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EnterpriseOne 8.10  
Forecast Management  
PeopleBook

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**May 2004**



EnterpriseOne 8.10  
Forecast Management PeopleBook  
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# About These EnterpriseOne PeopleBooks

## Preface

EnterpriseOne PeopleBooks provide you with the information that you need to implement and use PeopleSoft EnterpriseOne applications.

This preface discusses:

- EnterpriseOne application prerequisites
- Obtaining documentation updates
- Typographical elements and visual cues
- Comments and suggestions

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### Note

EnterpriseOne PeopleBooks document only fields that require additional explanation. If a field is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or product line.

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## EnterpriseOne Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use EnterpriseOne applications.

See the *Foundation Guide*.

You might also want to complete at least one EnterpriseOne introductory training course.

You should be familiar with navigating the system and adding, updating, and deleting information by using EnterpriseOne menus and forms. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your EnterpriseOne applications most effectively.

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## Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection Website. Through the Documentation section of PeopleSoft Customer Connection, you can download files to add to your PeopleBook Library. You can find a variety of useful and timely materials, including updates to the full PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM.

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### Note

Before you upgrade, you must check PeopleSoft Customer Connection for updates to the upgrade instructions. PeopleSoft continually posts updates as the upgrade process is refined.

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### See Also

PeopleSoft Customer Connection Website, <http://www.peoplesoft.com/corp/en/login.jsp>

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## Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions
- Visual cues

### Typographical Conventions

The following table contains the typographical conventions that are used in EnterpriseOne PeopleBooks:

Typographical Convention or Visual Cue	Description
<i>Italics</i>	Indicates emphasis, topic titles, and titles of PeopleSoft or other book-length publications. Also used in code to indicate variable values.
Key+Key	A plus sign (+) between keys means that you must hold down the first key while you press the second key. For example, Alt+W means hold down the Alt key while you press W.
Monospace font	Indicates a PeopleCode program or other code example.
“ ” (quotation marks)	Indicates an adjective that is used in a way that might not be readily understood without the quotation marks, for example "as of" date, "as if" currency, "from" date, and "thru" date.
Cross-references	EnterpriseOne PeopleBooks provide cross-references either below the heading "See Also" or preceded by the word See. Cross-references lead to other documentation that is pertinent to the

	immediately preceding documentation.
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# Visual Cues

EnterpriseOne PeopleBooks contain the following visual cues:

- Notes
- Cautions

## Notes

Notes indicate information that you should pay particular attention to as you work with the PeopleSoft system.

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### Note

Example of a note.

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## Cautions

Text that is preceded by *Caution* is crucial and includes information that concerns what you must do for the system to function properly.

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### Caution

Example of a caution.

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# Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager, PeopleSoft Inc., 4460 Hacienda Drive, Pleasanton CA 94588

Or you can send e-mail comments to *doc@peoplesoft.com*.

While we cannot guarantee an answer to every e-mail message, we will pay careful attention to your comments and suggestions.

# Industry Environment and Concepts for Forecasting

The Forecast Management system allows you to effectively manage customer demand with timely, reliable forecasts. Understanding the importance of forecasts can help you plan and manage your forecasts to suit your specific business needs.

To understand the critical role that forecasts play in the business environment, you must be aware of the different types of forecasts and the data that is used to create these forecasts.

Forecasting has grown beyond the simple prediction of future sales based on data from previous years. The globalization of businesses has created a need for multiple forecasts by area; revision level; and, perhaps, even by key customer.

Now more than ever, businesses must be able to quickly create multiple scenarios for instant evaluation in making informed planning decisions. Businesses require the ability to build customer or item forecasts at the detail and aggregate level with algorithms that reflect product demand patterns. Companies must proactively plan and manage forecasts with the flexibility that is needed for specific business requirements.

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## Forecasting Methods Overview

To stay competitive, companies need to build realistic forecasts that are based on their organization's unique business practices. For example, to match market patterns, companies require the ability to use multiple industry-standard forecast algorithms that include the following values for quantitative or intrinsic forecasting:

- Seasonal
- Weighted average
- Exponential smoothing
- Percent over last year
- Calculated percent over last year
- Last year to this year
- Moving average
- Linear approximation
- Least square regression
- Second degree approximation
- Flexible method
- Linear smoothing

Using these industry-standard forecasting equations, businesses need their system to calculate the percentage of accuracy for the "best fit" forecast, normally using Mean Absolute Deviation (MAD), according to current and historical demand information.

Businesses also require the ability to revise the data that is included in their forecast. For example, a business might include data that is not typical. To forecast more accurately, the data must be revised. Another example for this revision capability requirement is the need to insert data that was not captured in the past because of some unpredictable on-hand information.

Forecasting uses the Qualitative technique. It uses subjective projections based on judgment, intuition, and informed opinions. Extrinsic techniques, using economic indicators, are also necessary methods in calculating a forecast. For example, an economic indicator can be the amount of disposable income, which affects demand.

Companies that want to keep up-to-date must have the ability to develop hypothetical scenarios, using different forecasting methods and techniques.

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## **Multilevel Forecasting**

Businesses require the ability to forecast at any level. For example, they might need to generate either detail forecasts (single-item) or summary forecasts that reflect product line demand patterns. They might need to forecast at the company, department, item group, or specific item level.

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## **Demand Forecasting**

In today's customer-focused environment, businesses need to create separate forecasts for major customers or customer groups to isolate key demand sources. Demand forecasting is essential in a customer-driven environment. Coordination between planning by the Operations department--through materials management-- and meeting customer needs by the Marketing department is the key to recognizing and managing product demand.

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## **Integrating Information**

Companies need integration within their supply chain. The ability to access all of the pertinent information for accurate forecasting and planning is imperative. Systems need to talk to each other to facilitate decision-making and planning. This integration eases the process of obtaining the necessary information to generate an accurate forecast.

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## **Simplifying the Forecast**

To simplify the forecast process, companies generally use a Planning Bill. Planning Bills are an artificial grouping of components, or bills of material, used for planning purposes. For example, if 24 different bills of material exist, based on different end products, the 24 bills can show the percentage split for each type of component on one bill.

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## Measuring Accuracy

Forecast error due to bias, which is the difference between actual demand and forecast demand, needs to be calculated to make more informed forecasting decisions. One commonly used method for measuring error is Mean Absolute Deviation (MAD). MAD is calculated by dividing the sum of absolute deviations by the number of total observations.

# Forecast Management Overview

Effective management of distribution and manufacturing activities begins with understanding and anticipating market needs. Forecasting is the process of projecting past sales demand into the future. Implementing a forecasting system allows you to quickly assess current market trends and sales so that you can make informed decisions about 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
- Work force requirements

The Forecast Management system generates the following types of forecasts:

**Detail forecasts**      Detail forecasts are based on individual items.

**Summary forecasts**      Summary (or aggregated) forecasts are based on larger product 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.

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## System Integration

The Forecast Management system is one of many systems that make up the Supply Chain Management module. You can use the Supply Chain Management module to coordinate your inventory, raw material, and labor resources to deliver products according to a managed schedule. Supply Chain Management 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 Forecast Management system generates demand projections that you use as input for the PeopleSoft EnterpriseOne planning and scheduling systems. The planning and scheduling systems calculate material requirements for all component levels--from raw materials to complex subassemblies.

The Resource Requirements Planning (RRP) system uses forecasts to estimate the time and resources that are needed to make a product.

The Master Production Schedule (MPS) system plans and schedules the products that your company expects to manufacture. Forecasts are one MPS input that helps determine demand before you complete your production plans.

Material Requirements Planning (MRP) is an ordering and scheduling system that breaks down the requirements of all MPS parent items to the component levels. You can also use forecasts as input for lower-level MRP components that are service parts with independent demand, which is demand not directly or exclusively tied to production of a particular product at a particular branch or plant.

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

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## Features of Forecast Management

You can use the Forecast Management system to:

- Generate forecasts.
- Enter forecasts manually.
- Maintain both forecasts that are generated by the system and manually entered forecasts.
- Create unique forecasts by large customer.
- Summarize sales order history data in weekly or monthly time periods.
- Generate forecasts that are based on any or all of 12 different formulas which address a variety of forecast situations that you might encounter.
- Calculate which of the 12 formulas provides the best-fit forecast.
- Define the hierarchy that the system uses to summarize sales order histories and 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 tables.
- Review and adjust both forecasts and sales order actuals at any level of the hierarchy.



- Integrate the detail forecast records into MPS, MRP, and DRP generations.
- Force changes made at any component level to both higher levels and lower levels.
- Set a bypass flag to prevent changes that are 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 PeopleSoft Forecast Management system. The most accurate forecasts consider 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. When you aggregate, or summarize, forecasts, the system uses changes that you make at any level of the forecast to automatically update all of the other levels.

You can perform simulations that are based on the initial forecast to compare different situations. After you accept a forecast, the system updates your manufacturing and distribution plan with any changes that you have made.

The system writes zero or negative detail records. For example, if the quantities or amounts in Refresh Actuals (R3465), Forecast Generation (R34650), or Forecast Revisions (P3460) are zero or negative, the system creates zero or negative records in the Forecast File table (F3460).

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## Tables Used by Forecast Management

The tables that are used by the Forecast Management system must identify data and processing information to support the forecasting process.

<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 Master (F0101)</b>	Stores all of the address information pertaining to customers, vendors, employees, prospects, and others.
<b>Forecast Summary File (F3400)</b>	Contains the summary forecasts that are generated by the system and the summarized sales order history that is created by the Refresh Actuals program (R3465).
<b>Forecast Summary Work File (F34006)</b>	Connects the summary records from the Forecast Summary File table (F3400) to the detail records in the Forecast File table (F3460).

<b>Forecast Prices (F34007)</b>	Stores price information for item, branch, customer, and forecast type combinations.
<b>Forecast File (F3460)</b>	Contains the detail forecasts that are generated by the system and the sales order history that is created by the Refresh Actuals program (R3465).
<b>Category Code Key Position File (F4091)</b>	Stores the summary constants that you set up for each product hierarchy.
<b>Item Master (F4101)</b>	Stores basic information about each defined inventory item, such as item number, description, category codes, and unit of measure.
<b>Item Branch File (F4102)</b>	Defines and maintains warehouse or plant-level information, such as costs, quantities, physical locations, and branch-level category codes.
<b>Sales Order Detail File (F4211)</b>	Provides sales order demand by the requested date. The system uses this table to update the Sales Order History File table (F42119) for forecast calculations.
<b>Sales Order History File (F42119)</b>	Contains past sales data, which provide the basis for the forecast calculations.

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# Menu Overview of Forecast Management

The PeopleSoft Forecast Management system uses the following menus:

- Forecasting (G36)
  - Periodic Forecasting Operations (G3421)
  - Advanced & Technical Operations (G3630)
  - Forecasting Setup (G3441)

## Fast Path Commands

The following table lists the fast path commands that you can use to access the Forecast Management menus. From any menu, enter the fast path command at the command line.

Fast Path Command	Menu	Title
FC	G3421	Periodic Forecasting Operations
PFOR	G3421	Periodic Forecasting Operations
SFOR	G3441	Forecasting Setup

# Forecasting Levels and Methods

You can generate both detail (single item) forecasts and summary (product line) forecasts that reflect product demand patterns. The system analyzes past sales to calculate forecasts by using 12 forecasting methods. The forecasts include detail information at the item level, and higher-level information about a branch or the company as a whole.

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## Forecast Performance Evaluation Criteria

Depending on your selection of processing options and on trends and patterns in the sales data, some forecasting methods perform better than others for a given historical data set. A forecasting method that is appropriate for one product might not be appropriate for another product. It is also unlikely that a forecasting method that provides good results at one stage of a product's life cycle remains appropriate throughout the entire life cycle.

You can choose between two methods to evaluate the current performance of the forecasting methods:

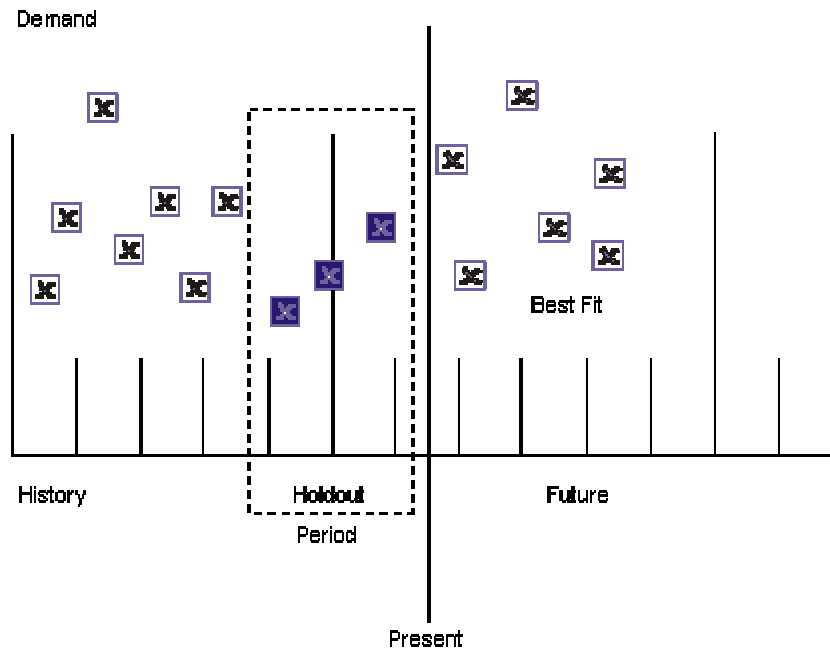
- Percent of Accuracy (POA)
- Mean Absolute Deviation (MAD)

Both of these performance evaluation methods require historical sales data for a user-specified period of time. This period of time is called a *holdout period* or *periods of best fit*. The data in this period is used as the basis for recommending which forecasting method to use in making the next forecast projection. This recommendation is specific to each product and can change from one forecast generation to the next.

## Best Fit

The system recommends the best fit forecast by applying the selected forecasting methods to past sales order history and comparing the forecast simulation to the actual history. When you generate a best fit forecast, the system compares actual sales order histories to forecasts for a specific time period and computes how accurately each different forecasting method predicted sales. Then the system recommends the most accurate forecast as the best fit.

### Best Fit Forecast



The system uses the following sequence of steps to determine the best fit:

1. Use each specified method to simulate a forecast for the holdout period.
2. Compare actual sales to the simulated forecasts for the holdout period.
3. Calculate the Percent of Accuracy (POA) or the Mean Absolute Deviation (MAD) to determine which forecasting method most closely matches the past actual sales. The system uses either POA or MAD, based on the processing options that you choose.
4. Recommend a best-fit forecast by the POA that is closest to 100 percent (over or under) or the MAD that is closest to zero.

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## Forecasting Methods

The Forecast Management system uses 12 methods for quantitative forecasting and indicates which method provides the best fit for your forecasting situation.

The following 12 methods that are used by the system are:

- 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 - Least Square Regression
- Method 7 - Second Degree Approximation
- Method 8 - Flexible Method
- Method 9 - Weighted Moving Average
- Method 10 - Linear Smoothing
- Method 11 - Exponential Smoothing
- Method 12 - Exponential Smoothing with Trend and Seasonality

Specify the method that you want the system to use in the processing options for the Forecast Generation program (R34650). Most of these methods provide limited user control. For example, the weight placed on recent historical data or the date range of historical data that is used in the calculations can be specified by the user.

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#### Note

The examples in the guide show the calculation procedure for each of the available forecasting methods, given an identical set of historical data.

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## Historical Sales Data

The method examples in the guide use part or all of the following data set, which is historical data for the years 1996 and 1997. The forecast projection goes into the year 1998.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996	125	123	115	137	122	130	141	128	118	123	139	133
1997	128	117	115	125	122	137	140	129	131	114	119	137

This sales history data is stable with small seasonal increases in July and December. This pattern is characteristic of a mature product that might be approaching obsolescence.

## Method 1 - Percent Over Last Year

This method uses the Percent Over Last Year formula to multiply each forecast period by the specified percentage increase or decrease.

To forecast demand, this method requires the number of periods for the best fit plus one year of sales history. This method is useful to forecast demand for seasonal items with growth or decline.

### Example: Method 1 - Percent Over Last Year

The Percent Over Last Year formula multiplies sales data from the previous year by a user-specified factor and then projects that result over the next year. This method might be useful in budgeting to simulate the impact of a specified growth rate or when sales history has a significant seasonal component.

Forecast specifications: multiplication factor. For example, specify 110 in the processing option to increase the previous year's sales history data by 10 percent.

Required sales history: one year for calculating the forecast, plus the user-specified number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	128	117	115	125	122	137	140	129	131	114	119	137
Forecast, 110% Over Last Year												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	141	129	127	138	134	151	154	142	144	125	131	151

January 1998 =  $128 * 1.1 = 140.8$  or 141

February 1998 =  $117 * 1.1 = 128.7$  or 129

March 1998 =  $115 * 1.1 = 126.5$  or 127

## Method 2 - Calculated Percent Over Last Year

This method uses the Calculated Percent Over Last Year formula to compare the past sales of specified periods to sales from the same periods of the previous year. The system determines a percentage increase or decrease, and then multiplies each period by the percentage to determine the forecast.

To forecast demand, this method requires the number of periods of sales order history plus one year of sales history. This method is useful to forecast short-term demand for seasonal items with growth or decline.

### Example: Method 2 - Calculated Percent Over Last Year

The Calculated Percent Over Last Year formula multiplies sales data from the previous year by a factor that is calculated by the system, and then it projects that result for the next year. This method might be useful in projecting the impact of extending the recent growth rate for a product into the next year while preserving a seasonal pattern that is present in sales history.

Forecast specifications: range of sales history to use in calculating the rate of growth. For example, specify  $n = 4$  in the processing option to compare sales history for the most recent four periods to those same four periods of the previous year. Use the calculated ratio to make the projection for the next year.

Required sales history: one year for calculating the forecast plus the user-specified number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation, Given $n = 4$												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996									118	123	139	133
1997	128	117	115	125	122	137	140	129	131	114	119	137
Calculation of Percent Over Last Year, Given $n = 4$												
1996... $118 + 123 + 139 + 133 = 513$												
1997... $131 + 114 + 119 + 137 = 501$												
ratio % = $(501 / 513) * 100 \% = 97.66\%$												
Forecast, 97.66% Over Last Year												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	125	114	112	122	119	134	137	126	128	111	116	134

January 1998 =  $128 * 0.9766 = 125.00$  or 125

February 1998 =  $117 * 0.9766 = 114.26$  or 114



March 1998 =  $115 * 0.9766 = 112.31$  or 112

## Method 3 - Last Year to This Year

This method uses last year's sales for the following year's forecast.

To forecast demand, this method requires the number of periods best fit plus one year of sales order history. This method is useful to forecast demand for mature products with level demand or seasonal demand without a trend.

### Example: Method 3 - Last Year to This Year

The Last Year to This Year formula copies sales data from the previous year to the next year. This method might be useful in budgeting to simulate sales at the present level. The product is mature and has no trend over the long run, but a significant seasonal demand pattern might exist.

Forecast specifications: none.

Required sales history: one year for calculating the forecast plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	128	117	115	125	122	137	140	129	131	114	119	137
Forecast, Last Year to This Year												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	128	117	115	125	122	137	140	129	131	114	119	137

January 1998 = January 1997 = 128

February 1998 = February 1997 = 117

March 1998 = March 1997 = 115

## Method 4 - Moving Average

This method uses the Moving Average formula to average the specified number of periods to project the next period. You should recalculate it often (monthly, or at least quarterly) to reflect changing demand level.

To forecast demand, this method requires the number of periods best fit plus the number of periods of sales order history. This method is useful to forecast demand for mature products without a trend.

### Example: Method 4 - Moving Average

Moving Average (MA) is a popular method for averaging the results of recent sales history to determine a projection for the short term. The MA forecast method lags behind trends. Forecast bias and systematic errors occur when the product sales history exhibits strong trend or seasonal patterns. This method works better for short-range forecasts of mature products than for products that are in the growth or obsolescence stages of the life cycle.

Forecast specifications:  $n$  = the number of periods of sales history to use in the forecast calculation. For example, specify  $n = 4$  in the processing option to use the most recent four periods as the basis for the projection into the next time period. A large value for  $n$  (such as 12) requires more sales history. It results in a stable forecast, but it is slow to recognize shifts in the level of sales. Conversely, a small value for  $n$  (such as 3) is quicker to respond to shifts in the level of sales, but the forecast might fluctuate so widely that production cannot respond to the variations.

Required sales history:  $n$  plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997									131	114	119	137
Calculation of Moving Average, Given $n = 4$												
$(131 + 114 + 119 + 137) / 4 = 125.25$ or 125												
Moving Average Forecast, Given $n = 4$												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	125	124	126	128	126	126	127	127	126	126	126	126

$$\text{January 1998} = (131 + 114 + 119 + 137) / 4 = 125.25 \text{ or } 125$$

$$\text{February 1998} = (114 + 119 + 137 + 125) / 4 = 123.75 \text{ or } 124$$

$$\text{March 1998} = (119 + 137 + 125 + 124) / 4 = 126.25 \text{ or } 126$$

## Method 5 - Linear Approximation

This method uses the Linear Approximation formula to compute a trend from the number of periods of sales order history and to project this trend to the forecast. You should recalculate the trend monthly to detect changes in trends.

This method requires the number of periods of best fit plus the number of specified periods of sales order history. This method is useful to forecast demand for new products, or products with consistent positive or negative trends that are not due to seasonal fluctuations.

### Example: Method 5 - Linear Approximation

Linear Approximation calculates a trend that is based upon two sales history data points. Those two points define a straight trend line that is projected into the future. Use this method with caution because long-range forecasts are leveraged by small changes in just two data points.

Forecast specifications:  $n$  = the data point in sales history that is compared to the most recent data point to identify a trend. For example, specify  $n = 4$  to use the difference between December 1997 (most recent data) and August 1997 (four periods prior to December) as the basis for calculating the trend.

Minimum required sales history:  $n$  plus 1 plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								129	131	114	119	137
Calculation of Linear Approximation, Given $n = 4$												
$(137 - 129) / 4 = 2.0$												
Linear Approximation Forecast, Given $n = 4$												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	139	141	143	145	147	149	151	153	155	157	159	161

$$\text{January 1998} = \text{Dec. 1997} + \text{Trend} = 137 + (1)2 = 139$$

$$\text{February 1998} = 137 + (2)2 = 141$$

$$\text{March 1998} = 137 + (3)2 = 143$$

## Method 6 - Least Squares Regression

The Least Squares Regression (LSR) method derives an equation describing a straight-line relationship between the historical sales data and the passage of time. LSR fits a line to the selected range of data so that the sum of the squares of the differences between the actual sales data points and the regression line are minimized. The forecast is a projection of this straight line into the future.

This method requires sales data history for the period that is represented by the number of periods best fit plus the specified number of historical data periods. The minimum requirement is two historical data points. This method is useful to forecast demand when a linear trend is in the data.

### Example: Method 6 - Least Squares Regression

Linear Regression, or Least Squares Regression (LSR), is the most popular method for identifying a linear trend in historical sales data. The method calculates the values for a and b to be used in the formula:

$$Y = a + bX.$$

This equation describes a straight line, where Y represents sales and X represents time. Linear regression is slow to recognize turning points and step function shifts in demand. Linear regression fits a straight line to the data, even when the data is seasonal or better described by a curve. When sales history data follows a curve or has a strong seasonal pattern, forecast bias and systematic errors occur.

Forecast specifications: n = the periods of sales history that will be used in calculating the values for a and b. For example, specify n = 4 to use the history from September through December 1997 as the basis for the calculations. When data is available, a larger n (such as n = 24) would ordinarily be used. LSR defines a line for as few as two data points. For this example, a small value for n (n = 4) was chosen to reduce the manual calculations that are required to verify the results.

Minimum required sales history: n periods plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997									131	114	119	137
Calculation of Linear Regression Coefficients, Given n = 4												
	<u>X</u>		<u>Y</u>		<u>XY</u>		<u>X<sup>2</sup></u>					
Sep. '97	1		131		131		1					
Oct. '97	2		114		228		4					
Nov. '97	3		119		357		9					
Dec. '97	<u>4</u>		<u>137</u>		<u>548</u>		<u>16</u>					
	Σ X = 10		Σ Y = 501		Σ XY = 1264		Σ X <sup>2</sup> = 30					
$b = (n \sum XY - \sum X \sum Y) / (n \sum X^2 - (\sum X)^2) = [4(1264) - (10 * 501)] / [4(30) - (10)^2] =$ $= (5056 - 5010) / (120 - 100) = 46 / 20 = 2.3$												
$a = (\sum Y / n) - b(\sum X / n) = (501 / 4) - [(2.3)(10 / 4)] = 119.5$												
Linear Regression Forecast, Given Y = 119.5 - 2.3 X, where X = 1 => Sep. 1997												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	131	133	136	138	140	143	145	147	149	152	154	156

$$\text{January 1998} = 119.5 + (5 * 2.3) = 131$$

$$\text{February 1998} = 119.5 + (6 * 2.3) = 133.3 \text{ or } 133$$

$$\text{March 1998} = 119.5 + (7 * 2.3) = 135.6 \text{ or } 136$$

## Method 7 - Second Degree Approximation

To project the forecast, this method uses the Second Degree Approximation formula to plot a curve that is based on the number of periods of sales history.

This method requires the number periods best fit plus the number of periods of sales order history times three. This method is not useful to forecast demand for a long-term period.

### Example: Method 7 - Second Degree Approximation

Linear Regression determines values for a and b in the forecast formula  $Y = a + bX$  with the objective of fitting a straight line to the sales history data. Second Degree Approximation is similar, but this method determines values for a, b, and c in the following forecast formula:

$$Y = a + bX + cX^2$$

The objective of this method is to fit a curve to the sales history data. This method is useful when a product is in the transition between life cycle stages. For example, when a new product moves from introduction to growth stages, the sales trend might accelerate. Because of the second order term, the forecast can quickly approach infinity or drop to zero (depending on whether coefficient  $c$  is positive or negative). This method is useful only in the short term.

Forecast specifications: the formulae find  $a$ ,  $b$ , and  $c$  to fit a curve to exactly three points. You specify  $n$ , the number of time periods of data to accumulate into each of the three points. In this example,  $n = 3$ . Therefore, actual sales data for April through June is combined into the first point, Q1. July through September are added together to create Q2, and October through December sum to Q3. The curve is fitted to the three values Q1, Q2, and Q3.

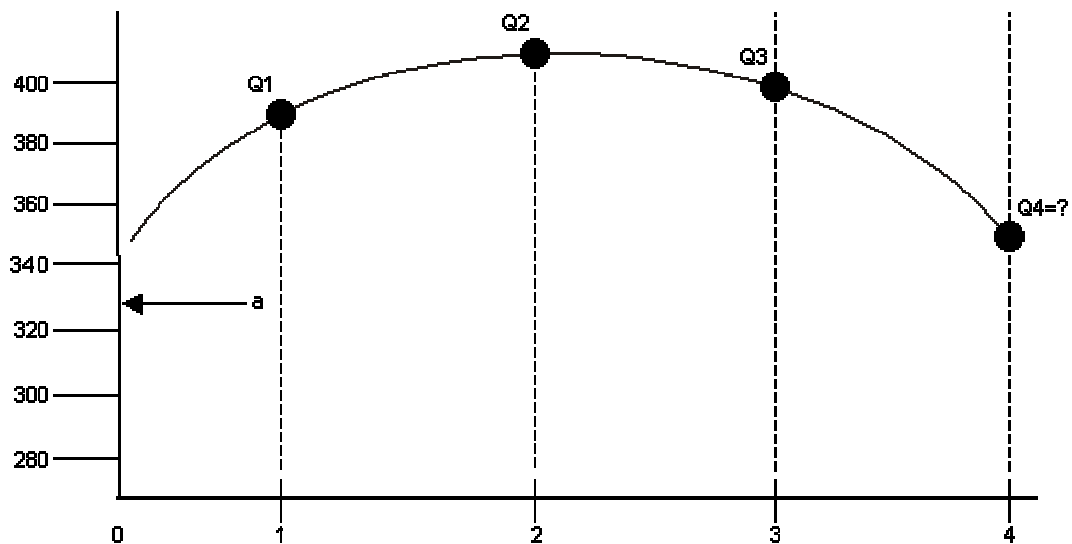
Required sales history:  $3 * n$  periods for calculating the forecast plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	<b>Q0</b>			<b>Q1</b>			<b>Q2</b>			<b>Q3</b>		
				384			400			370		
1997				125	122	137	140	129	131	114	119	137
Q1 = 125 + 122 + 137 = 384 Q2 = 140 + 129 + 131 = 400 Q3 = 114 + 119 + 137 = 370												

The next step involves calculating the three coefficients  $a$ ,  $b$ , and  $c$  to be used in the forecasting formula  $Y = a + bX + cX^2$ .

Q1, Q2, and Q3 are shown on the following graph, where time is plotted on the horizontal axis. Q1 represents total historical sales for April, May, and June and is plotted at  $X = 1$ ; Q2 corresponds to July through September; Q3 corresponds to October through December; and Q4 represents January through March 1998.

### Second Degree Approximation



Three equations describe the three points on the graph:

$$(1) Q1 = a + bX + cX^2, \text{ where } X = 1(Q1 = a + b + c)$$

$$(2) Q2 = a + bX + cX^2, \text{ where } X = 2(Q2 = a + 2b + 4c)$$

$$(3) Q3 = a + bX + cX^2, \text{ where } X = 3(Q3 = a + 3b + 9c)$$

Solve the three equations simultaneously to find b, a, and c:

1. Subtract equation (1) from equation (2) and solve for b:

$$(2) - (1) = Q2 - Q1 = b + 3c$$

$$b = (Q2 - Q1) - 3c$$

2. Substitute this equation for b into equation (3):

$$(3) Q3 = a + 3[(Q2 - Q1) - 3c] + 9c$$

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

3. Finally, substitute these equations for a and b into equation (1):

$$(1) [Q3 - 3(Q2 - Q1)] + [(Q2 - Q1) - 3c] + c = Q1$$

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

The Second Degree Approximation method calculates a, b, and c as follows:

$$a = Q3 - 3(Q2 - Q1) = 370 - 3(400 - 384) = 370 - 3(16) = 322$$

$$c = [(Q3 - Q2) + (Q1 - Q2)] / 2 = [(370 - 400) + (384 - 400)] / 2 = -23$$

$$b = (Q2 - Q1) - 3c = (400 - 384) - (3 * -23) = 16 + 69 = 85$$

Calculation of Second Degree Approximation Forecast												
$Y = a + bX + cX^2 = 322 + 85X + (-23)(X^2)$ <p>when X = 4, Q4 = 322 + 340 - 368 = 294. The forecast = 294 / 3 = 98 per period.</p> <p>when X = 5, Q5 = 322 + 425 - 575 = 172. The forecast = 172 / 3 = 57.33 or 57 per period.</p> <p>when X = 6, Q6 = 322 + 510 - 828 = 4. The forecast = 4 / 3 = 1.33 or 1 per period.</p>												
Forecast, Last Year to This Year												
	Q4 = 294			Q5 = 172			Q6 = 4			Q7 = negative		
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	98	98	98	57	57	57	1	1	1	--	--	--

## Method 8 - Flexible Method

This method allows you to select the best fit number of periods of sales order history that starts n months prior to the forecast start date, and to apply a percentage increase or decrease multiplication factor with which to modify the forecast. This method is similar to Method 1, Percent Over Last Year, except that you can specify the number of periods that you use as the base.

Depending on what you select as n, this method requires periods best fit plus the number of periods of sales data that is indicated. This method is useful to forecast demand for a planned trend.

### Example: Method 8 - Flexible Method

The Flexible Method (Percent Over n Months Prior) is similar to Method 1, Percent Over Last Year. Both methods multiply sales data from a previous time period by a user-specified factor, and then project that result into the future. In the Percent Over Last Year method, the projection is based on data from the same time period in the previous year. You can also use the Flexible Method to specify a time period, other than the same period in the last year, to use as the basis for the calculations.

Forecast specifications:

- Multiplication factor. For example, specify 110 in the processing option to increase previous sales history data by 10 percent.
- Base period. For example, n = 4 causes the first forecast to be based on sales data in September 1997.

Minimum required sales history: the user-specified number of periods back to the base period plus the number of time periods that is required for evaluating the forecast performance (periods of best fit).



History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997									131	114	119	137
Forecast, 110% Over n = 4 months prior												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	144	125	131	151	159	138	144	166	174	152	158	182

## Method 9 - Weighted Moving Average

The Weighted Moving Average formula is similar to Method 4, Moving Average formula, because it averages the previous month's sales history to project the next month's sales history. However, with this formula, you can assign weights for each of the prior periods.

This method requires the number of weighted periods selected plus the number of periods best fit data. Similar to Moving Average, this method lags behind demand trends, so PeopleSoft does not recommend it for products with strong trends or seasonality. This method is useful to forecast demand for mature products with demand that is relatively level.

### Example: Method 9 - Weighted Moving Average

The Weighted Moving Average (WMA) method is similar to Method 4, Moving Average (MA). However, you can assign unequal weights to the historical data when using the Weighted Moving Average. The method calculates a weighted average of recent sales history to arrive at a projection for the short term. More recent data is usually assigned a greater weight than older data, so WMA is more responsive to shifts in the level of sales. However, forecast bias and systematic errors occur when the product sales history exhibits strong trends or seasonal patterns. This method works better for short range forecasts of mature products than for products in the growth or obsolescence stages of the life cycle.

Forecast specifications:

- The number of periods of sales history (n) to use in the forecast calculation. For example, specify n = 4 in the processing option to use the most recent four periods as the basis for the projection into the next time period. A large value for n (such as 12) requires more sales history. Such a value results in a stable forecast, but it is slow to recognize shifts in the level of sales. Conversely, a small value for n (such as 3) responds more quickly to shifts in the level of sales, but the forecast might fluctuate so widely that production cannot respond to the variations.
- The weight that is assigned to each of the historical data periods. The assigned weights must total 1.00. For example, when n = 4, assign weights of 0.50, 0.25, 0.15, and 0.10 with the most recent data receiving the greatest weight.

Minimum required sales history: n plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997									131	114	119	137
Calculation of Moving Average, Given n = 4												
$[(131 * 0.10) + (114 * 0.15) + (119 * 0.25) + (137 * 0.50)] / (0.10 + 0.15 + 0.25 + 0.50) = 128.45 \text{ or } 128$												
Weighted Moving Average Forecast, Given n = 4												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	128	128	128	129	129	129	129	129	129	129	129	129

January 1998 =  $[(131 * 0.10) + (114 * 0.15) + (119 * 0.25) + (137 * 0.50)] / (0.10 + 0.15 + 0.25 + 0.50) = 128.45 \text{ or } 128$

February 1998 =  $[(114 * 0.10) + (119 * 0.15) + (137 * 0.25) + (128 * 0.50)] / 1 = 127.5 \text{ or } 128$

March 1998 =  $[(119 * 0.10) + (137 * 0.15) + (128 * 0.25) + (128 * 0.50)] / 1 = 128.45 \text{ or } 128$

## Method 10 - Linear Smoothing

This method calculates a weighted average of past sales data. In the calculation, this method uses the number of periods of sales order history (from 1 to 12) that is indicated in the processing option. The system uses a mathematical progression to weigh data in the range from the first (least weight) to the final (most weight). Then the system projects this information to each period in the forecast.

This method requires the month's best fit plus the sales order history for the number of periods that are specified in the processing option.

### Example: Method 10 - Linear Smoothing

This method is similar to Method 9, Weighted Moving Average (WMA). However, instead of arbitrarily assigning weights to the historical data, a formula is used to assign weights that decline linearly and sum to 1.00. The method then calculates a weighted average of recent sales history to arrive at a projection for the short term. Like all linear moving average forecasting techniques, forecast bias and systematic errors occur when the product sales history exhibits strong trend or seasonal patterns. This method works better for short-range forecasts of mature products than for products in the growth or obsolescence stages of the life cycle.

Forecast specifications:

- $n$  = the number of periods of sales history to use in the forecast calculation. For example, specify  $n = 4$  in the processing option to use the most recent four periods as the basis for the projection into the next time period. The system automatically assigns the weights to the historical data that decline linearly and sum to 1.00. For example, when  $n = 4$ , the system assigns weights of 0.4, 0.3, 0.2, and 0.1, with the most recent data receiving the greatest weight.

Minimum required sales history:  $n$  plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997									131	114	119	137
Calculation of Weights, Given $n = 4$												
$(n^2 + n)/2 = (16 + 4)/2 = 10$ <p>September weight = 1/10</p> <p>October weight = 2/10</p> <p>November weight = 3/10</p> <p>December weight = <u>4/10</u></p> <p>Total weight = 10/10</p>												
Calculation of Moving Average, Given $n = 4$												
$[(131 * 0.1) + (114 * 0.2) + (119 * 0.3) + (137 * 0.4)] / (0.1 + 0.2 + 0.3 + 0.4) = 126.4 \text{ or } 126$												
Linear Smoothing Forecast, Given $n = 4$												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	126	127	128	128	128	128	128	128	128	128	128	128

## Method 11 - Exponential Smoothing

This method calculates a smoothed average, which becomes an estimate representing the general level of sales over the selected historical data periods.

This method requires sales data history for the time period that is represented by the number of periods best fit plus the number of historical data periods that are specified. The minimum requirement is two historical data periods. This method is useful to forecast demand when no linear trend is in the data.

### Example: Method 11 - Exponential Smoothing

This method is similar to Method 10, Linear Smoothing. In Linear Smoothing, the system assigns weights that decline linearly to the historical data. In Exponential Smoothing, the system assigns weights that exponentially decay. The equation for Exponential Smoothing forecasting is:

$$\text{Forecast} = \alpha (\text{Previous Actual Sales}) + (1 - \alpha) \text{Previous Forecast}$$

The forecast is a weighted average of the actual sales from the previous period and the forecast from the previous period. Alpha is the weight that is applied to the actual sales for the previous period.  $(1 - \alpha)$  is the weight that is applied to the forecast for the previous period. Valid values for alpha range from 0 to 1 and usually fall between 0.1 and 0.4. The sum of the weights is 1.00 ( $\alpha + (1 - \alpha) = 1$ ).

You should assign a value for the smoothing constant, alpha. If you do not assign a value for the smoothing constant, the system calculates an assumed value that is based on the number of periods of sales history that is specified in the processing option.

Forecast specifications:

- alpha = the smoothing constant that is used to calculate the smoothed average for the general level or magnitude of sales. Valid values for alpha range from 0 to 1.
- n = the range of sales history data to include in the calculations. Generally, one year of sales history data is sufficient to estimate the general level of sales. For this example, a small value for n ( $n = 4$ ) was chosen to reduce the manual calculations that are required to verify the results. Exponential Smoothing can generate a forecast that is based on as little as one historical data point.

Minimum required sales history: n plus the number of time periods that are required for evaluating the forecast performance (periods of best fit).

History Used in the Forecast Calculation												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997									131	114	119	137
Calculation of Exponential Smoothing , Given n = 4, alpha = 0.3												
<p>October Smoothed Average* = September Actual</p> <p>= alpha (September Actual) + (1 - alpha) September Smoothed Average</p> <p>= 1 * (131) + (0) (0) = 131</p> <p>November Smoothed Average = 0.3 (October Actual) + (1 - 0.3) October Smoothed Average</p> <p>= 0.3 (114) + 0.7 (131) = 125.9 or 126</p> <p>December Smoothed Average = 0.3 (November Actual) + 0.7 (November Smoothed Average)</p> <p>= 0.3 (119) + 0.7 (126) = 123.9 or 124</p> <p>January Forecast = 0.3 (December Actual) + 0.7 (December Smoothed Average)</p> <p>= 0.3 (137) + 0.7 (124) = 127.9 or 128</p> <p>February Forecast = January Forecast</p> <p>March Forecast = January Forecast</p>												
<p>* Exponential Smoothing is initialized by setting the first smoothed average equal to the first specified actual sales data point. In effect, alpha = 1.0 for the first iteration. For subsequent calculations, alpha is set to the value that is specified in the processing option.</p>												
Exponential Smoothing Forecast, Given alpha = 0.3, n = 4												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	128	128	128	128	128	128	128	128	128	128	128	128

## Method 12 - Exponential Smoothing with Trend and Seasonality

This 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 the number of periods best fit plus two years of sales data, and is useful for items that have both trend and seasonality in the forecast. You can enter the alpha and beta factor, or have the system calculate them. Alpha and beta factors are the smoothing constant that the system uses to calculate the smoothed average for the general level or magnitude of sales (alpha) and the trend component of the forecast (beta).

### Example: Method 12 - Exponential Smoothing with Trend and Seasonality

This method is similar to Method 11, Exponential Smoothing, in that a smoothed average is calculated. However, Method 12 also includes a term in the forecasting equation to calculate a

smoothed trend. The forecast is composed of a smoothed average that is adjusted for a linear trend. When specified in the processing option, the forecast is also adjusted for seasonality.

Forecast specifications:

- Alpha = the smoothing constant that is used in calculating the smoothed average for the general level or magnitude of sales. Valid values for alpha range from 0 to 1.
- Beta = the smoothing constant that is used in calculating the smoothed average for the trend component of the forecast. Valid values for beta range from 0 to 1.
- Whether a seasonal index is applied to the forecast.

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**Note**

Alpha and beta are independent of one another. They do not have to sum to 1.0.

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Minimum required sales history: one year plus the number of time periods that are required to evaluate the forecast performance (periods of best fit). When two or more years of historical data are available, the system uses two years of data in the calculations.

Method 12 uses two Exponential Smoothing equations and one simple average to calculate a smoothed average, a smoothed trend, and a simple average seasonal index.

An exponentially smoothed **average**:

$$A_t = \alpha(D_t / S_{t-L}) + (1 - \alpha)(A_{t-1} + T_{t-1})$$

An exponentially smoothed trend:

$$T_t = \beta(A_t - A_{t-1}) + (1 - \beta)T_{t-1}$$

A simple average seasonal index:

$$S_t = \left[ (D_{t-L} + D_{t-2L}) / \sum_{n=(t-2L)}^{n=(t-1)} D_n \right] * L$$

The forecast is then calculated by using the results of the three equations:

$$F_{t+m} = (A_t + T_t m) S_{t-L+m}$$

where:

- L is the length of seasonality (L = 12 months or 52 weeks).
- t is the current time period.
- m is the number of time periods into the future of the forecast.
- S is the multiplicative seasonal adjustment factor that is indexed to the appropriate time period.

History Used in the Forecast Calculation													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1996	125	123	115	137	122	130	141	128	118	123	139	133	1534
1997	128	117	115	125	122	137	140	129	131	114	119	137	1514
Calculation of Linear and Seasonal Exponential Smoothing, Given alpha = 0.3, beta = 0.4													

Initializing the Process:

January 1997 Seasonal Index,  $S_1 =$

$$S_1 = (125 + 128 / 1534 + 1514) * 12 = 0.083005 * 12 = 0.9961$$

January 1997 Smoothed Average\*,  $A_1 =$

$A_1 = \text{January 1997 Actual} / \text{January Seasonal Index}$

$$A_1 = 128 / 0.9960$$

$$A_1 = 128.51$$

January 1997 Smoothed Trend\*,  $T_1 =$

$T_1 = 0$  insufficient information to calculate first smoothed trend

February 1997 Seasonal Index,  $S_2 =$

$$S_2 = (123 + 117 / 1534 + 1514) * 12 = 0.07874 * 12 = 0.9449$$

February 1997 Smoothed Average,  $A_2 =$

$$A_2 = \alpha(D_2 / S_2) + (1 - \alpha)(A_1 + T_1)$$

$$A_2 = 0.3(117 / 0.9449) + (1 - 0.3)(128.51 + 0) = 127.10$$

February 1997 Smoothed Trend,  $T_2 =$

$$T_2 = \beta(A_2 - A_1) + (1 - \beta)T_1$$

$$T_2 = 0.4(127.10 - 128.51) + (1 - 0.4) * 0 = -0.56$$

March 1997 Seasonal Index,  $S_3 =$

$$S_3 = (115 + 115 / 1534 + 1514) * 12 = 0.07546 * 12 = 0.9055$$

March 1997 Smoothed Average,  $A_3 =$

$$A_3 = \alpha(D_3 / S_3) + (1 - \alpha)(A_2 + T_2)$$

$$A_3 = 0.3(115/0.9055) + (1 - 0.3)(127.10 - 0.56) = 126.68$$

March 1997 Smoothed Trend,  $T_3 =$

$$T_3 = \beta(A_3 - A_2) + (1 - \beta)T_2$$

$$T_3 = 0.4(126.68 - 127.10) + (1 - 0.4) * -0.56 = -0.50$$

(Continue through December 1997)

December 1997 Seasonal Index,  $S_{12} =$

$$S_{12} = (133 + 137 / 1534 + 1514) * 12 = 0.08858 * 12 = 1.0630$$

December 1997 Smoothed Average,  $A_{12} =$

$$A_{12} = \alpha(D_{12} / S_{12}) + (1 - \alpha)(A_{11} + T_{11})$$

$$A_{12} = 0.3(137 / 1.0630) + (1 - 0.3)(124.64 - 1.121) = 125.13$$

December 1997 Smoothed Trend,  $T_{12} =$

$$T_{12} = \beta(A_{12} - A_{11}) + (1 - \beta)T_{11}$$

$$T_{12} = 0.4(125.13 - 124.64) + (1 - 0.4) * -1.121 = -0.477$$

Calculation of Linear and Seasonal Exponentially Smoothed Forecast												
$F_{t+m} = (A_t + T_t m) S_{t-L+m}$												
* Calculations for Exponential Smoothing with Trend and Seasonality are initialized by setting the first smoothed average equal to the deseasonalized first actual sales data. The trend is initialized at zero for the first iteration. For subsequent calculations, alpha and beta are set to the values that are specified in the processing options.												
Exponential Smoothing with Trend and Seasonality Forecast, alpha = 0.3, beta = 0.4												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	124.16	117.33	112.01	127.10	117.91	128.52	134.73	122.74	118.45	121.77	121.77	126.92



---

## Evaluating the Forecasts

You can choose forecasting methods to generate as many as 12 forecasts for each product. Each forecasting method might create a slightly different projection. When thousands of products are forecast, it is impractical to make a subjective decision regarding which forecast to use in your plans for each product.

The system automatically evaluates performance for each forecasting method that you choose and for each product that you forecast. You can choose between two performance criteria: Mean Absolute Deviation (MAD) and Percent of Accuracy (POA). MAD is a measure of forecast error. POA is a measure of forecast bias. Both of these performance evaluation techniques require actual sales history data for a user-specified period of time. The period of recent history used for evaluation is called a *holdout period* or periods of best fit.

To measure the performance of a forecasting method, the system:

- Uses the forecast formulas to simulate a forecast for the historical holdout period
- Makes a comparison between the actual sales data and the simulated forecast for the holdout period

When you choose multiple forecast methods, this same process occurs for each method. Multiple forecasts are calculated for the holdout period and compared to the known sales history for that same period of time. The forecasting method that produces the best match (best fit) between the forecast and the actual sales during the holdout period is recommended for use in your plans. This recommendation is specific to each product and might change each time that you generate a forecast.

## Mean Absolute Deviation

Mean Absolute Deviation (MAD) is the mean (or average) of the absolute values (or magnitude) of the deviations (or errors) between actual and forecast data. MAD is a measure of the average magnitude of errors to expect, given a forecasting method and data history. Because absolute values are used in the calculation, positive errors do not cancel out negative errors. When comparing several forecasting methods, the one with the smallest MAD has shown to be the most reliable for that product for that holdout period. When the forecast is unbiased and errors are normally distributed, a simple mathematical relationship exists between MAD and two other common measures of distribution, which are standard deviation and Mean Squared Error. For example:

- $MAD = (\sum | Actual - Forecast |) / n$
- Standard Deviation,  $(\sigma) \cong 1.25 MAD$
- Mean Squared Error  $\cong -\sigma^2$

The following shows the calculation of MAD for two of the forecasting methods. This example assumes that the user has specified in the processing option that the holdout period length (periods of best fit) is equal to 5 periods.

### Method 1, Last Year to This Year

History Used in the Calculation of MAD, Given Periods of Best Fit = 5												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996								128	118	123	139	133
110 Percent Over Last Year Forecast for the Holdout Period												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								141	130	135	153	146
Actual Sales History for the Holdout Period												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								129	131	114	119	137
Absolute Value of Errors, Actual - Forecast												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
								12	1	21	34	9
Mean Absolute Deviation = $(12 + 1 + 21 + 34 + 9) / 5 = 15.4$												

### Method 4, Moving Average, n = 4

History Used in the Calculation of MAD, Given Periods of Best Fit = 5, n = 4												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997				125	122	137	140					
Moving Average Forecast for the Holdout Period, Given n = 4 $(125 + 122 + 137 + 140) / 4 = 131$ Aug. '97 $(122 + 137 + 140 + 129) / 4 = 132$ Sep. '97 $(137 + 140 + 129 + 131) / 4 = 134.25$ or 134 Oct. '97 $(140 + 129 + 131 + 114) / 4 = 128.5$ or 129 Nov. '97 $(129 + 131 + 114 + 119) / 4 = 123.25$ or 123 Dec. '97												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								141	130	135	153	146
Actual Sales History for the Holdout Period												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

1997								129	131	114	119	137
<b>Absolute Value of Errors, Actual - Forecast</b>												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
								2	1	20	10	14
<b>Mean Absolute Deviation = (2 + 1 + 20 + 10 + 14) / 5 = 9.4</b>												

Based on these two choices, the Moving Average, n = 4 method, is recommended because it has the smaller MAD, 9.4, for the given holdout period.

## Percent of Accuracy

Percent of Accuracy (POA) is a measure of forecast bias. When forecasts are consistently too high, inventories accumulate and inventory costs rise. When forecasts are consistently too low, inventories are consumed and customer service declines. A forecast that is 10 units too low, then 8 units too high, then 2 units too high is an unbiased forecast. The positive error of 10 is canceled by negative errors of 8 and 2.

Error = Actual - Forecast

When a product can be stored in inventory, and when the forecast is unbiased, a small amount of safety stock can be used to buffer the errors. In this situation, eliminating forecast errors is not as important as generating unbiased forecasts. However, in service industries, the above situation is viewed as three errors. The service is understaffed in the first period, and then overstaffed for the next two periods. In services, the magnitude of forecast errors is usually more important than is forecast bias.

$$POA = \left[ \frac{(\sum \text{Actual sales during holdout period})}{(\sum \text{Forecast sales during holdout period})} \right] * 100\%$$

The summation over the holdout period allows positive errors to cancel negative errors. When the total of actual sales exceeds the total of forecast sales, the ratio is greater than 100 percent. Of course, the forecast cannot be more than 100 percent accurate. When a forecast is unbiased, the POA ratio is 100 percent. Therefore, a 95 percent accuracy rate is more desirable than a 110 percent accurate rate. The POA criterion chooses the forecasting method that has a POA ratio that is closest to 100 percent.

The following example shows the calculation of POA for two forecasting methods. This example assumes that the user has specified in the processing option that the holdout period length (periods of best fit) is equal to 5 periods.

### Method 1, Last Year to This Year

History Used in the Calculation of POA, Given Periods Best Fit = 5												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996								128	118	123	139	133
110 Percent Over Last Year Forecast for the Holdout Period												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								141	130	135	153	146
Actual Sales History for the Holdout Period												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								129	131	114	119	137
Sum of Actuals = $(129 + 131 + 114 + 119 + 137) = 630$												
Sum of Forecasts = $(141 + 130 + 135 + 153 + 146) = 705$												
POA ratio = $(630/705) * 100\% = 89.36\%$												

### Method 4, Moving Average, n = 4

History Used in the Calculation of MAD, Given Periods Best Fit = 5, n = 4												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997				125	122	137	140					
Moving Average Forecast for the Holdout Period, Given n = 4												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								131	132	134	129	123
Actual Sales History for the Holdout Period												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997								129	131	114	119	137
Sum of Actuals = $(129 + 131 + 114 + 119 + 137) = 630$												
Sum of Forecasts = $(131 + 132 + 134 + 129 + 123) = 649$												
POA ratio = $(630 / 649) * 100\% = 97.07\%$												

Based on these two choices, the Moving Average, n = 4 method is recommended because it has POA closest to 100 percent for the given holdout period.

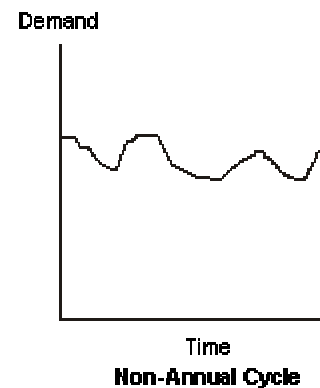
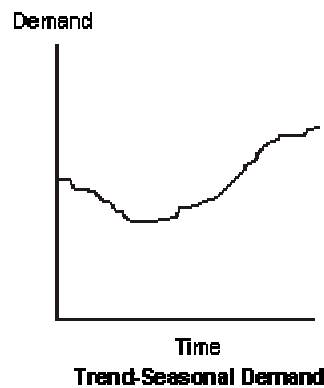
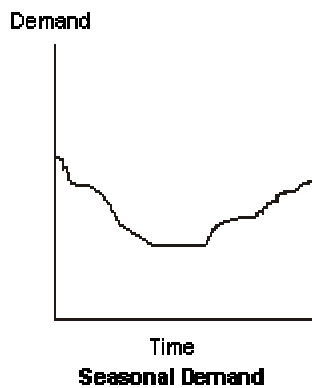
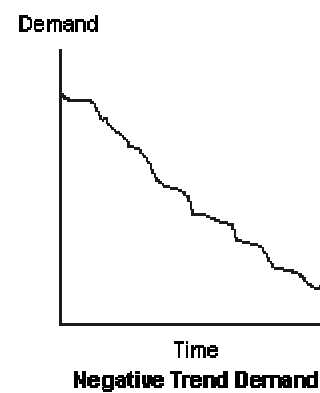
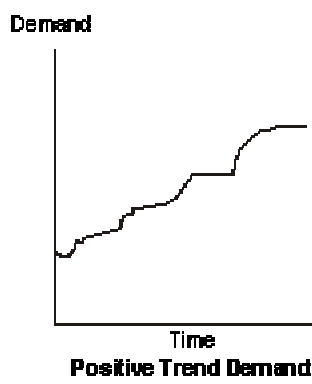
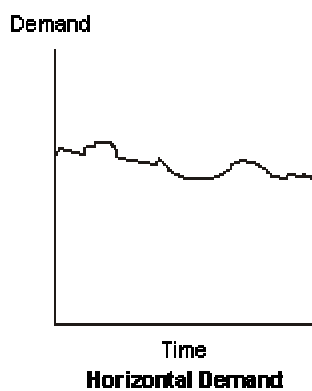
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# Demand Patterns

The Forecast Management system uses sales order history to predict future demand. Six typical examples of demand patterns are explained in the following section. Forecast methods available in the PeopleSoft EnterpriseOne Forecast Management system are tailored for these demand patterns.

## Six Typical Demand Patterns

### Demand Patterns



You can forecast the independent demand of the following information for which you have past data:

- Samples
- Promotional items
- Customer orders
- Service parts
- Interplant demands

You can also forecast demand for the following manufacturing strategy types by using the manufacturing environments in which they are produced:

<b>Make-to-stock</b>	The manufacture of end items that meet the customers' demand which occurs after the product is completed
<b>Assemble-to-order</b>	The manufacture of subassemblies that meet customers' option selections
<b>Make-to-order</b>	The manufacture of raw materials and components that are stocked to reduce leadtime

## Forecast Accuracy

The following statistical laws govern forecast accuracy:

- A long-term forecast is less accurate than a short-term forecast because the further into the future you project the forecast, the more variables can impact the forecast.
- A forecast for a product family tends to be more accurate than a forecast for individual members of the product family. Some errors cancel each other as the forecasts for individual items summarize into the group, thus creating a more accurate 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 can also use the following kinds of long-term trend analysis to influence the design of your forecasts:

- Market surveys
- Leading economic indicators

## Forecasting Process

You use the Refresh Actuals program (R3465) to copy data from the Sales Order History File table (F42119), the Sales Order Detail File table (F4211), or both, into either the Forecast File table (F3460) or the Forecast Summary File table (F3400), depending on the kind of forecast that you plan to generate.

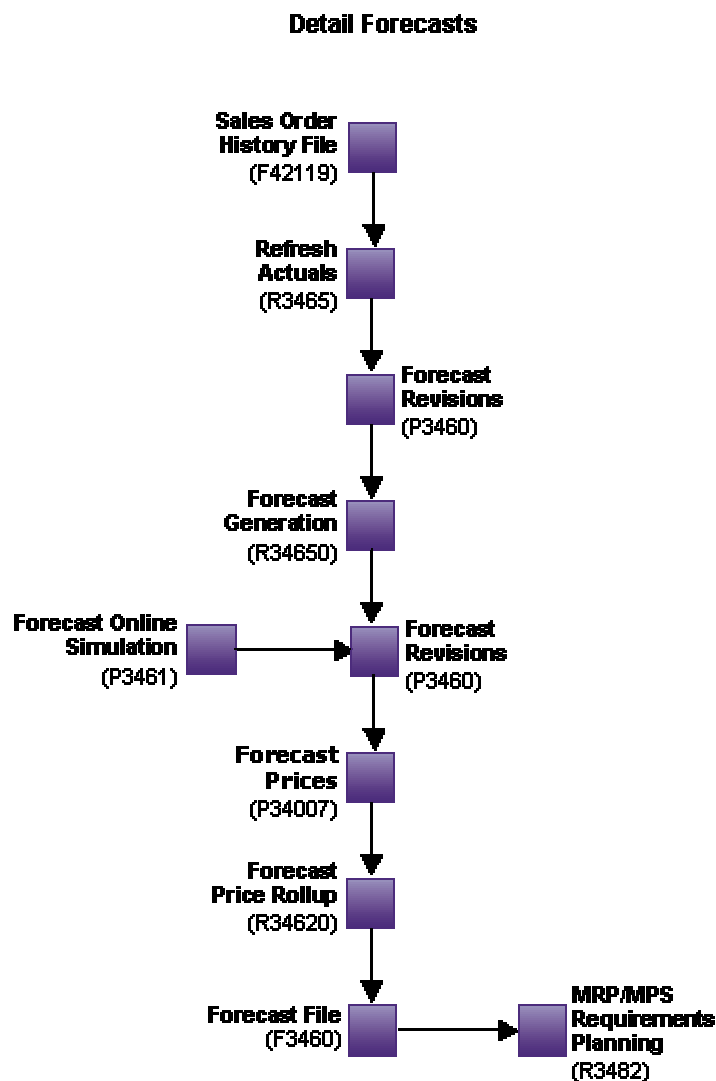
# Detail Forecasts

Detail forecasts are based on individual items. Use detail forecasts to project demand at the single-item level, according to each item's individual history.

Forecasts are based on sales data from the Sales Order History File table (F42119) and the Sales Order Detail File table (F4211). Before you generate forecasts, you use the Refresh Actuals program (R3465) to copy sales order history information from tables F42119 and the F4211 into the Forecast File table (F3460). This table also stores the generated forecasts.

You can generate detail forecasts or summaries of detail forecasts, based on data in table F3460. Data from your forecasts can then be revised.

The following graphic illustrates the sequence that you follow when you use the detail forecasting programs.





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## 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 are based, and set up the time periods that 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 and current sales orders on which you want to base the forecast.
- Specify beginning and ending 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.
- Define large customers for separate customer forecasts.

## Setting Up Forecasting Supply and Demand Inclusion Rules

The Forecast Management system uses supply and demand inclusion rules to determine which records from the Sales Order Detail File table (F4211) and Sales Order History File table (F42119) to include or exclude when you run the Refresh Actuals program (R3465). Supply and 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.

### See Also

- *Setting Up Supply and Demand Inclusion Rules* in the *Requirements Planning Guide*

### ► To set up forecasting supply and demand inclusion rules

---

*From the Material Planning Setup menu (G3442), choose Supply/Demand Inclusion Rules.*

1. On Work With Supply/Demand Inclusion Rules, complete the following field and click Find:
  - Rule Version
2. On Work With Supply/Demand Inclusion Rules, review the following fields:
  - Included
  - Order Type
  - Line Type
  - Line Status
3. Choose the lines that you want to include and click Select.

The program changes the included value of each line that you selected from 0 (not included) to 1 (included).

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Supply/Demand Inclusion Rules - Work With Supply/Demand Inclusion Rules

Select Find Delete Close Tools

Rule Version HIS Sales History ☐ Selected

Skip to Order Type \*

Records 1 - 15 ☐ Customize Grid ☐

<input type="checkbox"/>	<input type="checkbox"/>	Included	Order Type	Line Type	Line Status	Status Description	Rule Version
<input type="checkbox"/>		0	C4	C	520	Enter Sales Order	HIS
<input type="checkbox"/>		0	C4	C	527	Approve Shipment/Load	HIS
<input checked="" type="checkbox"/>		1	C4	C	560	Shipment Confirmation	HIS
<input type="checkbox"/>		0	C4	C	573	Delivery Confirm	HIS
<input type="checkbox"/>		0	C4	C	575	Billable Freight	HIS
<input type="checkbox"/>		0	C4	C	580	Print Invoices	HIS
<input type="checkbox"/>		0	C4	C	620	Sales Journal/Update	HIS
<input type="checkbox"/>		0	C4	C	900	Backorder in S/O Entry	HIS
<input type="checkbox"/>		0	C4	C	902	Backorder in Commitments	HIS
<input type="checkbox"/>		0	C4	C	904	Backorder in Ship. Conf.	HIS
<input type="checkbox"/>		0	C4	C	912	Added in Commitments	HIS
<input type="checkbox"/>		0	C4	C	914	Added in Ship. Conf.	HIS
<input type="checkbox"/>		0	C4	C	999	Complete - Ready to Purge	HIS
<input type="checkbox"/>		0	CD	EC	573	Delivery Confirm	HIS
<input type="checkbox"/>		0	CD	EC	580	Print Invoices	HIS

## Setting Up Forecasting Fiscal Date Patterns

Fiscal date patterns are user defined codes (H00/DP) that identify the year and the order of the months of that year for which the system creates the forecast. The Forecast Management 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, you must set up a standard monthly date pattern. The system divides the sales history into weeks or months, depending on the processing option that you choose. If you want to forecast by months, you must set up the fiscal 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 Forecast Management system uses this information during data entry, updating, and reporting. Set up fiscal date patterns for as far back as your sales history extends and as far forward as you want to forecast.

Use the same fiscal date pattern for all forecasted items. A mix of date patterns across items that are summarized at higher levels in the hierarchy causes unpredictable results. The fiscal date pattern must be an annual calendar--for example, from January 1, 1999, through December 31, 1999; or from June 1, 1999, through May 31, 2000.

PeopleSoft recommends that you set up a separate fiscal date pattern for forecasting only so that you can control the date pattern. If you use the date pattern that is already established in the Financial Management system, the financial officer controls the date pattern.

## See Also

- *Setting Up Fiscal Date Patterns in the General Accounting Guide*

### ► To set up forecasting fiscal date patterns

*From the Organization & Account Setup menu (G09411), choose Company Names & Numbers.*

1. On Work With Companies, click Find to locate the companies in the system.
2. Choose a company, and then choose Date Pattern from the Form menu.
3. On Work With Fiscal Date Patterns, click Add.
4. On Set Up Fiscal Date Pattern, complete the following fields:
  - Fiscal Date Pattern
  - Date Fiscal Year Begins
5. Complete the End Date field for each period and click OK.

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**Company Names & Numbers - Set Up Fiscal Date Pattern**

OK Cancel Tools

Fiscal Date Pattern: F

Date Fiscal Year Begins: 06/01/04

Period	End Date	Period	End Date
1	06/30/04	8	01/31/05
2	07/31/04	9	02/28/05
3	08/31/04	10	03/31/05
4	09/30/04	11	04/30/05
5	10/31/04	12	05/31/05
6	11/30/04	13	05/31/05
7	12/31/04	14	05/31/05

# Setting Up the 52 Period Date Pattern

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

## ► To set up the 52 period date pattern

*On the 52 Period Accounting menu (G09313), choose Set 52 Period Dates.*

1. On Work With 52 Periods, click Add.
2. On Set Up 52 Periods, complete the following fields:
  - Fiscal Date Pattern
  - Date Fiscal Year Begins
3. Complete the following field for each period and click OK:
  - Period End Date

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Set 52 Period Dates - Set Up 52 Periods

OK Cancel Tools

Fiscal Date Pattern R

Date Fiscal Year Begins 01/01/02

Period End Date	Period End Date	Period End Date	Period End Date	Period End Date
01 01/04/02	12 03/22/02	23 06/07/02	34 08/23/02	45 11/08/02
02 01/11/02	13 03/29/02	24 06/14/02	35 08/30/02	46 11/15/02
03 01/18/02	14 04/05/02	25 06/21/02	36 09/06/02	47 11/22/02
04 01/25/02	15 04/12/02	26 06/28/02	37 09/13/02	48 11/29/02
05 02/01/02	16 04/19/02	27 07/05/02	38 09/20/02	49 12/06/02
06 02/08/02	17 04/26/02	28 07/12/02	39 09/27/02	50 12/13/02
07 02/15/02	18 05/03/02	29 07/19/02	40 10/04/02	51 12/20/02
08 02/22/02	19 05/10/02	30 07/26/02	41 10/11/02	52 12/31/02
09 03/01/02	20 05/17/02	31 08/02/02	42 10/18/02	53 12/31/02
10 03/08/02	21 05/24/02	32 08/09/02	43 10/25/02	54 12/31/02
11 03/15/02	22 05/31/02	33 08/16/02	44 11/01/02	

## Setting Up Forecast Types

The Forecast Management system uses Forecast Type (34/DF) to differentiate the multiple forecasts that reside in the Forecast File table (F3460). Forecast Type can identify actual sales history, a system generated best-fit forecast, each of the 12 generated forecast methods, or manually entered forecasts. Each time that sales history is extracted or a forecast is generated, the user can select a forecast type to identify the data.

You can set up multiple forecasts for the same item, branch/plant, and date by using different forecast types. You can use existing codes or add codes to the user defined code table 34/DF to identify forecast types, such as the following:

Code	Description	Hard Coded
01	Simple Percent Over Last Year	Y
11	Exponential Smoothing	Y
AA	Actual Sales	N
BF	Best Simulated Forecast	N
MF	Maintenance Forecast	N
MM	Maintenance Management	
PP	Production Plan	
SP	Service Parts Forecast	N

Processing options in the Distribution Requirements Planning (DRP), Master Production Schedule (MPS), and Material Requirements Planning (MRP) versions of MRP/MPS Requirements Planning (R3482) allow you to enter forecast type codes to define which forecasting types to use in calculations.

## Defining Large Customers

For customers with significant sales demand or more activity, you can create separate forecasts and actual history records. Use this task to specify customers as large so that you can generate forecasts and actual history records for only those customers.

After you set up the customer, set the appropriate processing option in the Forecast Generation program (R34650) so that the system searches the Sales Order History File table (F42119) for sales to that customer and creates separate Forecast File table (F3460) records for that customer.

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

If you included customer level in the hierarchy, the system summarizes the sales actuals with customers into separate branches of the hierarchy.

► **To define large customers**

*From the Sales Order Management Setup menu (G4241), choose Customer Billing Instructions.*

1. On Work With Customer Master, complete the following fields and click Find:
  - Alpha Name
  - Search Type
2. Choose the row you want to define as a large customer and click Select.
3. On Customer Master Revision, click the Credit tab, type A in the following field, and then click OK:
  - ABC Code Sales

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Customer Billing Instructions - Customer Master Revision

Work With Customer Master Customer Master Revision

OK Cancel Form Previous Next Tools

Customer Number 4242 Capital System

Long Address Number

Company 00000

Select Tab: Credit

Credit Limit	50,000.00	Recall for Review Date	
Credit Manager	CR01 Dominique Abbott	Date of Last Credit Review	03/06/02
Credit Message		Date Account Opened	04/22/97
Temporary Credit Message			
Person Opening Account	DEMO	ABC Code Sales	A Grade A
Last Reviewed By	DL811727	ABC Code Margin	C Grade C
Financial Strmts on Hand		ABC Code Average Days	C Grade C
Dun and Bradstreet Date			
Experian Date			

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**Note**

The ABC code indicates an item's ABC ranking by sales amount. During ABC analysis, the system groups items by sales amount in descending order. It divides this array into three classes called A, B, and C. The A group usually represents 10% to 20% of your total items and 50% to 70% of your projected sales volume. The next grouping, B, usually represents about 20% of the items and 20% of the sales volume. The C class contains 60% to 70% of the items and represents about 10% to 30% of the sales volume. The ABC principle states that you can save effort and money when you apply different controls to the low-value, high-volume class than you apply to improve control of high-value items.

You can override a system-assigned ABC code on the Item/Branch Plant Info form (41026A) on the Additional Info tab.

---

# Working with Sales Order History

The system generates detail forecasts based on sales history data, current sales data, or both, that you copy from the Sales Order Detail File table (F4211) and the Sales Order History File table (F42119) into the Forecast File table (F3460). If you want the forecast to include current sales data, you must so specify in a processing option for the extraction program. When you copy the sales history, you specify a date range that is based on the request date of the sales order. The demand history data can be distorted, however, by unusually large or small values (spikes or outliers), data entry errors, or lost sales (sales orders that were cancelled due to lack of inventory).

You should review the data in the date range that you specified to identify missing or inaccurate information. Then you can revise the sales order history to account for inconsistencies and distortions before you generate the forecast.

---

## Copying Sales Order History

The system generates detail and summary forecasts that are based on data in the Forecast File table (F3460), Forecast Summary File table (F3400), or both. Use the Refresh Actuals program (R3465) to copy the sales order history (type AA) from the Sales Order History File table (F42119) to table F3460, table F3400 table, or both, based upon criteria that you specify.

This program lets you:

- Select a date range for the sales order history, current sales order information, or both.
- 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.
- Generate summaries.
- Generate records with amounts, quantities, or both.

You do not need to clear table F3460 before you run this program. The system automatically deletes any records for the same:

- Period as the actual sales order histories to be generated
- Items
- Sales order history type
- Branch/plant

### Prerequisites

- ☐ Set up the Forecast Generation program (R34650).
- ☐ Update sales order history. See *Updating Customer Sales* in the *Sales Order Management Guide*.



## **What You Should Know About Processing Options for Refresh Actuals (R3465)**

Sometimes you must refresh or update sales history information that will be used as the input to the forecast generation process.

The Refresh Actuals program (R3465) allows the user to specify the following edits in sales history, prior to use in forecast generation:

- Specify forecast type.
- Specify the version of Supply/Demand Inclusion Rules program (P34004) to use.
- Specify whether the system will use weekly or monthly planning to create actuals.
- Specify whether the system creates separate records for large customers when creating actuals.
- Specify whether the system uses the Ship To address or the Sold To address upon which to base large customer summaries when creating actuals
- Specify whether the system creates detail forecasts with quantities, amounts, or both.
- Specify whether the system uses both the Sales Order Detail File table (F4211) and the Sales Order History File table (F42119) when creating actuals, or uses only table F42119.
- Specify the fiscal date pattern in user defined code H00/DP that is used when creating actuals.
- Specify the beginning date from which the system processes records.
- Specify the ending date that the system uses when creating actuals.

The summary processing options let you specify how the system processes the following edits:

- Create summarized forecast records, either detail or both.
- Use summary codes.
- Retrieve address book category codes.

## Processing Options for Refresh Actuals (R3465)

### Process Tab

These processing options let you specify how the system performs the following edits when generating sales history:

- Use the default forecast type.
  - Use the version of the Supply/Demand Inclusion Rules program (P34004).
  - Use weekly or monthly planning.
  - Create summary records.
  - Use Ship To address.
  - Use quantities and amounts.
  - Include sales order detail.
- 

#### 1. Forecast Type

**Blank = AA**

Use this processing option to specify the forecast type that the system uses when creating the forecast actuals. Forecast type is a user defined code (34/DF) that identifies the type of forecast to process. Enter the forecast type to use as the default value or choose it from the Select User Define Code form. If you leave this field blank, the system creates actuals from AA forecast types.

#### 2. Supply Demand Inclusion Rules

Use this processing option to specify the version of the Supply/Demand Inclusion Rules program (P34004) that the system uses when extracting sales actuals. You must enter a version in this field before you can run the Extract Sales Order History program (R3465).

Versions control how the Supply/Demand Inclusion Rules program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

#### 3. Actuals Consolidation

**1 = Weekly**

**Blank = Monthly**

Use this processing option to specify whether the system uses weekly or monthly planning when creating actuals. Valid values are:

1     The system uses weekly planning.

Blank The system uses monthly planning.

#### 4. Large Customer Summary

**1 = Create**

**Blank = Do not create**

---

---

Use this processing option to specify whether the system creates summary records for large customers when creating actuals. Valid values are:

1 The system creates summary records for large customers.

Blank The system does not create summary records.

#### **5. Ship To or Sold To Address**

**1 = Ship To**

**Blank = Sold To**

Use this processing option to specify whether the system uses the Ship To address on which to base large customer summaries, or the Sold To address, when creating actuals. Valid values are:

1 The system uses the Ship To address.

Blank The system uses the Sold To address.

#### **6. Amount or Quantity**

**1 = Quantity**

**2 = Amount**

**Blank = Both**

Use this processing option to specify whether the system creates detail forecasts with quantities, amounts, or both. Valid values are:

1 The system creates forecasts with only quantities.

2 The system creates forecasts with only amounts.

Blank The system creates forecasts with both quantities and amounts.

#### **7. Use Active Sales Orders**

**1 = Active Sales Order**

**Blank = Sales Order History**

Use this processing option to specify whether the system uses both the Sales Order Detail table (F4211) and the Sales Order History table (F42119) when creating actuals, or uses only the history table. Valid values are:

1 The system uses both tables.

Blank The system uses only the history table.

---

## Dates Tab

These processing options let you specify the fiscal date pattern that the system uses, and the beginning and ending dates of the records that the system includes in the processing.

---

### 1. Fiscal Date Pattern

Use this processing option to specify the fiscal date pattern that the system uses when creating actuals. Fiscal date pattern is a user defined code (H00/DP) that identifies the fiscal date pattern. Enter a pattern to use as the default value or choose it from the Select User Defined Code form.

### 2. Begin Extract Date

**Blank = Today's Date**

Use this processing option to specify the beginning date from which the system processes records. Enter the beginning date to use as the default value or choose it from the Calendar. If you leave this field blank, the system uses the system date.

### 3. End Extract Date

Use this processing option to specify the ending date that the system uses when creating actuals. Enter the ending date to use as the default value or choose it from the Calendar. Enter an ending date only if you want to include a specific time period.

---

## Summary Tab

These processing options let you specify how the system processes the following edits:

- Create summarized forecast records.
  - Use summary codes.
  - Retrieve address book category codes.
- 

### 1. Summary or Detail

**1 = Summary and Detail**

**2 = Summary only**

**Blank = Detail only**

Use this processing option to specify whether the system creates summarized forecast records, detail forecast records, or both. Valid values are:

- 1 The system creates both summarized and detail forecast records.
- 2 The system creates only summarized forecast records.

Blank The system creates only detail forecast records.

---

---

## 2. Forecast Summary Code

Use this processing option to specify the summary code that the system uses to create summarized forecast records. Summary code is a user defined code (40/KV) that identifies the code to create summarized forecast records. Enter the code to use as the default value or choose it from the Select User Define Code form.

## 3. Category Codes Address Book

**1 = Sales address**

**Blank = Business unit**

Use this processing option to specify from where the system retrieves the address book category codes. Valid values are:

1 The system retrieves the address book number from the Forecast table (F3460).

Blank The system uses the cost center to determine which address book number to use to retrieve the category codes.

---

## Interop Tab

These processing options let you specify the default document type for the system to use for the purchase order, and whether to use before or after image processing.

---

## 1. Transaction Type

Use this processing option to specify the transaction type to which the system processes outbound interoperability transactions. Transaction type is a user defined code (00/TT) that identifies the type of transaction. Enter a type to use as the default value or choose it from the Select User Define Code form.

## 2. Image Processing

**1 = Before Image**

**2 = After Image**

Use this processing option to specify whether the system writes before or after image processing. Valid values are:

1 The system writes before the images for the outbound change transaction are processed.

Blank The system writes after the images are processed.

---

---

## Revising Sales Order History

After you copy the sales order history into the Forecast File table (F3460), 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.

Forecast Revisions (P3460) allows you to create, change, or delete a sales order history manually. You can:

- Review all entries in the Forecast File table (F3460).
- 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: Revising Sales Order History

In this example, you run Refresh Actuals (R3465). The program identifies the actual quantities as shown in the following form:

You use Forecast Revisions (P3460) to associate the forecasted quantities with the forecasted amounts. The system reflects the changes made to a quantity in its corresponding amount and to an amount in its corresponding quantity. The system does so by retaining the same ratio that existed before the change. For example, when a change increases the quantity to 24, a quantity of 15 and an amount of 100 become a quantity of 24 and an amount of 160.

---

#### ► To revise sales order history

*From the Periodic Forecasting Operations menu (G3421), choose Enter/Change Actuals.*

1. On Work With Forecasts, complete the following fields and click Find:
  - Branch/Plant
  - Item Number
2. Choose an item and click Select.
3. On Detail Forecast Revisions, review the following fields:
  - Item Number
  - Forecast Type
  - Request Date
  - Original Quantity
  - Original Amount

PeopleSoft®

Enter/Change Actuals - Detail Forecast Revisions

OK Find Delete Cancel Form Row Tools

Item Number  Branch/Plant  Touring Bike, Red

U/M  Each

Forecast Type  Actual Sales Skip To

Records 1 - 10 ☒ Customize Grid ☐

	F T	Request Date	Forecast Quantity	Forecast Amount	Customer Number	Description	Bypass Forcing	Original Quantity	Original Amount	Branch Plant
<input type="checkbox"/>	AA	07/31/02	199	129,350.00			N	199	129,350.00	
<input type="checkbox"/>	AA	07/31/02	10	6,400.00	4242	Capital System	N	10	6,400.00	
<input type="checkbox"/>	AA	07/31/02	25	16,000.00	4245	Cloud Nine Inc.	N	25	16,000.00	
<input type="checkbox"/>	AA	08/31/02	165	107,000.00			N	165	107,000.00	
<input type="checkbox"/>	AA	08/31/02	10	6,400.00	4242	Capital System	N	10	6,400.00	
<input type="checkbox"/>	AA	08/31/02	25	16,000.00	4245	Cloud Nine Inc.	N	25	16,000.00	
<input type="checkbox"/>	AA	09/30/02	139	110,900.00			N	139	110,900.00	
<input type="checkbox"/>	AA	09/30/02	20	12,800.00	4242	Capital System	N	20	12,800.00	
<input type="checkbox"/>	AA	09/30/02	100	63,000.00	4245	Cloud Nine Inc.	N	100	63,000.00	
<input type="checkbox"/>	AA	10/31/02	121	78,650.00			N	121	78,650.00	

- To attach information to a forecast type, choose the row, and then choose Attachments from the Form menu.

## Processing Options for Forecast Revisions (P3460)

### Defaults

- Default Forecast Type.

### Forecast Type

- Enter a '1' to default header Forecast Type to grid records on Copy.

### Default Forecast Type

- Customer Self Service

Blank = Bypass Customer Self-Service functionality

- 1 = Activate Customer Self Service functionality to use in Java/HTML

### Interop

- Enter the Transaction Type for processing outbound interoperability transactions

### Type - Transaction

- Enter a '1' to write before images for outbound change transactions. If left blank, only after images will be written.

### Before Image Processing

### Versions

Enter the version for each program. If left blank, version ZJDE0001 will be used.

- Forecast Online Simulation (P3461)
- Forecast Price (P34007)

# Working with Detail Forecasts

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

---

## Creating Detail Forecasts

The system creates detail forecasts by applying multiple forecasting methods to past sales histories and generating a forecast that is based on the method which provides the most accurate prediction of future demand. The system can also calculate a forecast that is based on a method that you select.

When you generate a forecast for any method, including best fit, the system rounds off the forecast amounts and quantities to the nearest whole number.

When you create detail forecasts, the system:

- Extracts sales order history information from the Forecast File table (F3460)
- Calculates the forecasts by using methods that you select
- Calculates the percent of accuracy (POA) or the mean absolute deviation (MAD) for each selected forecast method
- Creates a simulated forecast for the months that you indicate in the processing option
- Recommends the best fit forecast method
- Creates the detail forecast in either dollars or units from the best fit forecast

The system designates the extracted actual records as type AA and the best fit model as BF. These forecast type codes are not hard-coded, so you can specify your own codes. The system stores both types of records in table F3460.

When creating detail forecasts, the system allows you to:

- Specify the number of months of actual data to use to create the best fit.
- Forecast for individual large customers for all methods.
- Run the forecast in proof or final mode.
- Forecast up to five years into the future.
- Create zero forecasts, negative forecasts, or both.
- Run the forecast simulation interactively.



# Creating Forecasts for Multiple Items

Use the Forecast Generation program (R34650) to create detail forecasts for multiple items. Review the processing options to select the values that are applicable for the program to use.

## Processing Options for Forecast Generation (R34650)

### Methods 1 - 3 Tab

These processing options specify which forecast types that the system uses when calculating the best fit forecast. You can also specify whether the system creates detail forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. The system does not create detail forecasts for the method. If you enter zero before the forecast method-- for example, 01 for Method 1 - Percent Over Last Year-- the system uses the forecast method when calculating the best fit and creates the forecast method in the Forecast File table (F3460). If you leave the field blank, the system does not use the forecast method when calculating the best fit and does not create detail forecasts for the method.

A period is defined as a week or month, depending on the pattern that is selected from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

#### 1. Percent Over Last Year

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**01 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Percent Over Last Year formula to multiply each forecast period by a percentage increase or decrease that you specify in a processing option. This method requires the periods for the best fit plus one year of sales history. This method is useful for seasonal items with growth or decline. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

01 The system uses the Percent Over Last Year formula to create detail forecasts.

#### 2. Percent

**Any Percent Amount**

**Cannot be a Negative Amount**

Use this processing option to specify the percent of increase or decrease used to multiply by the sales history from last year. For example, type 110 for a 10% increase or type 97 for a 3% decrease. Valid values are any percent amount, however, the amount cannot be a negative amount. Enter an amount to use or choose it from the Calculator.

---

### 3. Calculated Percent Over Last Year

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**02 = Create Detail Forecasts**

Use this processing option to specify which type to run. This forecast method uses the Calculated Percent Over Last Year formula to compare the periods specified of past sales to the same periods of past sales of the previous year. The system determines a percentage increase or decrease, then multiplies each period by the percentage to determine the forecast. This method requires the periods of sales order history indicated in the processing option plus one year of sales history. This method is useful for short-term demand forecasts of seasonal items with growth or decline. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

02 The system uses the Calculated Percent Over Last Year formula to create detail forecasts.

### 4. Number of Periods

Use this processing option to specify the number of periods to include when calculating the percentage increase or decrease. Enter a number to use or choose a number from the Calculator.

### 5. Last Year to This Year

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**03 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses Last Year to This Year formula which uses last year's sales for the following year's forecast. This method uses the periods best fit plus one year of sales order history. This method is useful for mature products with level demand or seasonal demand without a trend. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

03 The system uses the Last Year to This Year formula to create detail forecasts.

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## Methods 4 - 6 Tab

These processing options specify which forecast types that the system uses when calculating the best fit. You can also specify whether the system creates detail forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. The system does not create detail forecasts for the method. If you enter zero before the forecast method-- for example, 01 for Method 1 - Percent Over Last Year, the system uses the forecast method when calculating the best fit and creates the forecast method in the Forecast File table (F3460). If you leave the field blank, the system does not use the forecast method when calculating the best fit and does not create detail forecasts for the method.

A period is defined as a week or month, depending on the pattern that is selected from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

## **1. Moving Average**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**04 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Moving Average formula to average the months that you indicate in the processing option to project the next period. This method uses the periods best fit from the processing option plus the number of periods of sales order history from the processing option. You should have the system recalculate this forecast monthly or at least quarterly to reflect changing demand level. This method is useful for mature products without a trend. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

04 The system uses the Moving Average formula to create detail forecasts.

## **2. Number of Periods**

Use this processing option to specify the number of periods to include in the average. Enter a number to use or choose a number from the Calculator.

## **3. Linear Approximation**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**05 Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Linear Approximation formula to compute a trend from the periods 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 periods best fit plus the number of periods that you indicate in the processing option of sales order history. This method is useful for new products or products with consistent positive or negative trends that are not due to seasonal fluctuations. Valid values are:

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Blank The system does not use this method.

1 The system calculates the best fit forecast.

05 The system uses the Linear Approximation formula to create detail forecasts.

#### **4. Number of Periods**

Use this processing option to specify the number of periods to include in the linear approximation ratio. Enter the number to use or choose a number from the Calculator.

#### **5. Least Squares Regression**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**06 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method derives an equation describing a straight-line relationship between the historical sales data and the passage of time. Least Squares Regression (LSR) fits a line to the selected range of data such that the sum of the squares of the differences between the actual sales data points and the regression line are minimized. The forecast is a projection of this straight line into the future. This method is useful when there is a linear trend in the data. This method requires sales data history for the period represented by the number of periods best fit plus the number of historical data periods specified in the processing options. The minimum requirement is two historical data points. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

06 The system uses the Least Squares Regression formula to create detail forecasts.

#### **6. Number of Periods**

Use this processing option to specify the number of periods to include in the regression. Enter the number to use or choose a number from the Calculator.

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### **Methods 7 - 8 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit. You can also specify whether the system creates detail forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. The system does not create detail forecasts for the method. If you enter zero before the forecast method-- for example, 01 for Method 1 - Percent Over Last Year-- the system uses the forecast method when calculating the best fit and creates the forecast method in the Forecast File table (F3460). If you leave the field blank, the system

does not use the forecast method when calculating the best fit and does not create detail forecasts for the method.

A period is defined as a week or month, depending on the pattern that is selected from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

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## **1. Second Degree Approximation**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**07 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This method uses the Second Degree Approximation formula to plot a curve based on the number of periods of sales history indicated in the processing options to project the forecast. This method adds the periods best fit and the number of periods, and then multiplies by three. You indicate the number of periods in the processing option of sales order history. This method is not useful for long-term forecasts. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

07 The system uses the Second Degree Approximation formula to create detail forecasts.

## **2. Number of Periods**

Use this processing option to specify the number of periods to include in the approximation. Enter the number to use or choose a number from the Calculator.

## **3. Flexible Method**

**Blank = Do Not Use This Method**

**1 = Consider For Best Fit**

**08 = Create Detail**

Use this processing option to specify which type of forecast to run. This forecast method specifies the periods 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 number of periods that you use as the base. Depending on what you select as "n", this method requires periods best fit plus the number of periods indicated in the processing options of sales data. This method is useful for a planned trend. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

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08 The system uses the Flexible method to create detail forecasts.

#### **4. Number of Periods**

Use this processing option to specify the number of periods prior to the best fit that you want to include in the calculation. Enter the number to use or choose a number from the Calculator.

#### **5. Percent Over Prior Period**

**Any Percent Amount**

**Cannot be a Negative Amount**

Use this processing option to specify the percent of increase or decrease for the system to use. For example, type 110 for a 10% increase or type 97 for a 3% decrease. You can enter any percent amount, however, the amount cannot be a negative amount.

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### **Method 9 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit. You can also specify whether the system creates detail forecasts for the selected forecast method.

Enter 1 to have the system use the forecast method when calculating the best fit. The system does not create detail forecasts for the method. If you enter zero before the forecast method-- for example, 01 for Method 1 - Percent Over Last Year-- the system uses the forecast method when calculating the best fit and creates the forecast method in the Forecast File table (F3460). If you leave the field blank, the system does not use the forecast method when calculating the best fit and does not create detail forecasts for the method.

The total of all the weights that are used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods.

A period is defined as a week or month, depending on the pattern that is selected from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

#### **1. Weighted Moving Average**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**09 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to use. The Weighted Moving Average forecast formula is similar to Method 4 - Moving Average formula, because it averages the previous number of months of sales history indicated in the processing options to project the next month's sales history. However, with this formula you can

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assign weights for each of the prior periods in a processing option. This method requires the number of weighted periods selected plus periods best fit 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 useful for mature products with demand that is relatively level. Valid values are:

Blank The system does not use this forecast.

1 The system calculates the best fit forecast.

09 The system uses the Weighted Moving Average formula to create detail forecasts.

## **2. One Period Prior**

Use this processing option to specify the weight to assign to one period prior for calculating a moving average. Enter the number to use or choose it from the Calculator.

## **3. Two Periods Prior**

Use this processing option to specify the weight to assign to two periods prior for calculating a moving average. Enter a number to use or choose it from the Calculator.

## **4. Three Periods Prior**

Use this processing option to specify the weight to assign to three periods prior for calculating a moving average. Enter the number to use or choose it from the Calculator.

## **5. Four Periods Prior**

Use this processing option to specify the weight to assign to four periods prior for calculating a moving average. Enter the number to use or choose it from the Calculator.

## **6. Five Periods Prior**

Use this processing option to specify the weight to assign to five periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

## **7. Six Periods Prior**

Use this processing option to specify the weight to assign to six periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

## **8. Seven Periods Prior**

Use this processing option to specify the weight to assign to seven periods prior for calculating a moving average. Enter a number to use or choose a number from the Calculator.

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### **9. Eight Periods Prior**

Use this processing option to specify the weight to assign to eight periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

### **10. Nine Periods Prior**

Use this processing option to specify the weight to assign to nine periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

### **11. Ten Periods Prior**

Use this processing option to specify the weight to assign to 10 periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

### **12. Eleven Periods Prior**

Use this processing option to specify the weight to assign to 11 periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

### **13. Twelve Periods Prior**

Use this processing option to specify the weight to assign to 12 periods prior for calculating a moving average. Enter the number to use or choose a number from the Calculator.

### **14. Periods to Include**

Use this processing option to specify the number of periods to include. Enter the number to use or choose a number from the Calculator.

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## **Methods 10 - 11 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit. You can also specify whether the system creates detail forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. No detail forecasts are created for the method. If you enter the method number-- for example, 11 for Method 11 - Exponential Smoothing-- the system uses the forecast method when calculating the best fit and creates the forecast method in the Forecast File table (F3460). If the field is blank, the system does not use the forecast method when calculating the best fit; no detail forecasts are created for the method



A period is defined as a week or month, depending on the pattern that is selected from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

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## **1. Linear Smoothing**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**10 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method calculates a weighted average of past sales data. You can specify the number of periods of sales order history to use in the calculation (from 1 to 12) in a processing option. The system uses a mathematical progression to weigh data in the range from the first (least weight) to the final (most weight). Then, the system projects this information for each period in the forecast. This method requires the periods best fit plus the number of periods of sales order history from the processing option. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

10 The system uses the Linear Smoothing method to create detail forecasts.

## **2. Number of Periods**

Use this processing option to specify the number of periods to include in the smoothing average. Enter the number to use or choose a number from the Calculator.

## **3. Exponential Smoothing**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**11 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses one equation to calculate a smoothed average. This becomes an estimate representing the general level of sales over the selected historical range. This method is useful when there is no linear trend in the data. This method requires sales data history for the time period represented by the number of periods best fit plus the number of historical data periods specified in the processing options. The minimum requirement is two historical data periods. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

11 The system uses the Exponential Smoothing method to create detail forecasts.

## **4. Number of Periods**

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Use this processing option to specify the number of periods to include in the smoothing average. Enter the number to use or choose a number from the Calculator.

## **5. Alpha Factor**

### **0 - 1**

Use this processing option to specify the alpha factor, a smoothing constant, the system uses to calculate the smoothed average for the general level or magnitude of sales. You can enter any amount, including decimals, from zero to one.

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## **Method 12 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit. You can also specify whether the system creates detail forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. No detail forecasts are created for the method. If you enter the method number before the forecast method-- for example 12 for Method 12 - Exponential Smoothing With Trend and Seasonality-- the system uses the forecast method when calculating the best fit and creates the forecast method in the Forecast File table (F3460). If the field is blank, the system does not use the forecast method when calculating the best fit; no detail forecasts are created for the method.

A period is defined as a week or month, depending on the pattern that is selected from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

## **1. Exponential Smoothing with Trend and Seasonality**

**Blank = Do Not Use This Method**

**1 = Consider for Best Fit**

**12 = Create Detail Forecasts**

Use this processing option to specify which type of forecast to run. This forecast 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 months best fit plus two years of sales data and is useful 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. Valid values are:

Blank The system does not use this method.

1 The system calculates the best fit forecast.

12 The system uses the Exponential Smoothing with T&S method to create detail forecasts.

## **2. Alpha Factor**

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## **0 - 1**

Use this processing option to specify the alpha factor, a smoothing constant, the system uses to calculate the smoothed average for the general level or magnitude of sales. You can enter any amount, including decimals, from zero to one.

### **3. Beta Factor**

## **0 - 1**

Use this processing option to specify the beta factor, a smoothing constant, the system uses to calculate the smoothed average for the trend component of the forecast. You can enter any amount, including decimals, from zero to one.

### **4. Seasonality**

**0 = Do Not Include Seasonality**

**1 = Include Seasonality**

Use this processing option to specify whether the system includes seasonality in the calculation. Valid values are:

0     The system does not include seasonality.

1     The system includes seasonality.

Blank The system does not include seasonality.

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## **Defaults Tab**

These processing options let you specify the defaults that the system uses to calculate forecasts. The system extracts actual values from Sales History and stores the forecasts that are generated in the Forecast File table (F3460). You can define your own forecast types for Actuals (AA) and best fit (BF).

---

### **1. Actuals Forecast Type**

Use this processing option to specify the forecast type that identifies the sales order history used as the basis for the forecast calculations, or Actuals. Forecast type is a user defined code (34/DF) that identifies the type of forecast to run. Enter the forecast type to use as the default value or choose it from the Select User Define Code form.

### **2. Best Fit Forecast Type**

Use this processing option to specify the forecast type that is generated as a result of the best fit calculation. Forecast type is a user defined code (34/DF) that identifies the type of

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forecast to run. Enter the forecast type to use as the default value or choose it from the Select User Define Code form.

---

## Process Tab

These processing options let you specify whether the system:

- Runs the Forecast Generation program (R34650) in proof or final mode
- Creates forecasts for large customers
- Creates weekly or monthly forecasts

In addition, you use the processing options to specify:

- The start date, length, and data used when the system creates forecasts
- How the system calculates the best fit forecast

The system applies the selected forecasting methods to past sales order history and compares the forecast simulation to the actual history. When you generate a forecast, the system compares actual sales order histories to forecasts for the months or weeks that you indicate in the processing option, and computes how accurately each of the selected forecasting methods would have predicted sales. Then the system recommends the most accurate forecast as the best fit.

Mean Absolute Deviation (MAD) is the mean of the absolute values of the deviations between actual and forecast data. MAD is a measure of the average magnitude of errors to expect, given a forecasting method and data history. Because absolute values are used in the calculation, positive errors do not cancel out negative errors. When comparing several forecasting methods, the one with the smallest MAD has shown to be the most reliable for that product for that holdout period.

Percent of Accuracy (POA) is a measure of forecast bias. When forecasts are consistently too high, inventories accumulate and inventory costs rise. When forecasts are consistently too low, inventories are consumed and customer service declines. A forecast that is ten units too low, then eight units too high, then two units too high is an unbiased forecast. The positive error of ten is canceled by negative errors of eight and two.

---

### 1. Mode

**Blank = Proof Mode**

**1 = Final Mode**

Use this processing option to specify whether the system runs in proof or final mode. Valid values are:

Blank The system runs in proof mode, creating a simulation report.

1 The system runs in final mode, creating forecast records.

### 2. Large Customers

**Blank = Do Not Create Large  
Customer Forecasts**

---

---

## **1 = Create Large Customer Forecasts**

Use this processing option to specify whether to create forecasts for large customers. Based on the Customer Master table (F0301), if the ABC code is set to A and this option is set to 1 the system creates separate forecasts for large customers. Valid values are:

Blank The system does not create large customer forecasts.

1 The system creates large customer forecasts.

## **3. Weekly Forecasts**

**Blank = Monthly Forecasts**

**1 = Weekly Forecasts**

Use this processing option to specify weekly or monthly forecasts. For weekly forecasts, use fiscal date patterns with 54 periods. For monthly forecasts, use fiscal date patterns with 14 periods. Valid values are:

Blank The system creates monthly forecasts.

1 The system creates weekly forecasts.

## **4. Start Date**

**Blank = Today's date**

Use this processing option to specify the date on which the system starts the forecasts. Enter a date to use or choose a date from the Calendar. If you leave this field blank, the system uses the system date.

## **5. Forecast Length**

**Blank = 3 periods**

Use this processing option to specify the number of periods to forecast. You must have previously established fiscal date patterns for the forecasted periods. If you leave this field blank, the system uses 3.

## **6. Actual Data**

**Blank = 3 periods**

Use this processing option to specify the number of periods of actual data that the system uses to calculate the best fit forecast. If you leave this field blank, the system uses 3.

The system applies the selected forecasting methods to past sales order history and compares the forecast simulation to the actual history. When you generate a forecast, the system compares actual sales order histories to forecasts for the months or weeks you

---

indicate in the processing option and computes how accurately each of the selected forecasting methods would have predicted sales. Then, the system recommends the most accurate forecast as the best fit.

## **7. Mean Absolute Deviation**

**Blank = Percent of Accuracy**

**1 = Mean Absolute Deviation**

Use this processing option to specify whether the system uses the Mean Absolute Deviation formula or the Percent of Accuracy formula to calculate the best fit forecast. Valid values are:

Blank The system uses the Percent of Accuracy formula.

1 The system uses the Mean Absolute Deviation formula.

## **8. Amounts or Quantity**

**Blank = Quantity**

**1 = Amount**

Use this processing option to specify whether the system calculates the best fit forecast using amounts or quantities. If you specify to use amounts, you must also extract sales history using amounts. This also affects forecast pricing. Valid values are:

Blank The system uses quantities.

1 The system uses amounts.

## **9. Fiscal Date Pattern**

Use this processing option to specify the fiscal date pattern type to use for the forecast calculations. When generating weekly forecasts, the fiscal date pattern defined here must be set up for 52 periods.

## **10. Negative Values**

**Blank = Zeros**

**1 = Negative Values**

Use this processing option to specify whether the system displays negative values. Valid values are:

Blank The system substitutes a zero value for all negative values.

1 The system displays negative values.

## Interoperability Tab

This processing option lets you specify the transaction type that the system uses for interoperability.

---

### 1. Transaction Type

**Blank = Do Not Create Outbound Forecast**

**JDEFC = Create Outbound Forecast**

Use this processing option to specify the transaction type used for interoperability. Valid values are:

Blank The system does not create outbound forecasts.

JDEFC The system creates outbound forecasts.

---

## Creating Forecasts for a Single Item

Use the Forecast Online Simulation program (P3461) to create a detail forecast for a single item. After you run the simulation interactively, you can modify the simulated forecast and commit it to the Forecast File table (F3460).

### ► To create forecasts for a single item

---

*From the Periodic Forecasting Operations menu (G3421), choose Online Simulation.*

1. On Work With Forecast Simulations, complete the following fields and click Find:
  - Item Number
  - Actual Type
  - Branch
2. Choose a method and click Select.
3. On Forecast Calculations, modify the simulated forecasts as necessary and click OK to commit the changes to the Forecast File table (F3460).



## Online Simulation - Forecast Calculations

		Branch	M30
Item Number	220	Touring Bike, Red	
Forecast Type	01	Simple Percent Over Last Year	

Records 1 - 1		Customize Grid	
	Date	Quantity	
<input type="radio"/>	01/31/05	60	



## Processing Options for Forecast Online Simulation (P3461)

---

### Method 1- 3

Enter a '1' or a Forecast Type next to the Method desired.

#### 1.) Percent Over Last Year

Percent

Note: Enter the percent increase over last year (eg. 110 for a 10% increase, 97 for a 3% decrease).

#### 2.) Calculated Percent Over Last Year

Enter the number of periods to include in the percentage.

#### 3.) Last Year to This Year

### Method 4 - 6

#### 4.) Moving Average

Enter the number of periods to include in the average.

#### 5.) Linear Approximation

Enter the number of periods to include in the ratio.

#### 6.) Least Squares Regression

Enter the number of periods to include in the regression.

### Method 7- 8

#### 7.) Second Degree Approximation

Enter the number of periods.

#### 8.) Flexible Method (Percent over N periods prior)

Enter the number of periods prior.

Enter the percent over the prior period (eg. 110 for a 10% increase, 97 for a 3% decrease).

### Method 9

#### 9.) Weighted Moving Average

Note: The weights must add up to 100 (i.e. 60, 30, and 10)

Weight for one period prior

Weight for two periods prior

Weight for three periods prior

Weight for four periods prior

#### Method 9 Cont.

Weight for five periods prior

Weight for six periods prior

Weight for seven periods prior

Weight for nine periods prior

Weight for nine periods prior

Weight for ten periods prior

#### Method 9 Cont.

Weight for eleven periods prior

Weight for twelve periods prior

---

Note: If no weight is entered for a period within the number of periods specified, a weight of zero will be used for that period. Weights entered for periods greater than the number of periods specified will not be used.

Enter the number of periods to include.

#### Method 10-11

##### 10.) Linear Smoothing

Enter the number of periods to include in smoothing average.

##### 11.) Exponential Smoothing

Enter the number of periods to include in the smoothing average.

Enter the Alpha factor. If zero it will be calculated.

#### Method 12

##### 12.) Exponential Smoothing with Trend and Seasonality factors

Enter the Alpha factor. If zero it will be calculated.

Enter the Beta factor. If zero it will be calculated.

Enter a '1' to include seasonality in the calculation. If blank seasonality will not be used.

#### Process 1

1.) Enter the Forecast Type to use when creating the Best Fit Forecast.

2.) Enter a '1' to create summary records for large customers (ABC = type).

3.) Enter a '1' to specify weekly forecasts. Blank defaults to monthly.

4.) Enter the date to start forecasts. Default of today's date if left blank.

5.) Enter Number of periods to forecast. Default to 3 periods if blank.

6.) Enter the number of periods of actual data to be used to calculate best fit forecast. If left blank 3 periods of data will be used.

#### Process 2

7.) Enter a '1' to calculate Best Fit forecast using Mean Absolute Deviation. Blank will calculate the Best Fit using Percent of Accuracy.

8.) Enter a '1' to forecast using amounts. Default of blank will forecast quantities.

9.) Enter the Fiscal Date Pattern Type to use for forecast dating.

10.) Enter a '1' to allow negative values to be written. If left blank, negative values will be written as zeroes.

#### Versions

Enter the version for each program. If left blank, version ZJDE0001 will be used.

1. Forecast Review by Type (P34300)

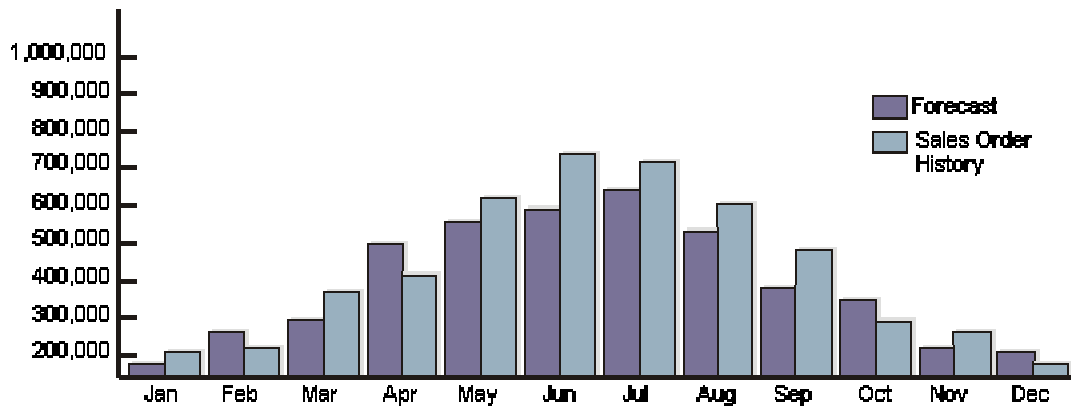
---

## Reviewing Detail Forecasts

Review forecasts to compare the actual sales to the detail forecast. The system shows the forecast values, and actual quantities or sales order extended price for an item for the specified year.

### Example: Comparing Forecast to Sales Order History

**Comparing Forecast to Sales Order History**



You can review 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 all of the information that is stored in the Forecast File table (F3460), choose whether to review quantities or amounts, and view the data in summary or detail mode.

#### ► To review detail forecasts

---

*From the Periodic Forecasting Operations menu (G3421), choose Review Forecast (P34201).*

1. On Work With Forecast Review, complete the following fields:
  - Branch/Plant
  - YR
  - FT
2. Complete one of the following fields and click Find:
  - Planner Number
  - Master Planning Family
  - Unit Of Measure

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Review Forecast - Work With Forecast Review

Select Find Close Row Tools

Branch/Plant M30

Planner Number \* YR 2004 FT BF

Master Planning Family 200 Bike ☐ Summary

Unit Of Measure

Records 1 - 3 Customize Grid

MPF	2nd Item Number	Item Description	UOM	Forecast Quantity	Actual Quantity	Qty %	Forecast Amount	Actual Amount	Amt %
<input type="checkbox"/> 200	220	Touring Bike, Red	EA		2372			1,532,500.00	
<input type="checkbox"/> 200	210	Mountain Bike, Red	EA		9274			7,144,600.00	
<input type="checkbox"/> 200	230	Youth Sport Bike	EA		4807				

### 3. Review the following fields:

- Forecast Quantity
- Actual Quantity
- Qty %
- Forecast Amount
- Actual Amount

Detail mode lists all item numbers. Summary mode consolidates data by master planning family. Click the Summary option in the header area, and then click Find to review information in summary mode.

## Processing Options for Forecast Review (P34201)

### Defaults

1. Enter the default Forecast Type
2. Enter the default type for Actual

### Versions

Enter the version for each program. If left blank, version ZJDE0001 will be used.

1. Forecast Revisions (P3460)

## Revising Detail Forecasts

After you generate and review a forecast, you can 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 change information in an existing forecast manually, add or delete a forecast, and enter descriptive text for the forecast.

You can access the forecasts that you want to revise by item number, branch/plant, forecast type, or any combination of these elements. You can specify a beginning request date to limit the number of periods.

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.

### ► To revise detail forecasts

*From the Periodic Forecasting Operations menu (G3421), choose Enter/Change Forecast.*

1. On Work With Forecasts, complete the following fields and click Find:
  - Branch/Plant
  - Item Number
  - Unit Of Measure
  - Forecast Type
2. Choose a forecast and click Select.
3. On Detail Forecast Revisions, change the information in one of the following fields:
  - Forecast Quantity
  - Forecast Amount

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Enter/Change Forecast - Detail Forecast Revisions

OK Find Delete Cancel Form Row Tools

Item Number  Branch/Plant   
 U/M  Each  
 Forecast Type  Actual Sales Skip To

Records 1 - 10 Customize Grid

	F T	Request Date	Forecast Quantity	Forecast Amount	Customer Number	Description	Bypass Forcing	Original Quantity	Original Amount	Branch Plant
<input type="checkbox"/>	AA	07/31/02	199	129,350.00			N	199	129,350.00	
<input type="checkbox"/>	AA	07/31/02	10	6,400.00	4242	Capital System	N	10	6,400.00	
<input type="checkbox"/>	AA	07/31/02	25	16,000.00	4245	Cloud Nine Inc.	N	25	16,000.00	
<input type="checkbox"/>	AA	08/31/02	165	107,000.00			N	165	107,000.00	
<input type="checkbox"/>	AA	08/31/02	10	6,400.00	4242	Capital System	N	10	6,400.00	
<input type="checkbox"/>	AA	08/31/02	25	16,000.00	4245	Cloud Nine Inc.	N	25	16,000.00	
<input type="checkbox"/>	AA	09/30/02	139	110,900.00			N	139	110,900.00	
<input type="checkbox"/>	AA	09/30/02	20	12,800.00	4242	Capital System	N	20	12,800.00	
<input type="checkbox"/>	AA	09/30/02	100	63,000.00	4245	Cloud Nine Inc.	N	100	63,000.00	
<input type="checkbox"/>	AA	10/31/02	121	78,650.00			N	121	78,650.00	

4. To associate information, such as text or drawings, with a forecast type, choose the row, and then choose Attachments from the Form menu.
5. Click OK.

## Revising Forecast Prices

You can enter prices for unique combinations of item number, branch/plant, forecast type, and customer number. All these values are stored in the Forecast Prices table (F34007), and are used to extend the amount or quantity on a detail forecast record in the Forecast File table (F3460) and the Forecast Summary File table (F3400). You can roll up these prices to the higher-level items in the forecast hierarchy by using the Forecast Price Rollup program (R34620).

If the forecast is stated in terms of quantity, you can use table F34007 to extend the forecast in amounts-- for example, as a projection of revenue. In the case of a sales forecast, the forecast might already be stated in terms of revenue. In this case, you might want to convert the forecast into quantities to support production planning.

### ► To revise forecast prices

*From the Periodic Forecasting Operations menu (G3421), choose Enter/Change Forecast Price (P34007).*

1. On Work With Forecast Prices, click Find to view all of the unique combinations of item number, branch/plant, forecast type, and customer number.
2. Choose a forecast to which you want to change the price and click Select.
3. On Forecast Pricing Revisions, complete the following fields and click OK:
  - Effective Date
  - Expiration Date
  - Price

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Enter/Change Forecast Price - Forecast Pricing Revisions

OK Delete Cancel Tools

Item Number 220 Branch Plant M30  
Customer Number Touring Bike, Red  
Forecast Type 01 Simple Percent Over Last Year

Records 1 - 2		Customize Grid	
	Effective Date	Expiration Date	Price
<input type="checkbox"/>	01/01/05	12/31/05	138.00
<input type="checkbox"/>			

## Generating a Forecast Price Rollup

Use the Forecast Price Rollup program (R34620) to roll up the prices that you entered on the Forecast Pricing Revisions form to the higher-level items in the forecast hierarchy. This program uses the manually entered prices to extend the amount or quantity on a detail record and rolls up the prices through the forecasting hierarchy.

### Processing Options for Forecast Price Rollup (R34620)

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#### Control

- 1.) Enter the Summary Code to use for pricing the summary forecast records. If left blank only the detail forecasts will be priced.
  - 2.) Enter a '1' to Rollup based on Amount. Blank will default to Rollup based on Quantity.
-

# Summary Forecasts

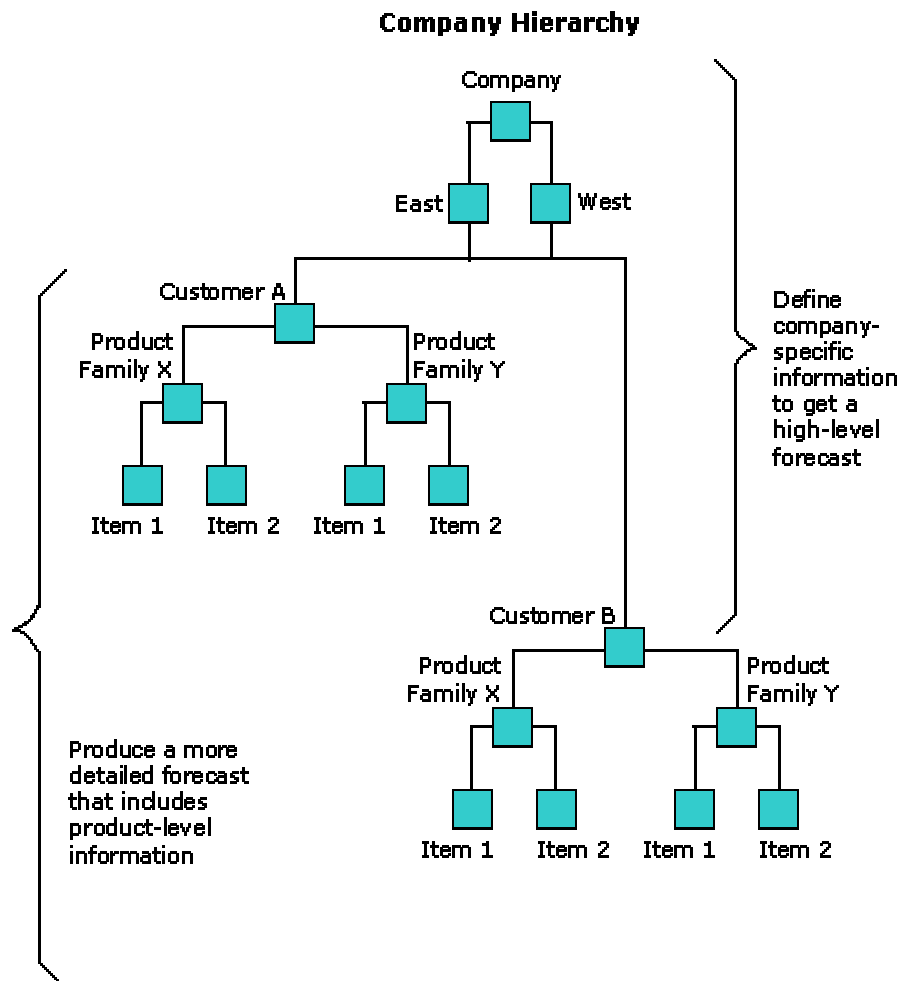
You use summary forecasts to project demand at a product group level. Summary forecasts are also called aggregate forecasts. You can generate a summary of a detail forecast or a summary forecast based on summarized actual sales history.

---

## Company Hierarchies

You must define your company's hierarchy before you generate a summary forecast. Peoplesoft recommends that you organize the hierarchy by creating a diagram or storyboard.

The following graphic is an example of a company hierarchy:



Establish a forecasting structure that realistically depicts the working operation of your company, from item level to headquarters level, to increase the accuracy of your forecasts. By defining your company's processes and relationships at multiple levels, you maintain information that is more detailed and can plan better for your future needs.



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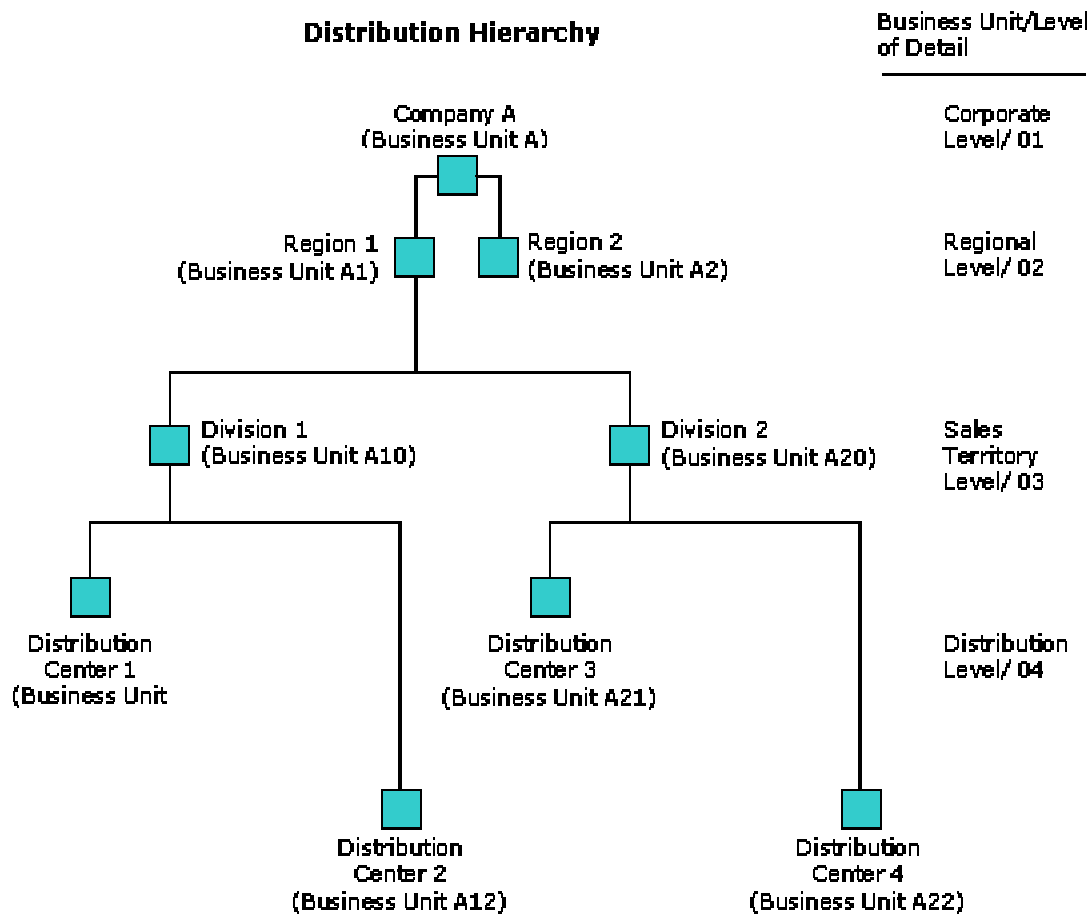
## Defining Distribution Hierarchies

When planning and budgeting for divisions of your organization, you can summarize detailed forecasts that are based on your distribution hierarchy. For example, you can create forecasts by large customer or region for your sales staff, or create forecasts by product family for your production staff.

To define the distribution hierarchy, you must set up summary codes and assign summary constants. You also must enter address book, business unit, and item branch data.

### Example: Distribution Hierarchy

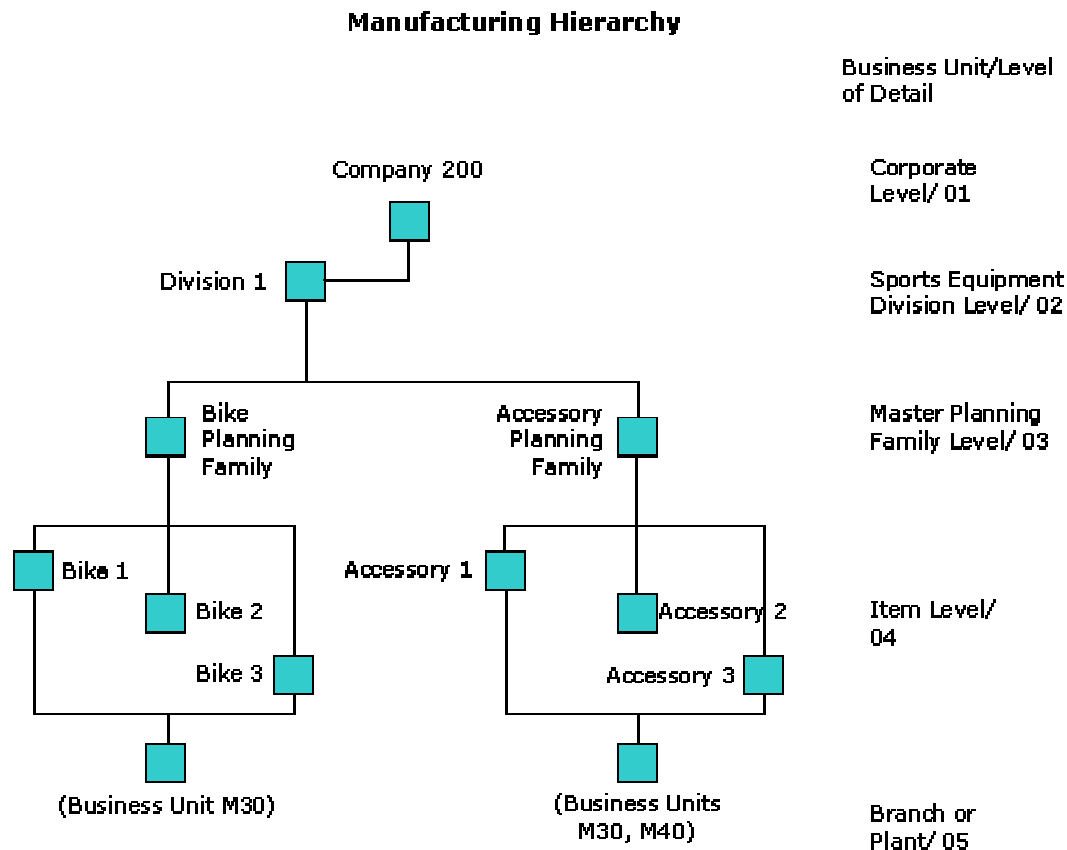
The following chart shows an example of a distribution hierarchy:



## Example: Manufacturing Hierarchy for Company 200

You might want to see a forecast of the total demand for a product summarized by product families.

The following chart shows an example of how to set up a hierarchy to get the forecast summary by product:



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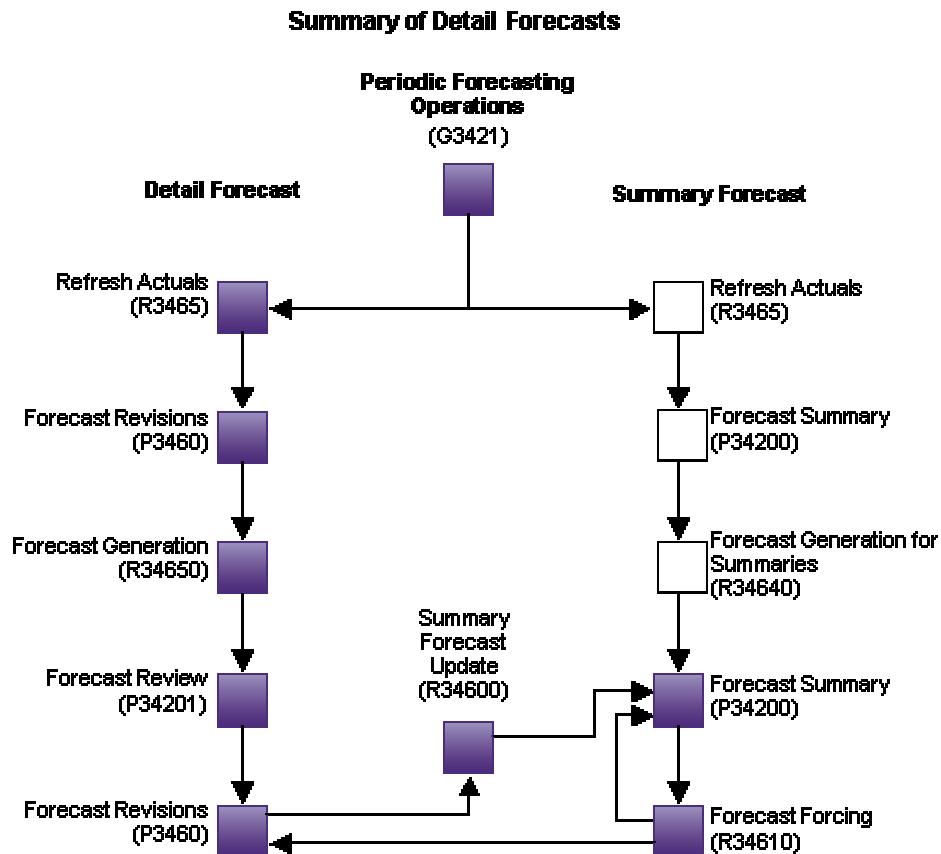
## Comparing Summary of Detail Forecasts and Summary Forecasts

### Summary of Detail Forecasts

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

The system updates the Sales Order History File table (F42119) with sales data from the Sales Order Detail File table (F4211). You copy the sales history into the Forecast File 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 Category Code Key Position File table (F4091). Both summaries of detail forecasts and summary forecasts are stored in the Forecast Summary File table (F3400).

The shaded blocks of the following graphic show this process:



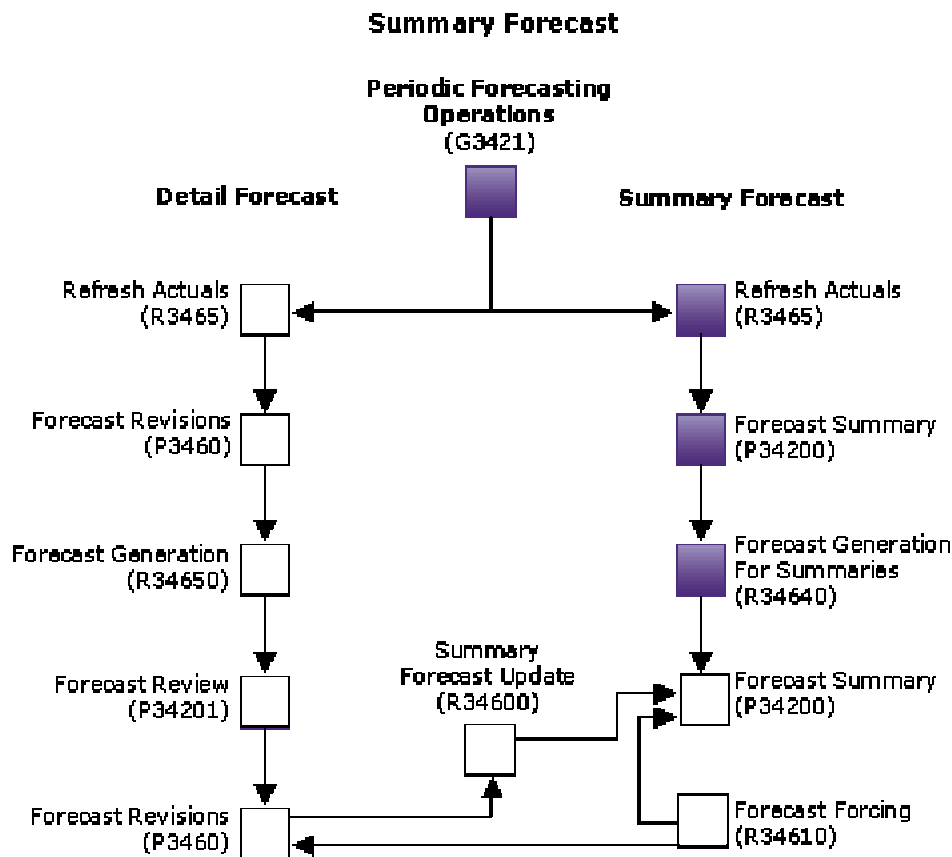
## Summary Forecasts

Use summary forecasts to project demand at a product group level. Summary forecasts are also called aggregate forecasts. You generate a summary forecast that is based on summary actual data.

Summary forecasts combine sales history into a monetary value of sales by product family, by region, or in other groupings that are used as input to the aggregate production planning activity. You can use summary forecasts to run simulations.

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

The shaded blocks in the following graphic illustrate the process flow of generating a summary forecast:



## Setting Up Summary Forecasts

For summary forecasts, the Forecast Management system requires you to set up the information for detail forecasts, and set up and define a summary hierarchy.

You set up your summary codes (40/KV) and then identify the constants for each summary code. These summary codes and constants define your distribution hierarchy.

To set up summary forecasts, you must:

- Define the hierarchy with summary codes and constants
- Enter address book data, business unit data, and item branch data

### Prerequisite

- ❑ Set up detail forecasts.

## Setting Up Summary Codes

To set up the hierarchy, you must set up summary codes. For each hierarchy that you define, you must specify a unique identifier called a summary code. Summary codes are setup in user defined code (UDC) 40/KV. Examples of summary codes include the following:

Codes	Description	Hard Coded
200	Sales Channel Summarization	N
CUS	Large Customer Summarization	N
EAS	Eastern Forecast	N
MDW	Mid-Western Forecast	N
PHR	Pharmaceutical Forecast	N
SM	Marketing Summarization Code	N

When creating summary forecasts, you choose a summary code to indicate the hierarchy with which you want to work.

### Prerequisite

- ❑ Update the sales history. See *Updating Customer Sales* in the *Sales Order Management Guide*.

## Assigning Constants to Summary Codes

For each summary code, use summary constants to define each level of the hierarchy. You can use category codes from the Address Book program (P01012) and Item Master table (F4101) to define up to 14 levels in the hierarchy. You can define these levels as follows:

- Define the top level as the Global Summary to summarize forecasts for several companies into a single corporate view.
- Define the second level as the Company Summary to summarize forecasts for all of the facilities in a single company.
- Define up to 11 middle levels, which include the category codes and the customer level.
- Use as many as 20 address book category codes and 20 item branch category codes to assign other levels in the hierarchy.
- Use the Customer Level field as another category code. You can specify each of your large customers as a level of the hierarchy. This action allows you to create specific forecasts for each large customer.
- The lowest level that you can define is the item level.
- Define an Item Summary level that provides forecasts for the individual item level. All detail forecast records for an item can be summarized at this level.

Detail records for a branch/plant item are automatically placed after all levels of the hierarchy. The system does not include these detail records as one of the 14 levels of the hierarchy.

► **To assign constants to summary codes**

---

*From the Forecasting Setup menu (G3441), choose Summary Constants (P4091).*

1. On Work With Summary Constants, click Add.
2. On Revise Summary Constants, complete the following fields:
  - Summary Code
  - Global Summary Y/N
  - Company Summary Y/N
  - Item Summary Y/N
  - Customer Level
3. To define the hierarchy levels, complete any of the following fields:
  - Location or Branch
  - Salesperson
  - Sales Territory
  - Category Code 04
  - Category Code 05
  - Category Code 06
  - Category Code 07
  - Category Code 08
  - Review Criteria
  - Review Priority
  - Sales Catalog Selection
  - Sub Section
  - Sales Category Code 3
  - Sales Category Code 4
  - Sales Category Code 5
  - Commodity Class
  - Commodity Sub Class
  - Vendor Rebate Code
  - Master Planning Family
  - Landed Cost Rule



## Summary Constants - Revise Summary Constants

OK Cancel Form Tools

Summary Code

200

### Key Positions

Global Summary Y/N   
 Company Summary Y/N   
 Item Summary Y/N   
 Customer Level

### Address Book Category Codes

Location or Branch   
 Salesperson   
 Sales Territory   
 Category Code 04   
 Category Code 05   
 Category Code 06   
 Category Code 07   
 Category Code 08   
 Review Criteria   
 Review Priority

### Item Category Codes

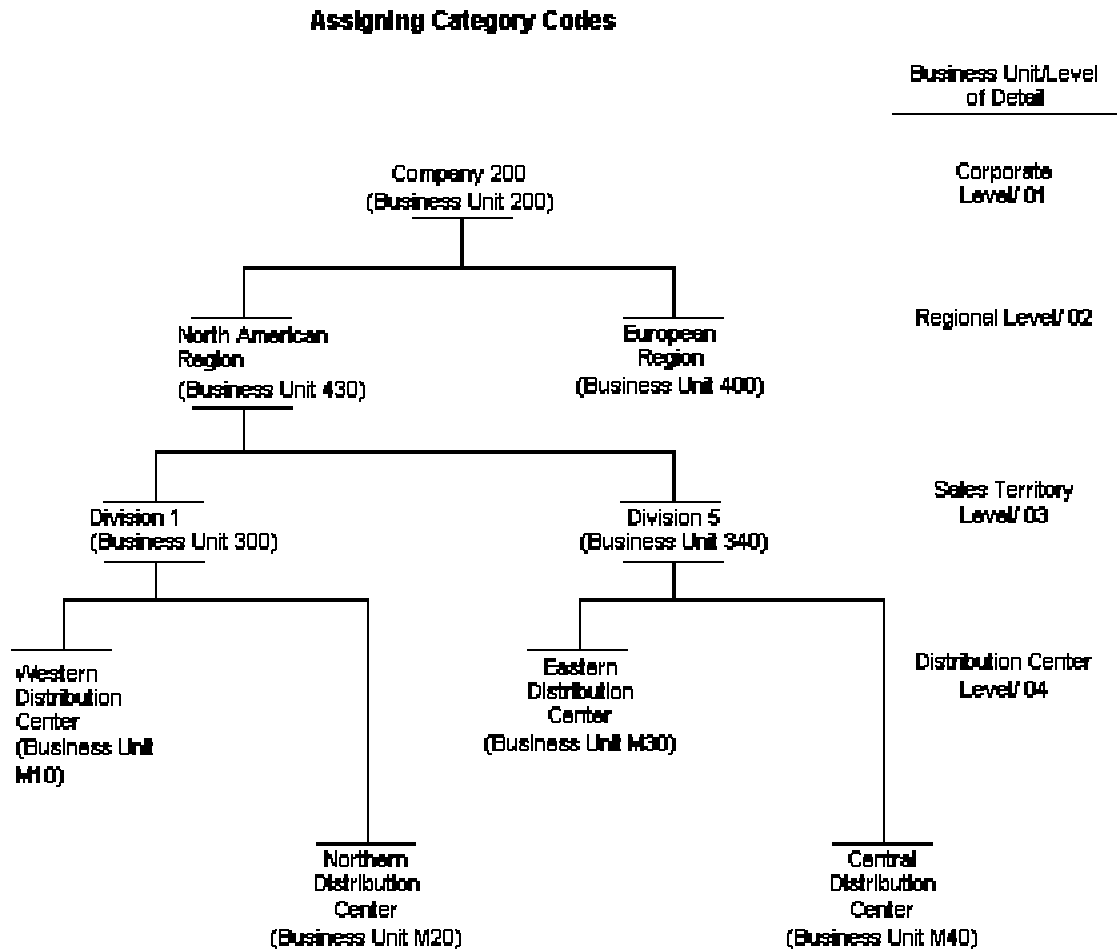
Sales Catalog Selection   
 Sub Section   
 Sales Category Code 3   
 Sales Category Code 4   
 Sales Category Code 5   
 Commodity Class   
 Commodity Sub Class   
 Vendor Rebate Code   
 Master Planning Family   
 Landed Cost Rule

4. To display and enter additional summary constants, click the More button.
5. Click OK.

## Verifying Address Book Category Codes

You use address book category codes to define business attributes for the summary hierarchy-- for example, regions, territories, and distribution centers. The address book category codes associate the levels of the hierarchy when you generate the summary forecast. Optionally, you can define your category codes with your business unit if your hierarchy is tied to your business unit structure.

### Example: Assigning Category Codes



For example, Division 1 (in the North American Region) uses business unit code 430 as its address book Sales Territory (03) category code. The Western Distribution Center resides in Division 1. To establish the link to the North American Region, the address book category codes for the Western Distribution Center must include the business unit codes that are defined at each level of the hierarchy. In the address book for Western Distribution Center (M10), the Division 1 business unit code (300) resides in the Sales Territory (03) category code. The North American Region's business unit code (430) is assigned to the Region category code (02).



The following table illustrates the category codes for the North American Region hierarchy:

Business Unit Description	Business Unit Number	Level of Detail	Address Book	Address Book Category Code
Corporate Business Unit	200	1	200	
North American Region	430	2	1234	
European Region	400	2	4567	
Division 1	300	3	5678	Territory (03): 430
Division 5	340	3	8765	Territory (03): 430
Northern Distribution Region	M20	4	6066	Territory (03): 300 Region (04): 430
Western Distribution Region	M10	4	6058	Territory (03): 300 Region (04): 430
Central Distribution Region	M40	4	6082	Territory (03): 340 Region (04): 430
Eastern Distribution Region	M30	4	6074	Territory (03): 340 Region (04): 430

At each level in the hierarchy, the first category code defines the highest level in the hierarchy. The second category code defines the second higher level, and so on.

### Prerequisite

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

### ► To revise address book category codes

*From the Daily Processing menu (G01), choose Address Book Revisions.*

1. On Work With Addresses, complete the following fields and click Find:
  - Alpha Name
  - Search Type
2. Choose an address number and click Select.
3. On Address Book Revision, click the Cat Code 1 - 10 tab and complete any of the fields.

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Address Book Revisions - Address Book Revision

Work With Addresses Address Book Revision

OK Cancel Form Previous Next Tools

Address Number 200

Address Book Mailing Additional Related Address Cat Code 1 - 10 Cat Code 11 - 30

Category Code 01		.	Category Code 06	987	Electronics
Category Code 02		.	Category Code 07		.
Category Code 03	300	Division 1	Category Code 08		.
Category Code 04	400	Europe	Category Code 09		.
Category Code 05		.	Category Code 10		.

- To access additional category code fields, click the Cat Code 11-30 tab.
- Click OK.

## Reviewing Business Unit Data

Review the company business units and business unit address book numbers to verify that the business units and corresponding address book numbers have been set up correctly. To review company business units, review the level of detail for each business unit in the company hierarchy, and verify that the appropriate address book number is assigned to the business unit.

### Prerequisite

- Set up the address book numbers for each business unit.

### ► To review business unit data

*From the Organization & Account Setup menu (G09411), choose Review and Revise Business Units.*

- On Work With Business Units, complete the following field and click Find:
  - Company
- Choose a business unit and click Select.

3. On Revise Business Unit, click the More Detail tab and complete the following field:
  - Address Number

PeopleSoft®

Review and Revise Business Units - Revise Business Unit

Work With Business Units **Revise Business Unit**

OK Cancel Form Previous Next Tools

Business Unit M30 Eastern Manufacturing Center

Revise Single BU **More Detail** Cat Codes 1-10 Cat Codes 11-20 Cat Codes 21-30

Description Line 2

Description Line 3

Description Line 4

Address Number 6074 Eastern Manufacturing Plant

Tax Rate/Area

Project Number

Posting Edit Post Transactions

4. Click OK.

#### See Also

- *Setting Up Business Units in the General Accounting Guide*

## Verifying Item Branch Category Codes

Information for an item at a specific branch is maintained in item branch records. The system stores this information in the Item Branch File table (F4102). You should review the item branch records to verify that the items in each branch/plant contain data for the category codes that you selected as levels on the Revise Summary Constants form.

For example, if you select a Master Planning Family as part of a company hierarchy, you must verify that a corresponding user defined code exists in the item branch category code field for that Master Planning Family.

► **To verify item branch category codes**

*From the Inventory Master/Transactions menu (G4111), choose Item Branch/Plant.*

1. On Work With Item Branch, complete the following field and click Find:
  - Item Number
2. Choose a branch/plant and then choose Category Codes from the Row menu.

PeopleSoft.

Item Branch/Plant - Category Codes

Work With Item Branch Category Codes

OK Cancel Previous Next Tools

Item Number 220 Branch/Plant M30

Sales Catalog Section		Major classification-	Shipping Conditions Code		Blank -Shipping Cc
Sub Section		Minor classification-	Shipping Commodity Class		Blank-Shipping Co.
Sales Category Code 3		Add sales cat S3 cc	Cycle Count Category		.
Sales Category Code 4		Add sales cat S4 cc	Item Dimension Group		.
Sales Category Code 5		Add sales cat S5 cc	Warehouse Process Grp 1		Blank
Preferred Carrier			Warehouse Process Grp 2		Blank
			Warehouse Process Grp 3		Blank
Commodity Class	001	Cycling Products	Item Pool Code		.
Commodity Sub Class		Add purchase cat F	Category Code 6		.
Supplier Rebate Code		Add supplier rebate	Category Code 7		.
Master Planning Family	200	Bike	Category Code 8		.
Landed Cost Rule		Add landed cost rul	Category Code 9		.
Preferred Carrier			Category Code 10		.

3. On Category Codes, verify the following field:
  - Commodity Class

## Generating Summary Forecasts

The system generates summary forecasts that are based on sales history data that you copy from the Sales Order History File table (F42119) into the Forecast Summary File table (F3400). When you copy the sales history, you specify a date range that is based on the request date of the sales order. The sales history data can be distorted 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 that 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 PeopleSoft Forecast Management system allows you to work with that customer's changes separately.

---

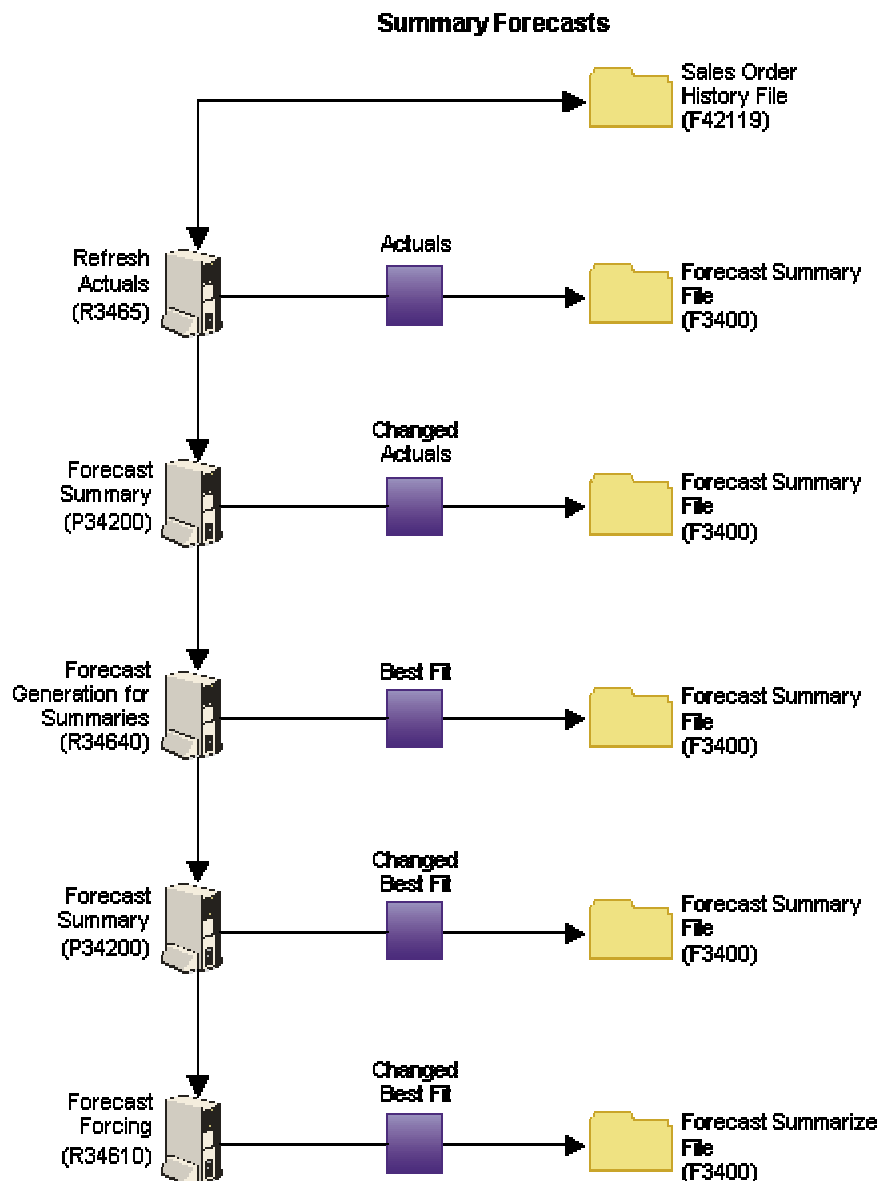
**Note**

To generate summary forecasts for item quantities on all levels of the hierarchy, generate a detail forecast first, and then run the Summary Forecast Update program (R34600).

---

## Copying Summary Sales Order History

The system generates summary forecasts that are based on data in the Forecast Summary File table (F3400). Use the Refresh Actuals program (R3465) to copy the sales order history (type AA) from the Sales Order History File table (F42119) to table F3400, based upon criteria that you specify.



The system stores sales order histories in table F3400 with forecast type AA or a type code that you designate.

You do not need to clear table F3400 before you run this program. The system automatically deletes any records for the same:

- Period as the actual sales order histories to be generated
- Items
- Sales order history type (AA)
- Branch or plant

---

**Note**

The Refresh Actuals program (R3465) converts sales orders into the primary unit of measure and adjusts the resulting quantities.

---

**Prerequisites**

- ☐ Set up detail forecasts.
- ☐ Set up the summary forecast.

**See Also**

- ☐ *Entering Customer Master Information in the Accounts Receivable Guide*

## Creating a Summary Forecast

The Forecast Generation for Summaries program (R34640) 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 Forecast File table (F3460), which is used as input to Distribution Requirements Planning (DRP), Master Production Schedule (MPS), and Material Requirements Planning (MRP) generation.

You can simulate multiple forecasting methods, including the system's 12 hard-coded methods, with past sales order histories; and then select the best fit as 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 Forecast Summary File table (F3400).

The Forecast Generation for Summaries program uses the same 12 forecasting methods that are used to create detail forecasts. However, the system creates forecast information for each level in the hierarchy.

You can also use the Forecast Generation for Summaries program to:

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

- Store any or all of the forecast methods in table F3400.
- Generate the forecast in a fiscal date pattern that you select.
- Specify the number of months of actual data to use to create the best fit.
- Forecast for individual large customers.
- Forecast an unlimited number of periods into the future.

If you use the default type codes in the processing options, the actual sales history records are identified by type AA, and the best fit model is identified by type BF. The system saves the BF type and AA type records (or corresponding type codes that you designate) in table F3400. However, forecast types 01 through 12 are not automatically saved. You must set a processing option to save them.

When you run the Forecast Generation for Summaries program, the system:

- Extracts sales order history information from table F3400
- Calculates the forecasts by using methods that you select
- Determines the Percent of Accuracy (POA) or Mean Absolute Deviation (MAD) for each selected forecast method
- Recommends the best fit forecast method
- Generates the summary forecast in both monetary amounts and units from the best fit forecast

### **Prerequisites**

- ❑ Run the Refresh Actuals program (R3465).
- ❑ Make changes to the sales order history with the Forecast Revisions program (P3460).

## **Processing Options for Forecast Generation for Summaries (R34640)**

### **Methods 1 - 3 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit forecast for each level in the hierarchy. You can also specify whether the system creates summary forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. If you leave the processing option blank, the system does not use that forecast method when calculating the best fit and does not create summary forecasts for the method.

The system defines a period as a week or month, depending on the pattern that is chosen from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

#### **1. Percent Over Last Year**

**Blank = Do not use this method**

**1 = Use this method to create a forecasts**

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Use this processing option to specify which type of forecast to run. This forecast method

---

uses the Percent Over Last Year formula to multiply each forecast period by a percentage increase or decrease. You specify the increase or decrease in the Percent processing option. This method requires the periods for the best fit plus one year of sales history. This method is useful for seasonal items with growth or decline. Valid values are:

Blank The system does not use this method.

1 The system uses the Percent Over Last Year formula to create summary forecasts.

## **2. Percent**

Use this processing option to specify the percent of increase or decrease by which the system multiplies the sales history from last year. For example, type 110 for a 10 percent increase or type 97 for a 3 percent decrease. Valid values are any percent amount; however, the amount cannot be a negative amount. Enter an amount to use or choose it from the Calculator.

## **3. Calculated Percent Over Last Year**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Calculated Percent Over Last Year formula to compare the periods of past sales that you specify to the same periods of past sales of the previous year. The system determines a percentage increase or decrease, then multiplies each period by this percentage to determine the forecast. This method uses the periods of sales order history that you specify in the following Number of Periods processing option plus one year of sales history.

This method is useful for short-term demand forecasts of seasonal items with growth or decline. Valid values are:

Blank The system does not use this method.

1 The system uses the Calculated Percent Over Last Year formula to create summary forecasts.

## **4. Number of Periods**

Use this processing option to specify the number of periods to include when calculating the percentage increase or decrease. Enter a number to use or choose it from the Calculator.

## **5. Last Year to This Year**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**



---

Use this processing option to specify which type of forecast to run. This forecast method uses the Last Year to This Year formula which calculates the year's forecast based on the prior year's sales. This method uses the periods best fit plus one year of sales order history. This method is useful for mature products with level demand or seasonal demand without a trend. Valid values are:

Blank The system does not use this method.

1 The system uses the Last Year to This Year formula to create summary forecasts.

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## **Methods 4 - 6 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit forecast for each level in the hierarchy. You can also specify whether the system creates summary forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. If you leave the processing option blank, the system does not use that forecast method when calculating the best fit and does not create summary forecasts for the method.

The system defines a period as a week or month, depending on the pattern that is chosen from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

### **1. Moving Average**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Moving Average formula to average the months that you indicate in the following Number of Periods processing option to project the next period. This method uses the periods for the best fit from the Actual Data processing option under the Process 1 tab plus the number of periods of sales order history. You should have the system recalculate this forecast monthly or at least quarterly to reflect changing demand level. This method is useful for mature products without a trend. Valid values are:

Blank The system does not use this method.

1 The system uses the Moving Average formula to create summary forecasts.

### **2. Number of Periods**

Use this processing option to specify the number of periods to include in the Moving Average forecast method. Enter a number to use or choose it from the Calculator.

### **3. Linear Approximation**

**Blank = Do not use this method**

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**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Linear Approximation formula to compute a trend from the periods 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. This method uses period's best fit plus the number of periods that you indicate in the following Number of Periods processing option of sales order history. This method is useful for new products or products with consistent positive or negative trends that are not due to seasonal fluctuations. Valid values are:

Blank The system does not use this method.

1 The system uses the Linear Approximation formula to create summary forecasts.

**4. Number of Periods**

Use this processing option to specify the number of periods to include in the Linear Approximation forecast method. Enter the number to use or choose it from the Calculator.

**5. Least Squares Regression**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method derives an equation describing a straight-line relationship between the historical sales data and the passage of time. Least Squares Regression fits a line to the selected range of data such that the sum of the squares of the differences between the actual sales data points and the regression line are minimized. The forecast is a projection of this straight line into the future. This method is useful when there is a linear trend in the sales data. This method uses sales data history for the period represented by the number of periods best fit plus the number of historical data periods specified in the following Number of Periods processing option. The system requires a minimum of two historical data points. Valid values are:

Blank The system does not use this method.

1 The system uses the Least Squares Regression formula to create summary forecasts.

**6. Number of Periods**

Use this processing option to specify the number of periods to include in the Least Squares Regression forecast method. You must enter at least two periods.

Enter the numbers to use or choose them from the Calculator.

---

## Methods 7 - 8 Tab

These processing options let you specify which forecast types that the system uses when calculating the best fit forecast for each level in the hierarchy. You can also specify whether the system creates summary forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. If you leave the processing option blank, the system does not use that forecast method when calculating the best fit and does not create summary forecasts for the method.

The system defines a period as a week or month, depending on the pattern that is chosen from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

---

### 1. Second Degree Approximation

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses the Second Degree Approximation formula to plot a curve based on a specified number of sales history periods. You specify the number of sales history periods in the following Number of Periods processing option to project the forecast. This method adds the period's best fit and the number of periods, and then the sum multiplies by three. This method is not useful for long-term forecasts. Valid values are:

Blank The system does not use this method.

1 The system uses the Second Degree Approximation formula to create summary forecasts.

### 2. Number of Periods

Use this processing option to specify the number of periods to include in the Second Degree Approximation forecast method. Enter the number to use or choose it from the Calculator.

### 3. Flexible Method

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method specifies the period's best fit block of sales order history starting "n" months prior and a percent increase or decrease with which to modify the forecast. This method is similar to Method 1 - Percent Over Last Year, except that you can specify the number of periods that you use as the base. Depending on what you select as "n", this method requires period's best fit plus the number of periods that you specify in the following Number of Periods processing option. This method is useful when forecasting products with a planned trend. Valid values are:

---

Blank The system does not use this method.

1 The system uses the Flexible Method formula to create summary forecasts.

#### **4. Number of Periods**

Use this processing option to specify the number of periods prior to the best fit that you want to include in the Flexible Method calculation. Enter the number to use or choose it from the Calculator.

#### **5. Percent Over Prior Period**

Use this processing option to specify the percent of increase or decrease for the system to use. For example, type 110 for a 10 percent increase or type 97 for a 3 percent decrease. Valid values are any percent amount; however, the amount cannot be a negative amount. Enter an amount to use or choose it from the Calculator.

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### **Method 9 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit forecast for each level in the hierarchy. You can also specify whether the system creates summary forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. If you leave the processing option blank, the system does not use that forecast method when calculating the best fit and does not create summary forecasts for the method.

The system defines a period as a week or month, depending on the pattern that is chosen from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

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#### **1. Weighted Moving Average**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to use. The Weighted Moving Average forecast formula is similar to Method 4 - Moving Average formula, because it averages the previous number of months of sales history indicated in the following processing options to project the next month's sales history. However, with this formula you use the following processing options to assign weights for each of the prior periods (up to 12).

This method uses the number of weighted periods selected plus period's best fit. Similar to the Moving Average, this method lags demand trends, so it is not recommended for products with strong trends or seasonality. This method is useful for mature products with demand that is relatively level. Valid values are:

---

Blank The system does not use this method.

1 The system uses the Weighted Moving Average formula to create summary forecasts.

## **2. One Period Prior**

Use this processing option to specify the weight to assign to one period prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **3. Two Periods Prior**

Use this processing option to specify the weight to assign to two periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **4. Three Periods Prior**

Use this processing option to specify the weight to assign to three periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **5. Four Periods Prior**

Use this processing option to specify the weight to assign to four periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **6. Five Periods Prior**

Use this processing option to specify the weight to assign to five periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

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## **7. Six Periods Prior**

Use this processing option to specify the weight to assign to six periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **8. Seven Periods Prior**

Use this processing option to specify the weight to assign to seven periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **9. Eight Periods Prior**

Use this processing option to specify the weight to assign to eight periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **10. Nine Periods Prior**

Use this processing option to specify the weight to assign to nine periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **11. Ten Periods Prior**

Use this processing option to specify the weight to assign to 10 periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

## **12. Eleven Periods Prior**

Use this processing option to specify the weight to assign to 11 periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving

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Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

### **13. Twelve Periods Prior**

Use this processing option to specify the weight to assign to 12 periods prior for calculating a moving average. The total of all the weights used in the Weighted Moving Average calculation must equal 100. If you do not enter a weight for a period within the specified number of periods, the system uses a weight of zero for that period. The system does not use weights entered for periods greater than the number of specified periods. Enter the number to use or choose it from the Calculator.

### **14. Periods to Include**

Use this processing option to specify the number of periods to include in the Weighted Moving Average forecast method. Enter the number to use or choose it from the Calculator.

---

## **Methods 10 - 11 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit forecast for each level in the hierarchy. You can also specify whether the system creates summary forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. If you leave the processing option blank, the system does not use that forecast method when calculating the best fit and does not create summary forecasts for the method.

The system defines a period as a week or month, depending on the pattern that was chosen from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.

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### **1. Linear Smoothing**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method calculates a weighted average of past sales data. You can specify the number of periods of sales order history to use in the calculation (from 1 to 12). You enter these periods in the following Number of Periods processing option. The system uses a mathematical progression to weigh data in the range from the first (least weight) to the final (most weight). Then, the system projects this information for each period in the forecast. This method requires the period's best fit plus the number of periods of sales order history. Valid values are:

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---

Blank The system does not use this method.

1 The system uses the Linear Smoothing formula to create summary forecasts.

## **2. Number of Periods**

Use this processing option to specify the number of periods to include in the Linear Smoothing forecast method. Enter the number to use or choose it from the Calculator.

## **3. Exponential Smoothing**

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast method uses one equation to calculate a smoothed average. This becomes an estimate representing the general level of sales over the selected historical range. This method is useful when there is no linear trend in the data. This method requires sales data history for the time period represented by the number of period's best fit plus the number of historical data periods specified in the following Number of Periods processing option. The system requires that you specify at least two historical data periods. Valid values are:

Blank The system does not use this method.

1 The system uses the Exponential Smoothing formula to create summary forecasts.

## **4. Number of Periods**

Use this processing option to specify the number of periods to include in the Exponential Smoothing forecast method. Enter the number to use or choose it from the Calculator.

## **5. Alpha Factor**

Use this processing option to specify the alpha factor (a smoothing constant) that the system uses to calculate the smoothed average for the general level or magnitude of sales. You can enter any amount, including decimals, from zero to one.

---

### **Method 12 Tab**

These processing options let you specify which forecast types that the system uses when calculating the best fit forecast for each level in the hierarchy. You can also specify whether the system creates summary forecasts for the selected forecast method.

Enter 1 to use the forecast method when calculating the best fit. If you leave the processing option blank, the system does not use that forecast method when calculating the best fit and does not create summary forecasts for the method.

The system defines a period as a week or month, depending on the pattern that is chosen from the Date Fiscal Patterns table (F0008). For weekly forecasts, verify that you have established 52 period dates.



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## 1. Exponential Smoothing with Trend and Seasonality

**Blank = Do not use this method**

**1 = Use this method to create forecasts**

Use this processing option to specify which type of forecast to run. This forecast 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 month's best fit plus two years of sales data and is useful for items that have both trend and seasonality in the forecast. Use the following Alpha Factor and Beta Factor processing options to enter the alpha and beta factors rather than have the system calculate them. Valid values are:

Blank The system does not use this method.

1 The system uses the Exponential Smoothing with Trend and Seasonality formula to create summary forecasts.

## 2. Alpha Factor

Use this processing option to specify the alpha factor (a smoothing constant) that the system uses to calculate the smoothed average for the general level of magnitude of sales. You can enter any amount, including decimals, from zero to one.

## 3. Beta Factor

Use this processing option to specify the beta factor (a smoothing constant) that the system uses to calculate the smoothed average for the trend component of the forecast. You can enter any amount, including decimals, from zero to one.

## 4. Seasonality

Use this processing option to specify whether the system includes seasonality in the calculation. Valid values are:

Blank The system does not include seasonality.

1 The system includes seasonality in the Exponential Smoothing with Trend and Seasonality forecast method.

## Defaults Tab

These processing options let you specify the default values that the system uses to calculate forecasts. The system extracts actual values from the Sales Order History File (F42119).

---

### 1. Forecast Type

Use this processing option to specify the forecast type that the system uses when creating the summary forecast. Forecast type is a user defined code (34/DF) that identifies the type of forecast to process. Enter the forecast type to use as the default value or choose it from the Select User Define Code form. If you leave this processing option blank, the system does not create any summaries. You must enter a forecast type.

---

## Process Tab

These processing options let you specify whether the system runs the program in proof or final mode; creates weekly or monthly forecasts; and specifies the start date, length, and data that are used to create forecasts.

In addition, you use these processing options to specify how the system calculates the best fit forecast. The system applies the selected forecasting methods to past sales order history and compares the forecast simulation to the actual history. When you generate a forecast, the system compares actual sales order histories to forecasts for the months or weeks that you indicate in the Forecast Length processing option, and computes how accurately each of the selected forecasting methods predict sales. Then the system identifies the most accurate forecast as the best fit. The system uses two measurements for forecasts: Mean Absolute Deviation (MAD) and Percent of Accuracy (POA).

MAD is the mean of the absolute values of the deviations between actual and forecast data. MAD is a measure of the average magnitude of errors to expect, given a forecasting method and data history. Because absolute values are used in the calculation, positive errors do not cancel out negative errors. When you compare several forecasting methods, the forecast with the smallest MAD has shown to be the most reliable for that product for that holdout period.

POA is a measure of forecast bias. When forecasts are consistently too high, inventories accumulate and inventory costs rise. When forecasts are consistently too low, inventories are consumed and customer service declines. A forecast that is ten units too low, then eight units too high, and then two units too high, is an unbiased forecast. The positive error of ten is cancelled by the negative errors of eight and two.

---

### 1. Mode

**Blank = Run in proof mode**

**1 = Run in final mode**

Use this processing option to specify whether the system runs the summary forecast in proof or final mode. When you run this program in proof mode, the system does not create any forecast records which allows you to run it again with different criteria until you produce appropriate forecast information.

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When you run this program in final mode, the system creates forecast records.

Valid values are:

Blank The system runs the summary forecast in proof mode.

1 The system runs the summary forecast in final mode.

## **2. Weekly Forecasts**

**Blank = Create monthly forecasts**

**1 = Create weekly forecasts**

Use this processing option to specify monthly or weekly forecasts. For weekly forecasts, use fiscal date patterns with 52 periods. For monthly forecasts, use fiscal date patterns with 14 periods. Valid values are:

Blank The system creates monthly forecasts.

1 The system creates weekly forecasts.

## **3. Start Date**

Use this processing option to specify the date on which the system starts the forecast. Enter a date to use or choose one from the Calendar. If you leave this processing option blank, the system uses the system date.

## **4. Forecast Length**

Use this processing option to specify the number of periods to forecast. You must have previously established fiscal date patterns for the forecasted periods. If you leave this processing option blank, the system uses 3.

## **5. Actual Data**

Use this processing option to specify the number of periods of actual data that the system uses to calculate the best fit forecast. If you leave this processing option blank, the system uses 3 periods.

The system applies the selected forecasting methods to past sales order history and compares the forecast simulation to the actual history. When you generate a forecast, the system compares actual sales order histories to forecasts for the months or weeks that you indicate in the Forecast Length processing option and computes how accurately each of the selected forecasting methods would have predicted sales. Then, the system identifies the most accurate forecast as the best fit.

## **6. Mean Absolute Deviation**

---

**Blank = Use Percent of Accuracy**

**1 = Use Mean Absolute Deviation**

Use this processing option to specify whether the system uses the Mean Absolute Deviation formula or the Percent of Accuracy formula to calculate the best fit forecast. Valid values are:

Blank The system uses the Percent of Accuracy formula.

1 The system uses the Mean Absolute Deviation formula.

## **7. Amounts or Quantities**

**Blank = Quantities**

**1 = Amounts**

Use this processing option to specify whether the system calculates the best fit forecast using quantities or amounts. If you specify to use amounts, you must also extract sales history using amounts. This processing option also affects forecast pricing. Valid values are:

Blank The system uses quantities.

1 The system uses amounts.

## **8. Fiscal Date Pattern**

Use this processing option to specify the fiscal date pattern type to use for the forecast calculations. If you run weekly forecasts, the fiscal date pattern that you specify here must be set up for 52 periods.

## **9. Negative Values**

**Blank = Substitute a zero for negative values**

**1 = Display negative values**

Use this processing option to specify whether the system displays negative values. Valid values are:

Blank The system substitutes a zero value for all negative values.

1 The system displays all negative values.

---

# Revising Sales Order History

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

## Prerequisite

- ❑ Run the Refresh Actuals program (R3465).

## ► To revise summary sales order history

---

*From the Periodic Forecasting Operations menu (G3421), choose Enter Change Summaries.*

1. On Work With Summary Forecast, complete the following fields and click Find:
  - Summary Code
  - Actual Type
  - Forecast Type
  - From Date
  - Thru Date
2. Choose the record that you want to review and click Select.
3. On Summary Forecast Revisions, review the following fields in the detail area:
  - Original Quantity
  - Adjusted Quantity
  - Original Amount
  - Adjusted Amount
4. Complete the following fields in the detail area to change information for the forecast summary:
  - Change Type
  - Change Amount
5. To change information for individual lines, complete the following fields and click OK:
  - Adjusted Quantity
  - Adjusted Amount
  - Bypass Forcing




Enter Change Summaries - Summary Forecast Revisions

OK Cancel Form Row Tools

Current Level	Global	1. Global Level	From Date	*
Change Type			Thru Date	*
Change Quantity			Type	AA

Records 1 - 34

Customize Grid

		Request Date	Original Quantity	Adjusted Quantity	Original Amount	Adjusted Amount	Bypass Forcing	Change Type	Change Amount
<input checked="" type="radio"/>		07/31/02	5318	5318	841,586.00	841,586.00	N		
<input type="radio"/>		08/31/02	5753	5753	816,987.00	816,987.00	N		
<input type="radio"/>		09/30/02	5319	5319	968,823.00	968,823.00	N		
<input type="radio"/>		10/31/02	5287	5287	452,974.00	452,974.00	N		
<input type="radio"/>		11/30/02	6395	6395	630,606.00	630,606.00	N		
<input type="radio"/>		12/31/02	5610	5610	913,402.00	913,402.00	N		
<input type="radio"/>		01/31/03	4634	4634	311,098.00	311,098.00	N		
<input type="radio"/>		02/28/03	4070	4070	247,692.00	247,692.00	N		
<input type="radio"/>		03/31/03	6063	6063	544,610.00	544,610.00	N		
<input type="radio"/>		04/30/03	5966	5966	566,442.00	566,442.00	N		
<input type="radio"/>		05/31/03	6384	6384	946,430.00	946,430.00	N		
<input type="radio"/>		06/30/03	5747	5747	944,714.00	944,714.00	N		
<input type="radio"/>		07/31/03	5227	5227	908,917.00	908,917.00	N		
<input type="radio"/>		08/31/03	6572	6572	849,164.00	849,164.00	N		
<input type="radio"/>		09/30/03	4348	4348	980,906.00	980,906.00	N		
<input type="radio"/>		10/31/03	5123	5123	409,262.00	409,262.00	N		
<input type="radio"/>		11/30/03	6113	6113	763,184.00	763,184.00	N		
<input type="radio"/>		12/31/03	5666	5666	1,054,618.00	1,054,618.00	N		
<input type="radio"/>		01/31/04	5028	5028	281,850.00	281,850.00	N		

- On Work with Summary Forecast, choose Review from the Form menu.

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Enter Change Summaries - Forecast Review By Type

OK Find Cancel Form Row Tools

Summary Code CUS

From Year 2002 To Year 2006 Pattern R ☐ Weekly ☒ Quantity

Master

Customer

Item

Branch

Records 1 - 11

	+	Key	Fiscal Year	Type	Period 1	Period 2	Period 3	Period 4	Period
			02		1/31/2002	2/28/2002	3/31/2002	4/30/2002	
	+	Global	02	AA	0	0	0	0	
			03		1/31/2003	2/28/2003	3/31/2003	4/30/2003	
	+	Global	03	AA	.4634	.4070	.6063	.5966	
			04		1/31/2004	2/29/2004	3/31/2004	4/30/2004	
	+	Global	04	AA	.5028	.4694	.5652	.6515	
			05		1/31/2005	2/28/2005	3/31/2005	4/30/2005	
	+	Global	05	AA	0	0	.0369	.0540	

7. On Forecast Review by Type, review the following options and fields:

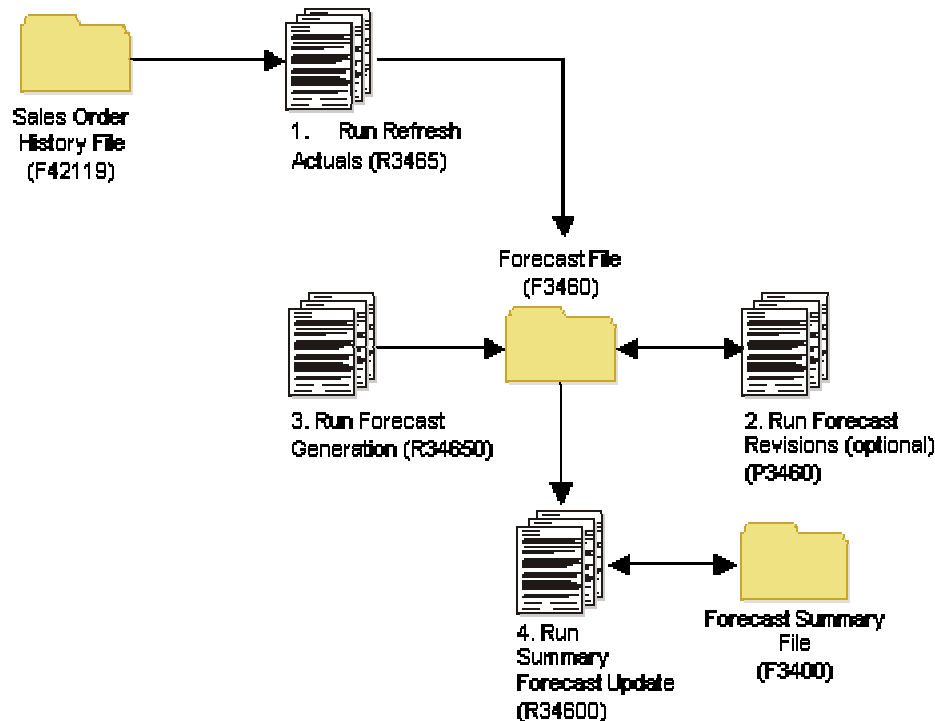
- Weekly
- Quantity
- Level 1
- Fiscal Year
- Type
- Period 1

## Summarizing Detail Forecasts

The Summary Forecast Update program (R34600) generates summary forecasts, which are stored in the Forecast Summary File table (F3400) and are based on data from the Forecast File table (F3460). The Summary Forecast Update program allows you to use detail data to generate summary forecasts that provide both sales amount and item quantity data. You can summarize detail actual sales data or forecasted data. Proper data selection is critical to accurate processing. You should include only items in the summary constants hierarchy.

Data in table F3460 is based on both input that is copied from the Sales Order History File table (F42119) by using the Refresh Actuals program (R3465) and input that is generated by the Forecast Generation program (R34650).

## Summarizing Detail Forecasts



You do not need to clear table F3400 before you run this program. The system deletes any forecasts in the table for the summary code that you specify. If you enter the from and through dates, the system only deletes those forecasts within the date range. The system adds the forecast amounts to the selected record and to every record in the hierarchy above it.

### Prerequisite

- ❑ Run the Forecast Generation program (R34650).

## Processing Options for Summary Forecast Update (R34600)

### Process Tab

These processing options let you specify the defaults the system uses for the Summary Forecast Update program (R34600). These defaults include summary code, forecast type, beginning and ending dates, address, and fiscal date pattern.

The Summary Forecast Update program generates summary forecasts that are based on data from the Forecast File table (F3460) and stores the forecasts in the Forecast Summary File table (F3400). The summary forecasts provide both sales amount and item quantity data. Proper data selection is critical to accurate processing. Include only items in the summary constants hierarchy.

---

### Summary Code

Use this processing option to specify which summary code the system uses when running

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the summary. Summary code is a user defined code (40/KV) that identifies the summary code for running the summary. You define summary codes using the Summary Constants program (P4091) from the Forecasting Setup menu (G3441). Enter the summary code to use as the default value or choose it from the Select User Define Code form.

### **Forecast Type**

Use this processing option to specify the detail forecast type that you want the system to use to summarize the forecast. Forecast type is a user defined code (34/DF) that identifies the detail forecast type. Enter the forecast type to use as the default value or choose it from the Select User Define Code form.

### **From Date**

**Blank = Use all data**

**Enter a Date**

Use this processing option to specify the date from which the system begins the summary forecast. Enter a date to use as the beginning forecast date or choose a date from the calendar. If you leave this field blank, the system uses all data to generate the summary forecast.

### **Thru Date**

**Blank = Use all data**

**Enter a Date**

Use this processing option to specify the date from which the system ends the summary forecast. Enter a date to use as the ending forecast date or choose a date from the calendar. If you leave this field blank, the system uses all data to generate the summary forecast.

### **Address**

**Blank = Business Unit**

**1 = Address**

Use this processing option to specify whether the system considers the address book numbers are part of the hierarchy or if the system retrieves the address book numbers from the business unit associated with the forecast.

If you leave this field blank, the system retrieves the address book numbers from the business units associated with the forecast detail. In the Business Units program (P0006) on the Organization Account Setup menu (G09411) you can determine which address number is assigned to a business unit. In this case, the system uses the category codes for that address number if you are using address book category codes in the summarization hierarchy.

If you enter 1, the system considers the address book numbers of the customers are part of the hierarchy. This customer number comes from the Forecast table (F3460). The

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customer number would be part of the forecast as a result of generating forecasts for large customers. If you did not generate forecasts for large customers or if you do not have any customers defined as large (ABC code on the Customer Master table (F0301) set to A) the system does not associate address book numbers with the forecasts.

Valid values are:

Blank The system retrieves the address book number from the business units associated with the forecast detail.

1 The system considers the address book numbers of the customers are part of the hierarchy.

### **Fiscal Date Pattern**

Use this processing option to specify the monthly fiscal date pattern the system uses to create summary forecasts. Fiscal date pattern is a user defined code (H00/DP) that identifies the date pattern for the forecast. The system retrieves the pattern from the Date Fiscal Patterns table (F0008). Enter the fiscal date pattern to use as the default value or choose it from the Select User Define Code form. If you leave this field blank, the system creates records using dates from the detail forecast records.

---

## **Working with Summarized Detail Forecasts**

After generating 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 show the sales order history, and the forecast of item quantities or sales amounts. Then you can compare actual sales to the forecast.

When you revise summaries of forecasts, you revise information in a specific level of the forecast. You can also use the Forecast Forcing program (R34610) to apply changes that you made to the summary. You can apply these changes up the hierarchy, down the hierarchy, or in both directions.

### **Prerequisite**

- ☐ Generate a summary forecast or a summary of detail forecast.

## **Reviewing a Summary Forecast**

Use the Forecast Summary program (P34200) to review summaries of your forecasts. You can also review previously generated forecasts.

### **► To review a summary forecast**

---

*From the Periodic Forecasting Operations menu (G3421), choose Enter Change Summaries.*

1. On Work With Summary Forecast, complete the following fields and click Find:
  - Summary Code

- Actual Type
  - Forecast Type
  - From Date
  - Thru Date
2. Choose the record that you want to review and click Select.

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Enter Change Summaries - Summary Forecast Revisions

OK Cancel Form Row Tools

Current Level: Global 1. Global Level From Date: \* Thru Date: \* Type: AA

Change Type: Change Quantity:

Records 1 - 34									
	Request Date	Original Quantity	Adjusted Quantity	Original Amount	Adjusted Amount	Bypass Forcing	Change Type	Change Amount	
<input checked="" type="radio"/>	07/31/02	5318	5318	841,586.00	841,586.00	N			
<input type="radio"/>	08/31/02	5753	5753	816,987.00	816,987.00	N			
<input type="radio"/>	09/30/02	5319	5319	968,823.00	968,823.00	N			
<input type="radio"/>	10/31/02	5287	5287	452,974.00	452,974.00	N			
<input type="radio"/>	11/30/02	6395	6395	630,606.00	630,606.00	N			
<input type="radio"/>	12/31/02	5610	5610	913,402.00	913,402.00	N			
<input type="radio"/>	01/31/03	4634	4634	311,098.00	311,098.00	N			
<input type="radio"/>	02/28/03	4070	4070	247,692.00	247,692.00	N			
<input type="radio"/>	03/31/03	6063	6063	544,610.00	544,610.00	N			
<input type="radio"/>	04/30/03	5966	5966	566,442.00	566,442.00	N			
<input type="radio"/>	05/31/03	6384	6384	946,430.00	946,430.00	N			
<input type="radio"/>	06/30/03	5747	5747	944,714.00	944,714.00	N			
<input type="radio"/>	07/31/03	5227	5227	908,917.00	908,917.00	N			
<input type="radio"/>	08/31/03	6572	6572	849,164.00	849,164.00	N			
<input type="radio"/>	09/30/03	4348	4348	980,906.00	980,906.00	N			
<input type="radio"/>	10/31/03	5123	5123	409,262.00	409,262.00	N			
<input type="radio"/>	11/30/03	6113	6113	763,184.00	763,184.00	N			
<input type="radio"/>	12/31/03	5666	5666	1,054,618.00	1,054,618.00	N			
<input type="radio"/>	01/31/04	5028	5028	281,850.00	281,850.00	N			

3. On Summary Forecast Revisions, review the following fields:
- Original Quantity
  - Adjusted Quantity
  - Original Amount
  - Adjusted Amount

## Processing Options for Forecast Summary (P34200)

---

Defaults

Forecast Type

Actual Type

Versions

Enter the version for each program. If left blank, either ZJDE0001 or the version listed will be used.

1. Forecast Forcing (XJDE0001) (R34610)
  2. Forecast Review By Type (P34300)
  3. Forecast Revisions (P3460)
- 

## Revising a Summary Forecast

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

If you run the Forecast Generation for Summaries program (R34640) to update the Summary Forecast File table (F3400), the revision forms do not show lower-level forecasts of item quantities. However, if you run the Summary Forecast Update program (R34600) to update table F3400, these forms show the lower-level forecasts of item quantities.

### ► To revise a summary forecast

---

*From the Periodic Forecasting Operations menu (G3421), choose Enter Change Summaries.*

1. On Work With Summary Forecast, complete the following fields and click Find:
  - Summary Code
  - Actual Type
  - Forecast Type
  - From Date
  - Thru Date
2. Choose the record that you want to review and click Select.
3. On Summary Forecast Revisions, complete the following fields in the header area to change information for the forecast summary:

- Change Type
- Change Quantity

Use the fields in the header area to update all detail lines. Use the fields in the detail area to update a specific row.

4. To change information for individual lines, complete the following fields:
  - Adjusted Quantity
  - Adjusted Amount

5. Complete the fields that appear based on summary constants and click OK.

## Revising Summary Forecasts Using Forecast Forcing

The Forecast Forcing program (R34610) enables you to apply the manual changes that 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 Forecast Summary File table (F3400).

You can force changes to quantities, amounts, or both. When you make changes both up and down the hierarchy, the program resets the flag on the record to indicate the change. The program makes changes down the hierarchy to the lowest detail level. These changes are also updated in the Forecast File table (F3460).

---

### Note

If you force changes in only one direction, the program resets the flag, based on a processing option. You can lose the ability to make changes in the other direction if you force a change in only one direction.

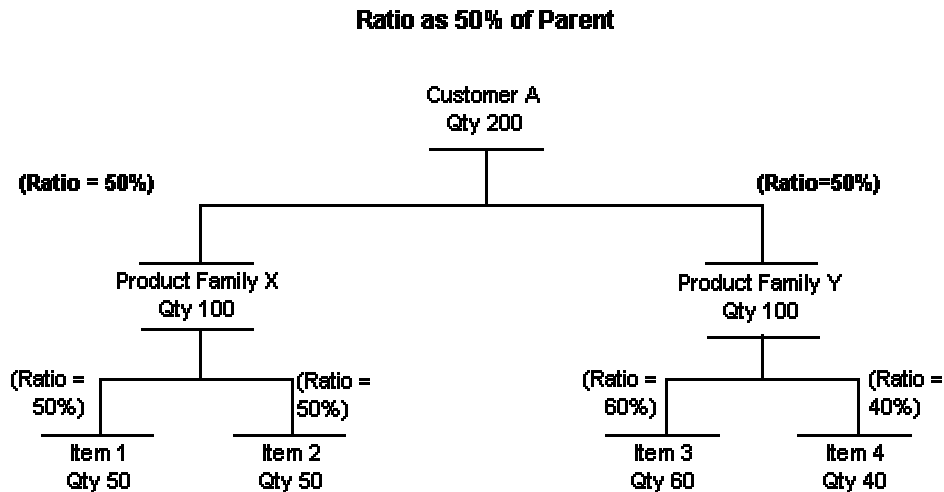
On Forecast Summary (P34200), you can set the Bypass Forcing flag on the Summary Forecast Revisions form for records in the hierarchy below an adjusted record. The system subtracts the bypassed record amounts and quantities from the parent amounts and quantities before calculating the percentages. The system distributes the total amounts to the other children in the hierarchy that were not bypassed. You can only bypass records when you make changes down the hierarchy.

---

### Example: Using Forecast Forcing (R34610)

The Forecast Forcing program (R34610) uses the parent/child relationship at each level within the hierarchy to calculate a parent/child ratio. The parent/child ratio is the percentage of the amount or quantity for each child level, based on the total amount or quantity of the parent.

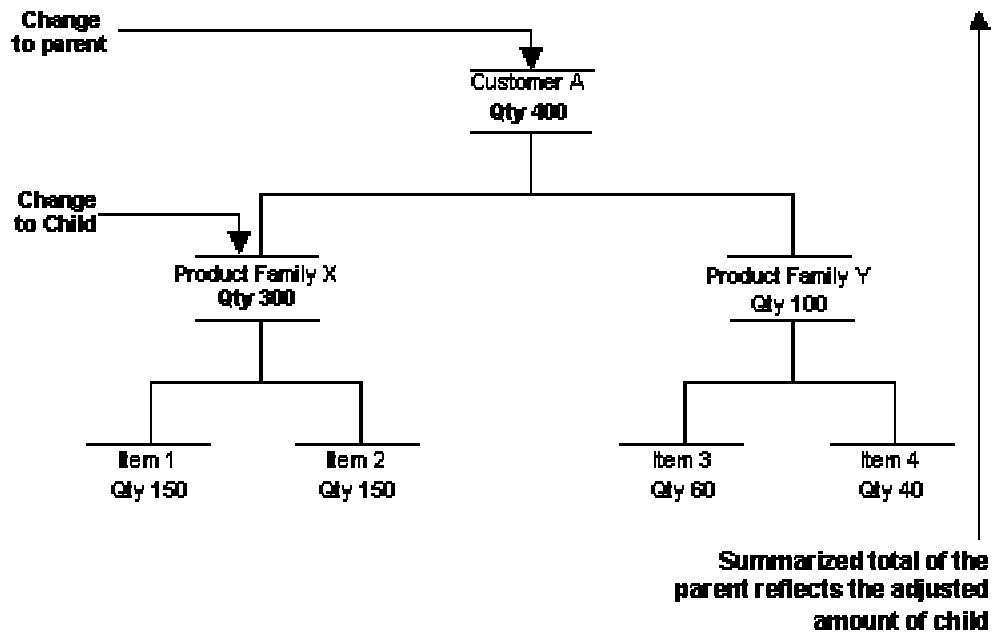
In the following example, the parent's original amount is 200 and its two children in the next level each have an original amount of 100. The program calculates the ratio as 50 percent of the parent. The parent/child ratio is calculated at each level of the hierarchy.



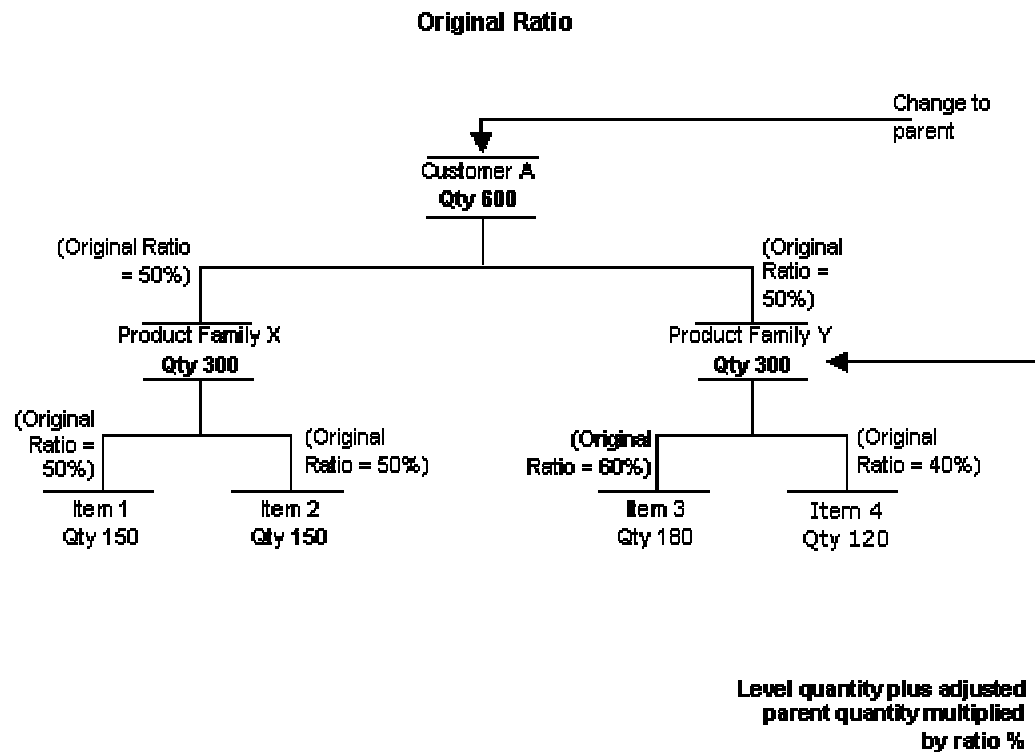
When forcing the changes up the hierarchy, the program summarizes each record again so that the summarized total of the records above it reflects the adjusted amount.

The system summarizes the changes to the lower levels up to the parent level. If you change Product Family X from a quantity of 100 to a quantity of 300, the parent quantity changes to 400.

### Change to Parent and Child



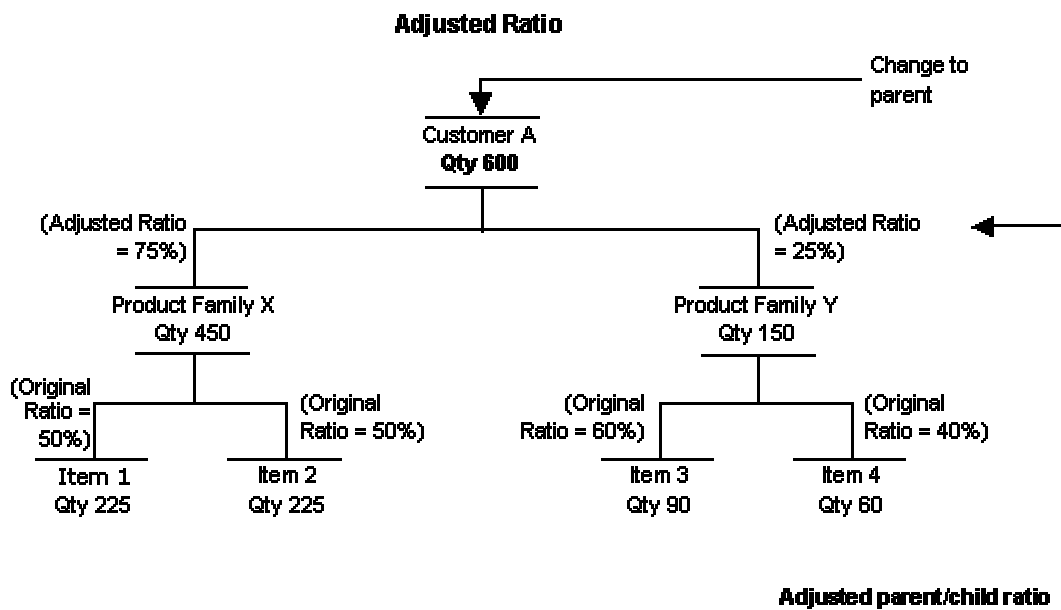
The Forecast Forcing program also makes adjustments down the hierarchy. The parent/child ratio can be based on an original parent/child ratio or an adjusted parent/child ratio.



Using the original parent/child ratio, the system maintains the parent/child ratio when the parent quantity changes. The system uses the adjusted quantity of the parent to calculate the changes at the next lower level. An increase of 600 units to Customer A using the original ratio of 50 percent for each child results in the children calculation of  $600 \times .5 = 300$  each.



The following graphic illustrates an adjusted parent/child ratio of 75 percent for child 1 and 25 percent for child 2.



### Prerequisites

- ☐ Review and revise the summary forecast.
- ☐ Choose the processing option that indicates a specific forecast type with which to make changes.
- ☐ Choose the processing option that indicates the direction in which you want to make changes.

## Processing Options for Forecast Forcing (R34610)

### Process Tab

These processing options let you specify how you want the system to process the manual changes that are made to the applicable summary forecast. These processes include:

- Forcing the changes in the specified hierarchy direction
  - Resetting the flag for changed records
  - Forcing only quantity or amount changes
  - Using the adjusted or original forecast values
  - Using the specified summary code
  - Identifying which fiscal date pattern was used to create the summary forecast
- 

#### 1. Hierarchy Direction

**Blank = Force changes in both directions**

**1 = Force changes up the hierarchy**

**2 = Force changes down the hierarchy**

Use this processing option to specify the direction in which to force the changes made to the summary forecast. The system updates the changes in the Forecast table (F3460).

Blank The system forces the changes up and down the hierarchy and automatically resets the flag on the record to indicate the change.

- 1 The system forces the changes up the hierarchy.
- 2 The system forces the changes down the hierarchy.

If you set this processing option to 1 or 2 and you want the system to reset the flag on the changed record, set the Revised Flag processing option to 1.

#### 2. Revised Flag

**Blank = Do not reset the Revised Flag**

**1 = Reset the Revised flag**

Use this processing option to specify whether the system resets the revised flag for the records changed when you set the Hierarchy Direction processing option to 1 or 2.

Blank The system does not reset the Revised flag.

- 1 The system resets the Revised flag for the changed record.

#### 3. Quantities and Amounts

**Blank = Force changes to quantities and amounts**

**1 = Force quantity changes only**

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## **2 = Force amount changes only**

Use this processing option to specify whether the system forces the changes made to quantities or amounts or both.

Blank The system forces the changes made to both quantities and amounts.

1 The system forces only the quantity changes.

2 The system forces only the amount changes.

## **4. Ratio Calculations**

**Blank = Use original forecast values**

**1 = Use adjusted forecast values**

Use this processing option to specify whether the system calculates the parent/child ratios using the original or the adjusted forecast values. The parent/child ratio is the percentage of the amount or quantity for each child level, based on the total amount or quantity of the parent.

Blank The system uses the original forecast values.

1 The system uses the adjusted forecast values.

## **5. Summary Code (Required)**

Use this processing option to specify the summary code for which to force changes. This processing option is required and the system overrides any summary code specified in the data selection. Summary code is a user defined code (40/KV) that identifies the summary code. You define summary codes using the Summary Constants program (P4091) from the Forecasting Setup menu (G3441).

Enter the summary code to use or choose it from the Select User Define Code form.

## **6. Fiscal Date Pattern**

Use this processing option to specify the fiscal date pattern used to create this summary forecast. This processing option is required if you set the Hierarchy Direction processing option to force changes down and if you created the summary and detail forecasts using different fiscal date patterns. Fiscal date pattern is a user defined code (H00/DP) that identifies the date pattern for the forecast. The system retrieves the pattern from the Date fiscal Patterns table (F0008). Enter the fiscal date pattern to use or choose it from the Select User Define Code form. If you leave this field blank, the system forces the changes both up and down the hierarchy.

# Working with 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.

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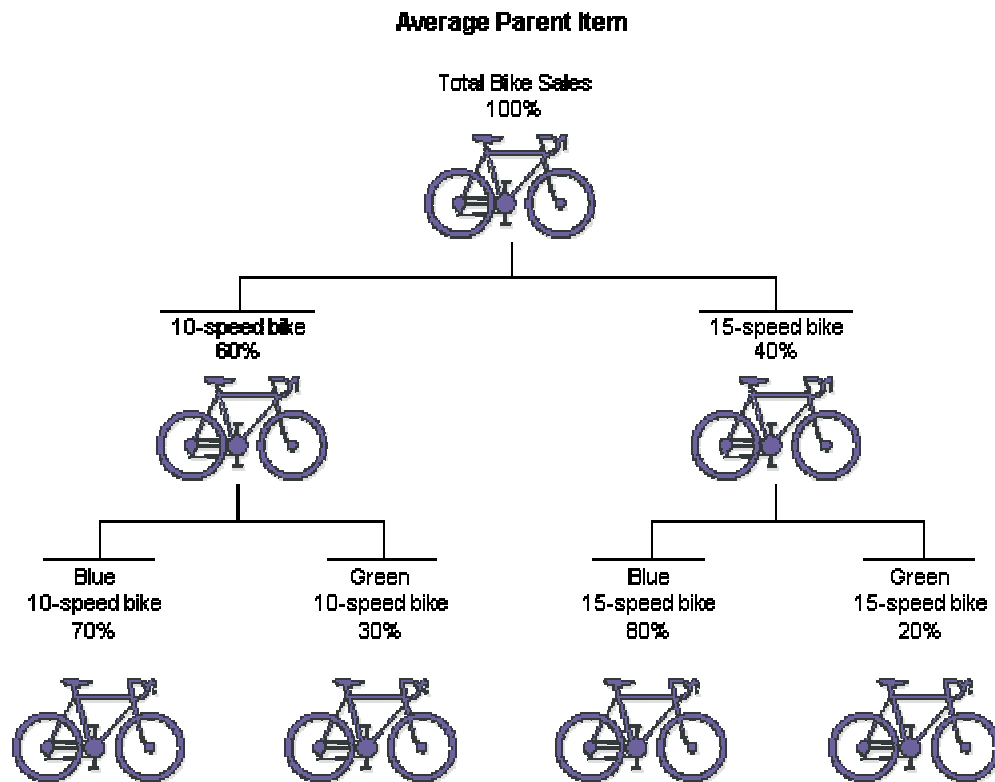
## Planning Bill Forecasts

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

Use planning bills during master scheduling or material planning. You can forecast with a planning bill to determine component demand within the Master Production Schedule (MPS), Material Requirements Planning (MRP), and Distribution Requirements Planning (DRP) systems.

### Example: Average Parent Item

Your sales history shows that 60 percent of the bikes that you sell are 10-speed bikes and 40 percent are 15-speed bikes. Of the 10-speed bikes, 70 percent are blue and 30 percent are green. Of the 15-speed bikes, 80 percent are blue and 20 percent are green. You use these percentages to configure an average parent item.



The average parent bike will be:

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

You decide to manufacture or purchase at these percentages.

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

The forecast is based upon total bike sales history. This forecast is the summary forecast. The option percentages produce a production (or purchase) forecast for each of the options. This forecast 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 that are 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 an average 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 calculated 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 average parent bike represents the top level of the item hierarchy and is configured as follows:

- 60 percent 10-speed bike
- 40 percent 15-speed bike

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 average parent bikes on the second level of the item hierarchy. These average parents are configured as follows:

- 10-speed bikes:
  - 70 percent blue
  - 30 percent green
- 15-speed bikes:
  - 80 percent blue
  - 20 percent 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-speed bikes and total 15-speed bikes on the second level) as parent items. You use planning code 5 to designate the end item bikes (for example, blue 15-speed bikes) on the bottom level as components of the phantom parent items.

You assign user defined codes to additional forecast types that you want to include in the processing options which were not supplied with the system. For this forecast, you plan to use forecast types that 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 reads the forecast for total bike sales as determined by forecast type 16 and assigns 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. Feature planned percents are the percentage of total products that include features that differentiate some products in the total from others. You define the feature planned percent on the Enter/Change Bill – [Enter Bill of Material Information] form. In this example, the feature planned percents are 60 percent for the 10-speed feature and 40 percent for the 15-speed feature.

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

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

#### **See Also**

- ❑ *Multilevel Master Schedules* in the *Requirements Planning Guide*

---

## **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. Then the system uses the planning bill to generate a forecast for the hypothetical average parent item. The forecast shows the component level exploded.

## **Setting Up Item Master Information**

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

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

► **To set up item master information**

*From the Inventory Master/Transactions menu (G4111), choose Item Master.*

1. On Work With Item Master Browse, click Add.
2. On Item Master Revisions, complete the following fields and click OK:
  - Item Number
  - Description
  - Stocking Type
  - G/L Class
  - Kit/Configurator Pricing Method

Depending on how the processing options are set, other forms might appear.

3. On Work With Item Master Browse, click Find.
4. Choose the item, and then choose Category Codes from the Row menu.

PeopleSoft®

Item Master - Category Codes

Work With Item Master Browse Category Codes

OK Cancel Previous Next Tools

Item Number 220 Touring Bike, Red

Sales Catalog Section	BIK	Bicycle Catalog	Shipping Conditions Code		Blank - Shipping
Sub Section	TRG	Touring Bikes	Shipping Commodity Class		Blank - Shipping
Sales Category Code 3		Add sales cat	Cycle Count Category		
Sales Category Code 4	888	Touring Bikes	Item Dimension Group		
Sales Category Code 5	357	Finished Goods	Warehouse Process Grp 1		Blank
Preferred Sales Carrier			Warehouse Process Grp 2		Blank
			Warehouse Process Grp 3		Blank
Commodity Class		Add purchase	Item Pool Code		
Commodity Sub Class		Add purchase	Category Code 6		
Supplier Rebate Code		Add supplier i	Category Code 7		
Master Planning Family	200	Bike	Category Code 8		
Landed Cost Rule		Add landed co	Category Code 9		
Preferred Purchasing Carrier			Category Code 10		

5. On Category Codes, complete the following field and click OK:
  - Master Planning Family

Depending on how the processing options are set, other forms might appear.



PeopleSoft®

Item Master - Additional System Information

Work With Item Master Browse Additional System Information

OK Cancel Form Previous Next Tools

Item Number 220 Item Number (Short) 60038 Touring Bike, Red

Manufacturing Data Grade and Potency Service/Warranty Bulk Information Advanced Planning

Order Policy Code	1	Lot for Lot, As	Drawing Size	
Value Order Policy			Last Revision No	
Planning Code	1	Planned by Mf	Drawing Number	200T
Planning Fence Rule	C	Customer De.		
Planning Fence	15		MFG Leadtime Quantity	10
Freeze Fence	10		Leadtime Level	
Message Display Fence	60		Leadtime Manufacturing	
Accounting Cost Qty	10		Leadtime Per Unit	
Issue Type Code	I	Manual Issue	Leadtime Cumulative	
Round to Whole Number		Do Not Roun	Fixed/Variable	F Fixed Leadtime
Issue and Receipt	0	No Action Ta.	Material Status	
Replenishment Hours				
<input type="checkbox"/> Active Ingredient				
<input type="checkbox"/> Kanban Item				

6. On Work With Item Master Browse, choose the item and then choose Additional System Information from the Row menu.
7. On the Manufacturing Data tab, complete the following field, and then click OK:
  - Planning Code
 Depending on how the processing options are set, other forms might appear.
8. If the Item Branch Revisions form appears, click Cancel to return to Work With Item Master Browse.

# Entering Planning Bills

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 action allows you to account for any planning variations on which you might want to base forecasts.

## ► To enter planning bills

*From the Daily PDM Discrete menu (G3011), choose Enter/Change Bill.*

1. On Work with Bill of Material, complete the following fields and click Find:
  - Item Number
  - Branch/Plant
2. Choose the item number and click Select.

PeopleSoft®

Enter/Change Bill - Enter Bill of Material Information

OK Find Delete Cancel Form Row Report Tools

Parent Item: 220 Branch/Plant: M30  
 Batch Quantity: EA Touring Bike, Red  
 As of Date: \* Type of Bill: M Oper Seq#: \*  
 Drawing #: 200T Item Rev. Level: Skip to Line No. \*

Records 1 - 10 Customize Grid

Item Number	Description	Quantity	UM	Active Ingr. Flag	F V	Is Cd	Stkg Typ	Ln Ty	Line No.	Oper Seq#
2001	Cro-Moly Frame, Red	1	EA		V	U	M	S	10.00	10.00
2006	Touring Fork	1	EA		V	U	P	S	20.00	20.00
2007	Bottom Bracket	1	EA		V	U	P	S	30.00	30.00
2008	Head Set	1	EA		V	U	P	S	40.00	40.00
2009	Crank	2	EA		V	U	P	S	50.00	50.00
2010	Chain Rings	1	EA		V	U	P	S	60.00	60.00
2011	Chain, Std	1	EA		V	U	P	S	70.00	60.00
2013	Shift Kit	1	EA		V	U	P	S	80.00	30.00
2014	Brake Kit	1	EA		V	U	P	S	90.00	40.00
2015	Wheel Set, Front	1	EA		V	U	P	S	100.00	60.00

3. On Enter Bill of Material Information, complete the following fields and click OK:
  - Item Number
  - Quantity
  - Feat Plan %
4. Review the default value in the following field:
  - Is Cd
5. To return to Work with Bill of Material, click Cancel.
6. Choose the record.
7. Choose BOM Inquiry from the Row menu.

8. On Bill of Material Inquiry - Single Level, choose Multi Level from the View menu to view the multilevel bill of material.

PeopleSoft®

Enter/Change Bill - Bill of Material Inquiry - Multi Level

Select Find Close Form Report View Row Tools

BOM Inquiry Parts Availability Leadtime Inquiry

Parent Item 220 Branch M30 Touring Bike, Red

Requested Quantity EA Drawing Number 200T

Quantity w/Shrink Type of Bill M

Revision Level As of Date 03/18/04 Skip to Line \*

Records 1 - 10 Customize Grid

Level	2nd Item Number	Description	Quantity	UM	F V	Issue Code	Active Ingr. Flag	Oper Seq#	Stocking Type
<input type="checkbox"/> 1	2001	Cro-Moly Frame, Red	1	EA	V	U		10.00	M
<input type="checkbox"/> 2	2004	Cro-Moly Frame	1	EA	V	I		10.00	M
<input type="checkbox"/> 3	9001	25 mm Cro-Moly Tubing	152	CM	V	B		10.00	P
<input type="checkbox"/> 3	9002	50 mm Cro-Moly Tubing	112	CM	V	B		10.00	P
<input type="checkbox"/> 3	9004	50 mm Cro-Moly Bar	10	CM	V	B		10.00	P
<input type="checkbox"/> 2	9011	Paint, Red	225	ML	V	B		30.00	P
<input type="checkbox"/> 2	9031	Primer	225	ML	V	B		30.00	P
<input type="checkbox"/> 2	9026	Acid	3	LP	F	I		20.00	P
<input type="checkbox"/> 2	2005	Chain Stay	2	EA	V	B		10.00	M
<input type="checkbox"/> 3	9003	16 mm Cro-Moly	203	CM	V	B		10.00	P

9. Click Close when done reviewing the bill of material.

## Processing Options for Bill of Material Revisions (P3002)

### Defaults Tab

These processing options control the default values for the parent branch, the bill of material type, and the current date. The system uses the default values when processing a bill of material. You can also sort the information by component line number or by operation sequence number.

#### 1. Component Branch

Use this processing option to specify whether the system uses the parent branch as the default value in the bill of material records when you copy the bill of material to add a new bill of material. Valid values are:

Blank The system uses the component branch when you copy the bill of material.

1 The system uses the parent branch when you copy the bill of material.

#### 2. Bill of Material Type

Use this processing option to specify the type of bill of material for the system to use as the default value in the Type of Bill fields. Bill of material type is a user defined code (40/TB) that designates the type of bill of material. Enter the bill of material type to use or

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choose it from the Select User Define Code form. If you leave this processing option blank, the system uses M.

### **3. As of Date**

Use this processing option to specify whether the system uses the current date as the default value in the As Of Date field in the header area of the Work with Bill of Material form. Enter the date to use or choose it from the Calendar. Additional valid values are:

Blank The system uses \* as the default value, which allows the system to select all dates.

- 1 The system uses the current date as the default value.

### **4. Display Sequence**

Use this processing option to specify how the system sorts the information on the Enter Bill of Material Information form. You can choose whether to sequence the data by component line number or by operation sequence number.

The component line number indicates the sequence of the components on a bill of material. The operation sequence number indicates the sequence of the fabrication or assembly steps in the manufacture of an item. Valid values are:

Blank The system sorts by component line number.

- 1 The system sorts by component line number.
- 2 The system sorts by operation sequence number.

---

## **Display Tab**

These processing options control whether the system displays the Bill Type and Batch Quantity fields. The Bill Type field appears in the header area on the Work With Bill of Material and the Enter Bill of Material Information forms. The Batch Quantity field only appears in the header area on the Enter Bill of Material Information form. If you leave these processing options blank, the system does not display the fields.

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### **1. Bill Type**

Use this processing option to activate the Bill Type field in the header area of both the Work With Bill of Material and Enter Bill of Material Information forms. Bill of material type is a user defined code (40/TB) that designates the type of bill of material. Valid values are:

Blank The system does not display the Bill Type field.

- 1 The system displays the Bill Type field.

### **2. Batch Quantity**

Use this processing option to specify whether the system activates the Batch Quantity field

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in the header area of the Enter Bill of Material Information form. Batch quantity is the quantity of finished units that you expect a specific bill of material to produce. Valid values are:

Blank The system does not display the Batch Quantity field.

- 1 The system displays the Batch Quantity field.

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## **Versions Tab**

These processing options control which versions of the following programs that the system uses when processing a bill of material.

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### **1. Single Level BOM Print (R30460)**

Use this processing option to specify the version of the Single Level Bill of Material Print program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Single Level Bill of Material program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

### **2. Multi Level BOM Print (R30460)**

Use this processing option to specify the version of the Multi Level Bill of Material Print program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Multi Level Bill of Material program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

### **3. ECO Workbench (P30225)**

Use this processing option to specify the version that the system uses when you choose the Row exit to the ECO Workbench form. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the ECO Workbench program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

### **4. Component Maintenance (P3015)**

Use this processing option to specify the version that the system uses when you choose the Row exit to the Component Maintenance form. If you leave this processing option blank, the system uses the ZJDE0001 version.

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Versions control how the Component Maintenance program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

### **5. ECO Header [P30BREV]**

Use this processing option to specify the version that the system uses when you choose the Row exit to the ECO Header form. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the ECO Header program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

### **6. Bill of Material Where Used (P30201)**

Use this processing option to specify the version of the Bill of Material Where Used program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Bill of Material Where Used program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

### **7. Item Master (P4101)**

Use this processing option to specify the version that the system uses when you choose the Row exit to the Item Master program. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Item Master program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

### **8. Co/By- Products Inquiry (P30211)**

Use this processing option to specify the version that the system uses when you choose the Row exit to the Co/By-Products Inquiry program. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Co/By-Products Inquiry program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

### **9. Bill of Material Inquiry (P30200)**

Use this processing option to specify the version that the system uses when you choose the Row exit to the Bill of Material Inquiry program. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Bill of Material Inquiry program displays information. Therefore, you might need to set the processing option to a specific version to meet your

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needs.

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## **Edit Tab**

This processing option controls whether the system verifies that an item branch record exists in the Item Branch File table (F4102).

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### **1. Item Branch Validation**

Use this processing option to specify whether the system checks for a component's existing item branch record in the Item Branch table (F4102).

Valid values are:

Blank The system does not check to see if the item branch is valid.

1 The system checks for a valid item branch record.

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## **Interoperability Tab**

These processing options control the transaction type that the system uses for export processing, the version of the Interoperability Generic Outbound Subsystem UBE report (R00460), and whether you want the system to write the before or after image for a changed transaction.

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### **1. Transaction Type**

Use this processing option to specify the transaction type that the system uses for export processing. Transaction type is a user defined code (00/TT) that identifies the type of transaction for the work order. Enter the transaction type to use as the default value or choose it from the Select User Define Codes form. If you leave this processing option blank, the system does not use export processing.

### **2. Write Image for a Change Transaction**

Use this processing option to specify whether the system writes the before or after image for a change transaction. The images are written to the Bill of Material Transaction Revisions table (F3002Z1) from the Bill of Material Master table (F3002). Valid values are:

Blank The system stores the after image.

1 The system stores the before image.

### **3. Interoperability Outbound (R00460)**

Use this processing option to specify the version of the Interoperability Outbound Subsystem program that the system uses for export processing. If you leave this processing option blank, the system uses the ZJDE0001 version.

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Versions control how the Interoperability Outbound Subsystem program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

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## 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 MRP/MPS Requirements Planning program (R3482) 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.

### Prerequisite

- ☐ Enter a planning bill.
- ☐ Run the Forecast Revisions program (P3460) manually to add the forecast for the parent item.

### Processing Options for MRP/MPS Requirements Planning (R3482)

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#### Horizon

1. Generation Start Date

2. Past Due Periods

0 (default)

1

2

3. Planning Horizon Periods

Number of planning days

Number of planning weeks

Number of planning months

#### Parameters

1. Generation Mode

1 = net change

2 = gross regeneration

2. Generation Type

1 = single level MPS/DRP

2 = planning bill

3 = multi-level MPS

4 = MRP with or without MPS

5 = MRP with frozen MPS

3. UDC Type

4. Version of Supply/Demand Inclusion Rules

#### On Hand Data

1. Include Lot Expiration Dates

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blank = do not include

1 = include

2. Safety Stock Decrease

blank = do not decrease

1 = decrease

3. Receipt Routing Quantities

Quantity in Transit

blank = do not include in on-hand inventory

1 = include in on-hand inventory

Quantity in Inspection

blank = do not include in on-hand inventory

1 = include in on-hand inventory

User Defined Quantity 1

blank = do not include in on-hand inventory

1 = include in on-hand inventory

User Defined Quantity 2

blank = do not include in on-hand inventory

1 = include in on-hand inventory

4. Lot Hold Codes (up to 5)

blank = include no held lots in calculation of on-hand inventory

\* = include all held lots in calculation of on-hand inventory

5. Include Past Due Rates as a supply

blank = do not include

1 = include

Forecasting

1. Forecast Types Used ( up to 5 )

2. Forecast Type For Planning Bills/Forecast Consumption By Customer

3. Forecast Consumption Logic

blank = do not use forecast consumption

1 = use forecast consumption

2 = use forecast consumption by customer

4. Default Customer Address Relationship for Forecast Consumption by Customer

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1 = Ship to (default)

2 = Sold to

Document Types

1. Purchase Orders

2. Work Orders

3. Rate Schedules

Lead Times

1. Purchased Item Safety Leadtime

2. Manufactured Item Safety Leadtime

3. Expedite Damper Days

4. Defer Damper Days

Performance

1. Clear F3411/F3412/F3413 Tables

blank = do not clear tables

1 = clear tables

2. Input B/P Where Planning Tables Will Be Cleared

blank = all planning tables will be cleared

3. Initialize MPS/MRP Print Code.

blank = do not initialize the Item Branch file

1 = initialize the Item Branch file

4. Messages And Time Series For Phantom Items

blank = do not generate

1 = generate

5. Ending Firm Order Status

blank = all messages exploded

6. Extend Rate Based Adjustments

blank = do not extend

1 = extend

7. Closed Rate Status

8. Set Key Definition For Table F3411

9. Set Key Definition For Table F3412

10. Suppress Time Series

blank = generate time series

1 = do not generate time series

11. Planning Control UDC Type

Mfg Mode

1. Process Planning

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blank = discrete

1 = process

2. Project Planning

blank = do not include

1 = include

3. Configurator Components Table

blank = do not process configured components table

1 = process configurator components table

Parallel

1. Number of Subsystem Jobs

0 = Default

2. Pre Processing

blank = Do not perform pre processing

1= Perform pre processing

---

## What You Should Know About Processing Options for MRP/MPS Requirements Planning (R3482)

**Document Types** When you choose a forecast type to use with a planning bill, you must also enter the type code  
**Used in Planning** for this forecast as a forecast type to be read. This action allows the system to read the forecast and explode it down to the component level. You can specify up to five forecast types to be read in a sequence that you specify.

# Working With Interoperability for Forecast Management

To address the information requirements of an enterprise, companies sometimes use products from different software and hardware providers. Interoperability between different products is key to successfully implementing the enterprise solution. Full interoperability among different systems results in a flow of data between the different products that is seamless to the user. The PeopleSoft Interoperability function provides an interface that facilitates exchanging transactions with external systems. These transactions are inbound and outbound.

External systems send information to the interface tables by using either an external program, or flat files and the Inbound Flat File Conversion program (R47002C). The sending party is responsible for conforming to format and other requirements for the interface tables.

You run a transaction process (a batch program) that validates the data, updates valid data to the PeopleSoft application tables, and sends action messages to the Work Center (P012501) about any invalid data.

You use an inquiry function to interactively review the data for correctness; then run the transaction process again. You can repeat this process, if necessary.

You set a processing option to specify the transaction type for the outbound transaction. The system uses the master business function for the type of transaction, creates a copy of the transaction, and places the copy in the interface table where external systems can access it.

You use the purge function to remove obsolete and unnecessary data from interface tables. Your system is more efficient when you keep these tables as small as possible.

---

## Interoperability Programs for Forecast Management

The interoperability programs for the Forecast Management system are as follows:

- Inbound Flat File Conversion (R47002C)
- Forecast Transactions Revisions (P3460Z1)
- Forecast Inbound Processor (R3460Z1I)
- Purge Forecast Transactions (R3460Z1P)

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## Converting Flat Files to Interface Tables

You can use a variety of methods to send data from external systems to the interoperability interface tables. One method is to enter the data in a flat file. If you use this method, the system converts the flat file to the interface table.

You can set a processing option to start the transaction process when the conversion completes successfully.

### Prerequisites

- ❑ Ensure that the flat file is a comma-delimited ASCII text file that is stored on the hard drive of your personal computer.
- ❑ Ensure that the data conforms to the specified format. See *Converting Data from Flat Files into EDI Interface Tables* in the *Data Interface for Electronic Data Interchange Guide* for information about formatting requirements.

## Setting Up the Flat File Cross-Reference

Before you can convert a flat file, you must provide a cross-reference from the flat file fields to the interface table fields. When you exchange data between this system and an external system, you use flat file cross-reference information for the following conditions:

- For inbound transactions for which the external system cannot write data to the interface tables in the required format for this system. In this case, the external system can write the data to a specific flat file for each transaction and record type.
- For outbound transactions for which this system cannot write data to the interface tables in the format that is required by the external system. In this case, this system can write the data to a specific flat file for each transaction and record type.

### See Also

- ❑ *Converting Data from Flat Files into EDI Interface Tables* in the *Data Interface for Electronic Data Interchange Guide* for more information about this process. The process for setting up flat file cross-references for Interoperability is identical to that for EDI interface tables.

### Prerequisite

- ❑ On the appropriate drives on your computer or network, set up the folders for the flat files.

## ► To set up the flat file cross-reference

---

*Use one of the following navigations:*

*From the Forecast Interoperability menu (G36301), choose Flat File Cross-Reference.*

*From the Sales Interoperability menu (G42A313), choose Flat File Cross Reference.*

*From the Inventory Interoperability menu (G41313), choose Flat File Cross-Reference.*

*From the Product Data Interoperability menu (G30311), choose Flat File Cross-Reference.*

*From the Purchasing Interoperability menu (G43A313), choose Flat File Cross-Reference.*

*From the Shop Floor Management Interoperability menu (G31311), choose Flat File Cross-Reference.*

1. On Work With Flat File Cross-Reference, click Add.
2. On Flat File Cross-Reference, to specify the transaction type, such as receipts, complete the following field:
  - Transaction
3. To indicate whether this transaction type is Inbound (1), or Outbound (2), complete the following field:
  - Direction Indicator
4. To indicate the information source, complete the following field:
  - Record Type
5. Enter the specific file name in the following field:
  - File Name

The file name refers to the application table from which the system exchanges information, as defined by the record type.
6. Click OK.

## Running the Conversion Program

*Use one of the following navigations:*

*From the Forecast Interoperability menu (G36301), choose Inbound Flat File Conversions*

*From the Inventory Interoperability menu (G41313), choose Inbound Flat File Conversion.*

*From the Product Data Interoperability menu (G30311), choose the applicable Inbound Flat File Conversion.*

*From the Purchasing Interoperability menu (G43A313), choose Inbound Flat File Conversion.*

*From the Shop Floor Management Interoperability menu (G31311), choose the applicable Inbound XX Flat File Conversion, where XX is the process that the conversion completes, such as Inbound Completion Flat File Conversion.*

You use the Inbound Flat File Conversion program (R47002C) to import flat files into PeopleSoft interface tables. You can create a separate version of the Inbound Flat File Conversion program for each interface table. This program recognizes both the flat file from which it reads and the record types (UDC 00/RD) within the flat file. Each flat file contains records of differing lengths, based on the interface table record to which they correspond. The Inbound Flat File Conversion program uses the Flat File Cross-Reference Table (F47002) to convert the flat file into the interface tables. Table F47002 indicates to the conversion program which flat file to read from, based on the transaction type that you are receiving.

The conversion program reads each record in the flat file and maps the record data into each field of the interface tables, based on the text qualifiers and field delimiters that are specified in the flat file.

The conversion program inserts the field data as one complete record in the interface table. If the conversion program encounters an error while converting data, it withholds the data in error and continues processing the conversion. If the data is successfully converted, the system automatically starts the transaction process for that interface table, provided that you set the processing options in the conversion program to do so.

### See Also

- ❑ *Receiving Transactions from External Systems* in the *Inventory Management Guide* for information about the transaction process programs

## Processing Options for Inbound Flat File Conversion (R47002C)

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### Transaction

1. Enter the transaction to process.

### Separators

1. Enter the field delimiter.
2. Enter the text qualifier.

### Process

1. Enter the inbound processor to run after successful completion of the conversion.
  2. Enter the version for the inbound processor. If left blank, XJDE0001 will be used.
- 

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## Receiving Transactions from External Systems

When an external system sends inbound transactions, the PeopleSoft system stores the data in interface tables. These tables contain unedited transactions. You must run the appropriate transaction process to edit the transactions and update the application tables. For example, if you receive a transaction in the Forecast Unedited Transactions (F3460Z1) interface table, you run the Forecast Inbound Processor (R3460Z1I) to update the Forecast File table (F3460).

To be received in the interface tables, data from an external system must conform to the minimum field requirements that are specified for the interface table.

During the transaction process, the system does the following:

- Validates the data in the interface table (for example, table F3460Z1) to ensure that the data is correct and conforms to the format that is defined for the Forecast Management system

- Updates the associated application table (for example, table F3460) with validated data
- Produces a report that lists invalid transactions and sends an action message for each invalid transaction to the Work Center (P012501)
- Marks in the interface tables those transactions that are successfully updated to the application tables

If the report indicates errors, you can choose the Employee Work Center option from the Workflow Management menu (G02) to review the messages in the message center. You can use the associated inquiry function to review and revise the transactions; then rerun the transaction process.

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**Note**

When the Inbound Flat File Conversion program (R47002C) completes successfully, the system automatically starts the transaction process if you have set the appropriate processing option.

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You need to perform only those tasks that are appropriate for the situation.

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## Reviewing and Revising Inbound Transactions

Running the transaction process, Forecast Transactions Revisions (P3460Z1), often identifies one or more inbound transactions that contain invalid transactions. For example, a forecast might have an invalid inclusion rule. In that case, the program cannot add that forecast to the Forecast File table (F3460). Instead, the program sends an error message to the Work Center (P012501), indicating the transaction number for the transaction in error.

Use the inquiry menu selection to review and revise inbound transactions; and then to add, change, or delete transactions containing errors. Then run the transaction process again. Continue to make corrections and rerun the transaction process until the program runs without errors.

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► **To review and revise inbound transactions**

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*From the Forecast Interoperability menu (G36301), choose Forecast Transaction Revisions.*

1. On Work With Forecast Batches, complete the following fields to limit the search to specific transactions and click Find:
  - User ID
  - Batch Number
  - Transaction Number
2. On Work With Transactions (All), choose the transaction to review and revise, and click Select.
3. On Forecast Transaction Revision, review and revise as needed, and then click OK.

After you correct the errors identified by the Forecast Inbound Processor (R3460Z1I), run the transaction process again. If other errors are identified, correct them and run the transaction process again.



## See Also

- ❑ *EDI Document Inquiry and Revision* in the *Data Interface for Electronic Data Interchange Guide* for information about reviewing and revising inbound product activity data transactions

## Processing Options for Forecast Transaction Revisions (P3460Z1)

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### Display

1. Enter '1' to inquire at the batch level, leave Blank to inquire at the transaction level.
2. Enter '1' for Processed Records, '2' for Unprocessed or Blank for both.
3. Enter '1' for Inbound records, '2' for Outbound Records or Blank for both.

### Version

1. Enter the version for "Process Inbound Forecasts" for batch of One. If left blank, ZJDE0001 will be used
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## Sending Transactions to External Systems

You might send transactions you create or change in the Forecast Management system to another system. For example, if your organization uses hand-held scanning devices, you can use interoperability transactions to update the database that is used by the scanning devices.

The default outbound transaction is a copy of a data transaction after you created or changed it (an *after image*). With interoperability, you can also send a copy of each transaction as it was before you changed it (a *before image*). Creating and sending *before images* requires additional processing time. To control the type of image, you set a processing option in the application programs that create transactions.

You can send transactions to an external system from the Forecast Revisions (P3460) program in the Forecast Management system.

To create outbound transactions, specify the appropriate transaction type in the related processing option. The system places a copy of the transaction in the interface table for that type of transaction. For example, when you run Forecast Revisions with the interoperability processing option turned on, the system places a copy of updated forecast data in the Forecast Unedited Transactions (F3460Z1) interface table. The data is then available for an external system to use.

The system creates the outbound transaction in EDI format. External systems can process the transactions using standard EDI processing, including extraction.

## Prerequisite

- ❑ Define the data export controls for the type of outbound transaction. The system uses data export controls to determine the batch programs or business processes that third parties supply for use in processing transactions.

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## Purging Interoperability Transaction Records

When data becomes obsolete or you need more disk space, you can use purge programs to remove data from interface tables.

The Forecast Interoperability menu (G36301) contains an option for purging inbound transactions. Use the Purge Forecast Transactions program to remove data from the corresponding interface tables.

### See Also

- ❑ *Purge Interface Table Information* in the *Interoperability Guide* for more information about purging information from the interface tables.

# EnterpriseOne PeopleBooks Glossary

<b>“as of” processing</b>	A process that is run at a specific point in time to summarize item transactions.
<b>52 period accounting</b>	A method of accounting that uses each week as a separate accounting period.
<b>account site</b>	In the invoice process, the address to which invoices are mailed. Invoices can go to a different location or account site from the statement.
<b>active window</b>	The window that contains the document or display that will be affected by current cursor movements, commands, and data entry in environments that are capable of displaying multiple on-screen windows.
<b>ActiveX</b>	A technology and set of programming tools developed by Microsoft Corporation that enable software components written in different languages to interact with each another in a network environment or on a web page. The technology, based on object linking and embedding, enables Java applet-style functionality for Web browsers as well as other applications (Java is limited to Web browsers at this time). The ActiveX equivalent of a Java applet is an ActiveX control. These controls bring computational, communications, and data manipulation power to programs that can “contain” them—for example, certain Web browsers, Microsoft Office programs, and anything developed with Visual Basic or Visual C++.
<b>activity</b>	In Advanced Cost Accounting, an aggregation of actions performed within an organization that is used in activity-based costing.
<b>activity driver</b>	A measure of the frequency and intensity of the demands that are placed on activities by cost objects. An activity driver is used to assign costs to cost objects. It represents a line item on the bill of activities for a product or customer. An example is the number of part numbers, which is used to measure the consumption of material-related activities by each product, material type, or component. The number of customer orders measures the consumption of order-entry activities by each customer. Sometimes an activity driver is used as an indicator of the output of an activity, such as the number of purchase orders that are prepared by the purchasing activity. See also cost object.
<b>activity rule</b>	The criteria by which an object progresses from a given point to the next in a flow.
<b>actual cost</b>	Actual costing uses predetermined cost components, but the costs are accumulated at the time that they occur throughout the production process.
<b>adapter</b>	A component that connects two devices or systems, physically or electronically, and enables them to work together.
<b>add mode</b>	The condition of a form where a user can enter data into it.
<b>advanced interactive executive</b>	An open IBM operating system that is based on UNIX.
<b>agent</b>	A program that searches through archives or other repositories of information on a topic that is specified by the user.

<b>aging</b>	A classification of accounts by the time elapsed since the billing date or due date. Aging is divided into schedules or accounting periods, such as 0-30 days, 31-60 days, and so on.
<b>aging schedule</b>	A schedule that is used to determine whether a payment is delinquent and the number of days which the payment is delinquent.
<b>allegato IVA clienti</b>	In Italy, the term for the A/R Annual VAT report.
<b>allegato IVA fornitori</b>	In Italy, the term for the A/P Annual VAT report.
<b>application layer</b>	The seventh layer of the Open Systems Interconnection Reference Model, which defines standards for interaction at the user or application program level.
<b>application programming interface (API)</b>	A set of routines that is used by an application program to direct the performance of procedures by the computer's operating system.
<b>AS/400 Common</b>	A data source that resides on an AS/400 and holds data that is common to the co-existent library, allowing PeopleSoft EnterpriseOne to share information with PeopleSoft World.
<b>assembly inclusion rule</b>	A logic statement that specifies the conditions for using a part, adjusting the price or cost, performing a calculation, or using a routing operation for configured items.
<b>audit trail</b>	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.
<b>automatic return</b>	A feature that allows a user to move to the next entry line in a detail area or to the first cell in the next row in several applications.
<b>availability</b>	The expression of the inventory amount that can be used for sales orders or manufacturing orders.
<b>available inventory</b>	The quantity of product that can be promised for sale or transfer at a particular time, considering current on-hand quantities, replenishments in process, and anticipated demand.
<b>back office</b>	The set of enterprise software applications that supports the internal business functions of a company.
<b>backhaul</b>	The return trip of a vehicle after delivering a load to a specified destination. The vehicle can be empty or the backhaul can produce less revenue than the original trip. For example, the state of Florida is considered a backhaul for many other states—that is, many trucking companies ship products into the state of Florida, but most of them cannot fill a load coming out of Florida or they charge less. Hence, trucks coming out of Florida are either empty or produce less revenue than the original trip.
<b>balance forward</b>	The cumulative total of inventory transactions that is used in the Running Balance program. The system does not store this total. You must run this program each time that you want to review the cumulative inventory transactions total.

<b>balance forward receipt application method</b>	A receipt application method in which the receipt is applied to the oldest or newest invoices in chronological order according to the net due date.
<b>bank tape (lock box) processing</b>	The receipt of payments directly from a customer's bank via customer tapes for automatic receipt application.
<b>base location</b>	[In package management] The topmost location that is displayed when a user launches the Machine Identification application.
<b>basket discount</b>	A reduction in price that applies to a group or "basket" of products within a sales order.
<b>basket repricing</b>	A rule that specifies how to calculate and display discounts for a group of products on a sales order. The system can calculate and display the discount as a separate sales order detail line, or it can discount the price of each item on a line-by-line basis within the sales order.
<b>batch job</b>	A job submitted to a system and processed as a single unit with no user interaction.
<b>batch override</b>	An instruction that causes a batch process to produce output other than what it normally would produce for the current execution only.
<b>batch process</b>	A type of process that runs to completion without user intervention after it has been started.
<b>batch program</b>	A program that executes without interacting with the user.
<b>batch version</b>	A version of a report or application that includes a set of user-defined specifications, which control how a batch process runs.
<b>batch/lot tracking</b>	The act of identifying where a component from a specific lot is used in the production of goods.
<b>batch/mix</b>	A manufacturing process that primarily schedules short production runs of products.
<b>batch-of-one processing</b>	A transaction method that allows a client application to perform work on a client workstation, and then submit the work all at once to a server application for further processing. As a batch process is running on the server, the client application can continue performing other tasks. See also direct connect, store-and-forward.
<b>binary large object (BLOB)</b>	A collection of binary data stored as a single entity in a [file].
<b>binder clip</b>	See paper clip.
<b>black products</b>	Products that are derived from the low or heavy end of the distillation process—for example, diesel oils and fuel oils. See also white products.
<b>blend note</b>	Document that authorizes a blending activity, and describes both the ingredients for the blend and the blending steps that occur.

<b>blend off</b>	Reworking off-specification material by introducing a small percentage back into another run of the same product.
<b>blind execution</b>	The mode of execution of a program that does not require the user to review or change the processing options set for the program, and does not require user intervention after the program has been launched.
<b>boleto</b>	In Brazil, the document requesting payment by a supplier or a bank on behalf of a supplier.
<b>bolla doganale</b>	VAT-Only Vouchers for Customs. In Italy, a document issued by the customs authority to charge VAT and duties on extra-EU purchasing.
<b>bookmark</b>	A shortcut to a location in a document or a specific place in an application or application suite.
<b>bordero &amp; cheque</b>	In Brazil, bank payment reports.
<b>broker</b>	A program that acts as an intermediary between clients and servers to coordinate and manage requests.
<b>BTL91</b>	In the Netherlands, the ABN/AMRO electronic banking file format that enables batches with foreign automatic payment instructions to be delivered.
<b>budgeted volume</b>	A statement of planned volumes (capacity utilization) upon which budgets for the period have been set.
<b>bunkering</b>	A rate per ton or a sum of money that is charged for placing fuel on board; can also mean the operation itself.
<b>business function</b>	An encapsulated set of business rules and logic that can normally be re-used by multiple applications. Business functions can execute a transaction or a subset of a transaction (check inventory, issue work orders, and so on). Business functions also contain the APIs that allow them to be called from a form, a database trigger, or a non-EnterpriseOne application. Business functions can be combined with other business functions, forms, event rules, and other components to make up an application. Business functions can be created through event rules or third-generation languages, such as C. Examples of business functions include Credit Check and Item Availability.
<b>business function event rule</b>	Encapsulated, reusable business logic that is created by using through event rules rather than C programming. Contrast with embedded event rule. See also event rule.
<b>business object library</b>	[In interoperability] The repository that stores EnterpriseOne business objects, which consist of Java or CORBA objects.
<b>business unit</b>	A financial entity that is used to track the costs, revenue, or both, of an organization. A business unit can also be defined as a branch/plant in which distribution and manufacturing activities occur. Additionally, in manufacturing setup, work centers and production lines must be defined as business units; but these business unit types do not have profit/loss capability.

<b>business view</b>	Used by EnterpriseOne applications to access data from database tables. A business view is a means for selecting specific columns from one or more tables with data that will be used in an application or report. It does not select specific rows and does not contain any physical data. It is strictly a view through which data can be handled.
<b>business view design aid (BDA)</b>	An EnterpriseOne GUI tool for creating, modifying, copying, and printing business views. The tool uses a graphical user interface.
<b>buy-back crude</b>	In foreign producing oil countries, that portion of the host government's share of "participation crude" which it permits the company holding a concession to "buy back."
<b>CAB</b>	In Italy, the bank branch code or branch ID. A five-digit number that identifies any agency of a specific bank company in Italy.
<b>cadastro de pessoas fisicas</b>	Cadastro de pessoas físicas. In Brazil, the federal tax ID for a person.
<b>category code</b>	A code that identifies a collection of objects sharing at least one common attribute.
<b>central object</b>	A software component that resides on a central server.
<b>central objects merge</b>	A process that blends a customer's modifications with the objects in a current release with objects in a new release.
<b>central server</b>	A computer that has been designated to contain the originally installed version of the software (central objects) for deployment to client computers.
<b>certificate input</b>	See direct input.
<b>certificate of analysis (COA)</b>	A document that is a record of all of the testing which has been performed against an item, lot, or both, plus the test results for that item and lot.
<b>change management</b>	[In software development] A process that aids in controlling and tracking the evolution of software components.
<b>change order</b>	In PeopleSoft, an addendum to the original purchase order that reflects changes in quantities, dates, or specifications in subcontract-based purchasing. A change order is typically accompanied by a formal notification.
<b>chargeback</b>	A receipt application method that generates an invoice for a disputed amount or for the difference of an unpaid receipt.
<b>chart</b>	EnterpriseOne term for tables of information that appear on forms in the software. See forms.
<b>check-in location</b>	The directory structure location for the package and its set of replicated objects. This location is usually \\deploymentserver\release\path_code\package\packagename. The subdirectories under this path are where the central C components (source, include, object, library, and DLL file) for business functions are stored.

<b>checksum value</b>	A computed value that depends on the contents of a block of data, and that is transmitted or stored with the data to detect whether errors have occurred in the transmission or storage.
<b>class</b>	[In object-oriented programming] A category of objects that share the same characteristics.
<b>clean cargo</b>	Term that refers to cargoes of gasoline and other refined products. See also dirty cargo.
<b>client access</b>	The ability to access data on a server from a client machine.
<b>client machine</b>	Any machine that is connected to a network and that exchanges data with a server.
<b>client workstation</b>	A network computer that runs user application software and is able to request data from a server.
<b>ClieOp03</b>	In the Netherlands, the euro-compliant uniform electronic banking file format that enables batches with domestic automatic direct debit instructions and batches with domestic payment instructions to be delivered.
<b>ClieOp2</b>	In the Netherlands, the uniform electronic banking file format that enables batches with domestic automatic direct debit instructions and batches with domestic payment instructions to be delivered.
<b>cluster</b>	Two or more computers that are grouped together in such a way that they behave like a single computer.
<b>co-existence</b>	A condition where two or more applications or application suites access one or more of the same database tables within the same enterprise.
<b>cold test</b>	The temperature at which oil becomes solid. Generally considered to be 5 degrees F lower than the pour point.
<b>commitment</b>	The number of items that are reserved to fill demand.
<b>common object request broker architecture</b>	An object request broker standard that is endorsed by the Object Management Group.
<b>compa-ratio</b>	An employee's salary divided by the midpoint amount for the employee's pay grade.
<b>component changeout</b>	See component swap.
<b>component object model (COM)</b>	A specification developed by Microsoft for building software components that can be assembled into programs or add functionality to existing programs running on Microsoft Windows platforms. COM components can be written in a variety of languages, although most are written in C++, and can be unplugged from a program at runtime without having to recompile the program.



<b>component swap</b>	In Equipment/Plant Management, the substitution of an operable component for one that requires maintenance. Typically, you swap components to minimize equipment downtime while servicing one of the components. A component swap can also mean the substitution of one parent or component item for another in its associated bill of material.
<b>conference room pilot environment</b>	An EnterpriseOne environment that is used as a staging environment for production data, which includes constants and masters tables such as company constants, fiscal date patterns, and item master. Use this environment along with the test environment to verify that your configuration works before you release changes to end-users.
<b>configurable network computing (CNC)</b>	An application architecture that allows interactive and batch applications that are composed of a single code base to run across a TCP/IP network of multiple server platforms and SQL databases. The applications consist of re-usable business functions and associated data that can be configured across the network dynamically. The overall objective for businesses is to provide a future-proof environment that enables them to change organizational structures, business processes, and technologies independently of each other.
<b>configurable processing engine</b>	Handles all “batch” processes, including reporting, Electronic Data Exchange (EDI) transactions, and data duplication and transformation (for data warehousing). This ability does not mean that it exists only on the server; it can be configured to run on desktop machines (Windows 95 and NT Workstation) as well.
<b>configuration management</b>	A rules-based method of ordering assemble-to-order or make-to-order products in which characteristics of the product are defined as part of the Sales Order Entry process. Characteristics are edited by using Boolean logic, and then translated into the components and routing steps that are required to produce the product. The resulting configuration is also priced and costed, based on the defined characteristics.
<b>configured item segment</b>	A characteristic of a configured item that is defined during sales order entry. For example, a customer might specify a type of computer hard drive by stating the number of megabytes of the hard drive, rather than a part number.
<b>consuming location</b>	The point in the manufacturing routing where a component or subassembly is used in the production process. In kanban processing, the location where the kanban container materials are used in the manufacturing process and the kanban is checked out for replenishment.
<b>contra/clearing account</b>	A G/L account used by the system to offset (balance) journal entries. For example, you can use a contra/clearing account to balance the entries created by allocations.
<b>contribution to profit</b>	Selling price of an item minus its variable costs.
<b>control table</b>	A table that controls the program flow or plays a major part in program control.
<b>control table workbench</b>	During the Installation Workbench process, Control Table Workbench runs the batch applications for the planned merges that update the data dictionary, user defined codes, menus, and user overrides tables.

<b>control tables merge</b>	A process that blends a customer's modifications to the control tables with the data that accompanies a new release.
<b>corrective work order</b>	A work order that is used to formally request unscheduled maintenance and communicate all of the details pertaining to the requested maintenance task.
<b>corrective work order</b>	A work order that is used to formally request unscheduled maintenance and communicate all of the details pertaining to the requested maintenance task.
<b>cost assignment</b>	Allocating resources to activities or cost objects.
<b>cost component</b>	An element of an item's cost—for example, material, labor, or overhead.
<b>cost object</b>	Any customer, product, service, contract, project, or other work unit for which you need a separate cost measurement.
<b>cost rollup</b>	A simulated scenario in which work center rates, material costs, and labor costs are used to determine the total cost of an item.
<b>costing elements</b>	The individual classes of added value or conversion costs. These elements are typically materials, such as raw and packaging; labor and machine costs; and overhead, such as fixed and variable. Each corporation defines the necessary detail of product costs by defining and tracking cost categories and subcategories.
<b>credit memo</b>	A negative amount that is used to correct a customer's statement when he or she is overcharged.
<b>credit notice</b>	The physical document that is used to communicate the circumstances and value of a credit order.
<b>credit order</b>	A credit order is used to reflect products or equipment that is received or returned so that it can be viewed as a sales order with negative amounts. Credit orders usually add the product back into inventory. This process is linked with delivery confirmation.
<b>cross segment edit</b>	A logic statement that establishes the relationship between configured item segments. Cross segment edits are used to prevent ordering of configurations that cannot be produced.
<b>crude oil assay</b>	A procedure for determining the distillation curve and quality characteristics of a crude oil.
<b>cumulative update</b>	A version of software that includes fixes and enhancements that have been made since the last release or update.
<b>currency relationships</b>	When converting amounts from one currency to another, the currency relationship defines the from currency and the to currency in PeopleSoft software. For example, to convert amounts from German marks to the euro, you first define a currency relationship between those two currencies.
<b>currency restatement</b>	The process of converting amounts from one currency into another currency, generally for reporting purposes. It can be used, for example, when many currencies must be restated into a single currency for consolidated reporting.

<b>current cost</b>	The cost that is associated with an item at the time a parts list and routing are attached to a work order or rate schedule. Current cost is based on the latest bill of material and routing for the item.
<b>customer pricing rules</b>	In Procurement, the inventory pricing rules that are assigned to a supplier. In Sales, inventory pricing rules that are assigned to a customer.
<b>D.A.S. 2 Reporting (DAS 2 or DADS 1)</b>	In France, the name of the official form on which a business must declare fees and other forms of remuneration that were paid during the fiscal year.
<b>data dictionary</b>	A dynamic repository that is used for storing and managing a specific set of data item definitions and specifications.
<b>data source workbench</b>	During the Installation Workbench process, Data Source Workbench copies all of the data sources that are defined in the installation plan from the Data Source Master and Table and Data Source Sizing tables in the Planner data source to the System - release number data source. It also updates the Data Source Plan detail record to reflect completion.
<b>data structure</b>	A description of the format of records in a database such as the number of fields, valid data types, and so on.
<b>data types</b>	Supplemental information that is attached to a company or business unit. Narrative type contains free-form text. Code type contains dates, amounts, and so on.
<b>datagram</b>	A self-contained packet of information that is forwarded by routers, based on their address and the routing table information.
<b>date pattern</b>	A period of time that is set for each period in standard and 52-period accounting and forecasting.
<b>DCE</b>	See distributed computing environment.
<b>DEB</b>	See déclaration d'échange de biens.
<b>debit memo</b>	In Accounts Payable, a voucher that is entered with a negative amount. Enter this type of voucher when a supplier sends you a credit so that you can apply the amount to open vouchers when you issue payment to the supplier.
<b>debit memo</b>	A form that is issued by a customer, requesting an adjustment of the amount, which is owed to the supplier.
<b>debit statement</b>	A list of debit balances.
<b>de-blend</b>	When blend off does not result in a product that is acceptable to customers. The further processing of product to adjust specific physical and chemical properties to within specification ranges. See also blend off.
<b>déclaration d'échange de biens (DEB)</b>	The French term that is used for the Intrastat report.
<b>delayed billing</b>	The invoicing process is delayed until the end of a designated period.

<b>delta load</b>	A batch process that is used to compare and update records between specified environments.
<b>denominated-in currency</b>	The company currency in which financial reports are based.
<b>deployment server</b>	A server that is used to install, maintain, and distribute software to one or more enterprise servers and client workstations.
<b>detail</b>	The specific information that makes up a record or transaction. Contrast with summary.
<b>detail information</b>	Information that primarily relates to individual lines in a sales or purchase order.
<b>direct connect</b>	A transaction method in which a client application communicates interactively and directly with a server application. See also batch-of-one immediate, store-and-forward.
<b>direct input</b>	The system calculates the net units when you enter gross volume, temperature, and gravity or density. This data is generally entered during product receiving from the certificate that is prepared by an independent inspector.
<b>direct ship orders</b>	A purchase order that is issued to a third-party supplier who designates the destination as the customer. A direct ship sales order is also created for the customer. Direct ship orders occur when a product is not available from a company-owned or company-operated source, so the system creates an order to ship the product from a third-party source directly to the customer. Sometimes referred to as a drop ship or third-party supply.
<b>direct usage</b>	Consumption of resources that are attributable to specific production runs because the resources were directly issued to the schedule/order.
<b>director</b>	An EnterpriseOne user interface that guides a user interactively through an EnterpriseOne process.
<b>dirty cargo</b>	Term that refers to crude oil cargoes or other non-refined petroleum cargoes. See also clean cargo.

<b>dispatch planning</b>	Efficient planning and scheduling of product deliveries. Considerations include: Dispatch groups Scheduled delivery date Scheduled delivery time Preferred delivery date Preferred delivery time Average delivery time for that geographical location Available resources Special equipment requirements at the product's source or destination.
<b>displacement days</b>	The number of days that are calculated from today's date by which you group vouchers for payment. For example, if today's date is March 10 and you specify three displacement days, the system includes vouchers with a due date through March 13 in the payment group. Contrast with pay-through date.
<b>display sequence</b>	A number that the system uses to re-order a group of records on the form.
<b>distributed computing environment (DCE)</b>	A set of integrated software services that allows software which is running on multiple computers to perform seamless and transparently to the end-users. DCE provides security, directory, time, remote procedure calls, and files across computers running on a network.
<b>distributed data processing</b>	Processing in which some of the functions are performed across two or more linked facilities or systems.
<b>distributed database management system (DDBMS)</b>	A system for distributing a database and its control system across many geographically dispersed machines.
<b>do not translate (DNT)</b>	A type of data source that must exist on the AS/400 because of BLOB restrictions.
<b>double-byte character set (DBCS)</b>	A method of representing some characters by using one byte and other characters by using two bytes. Double-byte character sets are necessary to represent some characters in the Japanese, Korean, and Chinese languages.
<b>downgrade profile</b>	A statement of the hierarchy of allowable downgrades. Includes substitutions of items, and meeting tighter specifications for those products with wider or overlapping specification ranges.
<b>DTA</b>	Datenträgeraustausch. A Swiss payment format that is required by Telekurs (Payserv).
<b>dual pricing</b>	To provide prices for goods and services in two currencies. During the euro transition period, dual pricing between the euro and Economic and Monetary Union (EMU) member currencies is encouraged.
<b>dynamic link library (DLL)</b>	A set of program modules that are designed to be invoked from executable files when the executable files are run, without having to be linked to the executable files. They typically contain commonly used functions.

<b>dynamic partitioning</b>	The ability to dynamically distribute logic or data to multiple tiers in a client/server architecture.
<b>economy of scale</b>	A phenomenon whereby larger volumes of production reduce unit cost by distributing fixed costs over a larger quantity. Variable costs are constant; but fixed costs per unit are reduced, thereby reducing total unit cost.
<b>edit mode</b>	A processing mode or condition where the user can alter the information in a form.
<b>edit rule</b>	A method that is used for formatting user entries, validating user entries, or both, against a predefined rule or set of rules.
<b>embedded event rule</b>	An event rule that is specific to a particular table or application. Examples include form-to-form calls, hiding a field that is based on a processing option value, or calling a business function. Contrast with business function event rule. See also event rule.
<b>employee work center</b>	A central location for sending and receiving all EnterpriseOne messages (system and user-generated), regardless of the originating application or user. Each user has a mailbox that contains workflow and other messages, including Active Messages. With respect to workflow, the Message Center is MAPI compliant and supports drag-and-drop work reassignment, escalation, forward and reply, and workflow monitoring. All messages from the message center can be viewed through EnterpriseOne messages or Microsoft Exchange.
<b>Emulator</b>	An item of software or firmware that allows one device to imitate the functioning of another.
<b>encapsulation</b>	The ability to confine access to and manipulation of data within an object to the procedures that contribute to the definition of that object.
<b>engineering change order (ECO)</b>	A work order document that is used to implement and track changes to items and resulting assemblies. The document can include changes in design, quantity of items required, and the assembly or production process.
<b>enhanced analysis database</b>	A database containing a subset of operational data. The data on the enhanced analysis database performs calculations and provides summary data to speed generation of reports and query response times. This solution is appropriate when external data must be added to source data, or when historical data is necessary for trend analysis or regulatory reporting. See also duplicated database, enterprise data warehouse.
<b>enterprise server</b>	A computer containing programs that collectively serve the needs of an enterprise rather than a single user, department, or specialized application.
<b>EnterpriseOne object</b>	A re-usable piece of code that is used to build applications. Object types include tables, forms, business functions, data dictionary items, batch processes, business views, event rules, versions, data structures, and media objects. See also object.

<b>EnterpriseOne process</b>	Allows EnterpriseOne clients and servers to handle processing requests and execute transactions. A client runs one process, and servers can have multiple instances of a process. EnterpriseOne processes can also be dedicated to specific tasks (for example, workflow messages and data replication) to ensure that critical processes do not have to wait if the server is particularly busy.
<b>EnterpriseOne web development computer</b>	A standard EnterpriseOne Windows developer computer with the additional components installed: Sun's JDK 1.1. JFC (0.5.1). Generator Package with Generator.Java and JDECOM.dll. R2 with interpretive and application controls/form.
<b>environment workbench</b>	During the Installation Workbench process, Environment Workbench copies the environment information and Object Configuration Manager tables for each environment from the Planner data source to the System release number data source. It also updates the Environment Plan detail record to reflect completion.
<b>equivalent fuel</b>	A barrel of equivalent fuel supplies six million BTUs of heat. Fuel gas quantities are usually calculated as equivalent fuel barrels in economic calculations for refinery operations.
<b>escalation monitor</b>	A batch process that monitors pending requests or activities, and restarts or forwards them to the next step or user after they have been inactive for a specified amount of time.
<b>ESR</b>	Einzahlungsschein mit Referenznummer. A pay slip with a reference number.
<b>event rule</b>	[In EnterpriseOne] A logic statement that instructs the system to perform one or more operations that are based on an activity that can occur in a specific application, such as entering a form or exiting a field.
<b>exit bar</b>	[In EnterpriseOne] The tall pane with icons in the left portion of many EnterpriseOne program windows.
<b>facility</b>	An entity within a business for which you want to track costs. For example, a facility might be a warehouse location, job, project, work center, or branch/plant. Sometimes referred to as a business unit.
<b>fast path</b>	[In EnterpriseOne] A command prompt that allows the user to move quickly among menus and applications by using specific commands.
<b>file handle</b>	A temporary reference (typically a number) that is assigned to a file which has been opened by the operating system and is used throughout the session to access the file.
<b>file server</b>	A computer that stores files to be accessed by other computers on the network.

<b>find/browse</b>	<p>A type of form used to:</p> <p>Search, view, and select multiple records in a detail area.</p> <p>Delete records.</p> <p>Exit to another form.</p> <p>Serve as an entry point for most applications.</p>
<b>firm planned order (FPO)</b>	A work order that has reached a user defined status. When this status is entered in the processing options for the various manufacturing programs, messages for those orders are not exploded to the components.
<b>fiscal date pattern</b>	A representation of the beginning date for the fiscal year and the ending date for each period in that year.
<b>fix/inspect</b>	A type of form used to view, add, or modify existing records. A fix/inspect form has no detail area.
<b>fixed quantity</b>	A term that indicates the bill of material relationship between a parent item and its components or ingredients. When a bill of material component has a fixed quantity relationship to its parent, the amount of the component does not change when the software calculates parts list requirements for different work order quantities. Contrast with variable quantity.
<b>flexible account numbers</b>	<p>The format of account numbers for journal entries. The format that you set up must be the three segments:</p> <p>Business unit.</p> <p>Object.</p> <p>Subsidiary.</p>
<b>form design aid (FDA)</b>	The EnterpriseOne GUI development tool for building interactive applications and forms.
<b>form exit</b>	[In EnterpriseOne] An option that is available as a button on the Form Exit bar or as a selection in the Form menu. It allows users to open an interconnected form.
<b>form interconnection</b>	Allows one form to access and pass data to another form. Form interconnections can be attached to any event; however, they are normally used when a button is clicked.
<b>form type</b>	<p>The following form types are available in EnterpriseOne:</p> <p>Find/browse.</p> <p>Fix/inspect.</p> <p>Header detail.</p> <p>Headerless detail.</p> <p>Message.</p> <p>Parent/child.</p> <p>Search/select.</p>



<b>form-to-form call</b>	A request by a form for data or functionality from one of the connected forms.
<b>framework</b>	[In object-oriented systems] A set of object classes that provide a collection of related functions for a user or piece of software.
<b>frozen cost</b>	The cost of an item, operation, or process after the frozen update program is run; used by the Manufacturing Accounting system.
<b>frozen update program</b>	A program that freezes the current simulated costs, thereby finalizing them for use by the Manufacturing Accounting system.
<b>globally unique identifier (GUI)</b>	A 16-byte code in the Component Object Model that identifies an interface to an object across all computers and networks.
<b>handle</b>	[In programming] A pointer that contains the address of another pointer, which, in turn, contains the address of the desired object.
<b>hard commitment</b>	The number of items that are reserved for a sales order, work order, or both, from a specific location, lot, or both.
<b>hard error</b>	An error that cannot be corrected by a given error detection and correction system.
<b>header</b>	Information at the beginning of a table or form. Header information is used to identify or provide control information for the group of records that follows.
<b>header information</b>	Information that pertains to the entire order.
<b>hover help</b>	A help function that provides contextual information or instructions when a cursor moves over a particular part of the interface element for a predefined amount of time.
<b>ICMS</b>	Imposto sobre circulação de mercadoria e serviços. In Brazil, a state tax that is applied to the movement of merchandise and some services.
<b>ICMS Substituto</b>	Imposto sobre circulação de mercadoria e serviços substituto. In Brazil, the ICMS tax that is charged on interstate transactions, or on special products and clients.
<b>ICMS Substituto-Markup</b>	See imposto sobre circulação de mercadoria e serviços substituto-markup.
<b>imposto de renda (IR)</b>	Brazilian income tax.
<b>imposto sobre produtos industrializados</b>	In Brazil, a federal tax that applies to manufactured goods (domestic and imported).
<b>imposto sobre services (ISS)</b>	In Brazil, tax on services.
<b>inbound document</b>	A document that is received from a trading partner using Electronic Data Interface (EDI). This document is also referred to as an inbound transaction.
<b>indented tracing</b>	Tracking all lot numbers of intermediates and ingredients that are consumed in the manufacture of a given lot of product, down through all levels of the bill of material, recipe, or formula.

<b>indexed allocations</b>	A procedure that allocates or distributes expenses, budgets, adjustments, and so on, among business units, based on a fixed percentage.
<b>indirect measurement</b>	Determining the quantity on-hand by:  Measuring the storage vessels and calculating the content's balance quantity.  or  Theoretically calculating consumption of ingredients and deducting them from the on-hand balance.
<b>indirect usage</b>	Determining what should have been used by multiplying receipt quantity of the parent times the quantity per statement in the formula, recipe, or bill of material. This transaction typically affects both consumption on schedule as well as issue from on-hand balances.
<b>in-process rework</b>	Recycling a semi processed product that does not meet acceptable standards. Further processing takes the product out of a given operation and sends it back to the beginning of that operation or a previous operation (for example, unreacted materials).  Rework that is detected prior to receipt of finished goods and corrected during the same schedule run.
<b>INPS withholding tax</b>	Instituto Nazionale di Previdenza Sociale withholding tax. In Italy, a 12% social security withholding tax that is imposed on payments to certain types of contractors. This tax is paid directly to the Italian social security office.
<b>inscrição estadual</b>	ICMS tax ID. In Brazil, the state tax ID.
<b>inscrição municipal</b>	ISS tax ID. In Brazil, the municipal tax ID.
<b>integrated toolset</b>	Unique to EnterpriseOne is an industrial-strength toolset that is embedded in the already comprehensive business applications. This toolset is the same toolset that is used by PeopleSoft to build EnterpriseOne interactive and batch applications. Much more than a development environment, however, the EnterpriseOne integrated toolset handles reporting and other batch processes, change management, and basic data warehousing facilities.
<b>integrity test</b>	A process that is used to supplement a company's internal balancing procedures by locating and reporting balancing problems and data inconsistencies.
<b>interbranch sales order</b>	A sales order that is used for transactions between branch/plants other than the selling branch/plant.
<b>Interoperability</b>	The ability of different computer systems, networks, operating systems, and applications to work together and share information.
<b>inventory pricing rule</b>	A discount method that is used for purchases from suppliers and sales to customers. The method is based on effectivity dates, up-to quantities, and a factor by which you can mark up or discount the price or cost.
<b>inventory turn</b>	The number of times that the inventory cycles, or turns over, during the year. A frequently used method to compute inventory turnover is to divide the annual costs of sales by the average inventory level.

<b>invoice</b>	An itemized list of goods that are shipped or services that are rendered, stating quantities, prices, fees, shipping charges, and so on. Companies often have their invoices mailed to a different address than where they ship products. In such cases, the bill-to address differs from the ship-to address.
<b>IP</b>	See imposto sobre produtos industrializados.
<b>IR</b>	See imposto de renda.
<b>IServer Service</b>	Developed by PeopleSoft, this Internet server service resides on the Web server and is used to speed up delivery of the Java class files from the database to the client.
<b>ISS</b>	See imposto sobre serviços.
<b>jargon</b>	An alternate data dictionary item description that EnterpriseOne or PeopleSoft World displays, based on the product code of the current object.
<b>java application server</b>	A component-based server that resides in the middle-tier of a server-centric architecture and provides middleware services for security and state maintenance, along with data access and persistence.
<b>JDBNET</b>	A database driver that allows heterogeneous servers to access each other's data.
<b>jde.ini</b>	A PeopleSoft file (or member for AS/400) that provides the runtime settings that are required for EnterpriseOne initialization. Specific versions of the file or member must reside on every machine that is running EnterpriseOne, including workstations and servers.
<b>JDE.LOG</b>	The main diagnostic log file of EnterpriseOne. Always located in the root directory on the primary drive. Contains status and error messages from the startup and operation of EnterpriseOne.
<b>JDEBASE Database Middleware</b>	<p>PeopleSoft proprietary database middleware package that provides two primary benefits:</p> <ol style="list-style-type: none"> <li>Platform-independent APIs for multidatabase access. These APIs are used in two ways: <ol style="list-style-type: none"> <li>By the interactive and batch engines to dynamically generate platform-specific SQL, depending on the data source request.</li> <li>As open APIs for advanced C business function writing. These APIs are then used by the engines to dynamically generate platform-specific SQL.</li> </ol> </li> <li>Client-to-server and server-to-server database access. To accomplish this access, EnterpriseOne is integrated with a variety of third-party database drivers, such as Client Access 400 and open database connectivity (ODBC).</li> </ol>
<b>JDECallObject</b>	An application programming interface that is used by business functions to invoke other business functions.
<b>JDEIPC</b>	Communications programming tools that are used by server code to regulate access to the same data in multiprocess environments, communicate and coordinate between processes, and create new processes.

<b>JDENET</b>	PeopleSoft proprietary middleware software. JDENET is a messaging software package.
<b>JDENET communications middleware</b>	PeopleSoft proprietary communications middleware package for EnterpriseOne. It is a peer-to-peer, message-based, socket-based, multiprocess communications middleware solution. It handles client-to-server and server-to-server communications for all EnterpriseOne supported platforms.
<b>just in time installation (JITI)</b>	EnterpriseOne's method of dynamically replicating objects from the central object location to a workstation.
<b>just in time replication (JITR)</b>	EnterpriseOne's method of replicating data to individual workstations. EnterpriseOne replicates new records (inserts) only at the time that the user needs the data. Changes, deletes, and updates must be replicated using Pull Replication.
<b>Kagami</b>	In Japan, summarized invoices that are created monthly (in most cases) to reduce the number of payment transactions.
<b>latitude</b>	The X coordinate of the location of an item in the warehouse. The system can use latitude, longitude, and height when suggesting locations for putaway, replenishment, and picking.
<b>laytime (or layhours)</b>	<p>The amount of time that is allotted to a tanker at berth to complete loading or discharging cargo. This time is usually expressed in running hours, and is fixed by prior agreement between the vessel owner and the company that is chartering the vessel. Laytime is stipulated in the charter, which states exactly the total of number of hours that are granted at both loading and unloading ports, and indicates whether such time is reversible. A statement of "Seventy-Two Hours, Reversible" means that a total of 72 hours is granted overall at both ports, and any time saved at one port can be applied as a credit at the other port.</p> <p>For example, if the vessel uses only 32 hours instead of 36 hours to load cargo, it can apply an additional four hours to the 36 hours allotted at the discharge port. Such considerations are important for purposes of computing demurrage.</p>
<b>leading zeros</b>	A series of zeros that certain facilities in PeopleSoft systems place in front of a value that is entered. This situation 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 that you enter. The result appears as 00004567.
<b>ledger type</b>	A code that designates a ledger which is used by the system for a particular purpose. For example, all transactions are recorded in the AA (actual amounts) ledger type in their domestic currency. The same transactions can also be stored in the CA (foreign currency) ledger type.
<b>level break</b>	The position in a report or text where a group of similar types of information ends and another one begins.
<b>libro IVA</b>	Monthly VAT report. In Italy, the term for the report that contains the detail of invoices and vouchers that were registered during each month.
<b>line of business</b>	A description of the nature of a company's work; also a tool to control the relationship with that customer, including product pricing.

<b>linked service type</b>	A service type that is associated with a primary service type. Linked service types can be cancelled, and the maintenance tasks are performed when the primary service type to which they are linked comes due. You can specify whether the system generates work orders for linked service types, as well as the status that the system assigns to work orders that have already been generated. Sometimes referred to as associated service types. See also primary service type and service type.
<b>livro razao</b>	In Brazil, a general ledger report.
<b>load balancing</b>	The act of distributing the number of processes proportionally to all servers in a group to maximize overall performance.
<b>location workbench</b>	During the Installation Workbench process, Location Workbench copies all locations that are defined in the installation plan from the Location Master table in the Planner data source to the System data source.
<b>log files</b>	Files that track operations for a process or application. Reviewing log files is helpful for troubleshooting problems. The file extension for log files is .LOG.
<b>logic data source</b>	Any code that provides data during runtime.
<b>logical compartment</b>	One of two ways that is identified in the transportation constants to display compartments on vehicles. Logical display numbers the compartments sequentially.  For example, if two vehicles are on a trip and each vehicle has three compartments, the logical display is 1,2,3,4,5,6.
<b>logical file</b>	A set of keys or indices that is used for direct access or ordered access to the records in a physical file. Several logical files can have different accesses to a physical.
<b>logical shelf</b>	A logical, not physical, location for inventory that is used to track inventory transactions in loan/borrow, or exchange agreements with other companies. See also logical warehouse.
<b>logical warehouse</b>	Not a physical warehouse containing actual inventory, but a means for storing and tracking information for inventory transactions in loan/borrow, or exchange agreements with other companies.
<b>longitude</b>	The Y coordinate of the location of an item in the warehouse. The system can use latitude, longitude, and height when suggesting locations for putaway, replenishment, and picking.
<b>LSV</b>	Lastschriftverfahren. A Swiss auto debit format that is required by Telekurs (Payserv).
<b>mail merge</b>	A mass-mail facility that takes names, addresses, and (sometimes) pertinent facts about recipients and merges the information into a form letter or a similarly basic document.

<b>mailmerge workbench</b>	[In EnterpriseOne] An application that merges Microsoft Word 6.0 (or higher) word-processing documents with EnterpriseOne records to automatically print business documents.
<b>main fuels</b>	Usually refers to bulk fuel products, but sometimes includes packaged products.
<b>maintenance loop</b>	See maintenance route.
<b>maintenance route</b>	A method of performing PMs for multiple pieces of equipment from a single preventive maintenance work order. A maintenance route includes pieces of equipment that share one or more identical maintenance tasks which can be performed at the same time for each piece of equipment. Sometimes referred to as maintenance loop.
<b>maintenance work order</b>	In PeopleSoft EnterpriseOne systems, a term that is used to distinguish work orders created for the performance of equipment and plant maintenance from other work orders, such as manufacturing work orders, utility work orders, and engineering change orders.
<b>manufacturing and distribution planning</b>	Planning that includes resource and capacity planning, and material planning operations. Resource and capacity planning allows you to prepare a feasible production schedule that reflects your demand forecasts and production capability. Material Planning Operations provides a short-range plan to cover material requirements that are needed to make a product.
<b>mapping</b>	A set of instructions that describes how one data structure passes data to another.
<b>master business function</b>	An interactive master file that serves as a central location for adding, changing, and updating information in a database.
<b>master business function</b>	A central system location for standard business rules about entering documents, such as vouchers, invoices, and journal entries. Master business functions ensure uniform processing according to guidelines that you establish.
<b>master table</b>	A database table that is used to store data and information that is permanent and necessary to the system's operation. Master tables might contain data such as paid tax amounts, supplier names, addresses, employee information, and job information.
<b>matching document</b>	A document that is associated with an original document to complete or change a transaction. For example, a receipt is the matching document of an invoice.
<b>media object</b>	An electronic or digital representation of an object.
<b>media storage objects</b>	Files that use one of the following naming conventions that are not organized into table format: Gxxx, xxxGT, or GTxxx.
<b>memory violation</b>	An error that occurs as the result of a memory leak.
<b>menu selection</b>	An option on a menu that initiates a software function directly.
<b>message center</b>	A central location for sending and receiving all EnterpriseOne messages (system- and user-generated), regardless of the originating application or user.

<b>messaging application programming interface (MAPI)</b>	An architecture that defines the components of a messaging system and how they behave. It also defines the interface between the messaging system and the components.
<b>metal content</b>	A series of properties of a blended product that help to determine its suitability for a prescribed purpose.
<b>metals management</b>	The process of maintaining information about the location and status of durable product containers such as liquid petroleum gas (LPG) cylinders.
<b>mobile inventory</b>	Inventory that is transferred from a depot to a barge or truck for milk-run deliveries.
<b>modal</b>	A restrictive or limiting interaction that is created by a given condition of operation. Modal often describes a secondary window that restricts a user's interaction with other windows. A secondary window can be modal with respect to its primary window or to the entire system. A modal dialog box must be closed by the user before the application continues.
<b>model work order</b>	For scheduled preventive maintenance or for a condition-based alert, a model work order functions as a template for the creation of other work orders. You can assign model work orders to service types and condition-based alerts. When the service type comes due or the alert is generated, the system automatically generates a work order that is based on information from the model work order.
<b>modeless</b>	Not restricting or limiting interaction. Modeless often describes a secondary window that does not restrict a user's interaction with other windows. A modeless dialog box stays on the screen and is available for use at any time, but also permits other user activities.
<b>multiple stocking locations</b>	Authorized storage locations for the same item number at locations, in addition to the primary stocking location.
<b>multitier architecture</b>	A client/server architecture that allows multiple levels of processing. A tier defines the number of computers that can be used to complete some defined task.
<b>named event rules (NER)</b>	Also called business function event rules. Encapsulated, re-usable business logic that is created by using event rules, rather than C programming.
<b>national language support (NLS)</b>	Mechanisms that are provided to facilitate internationalization of both system and application user interfaces.
<b>natureza da operação</b>	Transaction nature. In Brazil, a code that classifies the type of commercial transaction to conform to the fiscal legislation.
<b>negative pay item</b>	An entry in an account that indicates a prepayment. For example, you might prepay a supplier before goods are sent or prepay an employee's forecasted expenses for a business trip. The system stores these pending entries, assigning them a minus quantity as debit amounts in a designated expense account. After the prepaid goods are received or the employee submits an expense report, entering the actual voucher clears all of the negative pay items by processing them as regular pay items. Note that a negative pay item can also result from entering a debit memo (A/P) or a credit memo (A/R).

<b>net added cost</b>	The cost to manufacture an item at the current level in the bill of material. Thus, for manufactured parts, the net added cost includes labor, outside operations, and cost extras applicable to this level in the bill of material, but not materials (lower-level items). For purchased parts, the net added cost also includes the cost of materials.
<b>next status</b>	The next step in the payment process for payment control groups. The next status can be either WRT (write) or UPD (update).
<b>node</b>	A termination point for two or more communications links. A node can serve as the control location for forwarding data among the elements of a network or multiple networks, as well as performing other networking and, in some cases, local processing.
<b>non-inventory items</b>	See non-stock items.
<b>non-list price</b>	A price for bulk products that is determined by its own algorithms, such as a rolling average or commodity price plus.
<b>non-prime product</b>	A manufactured product with revenue potential that is less than the product planned for, or scheduled to be produced.
<b>non-stock items</b>	Items that the system does not account for as part of the inventory. For example, office supplies, or packaging materials can be non-stock items.
<b>nota fiscal</b>	In Brazil, a legal document that must accompany all commercial transactions.
<b>nota fiscal fatura</b>	In Brazil, a nota fiscal and invoice information.
<b>notula</b>	In Italy, the process whereby a business does not recognize value added tax until the payment of a voucher.
<b>object configuration manager (OCM)</b>	EnterpriseOne's object request broker and the control center for the runtime environment. It keeps track of the runtime locations for business functions, data, and batch applications. When one of these objects is called, the Object Configuration Manager directs access to it by using defaults and overrides for a given environment and user.
<b>object embedding</b>	When an object is embedded in another document, an association is maintained between the object and the application that created it; however, any changes made to the object are also only kept in the compound document. See also object linking.
<b>object librarian</b>	A repository of all versions, applications, and business functions that are reusable in building applications.
<b>object linking</b>	When an object is linked to another document, a reference is created with the file in which the object is stored, as well as with the application that created it. When the object is modified, either from the compound document or directly through the file in which it is saved, the change is reflected in that application as well as anywhere it has been linked. See also object embedding.



<b>object linking and embedding (OLE)</b>	A technology for transferring and sharing information among applications by allowing the integration of objects from diverse applications, such as graphics, charts, spreadsheets, text, or an audio clip from a sound program. OLE is a compound document standard that was developed by Microsoft Corporation. It enables you to create objects with one application, and then link or embed them in a second application. Embedded objects retain their original format and links to the application that created them. See also object embedding, object linking.
<b>object management workbench (OMW)</b>	The change management system that is used for EnterpriseOne development.
<b>object-based technology (OBT)</b>	A technology that supports some of the main principles of object-oriented technology:  Classes.  Polymorphism.I  Inheritance.  Encapsulation.
<b>object-oriented technology (OOT)</b>	Brings software development past procedural programming into a world of re-usable programming that simplifies development of applications. Object orientation is based on the following principles:  Classes.  Polymorphism.I  Inheritance.  Encapsulation.
<b>offsetting account</b>	An account that reduces the amount of another account to provide a net balance. For example, a credit of 200 to a cash account might have an offsetting entry of 200 to an A/P Trade (liability) account.
<b>open database connectivity (ODBC)</b>	Defines a standard interface for different technologies to process data between applications and different data sources. The ODBC interface comprises set of function calls, methods of connectivity, and representation of data types that define access to data sources.
<b>open systems interconnection (OSI)</b>	The OSI model was developed by the International Standards Organization (ISO) in the early 1980s. It defines protocols and standards for the interconnection of computers and network equipment.
<b>order detail line</b>	A part of an order that contains transaction information about a service or item being purchased or sold, such as quantity, cost, price, and so on.
<b>order hold</b>	A flag that stops the processing of an order because it has exceeded the credit or budget limit, or has another problem.
<b>order-based pricing</b>	Pricing strategy that grants reductions in price to a customer. It is based upon the contents and relative size (volume or value) of the order as a whole.
<b>outbound document</b>	A document that is sent to a trading partner using EDI. This term is also referred to as an outbound transaction.

<b>outturn</b>	<p>The quantity of oil that is actually received into a buyer's storage tanks when a vessel is unloaded. For various reasons (vaporization, clingage to vessel tank walls, and so on), the amount of a product pumped into shore tankage at unloading is often less than the quantity originally loaded onto the vessel, as certified by the Bill of Lading. Under a delivered or CIF outturn transaction, the buyer pays only for the barrels actually "turned out" by the vessel into storage.</p> <p>When a buyer is paying CIF Bill of Lading figures, a loss of 0.5% of total cargo volume is considered normal. Losses in excess of 0.5%, however, are either chargeable to the seller or are covered by specialized insurance that covers partial, as well as total, loss of the cargo.</p>
<b>overhead</b>	In the distillation process, that portion of the charge that leaves the top of the distillation column as vapor. This definition is strictly as it relates to ECS.
<b>override conversion method</b>	A method of calculating exchange rates that is set up between two specific currencies. For those specific currencies, this method overrides the conversion method in General Accounting Constants and does not allow inverse rates to be used when calculating currency amounts.
<b>package / package build</b>	A collection of software that is grouped into a single entity for modular installation. EnterpriseOne objects are installed to workstations in packages from the deployment server. A package can be compared to a bill of material or kit that indicates the necessary objects for that workstation and where the installation program can find them on the deployment server. It is a point-in-time "snapshot" of the central objects on the deployment server.
<b>package location</b>	The directory structure location for the package and its set of replicated objects. This location is usually \\deployment server\release\path_code\package\ package name. The replicated objects for the package are placed in the subdirectories under this path. This location is also where the package is built or stored.
<b>package workbench</b>	During the Installation Workbench process, Package Workbench transfers the package information tables from the Planner data source to the System - release number data source. It also updates the Package Plan detail record to reflect completion.
<b>packaged products</b>	Products that, by their nature, must be delivered to the customer in containers which are suitable for discrete consumption or resale.
<b>pane/panel</b>	A resizable subarea of a window that contains options, components, or other related information.
<b>paper clip</b>	An icon that is used to indicate that a media object is attached to a form or record.
<b>parent/child form</b>	<p>A type of form that presents parent/child relationships in an application on one form:</p> <p>The left portion of the form presents a tree view that displays a visual representation of a parent/child relationship.</p> <p>The right portion of the form displays a detail area in browse mode. The detail area displays the records for the child item in the tree.</p> <p>The parent/child form supports drag and drop functionality.</p>

<b>parent/child relationship</b>	See parent/component relationship.
<b>parent/component relationship</b>	<p>1. In Capital Asset Management, the hierarchical relationship of a parent piece of equipment to its components. For example, a manufacturing line could be a parent and the machinery on the line could be components of the line. In addition, each piece of machinery could be a parent of still more components.</p> <p>2. In Product Data Management, a hierarchical relationship of the components and subassemblies of a parent item to that parent item. For example, an automobile is a parent item; its components and subassemblies include: engine, frame, seats, and windows.</p> <p>Sometimes referred to as parent/child relationship.</p>
<b>partita IVA</b>	In Italy, a company fiscal identification number.
<b>pass-through</b>	A process where data is accepted from a source and forwarded directly to a target without the system or application performing any data conversion, validation, and so on.
<b>pay on consumption</b>	The method of postponing financial liability for component materials until you issue that material to its consuming work order or rate schedule.
<b>payment group</b>	A system-generated group of payments with similar information, such as a bank account. The system processes all of the payments in a payment group at the same time.
<b>PeopleSoft database</b>	See JDEBASE Database Middleware.
<b>performance tuning</b>	The adjustments that are made for a more efficient, reliable, and fast program.
<b>persistent object</b>	An object that continues to exist and retains its data beyond the duration of the process that creates it.
<b>pervasive device</b>	A type of intelligent and portable device that provides a user with the ability to receive and gather information anytime, from anywhere.
<b>planning family</b>	A means of grouping end items that have similarity of design or manufacture.
<b>plug-in</b>	A small program that plugs into a larger application to provide added functionality or enhance the main application.
<b>polymorphism</b>	A principle of object-oriented technology in which a single mnemonic name can be used to perform similar operations on software objects of different types.
<b>portal</b>	A Web site or service that is a starting point and frequent gateway to a broad array of on-line resources and services.
<b>Postfinance</b>	A subsidiary of the Swiss postal service. Postfinance provides some banking services.

<b>potency</b>	Identifies the percent of an item in a given solution. For example, you can use an 80% potent solution in a work order that calls for 100% potent solution, but you would use 25% more, in terms of quantity, to meet the requirement ( $100 / 80 = 1.25$ ).
<b>preference profile</b>	The ability to define default values for specified fields for a user defined hierarchy of items, item groups, customers, and customer groups. In Quality Management setup, this method links test and specification testing criteria to specific items, item groups, customers, or customer groups.
<b>preflush</b>	A work order inventory technique in which you deduct (relieve) materials from inventory when the parts list is attached to the work order or rate schedule.
<b>preventive maintenance cycle</b>	The sequence of events that make up a preventive maintenance task, from its definition to its completion. Because most preventive maintenance tasks are commonly performed at scheduled intervals, parts of the preventive maintenance cycle repeat, based on those intervals.
<b>preventive maintenance schedule</b>	The combination of service types that apply to a specific piece of equipment, as well as the intervals at which each service type is scheduled to be performed.
<b>primary service type</b>	A service type to which you can link related service types. For example, for a particular piece of equipment, you might set up a primary service type for a 1000-hour inspection and a linked service type for a 500-hour inspection. The 1000-hour inspection includes all of the tasks performed at 500 hours. When a primary service type is scheduled to be performed, the system schedules the linked service type. See also linked service type.
<b>pristine environment</b>	An EnterpriseOne environment that is used to test unaltered objects with PeopleSoft demonstration data or for training classes. You must have this environment so you can compare pristine objects that you modify.
<b>processing option</b>	A data structure that allows users to supply parameters that regulate the execution of a batch program or report.
<b>product data management (PDM)</b>	In PeopleSoft EnterpriseOne software, the system that enables a business to organize and maintain information about each item which it manufactures. Features of this system, such as bills of material, work centers, and routings, define the relationships among parents and components, and how they can be combined to manufacture an item. PDM also provides data for other manufacturing systems including Manufacturing Accounting, Shop Floor Management, and Manufacturing and Distribution Planning.
<b>product line</b>	A group of products with similarity in manufacturing procedures, marketing characteristics, or specifications that allow them to be aggregated for planning; marketing; and, occasionally, costing.
<b>product/process definition</b>	A combination of bill of material (recipe, formula, or both) and routing (process list). Organized into tasks with a statement of required consumed resources and produced resources.
<b>production environment</b>	An EnterpriseOne environment in which users operate EnterpriseOne software.

<b>program temporary fix (PTF)</b>	A representation of changes to PeopleSoft software that your organization receives on magnetic tapes or diskettes.
<b>project</b>	[In EnterpriseOne] A virtual container for objects being developed in Object Management Workbench.
<b>projected cost</b>	The target expenditure in added value for material, labor, and so on, during manufacture. See also standard cost.
<b>promotion path</b>	The designated path for advancing objects or projects in a workflow.
<b>protocollo</b>	See registration number.
<b>PST</b>	Provincial sales tax. A tax that is assessed by individual provinces in Canada.
<b>published table</b>	Also called a “Master” table, this is the central copy to be replicated to other machines and resides on the “publisher” machine. The Data Replication Publisher Table (F98DRPUB) identifies all of the published tables and their associated publishers in the enterprise.
<b>publisher</b>	The server that is responsible for the published table. The Data Replication Publisher Table (F98DRPUB) identifies all of the published tables and their associated publishers in the enterprise.
<b>pull replication</b>	One of the EnterpriseOne methods for replicating data to individual workstations. Such machines are set up as pull subscribers that use EnterpriseOne’s data replication tools. The only time that pull subscribers are notified of changes, updates, and deletions is when they request such information. The request is in the form of a message that is sent, usually at startup, from the pull subscriber to the server machine that stores the Data Replication Pending Change Notification table (F98DRPCN).
<b>query by example (QBE)</b>	Located at the top of a detail area, this area is used to search for data to display in the detail area.
<b>rate scheduling</b>	A method of scheduling product or manufacturing families, or both.  Also a technique to determine run times and quantities of each item within the family to produce enough of each individual product to satisfy demand until the family can be scheduled again.
<b>rate type</b>	For currency exchange transactions, the rate type distinguishes different types of exchange rates. For example, you can use both period average and period-end rates, distinguishing them by rate type.
<b>real-time</b>	Pertaining to information processing that returns a result so rapidly that the interaction appears to be instantaneous.
<b>receipt routing</b>	A series of steps that is used to track and move items within the receipt process. The steps might include in-transit, dock, staging area, inspection, and stock.

<b>referential integrity</b>	Ensures that a parent record cannot be deleted from the database when a child record for exists.
<b>regenerable</b>	Source code for EnterpriseOne business functions can be regenerated from specifications (business function names). Regeneration occurs whenever an application is recompiled, either for a new platform or when new functionality is added.
<b>register types and classes</b>	In Italian VAT Summary Reporting, the classification of VAT transactions.
<b>relationship</b>	Links tables together and facilitates joining business views for use in an application or report. Relationships that are created are based on indexes.
<b>relevé d'identité bancaire (RIB)</b>	In France, the term that indicates the bank transit code, account number, and check digit that are used to validate the bank transit code and account number. The bank transit code consists of the bank code and agency code. The account number is alphanumeric and can be as many as 11 characters. PeopleSoft supplies a validation routine to ensure RIB key correctness.
<b>remessa</b>	In Brazil, the remit process for A/R.
<b>render</b>	To include external data in displayed content through a linking mechanism.
<b>repasse</b>	In Brazil, a discount of the ICMS tax for interstate transactions. It is the adjustment between the interstate and the intrastate ICMS tax rates.
<b>replenishment point</b>	The location on or near the production line where additional components or subassemblies are to be delivered.
<b>replication server</b>	A server that is responsible for replicating central objects to client machines.
<b>report design aid (RDA)</b>	The EnterpriseOne GUI tool for operating, modifying, and copying report batch applications.
<b>repost</b>	In Sales, the process of clearing all commitments from locations and restoring commitments, based on quantities from the Sales Order Detail table (F4211).
<b>resident</b>	Pertaining to computer programs or data while they remain on a particular storage device.
<b>retorno</b>	In Brazil, the receipt process for A/R.
<b>RIB</b>	See relevé d'identité bancaire.
<b>ricevute bancarie (RiBa)</b>	In Italy, the term for accounts receivable drafts.
<b>riepilogo IVA</b>	Summary VAT monthly report. In Italy, the term for the report that shows the total amount of VAT credit and debit.
<b>ritenuta d'acconto</b>	In Italy, the term for standard withholding tax.
<b>rollback</b>	[In database management] A feature or command that undoes changes in database transactions of one or more records.

<b>rollup</b>	See cost rollup.
<b>row exit</b>	[In EnterpriseOne] An application shortcut, available as a button on the Row Exit bar or as a menu selection, that allows users to open a form that is related to the highlighted grid record.
<b>runtime</b>	The period of time when a program or process is running.
<b>SAD</b>	The German name for a Swiss payment format that is accepted by Postfinance.
<b>SAR</b>	See software action request.
<b>scalability</b>	The ability of software, architecture, hardware, or a network to support software as it grows in size or resource requirements.
<b>scripts</b>	A collection of SQL statements that perform a specific task.
<b>scrub</b>	To remove unnecessary or unwanted characters from a string.
<b>search/select</b>	A type of form that is used to search for a value and return it to the calling field.
<b>selection</b>	Found on PeopleSoft menus, selections represent functions that you can access from a menu. To make a selection, type the associated number in the Selection field and press Enter.
<b>serialize</b>	To convert a software object into a stream of bytes to store on a disk or transfer across a network.
<b>server map</b>	The server view of the object configuration mapping.
<b>server workbench</b>	During the Installation Workbench process, Server Workbench copies the server configuration files from the Planner data source to the System release number data source. It also updates the Server Plan detail record to reflect completion.
<b>service interval</b>	The frequency at which a service type is to be performed. Service intervals can be based on dates, periods, or statistical units that are user defined. Examples of statistical units are hours, miles, and fuel consumption.
<b>service type</b>	An individual preventive maintenance task or procedure, such as an inspection, lubrication, or overhaul. Service types can apply to a specific piece of equipment or to a class of equipment. You can specify that service types come due based on a predetermined service interval, or whenever the task that is represented by the service type becomes necessary.
<b>servlet</b>	A [small] program that extends the functionality of a Web server by generating dynamic content and interacting with Web clients by using a request-response paradigm.
<b>share path</b>	The network node under which one or more servers or objects reside.
<b>shop floor management</b>	A system that uses data from multiple system codes to help develop, execute, and manage work orders and rate schedules in the enterprise.

<b>silent mode</b>	A method for installing or running a program that does not require any user intervention.
<b>silent post</b>	A type of post that occurs in the background without the knowledge of the user.
<b>simulated cost</b>	After a cost rollup, the cost of an item, operation, or process according to the current cost scenario. This cost can be finalized by running the frozen update program. You can create simulated costs for a number of cost methods—for example, standard, future, and simulated current costs. See also cost rollup.
<b>single-byte character set (SBCS)</b>	An encoding scheme in which each alphabetic character is represented by one byte. Most Western languages, such as English, can be represented by using a single-byte character set.
<b>single-level tracking</b>	Finding all immediate parents where a specific lot has been used (consumed).
<b>single-voyage (spot) charter</b>	An agreement for a single voyage between two ports. The payment is made on the basis of tons of product delivered. The owner of the vessel is responsible for all expenses.
<b>slimer</b>	A script that changes data in a table directly without going through a regular database interface.
<b>smart field</b>	A data dictionary item with an attached business function for use in the Report Design Aid application.
<b>SOC</b>	The Italian term for a Swiss payment format that is accepted by Postfinance.
<b>soft commitment</b>	The number of items that is reserved for sales orders or work orders in the primary units of measure.
<b>soft error</b>	An error from which an operating system or program is able to recover.
<b>software action request (SAR)</b>	An entry in the AS/400 database that is used for requesting modifications to PeopleSoft software.
<b>SOG</b>	The French term for a Swiss payment format that is accepted by Postfinance.
<b>source directory</b>	The path code to the business function source files belonging to the shared library that is created on the enterprise server.
<b>special period/year</b>	The date that determines the source balances for an allocation.
<b>specification merge</b>	<p>The Specification merge is comprised of three merges:</p> <p>Object Librarian merge (via the Object Management Workbench).</p> <p>Versions List merge.</p> <p>Central Objects merge.</p> <p>The merges blend customer modifications with data that accompanies a new release.</p>



<b>specification table merge workbench</b>	During the Installation Workbench process, Specification Table Merge Workbench runs the batch applications that update the specification tables.
<b>specifications</b>	A complete description of an EnterpriseOne object. Each object has its own specification, or name, which is used to build applications.
<b>spot charter</b>	See single-voyage charter.
<b>spot rates</b>	An exchange rate that is entered at the transaction level. Spot rates are not used on transactions between two EMU member currencies because exchange rates are irrevocably fixed to the euro.
<b>stamp tax</b>	In Japan, a tax that is imposed on drafts payable, receipts over 30000 Japanese yen, and all contracts. The party that issues any of the above documents is responsible for this tax.
<b>standalone</b>	Operating or capable of operating independently of certain other components of a computer system.
<b>standard cost</b>	The expected, or target cost of an item, operation, or process. Standard costs represent only one cost method in the Product Costing system. You can also calculate, for example, future costs or current costs. However, the Manufacturing Accounting system uses only standard frozen costs.
<b>standard costing</b>	A costing method that uses cost units that are determined before production. For management control purposes, the system compares standard costs to actual costs and computes variances.
<b>subprocess</b>	A process that is triggered by and is part of a larger process, and that generally consists of activities.
<b>subscriber table</b>	The Subscriber table (F98DRSUB), which is stored on the Publisher Server with the Data Replication Publisher table (F98DRPUB), that identifies all of the subscriber machines for each published table.
<b>summary</b>	The presentation of data or information in a cumulative or totaled manner in which most of the details have been removed. Many systems offer forms and reports that summarize information which is stored in certain tables. Contrast with detail.
<b>super backflush</b>	To create backflush transactions for material, labor, or both, against a work order at predefined pay points in the routing. By doing so, you can relieve inventory and account for labor amounts at strategic points throughout the manufacturing process.
<b>supersession</b>	Specification that a new product is replacing an active product on a specified effective date.
<b>supplemental data</b>	Additional types of data for customers and suppliers. You can enter supplemental data for information such as notes, comments, plans, or other information that you want in a customer or supplier record. The system maintains this data in generic databases, separate from the standard master tables (Customer Master, Supplier Master, and Address Book Master).

<b>supplying location</b>	The location from which inventory is transferred once quantities of the item on the production line have been depleted. In kanban processing, the supplying location is the inventory location from which materials are transferred to the consuming location when the containers are replenished.
<b>system code</b>	A numeric or alphanumeric designation that identifies a specific system in EnterpriseOne software.
<b>system function</b>	[In EnterpriseOne] A named set of pre-packaged, re-usable instructions that can be called from event rules.
<b>table access management (TAM)</b>	The EnterpriseOne component that handles the storage and retrieval of user defined data. TAM stores information such as data dictionary definitions; application and report specifications; event rules; table definitions; business function input parameters and library information; and data structure definitions for running applications, reports, and business functions.
<b>table conversion workbench</b>	During the Installation Workbench process, Table Conversion Workbench runs the table conversions that change the technical and application tables to the format for the new release of EnterpriseOne. It also updates the Table Conversions and Controls detail records to reflect completion.
<b>table design aid (TDA)</b>	An EnterpriseOne GUI tool for creating, modifying, copying, and printing database tables.
<b>table event rules</b>	Use table event rules to attach database triggers (or programs) that automatically run whenever an action occurs against the table. An action against a table is referred to as an event. When you create an EnterpriseOne database trigger, you must first determine which event will activate the trigger. Then, use Event Rules Design to create the trigger. Although EnterpriseOne allows event rules to be attached to application events, this functionality is application-specific. Table event rules provide embedded logic at the table level.
<b>table handle</b>	A pointer into a table that indicates a particular row.
<b>table space</b>	[In relational database management systems] An abstract collection of containers in which database objects are stored.
<b>task</b>	[In Solution Explorer and EnterpriseOne Menu] A user defined object that can initiate an activity, process, or procedure.
<b>task view</b>	A group of tasks in Solution Explorer or EnterpriseOne Menu that are arranged in a tree structure.
<b>termo de abertura</b>	In Brazil, opening terms for the transaction journal.
<b>termo de encerramento</b>	In Brazil, closing terms for the transaction journal.
<b>three-tier processing</b>	The task of entering, reviewing, approving, and posting batches of transactions.
<b>three-way voucher match</b>	The process of comparing receipt information to supplier's invoices to create vouchers. In a three-way match, you use the receipt records, the purchase order, and the invoice to create vouchers.

<b>threshold percentage</b>	In Capital Asset Management, the percentage of a service interval that you define as the trigger for maintenance to be scheduled. For example, you might set up a service type to be scheduled every 100 hours with a threshold percentage of 90 percent. When the equipment accumulates 90 hours, the system schedules the maintenance.
<b>throughput agreement</b>	A service agreement in which a business partner agrees to store and manage product for another business partner for a specified time period. The second partner actually owns the stock that is stored in the first partner's depot, although the first partner monitors the stock level; suggests replenishments; and unloads, stores, and delivers product to the partner or its customers. The first partner charges a fee for storing and managing the product.
<b>throughput reconciliation</b>	Reconcile confirmed sales figures in a given period with the measured throughput, based on the meter readings. This process is designed to catch discrepancies that are due to transactions not being entered, theft, faulty meters, or some combination of these factors. This reconciliation is the first stage. See also operational reconciliation.
<b>token</b>	[In Object Management Workbench] A flag that is associated with each object which indicates whether you can check out the object.
<b>tolerance range</b>	The amount by which the taxes that you enter manually can vary from the tax that is calculated by the system.
<b>TP monitor</b>	Transaction Processing monitor. A monitor that controls data transfer between local and remote terminals and the applications that originated them. TP monitors also protect data integrity in the distributed environment and can include programs that validate data and format terminal screens.
<b>tracing</b>	The act of researching a lot by going backward, to discover its origin.
<b>tracking</b>	The act of researching a lot by going forward, to discover where it is used.
<b>transaction set</b>	An electronic business transaction (EDI Standard document) composed of segments.
<b>transclude</b>	To include the external data in the displayed content through a linking mechanism.
<b>transfer order</b>	An order that is used to ship inventory between branch/plants within your company and to maintain an accurate on-hand inventory amount. An interbranch transfer order creates a purchase order for the shipping location and a sales order for the receiving location.
<b>translation adjustment account</b>	An optional G/L account used in currency balance restatement to record the total adjustments at a company level.
<b>translator software</b>	The software that converts data from an application table format to an EDI Standard Format, and from EDI Standard Format to application table format. The data is exchanged in an EDI Standard, such as ANSI ASC X12, EDIFACT, UCS, or WINS.

<b>tree structure</b>	A type of graphical user interface that displays objects in a hierarchy.
<b>trigger</b>	<p>Allows you to attach default processing to a data item in the data dictionary. When that data item is used on an application or report, the trigger is invoked by an event which is associated with the data item. EnterpriseOne also has three visual assist triggers:</p> <p>Calculator.</p> <p>Calendar.</p> <p>Search form.</p>
<b>two-way voucher match</b>	The process of comparing purchase order detail lines to the suppliers' invoices to create vouchers. You do not record receipt information.
<b>universal batch engine (UBE)</b>	[In EnterpriseOne] A type of application that runs a noninteractive process.
<b>unnormalized</b>	Data that is a random collection of data elements with repeating record groups scattered throughout. Also see Normalized.
<b>user overrides merge</b>	The User Overrides merge adds new user override records into a customer's user override table.
<b>user-defined code (UDC)</b>	A value that a user has assigned as being a valid entry for a given or specific field.
<b>utility</b>	A small program that provides an addition to the capabilities which are provided by an operating system.
<b>variable numerator allocations</b>	A procedure that allocates or distributes expenses, budgets, adjustments, and so on, among business units, based on a variable.
<b>variable quantity</b>	A term that indicates the bill of material relationship between a parent item and its components or ingredients. When a bill of material component has a variable quantity relationship to its parent, the amount of the component changes when the software calculates parts list requirements for different work order quantities. Contrast with fixed quantity.
<b>variance</b>	<p>1. In Product Costing and Manufacturing Accounting, the difference between the frozen standard cost, the current cost, the planned cost, and the actual cost. For example, the difference between the frozen standard cost and the current cost is an engineering variance. Frozen standard costs come from the Cost Components table, and the current costs are calculated by using the current bill of material, routing, and overhead rates.</p> <p>2. In Capital Asset Management, the difference between revenue that is generated by a piece of equipment and costs that are incurred by the equipment.</p>
<b>versions list merge</b>	The Versions List merge preserves any non-XJDE and non-ZJDE version specifications for objects that are valid in the new release as well as their processing options data.
<b>VESR</b>	Verfahren Einzahlungsschein mit Referenznummer. The processing of an ESR pay slip with reference line through accounts receivable and accounts payable.

<b>visual assist</b>	Forms that can be invoked from a control to assist the user in determining what data belongs in the control.
<b>voucher logging</b>	The process of entering vouchers without distributing amounts to specific G/L accounts. The system initially distributes the total amount of each voucher to a G/L suspense account, where it is held until you redistribute it to the correct G/L account.
<b>wareki date format</b>	In Japan, a calendar format, such as Showa or Heisei. When a new emperor begins to reign, the government chooses the title of the date format and the year starts over at one. For instance, January 1, 1998, is equal to Heisei 10, January 1st.
<b>wash down</b>	A minor cleanup between similar product runs. Sometimes used in reference to the sanitation process of a food plant.
<b>wchar_t</b>	An internal type of a wide character. Used for writing portable programs for international markets.
<b>web server</b>	A server that sends information as requested by a browser and uses the TCP/IP set of protocols.
<b>work order life cycle</b>	In Capital Asset Management, the sequence of events through which a work order must pass to accurately communicate the progress of the maintenance tasks that it represents.
<b>workfile</b>	A system-generated file that is used for temporary data processing.
<b>workflow</b>	According to the Workflow Management Coalition, workflow means “the automation of a business process, in whole or part, during which documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.”
<b>workgroup server</b>	A network server usually containing subsets of data that are replicated from a master network server.
<b>WorldSoftware architecture</b>	The broad spectrum of application design and programming technology that PeopleSoft uses to achieve uniformity, consistency, and complete integration throughout its software.
<b>write payment</b>	A step in processing payments. Writing payments includes printing checks, drafts, and creating a bank tape table.
<b>write-off</b>	A method for getting rid of inconsequential differences between amounts. For example, you can apply a receipt to an invoice and write off the difference. You can write off both overpayments and underpayments.

<b>Z file</b>	For store and forward (network disconnected) user, EnterpriseOne store-and-forward applications perform edits on static data and other critical information that must be valid to process an order. After the initial edits are complete, EnterpriseOne stores the transactions in work tables on the workstation. These work table are called Z files. When a network connection is established, Z files are uploaded to the enterprise server; and the transactions are edited again by a master business function. The master business function then updates the records in your transaction files.
<b>z-process</b>	A process that converts inbound data from an external system into an EnterpriseOne software table or converts outbound data into an interface table for an external system to access.
<b>zusammenfassende melding</b>	In Germany, the term for the EU Sales Listing.

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