by reviewing the leadtime for each bill of material path below the item. Whichever path adds up to the greatest number defines cumulative leadtime. Synonymous with *aggregate leadtime*, *composite leadtime*, and *critical path leadtime*.

**cumulative manufacturing leadtime.**

The cumulative planned leadtime when all purchased items are assumed to be in stock.

**cumulative MRP.** The planning of parts and subassemblies by exploding a master schedule, as in MRP, except that the master scheduled items and therefore the exploded requirements are time phased in cumulative form. Usually these cumulative figures cover a planning year.

**current cost.** The current or replacement cost of labor, material, or overhead. Its computation is based on current performance or measurements, and it is used to address "today's" costs before production as a revision of annual standard costs.

**cursor.** The blinking underscore or rectangle on your screen that indicates where the next keystroke will appear.

**cursor sensitive help.** JDE's online help function, which 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.

**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.

**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.

**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 the you do not enter something in that field, the system supplies an N.

**demand.** A need for a particular product or component. The demand could come from any number of sources, such as a customer order or forecast, or an interplant requirement or a request from a branch warehouse for a service part or for manufacturing another product.

**dependent demand.** Demand that is directly related to or derived from the bill of material structure for other items or end products. Such demands are calculated and need not and should not be forecast. A given inventory item may have both dependent and independent demand at any given time. For example, a part may simultaneously be the component of an assembly and also sold as a service part.

**descriptive title.** See *user defined code*.

**detail.** The individual pieces of information and data that make up a record or transaction. Contrast with *summary*.

**detail file.** A file which contains manufacturing, routing, or specification details. Contrast with *master file*.

**direct labor.** Labor that is specifically applied to the product being manufactured or utilized in the performance of the service.

**direct material.** Material that becomes a part of the final product in measurable quantities.

**discrete manufacturing.** Production of distinct items such as automobiles, appliances, or computers.

**display.** (1) To cause the computer to show information on a terminal's screen. (2) A specific set of fields and information that a JDE 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*.

---

**downstream operation.** A task subsequent to the task currently being planned or executed.

**DREAM Writer.** Data Record Extraction And Management Writer. A flexible data manipulator and cataloging tool. You use this tool to select and sequence the data that is to appear on a programmed report.

**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.

**effectivity date.** The date on which a component or an operation is to be added or removed from a bill of material or an assembly process. The effective dates are used in the explosion process to create demands for the correct items. Normally, bill of material and routing systems provide for an effectivity "start date" (from) and "stop date" (thru), signifying the beginning and end of a particular relationship. Synonymous with *effective date*.

**efficiency.** A measure (as a percentage) of the actual output to the standard output expected. Efficiency measures how well something is performing relative to expectations; it does not measure output relative to any input. For example, if there is a standard of 100 pieces per hour and 780 units are produced in one eight-hour shift, the efficiency is 780 divided by 800, then multiplied by 100% or 97.5%.

**electronic data interchange (EDI).** The paperless (electronic) exchange of trading documents, such as purchase orders, shipment authorizations, advanced shipment notices, and invoices, using standardized document formats.

**end item.** A product sold as a completed item or repair part. Any item subject to a customer order or sales forecast. Synonymous with *end product*, *finished good*, and *finished product*.

**engineering change order (ECO).** A work order used to implement a change in a manufactured product. This can be a change in design, quantity or parts required, assembly or production process, and so forth.

**engineer-to-order.** Products whose customer specifications require unique engineering design or significant customization. Each customer order results in a unique set of part numbers, bills of material, and routings.

**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.

**expedite.** To "rush" or "chase" production or purchase orders that are needed in less than the normal leadtime. To take extraordinary action because of an increase in relative priority.

**facility.** A collection of computer language statements or programs that provides a specialized function throughout a system or throughout all integrated systems. Some examples DREAM Writer and FASTR.

**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.

**feature.** An accessory or attachment to an item.

**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. See *input field* and *display field*. (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.

**file.** A collection of related data records organized for a specific use and electronically stored by the computer.

**fixed cost.** An expenditure that does not vary with the production volume, for example, rent, property tax, and salaries of certain personnel.

**fixed order quantity.** A lot-sizing technique in MRP or inventory management that will always cause planned or actual orders to be generated for a predetermined fixed quantity, or multiples thereof, if net requirements for the period exceed the fixed order quantity.

**fixed overhead.** Traditionally all manufacturing costs, other than direct labor and direct materials, that continue even if products are not produced. Although fixed overhead is necessary to produce the product, it cannot be directly traced to the final product.

**fold area.** An area of a screen, accessed by pressing F4, that displays additional information associated with the records or data items displayed on the screen.

**forecast.** An estimate of future demand. A forecast can be determined by mathematical means using historical data, created subjectively by using estimates from informal sources, or a combination of both techniques.

**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.

**Gantt chart.** A control chart designed to show graphically the relationship between planned performance and actual performance.

**hard copy.** A presentation of computer information printed on paper. Synonymous with *printout*.

**header.** Information at the beginning of a file. This information is used to identify or provide control information for the group of records that follows.

**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.

**implode.** 1) Compression of detailed data in a summary-level record or report. 2) Tracing a usage and/or cost impact from the bottom to the top (end product) of a bill of material using where-used logic.

**implosion.** The process of determining the where-used relationship for a given component. Implosion can be single-level (showing only the parents on the next higher level) or multilevel (showing the ultimate top-level parent). Synonymous with *where used*. Contrast with *explosion*.

**indented bill of material.** A form of multilevel bill of material that lists the highest level parent items at the left margin and all the components going into these parents indented to the right of the margin. All subsequent levels of components are indented farther to the right. If a component is used in more than one parent within a given product structure, it will appear more than once, under every subassembly in which it is used.

---

**indented where-used.** A listing of every parent item, and the respective quantities required, as well as each of their respective parent items, continuing until the ultimate end item, or level-0 item, is listed. Each of these parent items is one that calls for a given component item in a bill of material file. The component item is shown closest to the left margin of the listing, with each parent indented to the right, and each of their respective parents indented even further to the right.

**indirect costs.** Costs that are not directly incurred by a particular job or operation. Certain utility costs, such as plant heating, are often indirect. An indirect cost is typically distributed to the product through the overhead rates.

**indirect labor.** Work required to support production in general without being related to a specific product, for example, sweeping the floor.

**indirect materials.** Items that become part of the final product or substances that are consumed in the manufacture of a product that have a negligible value relative to the value of the final product or the usage of which cannot be effectively determined. These components may or may not be included in the bill of material. Synonymous with *supplies*.

**input.** Information you enter in the input fields on a screen or that the computer enters from other programs, 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*.

**install system code.** The code that identifies a JDE system. Examples are 01 for the Address Book system, 04 for the Accounts Payable system, and 09 for the General Accounting system.

**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. See *online*. Contrast with *batch processing*.

**interface.** A link between two or more JDE systems that allows these systems to send information to and receive information from one another.

**issue.** The physical movement of items from a stocking location and, often, the transaction reporting of this activity.

**issue cycle.** The time required to generate a requisition for material, pull the material from an inventory location, and move it to its destination.

**item.** Any unique manufactured or purchased part, material, intermediate, subassembly, or product.

**item master record.** The master record for an item. Typically, it contains identifying and descriptive data and control values (leadtimes, lot sizes, etc.) and may contain data on inventory status, requirements, planned orders, and costs. Item records are linked together by product structure records which define the bill of material for an item.

**item number.** A number that serves to uniquely identify an item. Synonymous with *part number*.

**jargon.** A JDE 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 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.

**justify.** To shift information you enter in an input field to the right or left side of the field. Many of the facilities within JDE systems justify information. The system does this only after you press Enter.

**Just-in-Time (JIT).** A philosophy of manufacturing based on planned elimination of all waste and continuous improvement of productivity. The primary elements of zero inventories are to have only the required inventory when needed; to improve quality to zero defects; to reduce leadtimes by reducing setup times, queue lengths, and lot sizes; to incrementally revise the operations themselves; and to accomplish these things at minimum cost.

**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 instructions*.

**labor cost.** The dollar amount of added value due to labor performed during manufacturing.

**leading zeros.** A series of zeros that certain facilities in JDE 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.

**leadtime.** 1) A span of time required to perform a process (or series of operations).  
2) In a logistics context, the time between

recognition of the need for an order and the receipt of goods. Individual components of leadtime can include order preparation time, queue time, move or transportation time, and receiving and inspection time.

**leadtime offset.** A technique used in MRP where a planned order receipt in one time period will require the release of that order in an earlier time period based on the leadtime for the item.

**level.** Every part or assembly in a product structure is assigned a level code signifying the relative level in which that part or assembly is used within the product structure. Normally the end items are assigned to level 0 with the components and subassemblies going into it assigned to level 1 and so forth. The MRP explosion process starts from level 0 and proceeds downward one level at a time.

**level of detail.** (1) The degree of difficulty of a menu in JDE software. 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

Also known as *menu levels*.

(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).

**master file.** A computer file that a system uses to store data and information which 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.

**load.** The amount of planned work scheduled and actual work released for a facility, work center, or operation for a

---

specific span of time. It is usually expressed in terms of standard hours of work or, when items consume similar resources at the same rate, units of production.

**lot.** A quantity produced together and sharing the same production costs and resultant specifications.

**lot number.** A number that identifies a designated group of related items manufactured in a single run or received from a vendor in a single shipment.

**lot number control.** Assignment of unique numbers to each instance of receipt and carrying forth that number into subsequent manufacturing processes so that, in review of an end item, each lot consumed from raw materials through end item can be identified as having been used for the manufacture of this specific end item lot.

**lot number traceability.** Tracking parts by lot numbers to a group of items. This tracking can assist in the tracing of quality problems to their source.

**lot traceability.** The ability to identify the lot or batch numbers of consumption and/or composition for manufactured, purchased, and shipped items. This is a federal requirement in certain regulated industries.

**low-level code.** A number that identifies the lowest level in any bill of material at which a particular component may appear. Net requirements for a given component are not calculated until all the gross requirements have been calculated down to that level. Low-level codes are normally calculated and maintained automatically by the computer software. Synonymous with *explosion level*.

**machine hours.** The amount of time, in hours, that a machine is actually running. Machine hours, rather than labor hours, may be used for planning capacity and scheduling and for allocating costs.

**make-to-order product.** A product that is finished after receipt of a customer's order. The final product is usually a combination of standard items and items custom designed to meet the special needs of the customer. Frequently long leadtime components are planned prior to the order arriving in order to reduce the delivery time to the customer. Where options or other subassemblies are stocked prior to customer orders arriving, the term "assemble-to-order" is frequently used.

**make-to-stock product.** A product that is shipped from finished goods, "off-the-shelf," and therefore is finished prior to a customer order arriving. The master scheduling and final assembly scheduling are conducted at the finished goods level.

**manufacturing leadtime.** The total time required to manufacture an item, exclusive of lower level purchasing leadtime. It includes the time for order preparation, queue, setup, run, move, inspection, and put-away.

**manufacturing resource planning (MRP II)** A method for the effective planning of all resources of a manufacturing company. Ideally, it addresses operational planning in units, financial planning in dollars, and has a simulation capability to answer "what if" questions. It is made up of a variety of functions, each linked together: business planning, sales and operations (production planning), master production scheduling, material requirements planning, capacity requirements planning, and the execution support systems for capacity and material. Output from these systems is integrated with financial reports such as the business plan, purchase commitment report, shipping budget, inventory projections in dollars, etc. Manufacturing resource planning is a direct outgrowth and extension of closed-loop MRP.

**master file.** A computer file that a system uses to store data and information which 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 planning.** A classification scheme that includes the following activities: forecasting and order servicing (which together constitute demand management); production and resource planning; and master scheduling (which includes the final assembly schedule, the master schedule, and the rough cut capacity plan).

**master production schedule (MPS).** A detailed statement of how many items are planned to be produced and when. The MPS focuses on products to be made and, through the detailed planning system, identifies the resources (materials, work force, plant equipment and capital) needed and the timing of the need.

**menu.** A screen that displays numbered selections. Each of these selections represents a program. To access a selection from a menu, type the selection number and then press Enter.

**menu levels.** See *level of detail*.

**menu masking.** A security feature of JDE 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.

**need date.** The date when an item is required for its intended use. In an MRP system, this date is calculated by a bill of material explosion of a schedule and the netting of available inventory against that requirement.

**next number facility.** A JDE 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.

**nonsignificant part numbers.** Part numbers that are assigned to each part but do not convey any information about the part. They are identifiers, not descriptors. Contrast with *significant part numbers*.

**numeric character.** Represents data using the numbers 0 through 9. Contrast with *alphabetic character* and *alphanumeric character*.

**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 personal computer and then transfer the results to a host computer, that job would be considered an offline function. Contrast with *online*.

**online.** Computer functions over which the system has continuous control. Each time you work with a JDE system-provided screen, you are online with the system. Contrast with *offline*. See *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*.

**operation number.** A sequential number, usually two, three, or four digits long, such as 010, 020, 030, and so forth, that indicates the sequence in which operations are to be performed within an item's routing.

**operations sequence.** The sequential steps for an item to follow in its flow through the plant. For instance, operation 1: cut bar stock; operation 2: grind bar stock; operation 3: shape; operation 4: polish; operation 5: inspect and send to stock. This information is normally maintained in the routing file.

---

**option.** A numbered selection from a JDE 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.

**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.

**overhead.** Costs incurred in the operation of a business that cannot be directly related to the individual products or services produced. These costs, such as light, heat, supervision, and maintenance, are grouped in several pools (department overhead, factory overhead, general overhead) and distributed to units of product or service by some standard allocation method.

**overlap.** The percentage that an operation overlaps the previous operation in the sequence. For example, a 20% overlap means that the step can begin when the previous step is 80% complete.

**override.** The process of entering a code or parameter other than the one provided by the system. Many JDE 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 *default*.

**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.

**part.** Generally, a material item that is used as a component and is not an assembly, subassembly blend, intermediate, and so forth.

**password.** A unique group of characters that you enter when you sign on to the system that the computer uses to identify you as a valid user.

**pegging.** In MRP, the capability to identify for a given item the sources of its gross requirements and/or allocations. Pegging can be thought of as "live where-used" information.

**phantom bill of material.** A bill of material coding and structuring technique used primarily for transient (nonstocked) subassemblies. For the transient item, leadtime is set to zero and the order quantity is lot-for-lot. This permits MRP logic to drive requirements straight through the phantom item to its components, but the MRP system usually retains its ability to net against any occasional inventories of the item. This technique also facilitates the use of common bills of material for engineering and manufacturing. Synonymous with *blow-through*, *pseudo bill of material*, and *transient bill of material*.

**picking.** The process of withdrawing from stock the components to make the products or the finished goods to be shipped to a customer.

**pick list.** A document that lists the material to be picked for manufacturing or shipping orders.

**planned order.** A suggested order quantity, release date, and due date created by MRP processing when it encounters net requirements. Planned orders are created by the computer, exist only within the computer, and may be changed or deleted by the computer during subsequent MRP processing if conditions change. Planned orders at one level will be exploded into gross requirements for components at the next lower level. Planned orders, along with released orders, serve as input to capacity

requirements planning to show the total capacity requirements by work center in future time periods.

**planning bill of material.** An artificial grouping of items and/or events in bill of material format, used to facilitate master scheduling and/or material planning. Sometimes called a pseudo bill of material.

**planning family.** A group of end items whose similarity of design and manufacture facilitates being planned in aggregate.

**planning horizon.** The amount of time the master schedule extends into the future. This is normally set to cover a minimum of cumulative leadtime plus time for lot sizing low-level components and for capacity changes of primary work centers.

**planning time fence.** A time period beyond which only forecasts of expected customer orders exist. The master schedule planning horizon is divided into three regions. The demand time fence separates regions 1 and 2 and the planning time fence separates regions 2 and 3. Region 1 contains actual orders. Region 2 contains actual orders and forecast orders. Region 3 contains forecast orders and extends to the end of the planning horizon. Between the demand fence and the planning time fence actual customer orders replace the forecast quantities.

**primary location.** The designation of a certain storage location as the standard, preferred location for an item.

**printout.** A presentation of computer information printed on paper. Synonymous with *hard copy*.

**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 *output queue*.

**priority.** The relative importance of jobs. The sequence in which jobs should be worked on.

**process manufacturing.** Production that adds value by mixing, separating, forming, and/or performing chemical reactions. It may be done in either batch or continuous mode.

**processing options.** A feature of the JDE 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.

**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.

**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.

**PTF.** Program Temporary Fix. A representation of changes to JDE software, which your organization receives on magnetic tapes or diskettes.

**purchased part.** An item sourced from a supplier.

**purge.** The process of removing records or data from a system file.

**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.

---

**reporting code.** See *category code*.

**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).

**quantity per.** The quantity of a component to be used in the production of its parent. This value is stored in the bill of material and is used to calculate the gross requirements for components during the explosion process of MRP.

**queue.** 1) In computers: See job queue, output queue, and print queue.  
2) In manufacturing: A waiting line. The jobs at a given work center waiting to be processed. As queues increase, so do average queue time and work-in-process inventory.

**rated capacity.** The demonstrated capability of a system. Traditionally, capacity is calculated from such data as planned hours, efficiency, and utilization. The rated capacity is equal to hours available x efficiency x utilization.

**rate-based scheduling.** A method for scheduling and producing based on a periodic rate, for example, daily, weekly or monthly. Traditionally, this method has been applied to high-volume and process industries. The concept can be applied within job shops using cellular layouts and mixed-model level schedules where the production rate is matched to the selling rate.

**raw material.** Purchased items or extracted materials that are converted via the manufacturing process into components and/or products.  
**receipt.** 1) The physical acceptance of an item into a stocking location. 2) The transaction reporting of this activity.

**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.

**release.** The authorization to produce or ship material that has already been ordered.

**repetitive manufacturing.** A form of manufacturing where various items with similar routings are made across the same process whenever production occurs. Products may be made in separate batches or continuously. Production in a repetitive environment is not a function of speed or volume.

**replacement parts.** Parts that can be used as substitutes that differ from completely interchangeable service parts in that they require some physical modification, such as cutting, drilling, and so forth, before they can replace the original part.

**revision level.** A number or letter representing the number of times a document has been changed.

**rework order.** A manufacturing order to rework and salvage defective parts or products.

**resource requirements planning (RRP).**

The process of converting the production plan and/or the master production schedule into capacity needs for key resources: work force, machinery, warehouse space, suppliers' capabilities, and in some cases, money. Comparison of capacity required of items in the MPS to available capacity is usually done for each key resource. Synonymous with *rough cut capacity planning*.

**routing.** A set of information detailing the method of manufacture of a particular item. It includes the operations to be performed, their sequence, the various work centers to be involved, and the standards for setup and run. In some companies, the routing

also includes information on tooling, operator skill levels, inspection operations, testing requirements, and so forth.

**run.** To cause the computer to perform a routine, process a batch of transactions, or carry out computer program instructions.

**run size.** See standard batch quantity.

**safety stock.** 1) In general, a quantity of stock planned to be in inventory to protect against fluctuations in demand and/or supply. 2) In the context of master production scheduling, the additional inventory and/or capacity planned as protection against forecast errors and/or short-term changes in the backlog. Overplanning can be used to create safety stock.

**scrap.** Unusable material that results from the production process. It is material outside of specifications and of such characteristics that rework is impractical.

**scrap factor.** A percentage factor in the product structure used to increase gross requirements to account for anticipated loss within the manufacture of a particular product. Synonymous with *scrap rate*.

**scroll.** To 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.

**selection.** Found on JDE menus, 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.

**setup.** 1) The work required to change a specific machine, resource, work center, or line from making the last good piece of unit A to the first good piece of unit B; 2) Teardown of the just completed production and preparation of the equipment for production of the next scheduled item.

**setup cost.** The costs such as scrap costs, calibration costs, downtime costs, and lost sales associated with preparing the resource for the next product.

**setup leadtime.** The time needed to prepare a manufacturing process to start. Setup leadtime may include run and inspection time for the first piece.

**shelf life.** The amount of time an item may be held in inventory before it becomes unusable.

**shop calendar.** See work day calendar.

**shop floor control (SFC).** A system for utilizing data from the shop floor to maintain and communicate status information on shop orders (manufacturing orders) and on work centers. The major subfunctions of shop floor control are: 1) assigning priority of each shop order, 2) maintaining work-in-process quantity information, 3) conveying shop order status information to the office, 4) providing actual output data for capacity control purposes, 5) providing quantity by location by shop order for work-in-process inventory and accounting purposes, and 6) providing measurement of efficiency, utilization, and productivity of the work force and machines.

**shrinkage.** Reductions of actual quantities of items in stock, in process, or in transit. The loss may be caused by scrap, theft, deterioration, evaporation, and so forth.

**shrinkage factor.** A percentage factor in the item master record that compensates for expected loss during the manufacturing cycle either by increasing the gross requirements or by reducing the expected completion quantity of planned and open orders. The shrinkage factor differs from the scrap factor in that the former affects all uses of the part and its components and the scrap factor relates to only one usage. Synonymous with *shrinkage rate*.

---

**significant part numbers.** Part numbers that are intended to convey certain information, such as the source of the part, the material in the part, the shape of the part, and so forth. These usually make part numbers longer. Contrast with *nonsignificant part numbers*.

**simulation.** 1) The technique of using representative or artificial data to reproduce in a model various conditions that are likely to occur in the actual performance of a system. It is frequently used to test the behavior of a system under different operating policies. 2) Within MRP II, using the operational data to perform "what if" evaluations of alternative plans to answer the question, "Can we do it?" If yes, the simulation can then be run in the financial mode to help answer the question, "Do we really want to?" Synonymous with *what-if analysis*.

**single level bill of material.** A display of those components that are directly used in a parent item. It shows only the relationships one level down.

**single-level where-used.** A list of each parent in which a specific component is directly used and in what quantity. Done by imploding the bill of material.

**softcoding.** A JDE term that describes an entire family of features that allows you to customize and adapt JDE software to your business environment. These features lessen the need for you to use computer programmers when your data processing needs change.

**software.** The operating system and application programs that tell the computer how and what tasks to perform.

**special character.** Representation of data in symbols that are neither letters nor numbers. Some examples are \* & # /.

**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.

**standard batch quantity.** The quantity of a parent that is used as the basis for specifying the material requirements for production. The "quantity per" is expressed as the quantity to make the standard batch quantity, not to make only one of the parent. It is often used by manufacturers that use some components in very small quantities or by process-related manufacturers. Synonymous with *run size*.

**standard costs.** The target costs of an operation, process, or product including direct material, direct labor, and overhead charges.

**standard cost system.** A cost system that uses cost units determined before production. For management control purposes, the standards are compared to actual costs and variances are computed.

**standard hours.** The length of time that should be required to 1) set up a given machine or operation and 2) run one part/assembly/batch/end product through that operation. This time is used in determining machine and labor requirements. It is also frequently used as a basis for incentive pay systems and as a basis of allocating overhead in cost accounting systems.

**subassembly.** An assembly that is used at a higher level to make up another assembly.

**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 *scroll*.

**submit.** See *run*.

**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 JDE systems offer screens and reports that are summaries of the information stored in certain files.

**superflush.** A technique to relieve all components down to the lowest level using the complete bill of material, based on the count of finished units produced and/or transferred to finished good inventory.

**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. Synonymous with *application*.

**throughput.** 1) The total volume of production through a facility (machine, work center, department, plant, or network of plants). 2) In theory of constraints, the rate at which the system (firm) generates money through sales.

**time fence.** A policy or guideline established to note where various restrictions or changes in operating procedures take place. For example, changes to the master production schedule can be accomplished easily beyond the cumulative leadtime, whereas changes inside the cumulative leadtime become increasingly more difficult to a point where changes should be resisted. Time fences can be used to define these points.

**time series.** A set of data that is distributed over time, such as demand data in monthly time period occurrences.

**unit cost.** Total labor, material, and overhead cost for one unit of production, for example, one part, one gallon, or one pound.

**unit of measure.** The unit in which the quantity of an item is managed, such as by weight, each, box, package, case, and so forth.

**use as is.** A classification for material that has been dispositioned as unacceptable per the specification, yet can be used.

**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.

**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). JDE 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 identification (user ID).** The unique name you enter when you sign on to a JDE system to identify yourself to the system. This ID can be up to 10 characters long and can consist of alphabetic, alphanumeric, and numeric characters.

**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.

**variable.** Changing, not constant or fixed. For example, variable costs are costs that change according to varying conditions.

**variable overhead.** All manufacturing costs that vary directly with production volume, other than direct labor and direct materials. Variable overhead is necessary to produce the product, but cannot be directly assigned to a specific product.

---

**variance.** The difference between the expected (budgeted or planned) value and the actual value.

**video.** The display of information on your monitor screen. Normally referred to as the *screen*.

**vocabulary overrides.** A JDE facility that allows you to override field, row, or column title text on a screen-by-screen or report-by-report basis.

**where used list.** A listing of every parent item that calls for a given component, and the respective quantity required, from a bill of material file. Synonymous with *implosion*.

**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.

**work center.** A specific production facility, consisting of one or more people and/or machines with identical capabilities, that can be considered as one unit for purposes of capacity requirements planning and detailed scheduling. Synonymous with *load center*.

**work day calendar.** A calendar used in inventory and production planning functions that consecutively numbers only the working days so that the component and work order scheduling may be done based on the actual number of work days available. Synonymous with *planning calendar*, *manufacturing calendar*, and *shop calendar*.

**work in process (WIP).** A product or products in various stages of completion throughout the plant, including all material from raw material that has been released for initial processing up to completely processed material awaiting final inspection and acceptance as finished product. Many accounting systems also include the value

of semi-finished stock and components in this category. Synonymous with *in-process inventory*.



# Index



# Index

---

## Numbers

52 period date pattern, setting up, 2-10

## A

About detail forecasts, 2-1  
About planning bill forecasts, 4-1  
About summary forecasts, 3-1  
Address book records, revising, 3-15  
Address Book Revisions form (P01051), 3-16  
Address Number, defined, 3-22  
Alpha Name, defined, 3-16  
Amount – Adjusted, defined, 2-35  
Amount – Extended Price, defined, 3-52  
Amount – Forecast, defined, 2-32, 3-52  
Amount – Sales Order History, defined, 2-32  
Assemble-to-order, 1-11

## B

Branch, defined, 4-12  
Branch/Plant, defined, 2-22, 2-31, 2-34, 3-22  
Branch/plant data, reviewing, 3-19  
Business Units by Company form (P0006A), 3-20  
Bypassing records, 3-44

## C

Category Code – Address Book 01, defined, 3-19  
Category Codes form (P010512), 3-18  
Change Amount, defined, 3-32, 3-52  
Change Type, defined, 3-32, 3-52

Company, defined, 3-21, 3-32, 3-48  
Company Address Number, defined, 3-18  
Company hierarchy  
    example, 3-3  
    hierarchy of company 100, 3-5  
    summary codes, 3-6  
Company Summary Y/N, defined, 3-14  
Comparing summaries of detail forecasts and summary forecasts, 3-2  
    *See also* Defining the distribution hierarchy (P4091)  
Considerations, 1-11  
Copying sales order history, 2-16  
    *See also* Setting up detail forecasts before you begin, 2-17  
Copying summary sales order history, 3-26  
    *See also* Setting up detail forecasts; Setting up summary forecasts before you begin, 3-27  
Customer Level, defined, 3-14  
Customer Number, defined, 2-22

## D

Date – From, defined, 3-32, 3-51  
Date – Thru, defined, 3-32, 3-51  
Date Pattern Revisions form (P0008), 2-8  
Date Pattern Type, defined, 2-9  
Defining the distribution hierarchy, 3-10  
    before you begin, 3-12  
Demand patterns, 1-10  
Description, defined, 2-13, 3-13, 3-32  
Detail forecasts, 1-1, 2-1  
    generating, 2-26  
    generating summaries, 3-41  
    reviewing, 2-28  
    revising, 2-32  
    setting up, 2-3  
    working with, 2-25  
Distribution hierarchy, defining, 3-10

### E

End of Period Century, defined, 2-9  
End of Period Date, defined, 2-9  
Engineer-to-order, raw materials & components, 1-11  
Enter/Change Actuals form (P3460), 2-20  
Enter/Change Bill (P3002), fold area, 4-10  
Enter/Change Bill form (P3002), 4-10  
Enter/Change Forecast, processing options, 2-35  
Enter/Change Forecast form (P3460), 2-33  
Enter/Change Summaries, processing options, 3-33, 3-53  
Enter/Change Summaries form (P34200), 3-29, 3-46, 3-49  
Entering a planning bill, 4-9  
Examples  
    company hierarchy, 3-3  
    distribution hierarchy for company 100, 3-11  
    exploding the forecast to the item level, 4-3  
    planning bill forecasts, pseudo parent item, 4-2  
    reviewing and revising sales order history, 2-19  
    revising a detail forecast, 2-33  
    using the Force Changes program, 3-53  
Exploding the forecast to the item level, 4-3  
Extract Sales Order History, processing options, 2-18, 3-28

### F

Feature Planned Percent, defined, 4-13  
Features  
    demand patterns, 1-10  
    forecast accuracy, 1-11  
    forecasting, 1-6  
Fields  
    Address Number, 3-22  
    Alpha Name, 3-16  
    Amount - Adjusted, 2-35  
    Amount - Extended Price, 3-52  
    Amount - Forecast, 2-32, 3-52  
    Amount - Sales Order History, 2-32

Branch, 4-12  
Branch/Plant, 2-22, 2-31, 2-34, 3-22  
Category Code - Address Book 01, 3-19  
Change Amount, 3-32, 3-52  
Change Type, 3-32, 3-52  
Company, 3-21, 3-32, 3-48  
Company Address Number, 3-18  
Company Summary Y/N, 3-14  
Customer Level, 3-14  
Customer Number, 2-22  
Date - From, 3-32, 3-51  
Date - Thru, 3-32, 3-51  
Date Pattern Type, 2-9  
Description, 2-13, 3-13, 3-32  
End of Period Century, 2-9  
End of Period Date, 2-9  
Feature Planned Percent, 4-13  
Fiscal Date Pattern Code, 2-9  
Fiscal Year Beginning Century, 2-9  
Fiscal Year Beginning Date, 2-9  
Forecast Type, 2-21, 2-22, 2-31, 2-35  
Generic Text Window Line, 2-23, 2-35  
Global Summary Y/N, 3-14  
Inclusion Code, 2-5  
Issue Type Code, 4-13  
Item Number, 2-21, 2-22, 2-35, 4-12  
Item Number Summary Y/N, 3-14  
Key Position - Code, 3-14  
Level of Detail, 3-21  
Line Type, 2-6  
Location or Branch, 3-48  
Mailing Name, 3-16  
Master Planning Family, 2-31, 4-9  
Name - Alpha, 3-19  
Order Type, 2-6  
Pass, 2-21, 3-33, 3-52  
Payables, 3-17  
Percent, 2-32  
Planner Number, 2-31  
Planning Code, 4-9  
Product No, 4-8  
Quantity - Adjusted, 2-22, 2-35, 3-52  
Quantity - Forecast, 2-31  
Quantity - Original, 2-22  
Quantity - Sales Order History, 2-31, 3-52  
Quantity Per, 4-13  
Receivables, 3-17  
Request Date, 2-22, 3-33  
Search Type, 3-17

---

Status – Line, 2–7  
Stocking Type, 4–9  
Summary Code, 3–14  
Unit of Measure, 2–22, 2–35  
User Defined Code, 2–13, 3–13  
Year – Calendar Year, 2–30  
Fiscal date pattern, setting up, 2–7  
Fiscal Date Pattern Code, defined, 2–9  
Fiscal Year Beginning Century, defined, 2–9  
Fiscal Year Beginning Date, defined, 2–9  
Force Changes, processing options, 3–55  
Forecast accuracy, statistical laws, 1–11  
Forecast considerations, 1–11  
    *See also* Appendix B – Forecast calculation examples  
Forecast methods  
    best fit example, B–21  
    method 1 – percent over last year, B–1  
    method 10 – exponential smoothing 2, B–19  
    method 2 – calculated percent over last year, B–3  
    method 3 – last year to this year, B–5  
    method 4 – moving average, B–6  
    method 5 – linear approximation, B–8  
    method 6 – second degree approximation, B–10  
    method 7 – flexible method, B–13  
    method 8 – weighted moving average, B–15  
    method 9 – exponential smoothing 1, B–17  
Forecast Review, processing options, 2–32  
Forecast Summary Detail form (P34200W), 3–31, 3–48  
Forecast Summary Revisions (P3400), fold area, 3–50  
Forecast Summary Revisions form (P3400), 3–30, 3–49  
Forecast Text form (P0016), 2–34  
Forecast Type, defined, 2–21, 2–22, 2–31, 2–35  
Forecast types, setting up, 2–12  
Forecast Types form (P00051), 2–12  
Forecasting  
    data model, A–1  
    features, 1–6  
Forecasting level and methods, 1–7  
Forecasting overview, 1–1  
Forecasting process, 1–12

## Forms

Address Book Revisions, 3–16  
Business Units by Company, 3–20  
Category Codes, 3–18  
Date Pattern Revisions, 2–8  
Enter/Change Actuals, 2–20  
Enter/Change Bill, 4–10  
Enter/Change Forecast, 2–33  
Enter/Change Summaries, 3–29, 3–46, 3–49  
Forecast Summary Detail, 3–31, 3–48  
Forecast Summary Revisions, 3–30, 3–49  
Forecast Text, 2–34  
Forecast Types, 2–12  
General User Defined Codes, 3–7  
Item Branch Class Codes, 3–23, 4–8  
Item Branch Information, 4–7  
Item Branch/Plant Information, 3–23  
Item Master Information, 4–6  
Multi Level Bill Inquiry, 4–11  
Plant Manufacturing Data, 4–7  
Review Forecast, 2–29  
Set 52 Period Date, 2–11  
Single Business Unit Revisions, 3–21  
Summary Codes, 3–12  
Summary Constants, 3–13  
Supply/Demand Inclusion Rules, 2–5

## G

General User Defined Codes form (P00051), 3–7  
Generate Detail Forecast, processing options, 2–27  
Generating detail forecasts, 2–26  
Generating planning bill forecasts, 4–15  
    *See also* Entering a planning bill before you begin, 4–15  
Generating summaries of detail forecasts, 3–41  
    before you begin, 3–43  
Generating summary forecasts, 3–35  
    before you begin, 3–37  
Generic Text Window Line, defined, 2–23, 2–35  
Global Summary Y/N, defined, 3–14  
Graphic  
    company hierarchy, 3–4, 3–5

- comparing forecast to sales order history, 2-29
- distribution hierarchy for company 100, 3-11
- ERPx system, 1-4
- exact sales order history, 2-16
- Force Changes program, 3-54
- forecast record hierarchy, 3-42
- forecasting example, 1-2, 1-3, 1-13
- forecasting process, 1-12
- generate detail forecast, 2-26
- generate summary forecast, 3-37
- pseudo parent item, 4-2
- RRP/MPS/MRP, 1-5
- summaries of detail forecasts and summary forecasts, 3-2, 3-3
- summary detail forecasts, 3-43
- summary forecast, 3-36
- summary sales order history, 3-26
- typical demand patterns, 1-10

## I

- Inclusion Code, defined, 2-5
- Issue Type Code, defined, 4-13
- Item Branch Class Codes form (P41025), 3-23, 4-8
- Item Branch Information form (P41026), 4-7
- Item Branch/Plant Information form (P41026), 3-23
- Item location records, reviewing, 3-22
- Item master information, planning bill, 4-5
- Item Master Information form (P4101), 4-6
- Item Number, defined, 2-21, 2-22, 2-35, 4-12
- Item Number Summary Y/N, defined, 3-14
- Items from summary constants, 3-43

## K

- Key Position – Code, defined, 3-14

## L

- Level of Detail, defined, 3-21
- Levels and methods, 1-7
  - best fit, 1-7
  - calculated percent over last year, 1-8
  - exponential smoothing, 1-9
  - flexible method, 1-9
  - geometrically weighted moving average, 1-9
  - last year to this year, 1-8
  - linear approximation, 1-8
  - methods, 1-8
  - moving average, 1-8
  - percent over last year, 1-8
  - second degree approximation, 1-9
  - weighted moving average, 1-9
- Line Type, defined, 2-6
- Location or Branch, defined, 3-48

## M

- Made-to-stock end items, 1-11
- Mailing Name, defined, 3-16
- Major tables, 1-14
- Make-to-order, raw materials & components, 1-11
- Master Planning Family, defined, 2-31, 4-9
- Master Production Schedule, processing options, 4-15
- Menu, overview, 1-15
- Multi Level Bill Inquiry form (P30200), 4-11

## N

- Name – Alpha, defined, 3-19

## O

- Order Type, defined, 2-6
- Overview
  - forecasting, 1-1
  - revising summaries of forecasts, 3-45
  - system integration, 1-3

---

## P

Pass, defined, 2-21, 3-33, 3-52  
Payables, defined, 3-17  
Percent, defined, 2-32  
Planner Number, defined, 2-31  
Planning bill  
    entering, 4-9  
    item master information, 4-5  
    setting up, 4-5  
Planning bill forecasts, 1-2, 4-1  
    exploding the forecast to the item level, 4-3  
    generating, 4-15  
Planning Code, defined, 4-9  
Plant Manufacturing Data form (P41027), 4-7  
Processing options  
    Enter/Change Forecast, 2-35  
    Enter/Change Summaries, 3-33, 3-53  
    Extract Sales Order History, 2-18, 3-28  
    Force Changes, 3-55  
    Forecast Review, 2-32  
    Generate Detail Forecast, 2-27  
    Master Production Schedule, 4-15  
    Summary Forecast Generation, 3-38  
    Summary Forecast Update - Batch, 3-44  
Product No, defined, 4-8  
Programs and IDs  
    P00051 (forecast types), 2-12  
    P00051 (general user defined codes), 3-7  
    P00051 (summary codes), 3-12  
    P0006 (single business unit revisions), 3-21  
    P0006A (business units by company), 3-20  
    P0008 (date pattern revisions), 2-8  
    P0008B (set 52 period date), 2-11  
    P0016 (forecast text), 2-34  
    P01051 (address book revisions), 3-16  
    P010512 (category codes), 3-18  
    P3002 (enter/change bill), 4-10  
    P30200 (multi level bill inquiry), 4-11  
    P3400 (forecast summary revisions), 3-30, 3-49  
    P34004 (supply/demand inclusion rules), 2-5  
    P34200 (enter/change summaries), 3-29, 3-46, 3-49

P34200W (forecast summary detail), 3-31, 3-48  
P34201 (review forecast), 2-29  
P3460 (enter/change forecast), 2-33  
P3460 (enter/change sales order history), 2-20  
P4091 (summary constants), 3-13  
P4101 (item master information), 4-6  
P41025 (item branch class codes), 3-23, 4-8  
P41026 (item branch information), 4-7  
P41026 (item branch/plant information), 3-23  
P41027 (plant manufacturing data), 4-7

## Q

Quantity - Adjusted, defined, 2-22, 2-35, 3-52  
Quantity - Forecast, defined, 2-31  
Quantity - Original, defined, 2-22  
Quantity - Sales Order History, defined, 2-31, 3-52  
Quantity Per, defined, 4-13

## R

Receivables, defined, 3-17  
Records for large customers, 3-27  
Request Date, defined, 2-22, 3-33  
Review Forecast form (P34201), 2-29  
Reviewing and revising sales order history, 2-19  
Reviewing and revising summary sales order history, 3-29  
    before you begin, 3-29  
Reviewing branch/plant data, 3-19  
    before you begin, 3-19  
Reviewing detail forecasts, 2-28  
Reviewing item location records, 3-22  
    *See also* Defining the distribution hierarchy (P4091)  
Reviewing the summary forecast, 3-46  
Revising address book records, 3-15  
    before you begin, 3-15  
Revising detail forecasts, 2-32

Revising summaries of forecasts, 3-45  
*See also* Generating summaries of detail forecasts; Generating summary forecasts before you begin, 3-46  
Revising summary forecasts using the Force Change program, 3-53  
before you begin, 3-54  
Revising the summary forecast, 3-48  
*See also* Revising summary forecasts using the Force Change program

## S

Sales order history  
copying, 2-16  
reviewing and revising, 2-19  
working with, 2-15  
Search Type, defined, 3-17  
Set 52 Period Date form (P0008B), 2-11  
Setting the revised flag processing option, 3-55  
Setting up a planning bill, 4-5  
Setting up detail forecasts, 2-3  
Setting up fiscal date patterns, 2-7  
Setting up forecast types, 2-12  
Setting up item master information, 4-5  
Setting up summary forecasts, 3-9  
*See also* Setting up detail forecasts; Summary forecasts before you begin, 3-9  
Setting up supply/demand inclusion rules, 2-4  
Setting up the 52 period date pattern, 2-10  
Single Business Unit Revisions form (P0006), 3-21  
Specifying bypassed records, 3-55  
Statistical laws, forecast accuracy, 1-11  
Status - Line, defined, 2-7  
Stocking Type, defined, 4-9  
Summaries, comparing detail and summary forecasts, 3-2  
Summary Code, defined, 3-14  
Summary Codes form (P00051), 3-12  
Summary constant code, 3-43  
Summary Constants form (P4091), 3-13  
Summary Forecast Generation, processing options, 3-38

Summary Forecast Update - Batch, processing options, 3-44  
Summary forecasts, 1-1, 3-1  
generating, 3-35  
reviewing, 3-46  
revising, 3-48  
revising with the Force Changes program, 3-53  
setting up, 3-9  
Summary sales order history  
copying, 3-26  
records for large customers, 3-27  
reviewing and revising, 3-29  
working with, 3-25  
Supply/demand inclusion rules, setting up, 2-4  
Supply/Demand Inclusion Rules form (P34004), 2-5  
System integration, 1-3  
distribution resources planning, 1-5  
master production schedule, 1-5  
material requirements planning, 1-5  
resource requirements planning, 1-5

## T

Tables  
Address Book, 1-14  
Branch/Plant Master, 1-14  
Business Unit Master, 1-14  
Detail Forecast, 1-14  
Fast Path Command, 1-15  
Forecast Summary Work, 1-14  
Item Master, 1-14  
Sales History, 1-14  
Sales Order Detail, 1-14  
Summary Constants, 1-14  
Summary Forecast, 1-14

## U

UDC, forecast type, 2-12  
Unit of Measure, defined, 2-22, 2-35  
Unit of measure, 3-27  
User Defined Code, defined, 2-13, 3-13

---

## W

Working with detail forecasts, 2-25

Working with sales order history, 2-15

Working with summary sales order history,  
3-25

## Y

Year – Calendar Year, defined, 2-30



# Exercises

