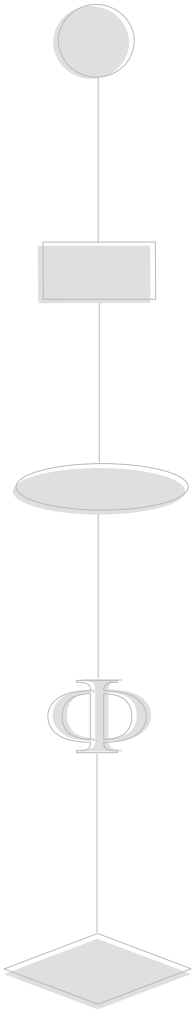
E-iProcess Suite



WORKFLOW · BPR

Reporting Guide
Version 3.4

HOLOSOFX

Reporting Guide

Workflow·BPR

Version 3, Release 4

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1. About This Reporting Guide

Information required to use Workflow•BPR™ in the context of Business Process Representation is provided in this document.

The chapters in this Reporting Guide are functionally organized, focusing on the main functions of process modeling and the use of Workflow•BPR.

Chapter 1: *Charts* describes how to create and manipulate charts.

Chapter 2: *Diagrams* describes how to create and manipulate diagrams.

Chapter 3: *Paths* describes how to trace a path through a Process.

Chapter 4: *Tables* describes how to create and manipulate tables.

Chapter 5: *Weighted Average Reports* describes how to create Weighted Average reports.

Chapter 6: *Analysis Reports* describes how to create Analysis reports.

Chapter 7: *Procedure Reports* describes how to create Procedure reports.

Chapter 8: *Documentation Reports* describes how to create Documentation reports.

Chapter 9: *Data Matrices* describes how to create Data Matrices for a Process.

Index: Provides an index of key words that are used throughout the User's Guide.

1.1 Related Guides

Getting Started provides installation information, a tour of the Workflow•BPR application, and a short tutorial to assist you in quickly becoming familiar with Workflow•BPR.

User's Guide provides a general introduction to Workflow•BPR, a description of the contents of the Repository, and information about how to customize the Workflow•BPR application.

Modeling Guide provides information about the objects used to create Process Models and how to handle specific situations in a Process Model.

Analysis Guide provides information about how to perform Case, Weighted Average, and Simulation Analysis.

Tutorial provides a "hands-on" practice session that will familiarize you with the basic components of Workflow•BPR and how to use the software for BPR. The Tutorial takes approximately four to six hours to complete.

Integration with Workflow Applications Guide provides documentation for capturing and exporting additional modeling data that can be used by the workflow products that Workflow•BPR supports.

1.2 Document Conventions

This User's Guide uses the typographic conventions as shown in the following table:

Example	Description
File menu	Within instructions, items that appear in a Workflow•BPR window or dialog box appear in **bold**.
Choose	Instructions, which specify user actions that involve using the mouse, are preceded by a mouse symbol.
Type	Instructions, which specify user actions that involve using the keyboard, are preceded by a keyboard symbol.
Ctrl+V	A plus sign (+) between key names indicates a combination of keys. For example, Ctrl+V means to hold down the **Ctrl** key while pressing the **V** key.
Task	Words that refer to Workflow•BPR data objects (e.g., Task) are capitalized. The same words used in a generic sense (e.g., "…the tasks performed by the organization…") are not capitalized.
Note:	Throughout the document, points of emphasis will be highlighted and marked with a hand holding a pen icon.
Pointer:	Throughout the document, tips or pointers will be highlighted and marked with hand and index finger pointing icon.

Table of Contents

Chapter 1: Charts

One of the most powerful features of Workflow•BPR is its ability to represent your organization's information in a number of different ways. As you develop the Repository and Activity Decision Flow Diagrams, you can display the associated information in tables, Gantt charts, standard charts, and a variety of specialized diagrams. The View and Reports features is utilized to display the information contained in your organization file in chart or diagram form. You can view different paths in an Activity Decision Flow Diagram using the Display Path command in the Process menu, with the Table feature being used to represent the organization and Process data in table format. In addition, you can generate a powerful, pre-defined set of analysis reports using the Report menu command.

Workflow•BPR allows you to view the following three types of charts:

- Gantt Chart
- Resource Requirements Chart
- Table Chart

These three types of charts are only appropriate for viewing information concerning a Generated Case. A Process with Decisions within the flow is really a set of related Processes; each path through the Decision flow can be considered a separate Process. The charts listed in this section do not take into account the conditional probabilities that are created when the Decisions create branches within the flow of a Process. Therefore, the data presented in these types of charts would be misleading if displayed with data from a Process with Decisions.

1.1 Gantt Chart

A Gantt chart is a specialized view of your organization's work, combining both a table and a bar graph. The right portion of the chart, called the Gantt bar graph, graphically displays scheduling information as horizontal bars on a timeline for the active diagram. The left portion of the chart, called the Gantt table, displays Task information for the active diagram. You create a Gantt chart by issuing the Gantt chart command from the **View** menu.

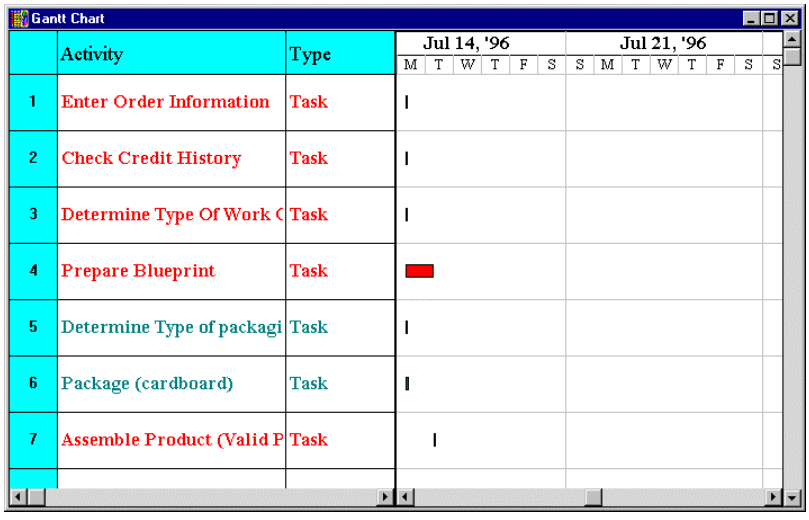
When you understand what a **Critical Path** is, it is easier to understand a Gantt chart. A Critical Path is composed of a series of Tasks that your organization must start and finish as scheduled to meet a specified completion date. Non-critical Tasks are activities that your organization can begin earlier or end later without affecting the completion date. For a non-critical Task, this time difference is called float time. By definition, float time is the time difference between an early start and a late start or an early finish and a late finish. The Gantt bar chart displays activity duration information for both Critical and non-Critical Paths. The bars in the Gantt bar chart are color-coded to indicate whether a Task is critical or non-critical. Float time is represented in Workflow•BPR by a different pattern within the horizontal bar representing a non-Critical Path activity.

Once your Gantt chart has been created, the Gantt table, Gantt bar chart, and timeline are handled separately. You use commands from the Table menu to format the Gantt table's headings or to filter Gantt table information. Commands from the Format menu are used to define or change the time scale elements in your Gantt charts, and to define or change the way the bars and any associated information representing scheduling options for selected activities appear. The following are the procedures for creating and closing a Gantt chart:

1.1.1 Creating a Gantt Chart

To create a Gantt chart:

1. Open the Generated Case window containing the information you want to view.
2. Choose **Gantt Chart** from the **View** menu. Workflow•BPR automatically displays the Gantt chart for the selected category (see the figure below).



1.2 Resource Requirements Chart

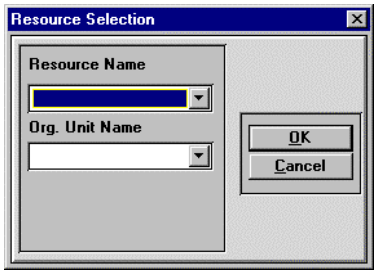
A Resource Requirements chart displays how much time is required per Organization Unit for each Resource to perform its assigned work on a Task included in an opened diagram. Workflow•BPR represents the time each Resource requires as a separate vertical bar for each activity. If you have allocated sufficient Resources to complete the activity, the entire bar appears blue. If you have not allocated sufficient Resources, the bar, or a portion of it, will appear pink. Use the Resource Allocation dialog box to allocate Resources to an Organization Unit (refer to the section entitled "Organization Units" in Chapter 2 of the *User's Guide*).

To create a Resource Requirements chart, you must first open either a Process or a Generated Case. When you select the Resource Requirements command from the View menu, Workflow•BPR opens the Resource Selection dialog box where the Resource type and Organization Unit name can be identified. The Resource Selection dialog box allows for selecting the Resource and the Organization Unit on which the Resource Requirements chart will focus.

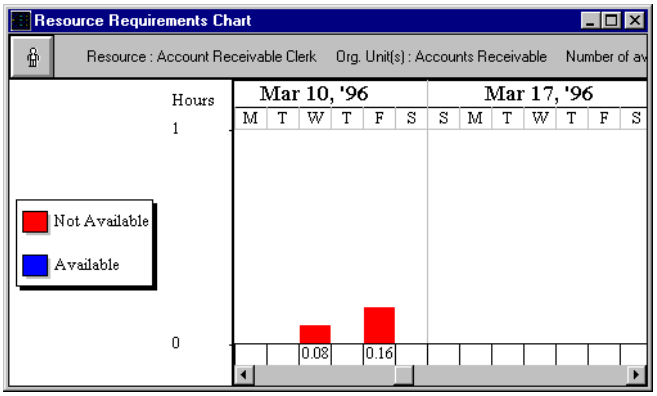
1.2.1 Creating a Resource Requirements Chart

To create a Resource Requirements chart:

1. Open the **Generated Case** window containing the information you want to view.
2. Choose **Resource Requirements Chart** from the View menu. The **Resource Selection** dialog box appears (see the figure below).



3. Select a **Resource** from the **Resource Name** selection box.
4. Select an **Organization Unit** from the **Org. Unit Name** selection box.
5. Click OK. Workflow•BPR then displays the **Resource Requirements Chart** for those particular selections (see the figure below).



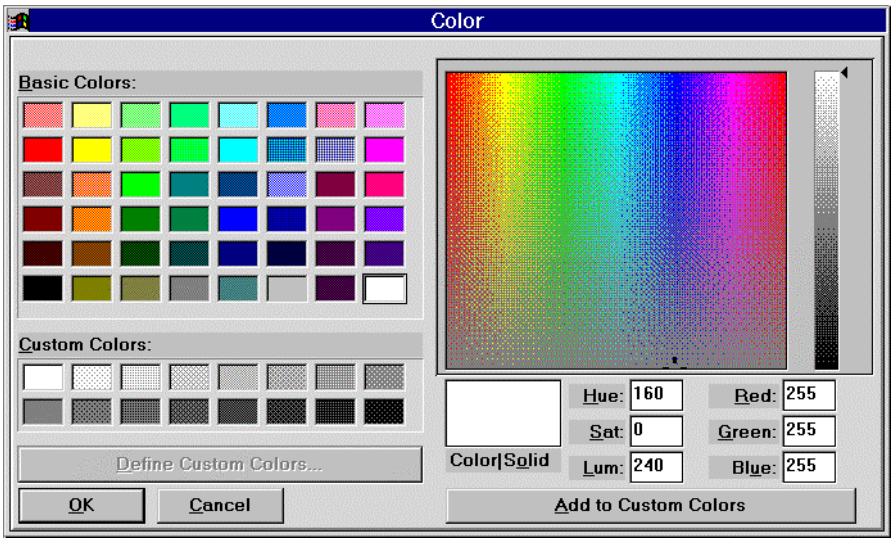
6. To select a new focal Resource and its associated Organization Unit, click the **Resource Selection** button  to display the **Resource Selection** dialog box (see the figure on the right).

1.2.2 Table Charts

One of the greatest strengths of Workflow•BPR is that summary outputs can be created by displaying table information as a chart. Since the information presented on a chart is easily accessible to the viewer, charts can provide a forceful visual representation of your organization's data. An assortment of different types of charts can be created in Workflow•BPR: column charts, line charts, pie charts, and area charts. Of these, column and pie charts can be displayed in either two or three dimensions. Workflow•BPR displays the three-dimensional column chart as default.

Charts are generated from the data that is contained in tables. For tables that display Repository data, the generated charts are in a window that is subordinate to the Application window—this means that only the Application window has precedence over the Charts window. For tables that display Process data, the generated charts are in a window that is subordinate to the Process window—this means that the Process window has precedence over the Charts window (it is contained within the Process window). Each Chart window contains a chart, a legend, and a toolbar.

No matter which chart style is selected, chart elements in Workflow•BPR are context-sensitive. When a chart segment is clicked, Workflow•BPR highlights its corresponding legend entry. If you double-click a chart segment, background, or legend, Workflow•BPR displays the Color dialog box so that the color of the selected item can be changed (see the figure below). If the color of a chart segment is changed, Workflow•BPR immediately updates the legend to reflect the changes.



Workflow•BPR provides a two-step creation process for a set of table charts that provides unique views into the Process. You can either use one of the Quick Charts or you can aggregate table data into a new (custom) chart.

1.2.3 Quick Charts

Quick Charts are provided to allow for quickly displaying table information in a chart format. The following is a list of the standard charts and a brief description of their contents:

- **Activity Costs:** Resource cost of a Process per activity
- **Activity Time:** Resource time of a Process per activity
- **Resource Type Costs:** Resource cost of a Process per type of Resource
- **Resource Costs:** Resource cost of a Process per Resource
- **Resource Time:** Resource time of a Process per Resource
- **Org. Unit Time:** Elapsed duration of a Process per Organization Unit
- **Classification Costs and Classification Time:** Resource costs and time for a Process. These charts are based on the following Classifications:
    - Value-Added
    - Quality Control
    - Workflow
    - Classification 4
    - Classification 5

The following table presents the standard charts, the table that is the source of the chart, the numeric field of the chart, the non-numeric field upon which the data is aggregated, and the type of chart. If the steps illustrated in the next section are followed, you will be able to develop the same charts that were created through the Standard Table Chart feature.

Sub-Menu Item Label	Source of Chart	Data	Aggregated On	Chart Type
Activity Costs	Resource Requirements Table	Resource Work Std. Cost	Activity	Bar
Activity Time	Resource Requirements Table	Time Required	Activity	Bar
Resource Type Costs	Resource Requirements Table	Resource Work Std. Cost	Resource Type	Pie
Resource Costs	Resource Requirements Table	Resource Work Std. Cost	Resource	Bar
Resource Time	Resource Requirements Table	Time Required	Resource	Bar
Org. Unit Time	Activities Table	Elapsed Duration	Responsible Entity	Bar
Classification Costs				
Value-Added	Resource Requirements Table	Resource Work Std. Cost	Value-Added	Pie
Quality Control	Resource Requirements Table	Resource Work Std. Cost	Quality Control	Pie
Workflow	Resource Requirements Table	Resource Work Std. Cost	Workflow	Pie
Classification 4	Resource Requirements Table	Resource Work Std. Cost	Classification 4	Pie
Classification 5	Resource Requirements Table	Resource Work Std. Cost	Classification 5	Pie
Classification Time				
Value-Added	Resource Requirements Table	Time Required	Value-Added	Pie
Quality Control	Resource Requirements Table	Time Required	Quality Control	Pie
Workflow	Resource Requirements Table	Time Required	Workflow	Pie
Classification 4	Resource Requirements Table	Time Required	Classification 4	Pie
Classification 5	Resource Requirements Table	Time Required	Classification 5	Pie

1.2.3.1 Opening Quick Charts

To open a Quick Chart:

1. When a Generated Case is the active window, select Quick Charts from the View menu. A sub-menu appears.
2. Select a chart from the Quick Charts sub-menu. The selected chart appears.

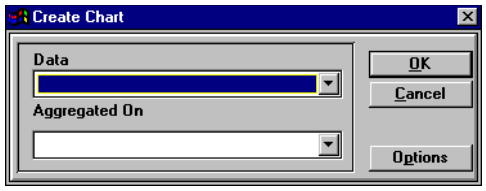
1.2.4 Custom Table Charts

1.2.4.1 Creating a Chart

In Workflow•BPR, a chart is created by choosing a numeric field from a selected table and aggregating it on a non-numeric field. Therefore, to create a chart, you must first open a table. When the Custom command is selected from the Table Charts sub-menu of the View menu, Workflow•BPR displays a dialog box from which both the numeric data and the non-numeric field you want the chart to represent are selected. Click OK. Workflow•BPR then opens up a chart in its own separate window.

To create a chart:

1. Open a table from the **Table** menu (refer to the section entitled "Opening a Repository Organization Data Table" on page 4-1 for more information about opening tables).
2. Choose **Custom Charts** from the **View** menu. The **Create Chart** dialog box appears (see the figure below).



3. Select a numeric field from the **Data** selection box.
4. Select a non-numeric field from the **Aggregated On** selection box.
5. Click **OK**. Workflow•BPR then displays a chart for those particular selections.

1.2.4.2 Formatting a Chart

You format a chart by using either the Options command button from the Create Chart dialog box, or by clicking the Options button on the Chart toolbar. Either choice displays the Options dialog box where your chart's format can be defined.

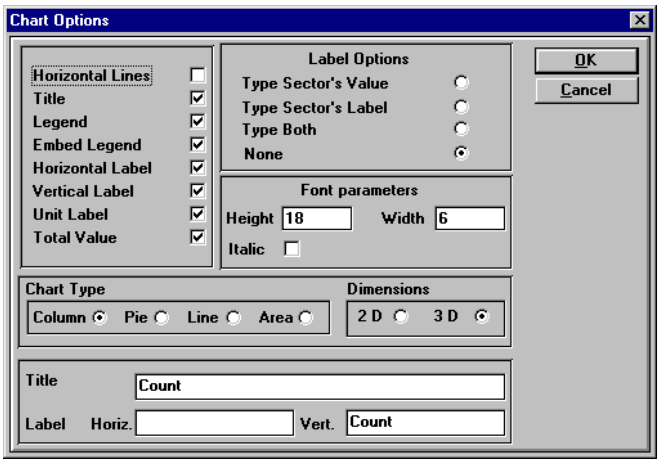
The following are fields within the Options dialog box and an explanation of how they affect the display of the chart:

- **General Options**: A series of check boxes that allow you to toggle the display of:
  - **Horizontal Lines:** Horizontal lines in any chart other than a pie chart.
  - **Title:** The chart's title.
  - **Legend:** The chart's legend.
  - **Horizontal Label:** Horizontal labeling information in any chart other than a pie chart.
  - **Vertical Label:** Vertical labeling information in any chart other than a pie chart.
  - **Unit Label:** A unit label associated with a plotted variable in any chart other than a pie chart.
  - **Total Value:** A total amount based on your selected currency in the lower right-hand corner of the chart.
- **Label Options:** Four radio buttons that control the display of the following:
  - **Type Sector's Value:** For pie charts, it displays the percentage of the chart item; for all other types of charts, it displays the value of the chart item.
  - **Type Sector's Label:** No label is displayed for the chart items.
  - **Type Both:** Displays the value of the chart item.
  - **None:** No label is displayed for the chart items.
- **Font Parameters:** Two numeric fields and a check box that control the characteristics of the chart's text:
  - **Height:** Controls the height of the chart font.
  - **Width:** Controls the width of the chart font.
  - **Italic:** Displays the chart text in Italics.

- **Chart Type:** Four radio buttons that control the type of chart that is displayed:
  - **Column:** Displays a column chart.
  - **Pie:** Displays a pie chart.
  - **Line:** Displays a line chart.
  - **Area:** Displays an area chart.
- **Dimensions:** Two radio buttons that control the number of dimensions of the chart:
  - **2D:** Displays the chart in two dimensions.
  - **3D:** Displays the chart in three dimensions for pie and column charts.
- **Title:** The text showing the title of the chart.
- **Label:** : Two text fields for the axis labels:
  - **Horiz.:** The text showing the horizontal label of the chart.
  - **Vert.:** The text showing the vertical label of the chart.

To format a chart:

1. Click either **Options** in the **Create Chart** dialog box or the **Options** button on the **Chart** toolbar. The **Chart Options** dialog box appears.



2. Click the appropriate radio button to select a chart type. If you select Pie or **Column**, click the appropriate radio button to select either **2D** or **3D**.
3. Click the appropriate check box to select one or more of the following features: Horizontal Lines, Title, Legend, Embed Legend, Horizontal Label, Vertical Label, Unit Label, and Total Value.
4. If you select **Title, Horizontal Label**, or **Vertical Label**, Workflow•BPR provides default labels. To change the default label information, type the new label information in the appropriate text box.
5. Click the appropriate radio button to select one option from the Label Options category: **Type Sector's Value, Type Sector's Label, Type Both**, or **None**.
6. To define the Label font height or width in your chart, type in the size unit preferred in the appropriate text boxes. Maximum height for a font is 18 units and maximum width for a font is six (6) units. Click the **Italic** check box to select italicized labels.
7. Click **OK**. Workflow•BPR immediately updates your chart to reflect the new options.

1.2.5 Changing the Colors Appearing in the Chart

To change the colors that appear in a chart:

1. Double Click on any colored object appearing in your chart or anywhere in the background. Workflow•BPR displays the Color dialog box.
2. To select a pre-defined color, click once on the color you want. To select a customized color, first select a pre-defined color close to the shade preferred. Notice that Workflow•BPR places a cursor in the spectrum map

defining that color. Click and drag the cursor in the spectrum map until the shade changes to the one you want, then click **Add To Custom Color**. Click **OK**. Workflow•BPR immediately updates your chart to reflect the new options.

1.3 The Chart Toolbar

The Chart toolbar contains the following three buttons:

- **Print:** Accesses the Print dialog box so you can print your chart (refer to the section entitled "Print" in Chapter 6 of the *User's Guide*).
- **Print Preview:** Accesses the Print Preview window so you can preview and then print your chart (refer to the section entitled "Print Preview" in Chapter 6 of the *User's Guide*).
- **Options:** Changes the format of your chart after it has been generated (refer to Formatting a Chart on page 1-8 of this document).

Chapter 2: Diagrams

There are three types of diagrams: the Process Tree Diagram displays the branching of your Process; the Organization Chart Diagram displays your Organization Units in either a vertical or horizontal branching format; and the Communication Diagram displays the input/output relationships between different organization entities.

2.1 Process Tree Diagram

Workflow•BPR allows you to view a Process Tree Diagram. This diagram iconically represents all of the Processes within your organization file. The diagram is a tree diagram because it displays the hierarchical relationships between the Processes. Any Process diagram can contain other, subordinate Processes. The Process Tree Diagram displays Subordinate Processes as a lower-level that is connected to the higher-level Process. Each level can have a subordinate level—thus, the tree grows. There can be many independent, top-level Processes in the Process Tree Diagram. A single Process may be displayed in many places in the Process Tree Diagram if it is subordinate to many Processes. The Process icon (in the shape of a square) is colored according to the color of the Organization Unit that is responsible for the Process.

The Process Tree Diagram window allows you to:

- Display your Process tree in either a vertical or horizontal branching format.
- Select one or more Processes to open them.
- Select one or more Processes to lock them. The locking feature prevents any data from being broadcast to the Process from your Organization Repository. This feature helps in protecting Process data.

If you click on any point in the window, a pop-up window appears that shows the top parent unit in your Process.

2.1.1 The Process Tree Toolbar

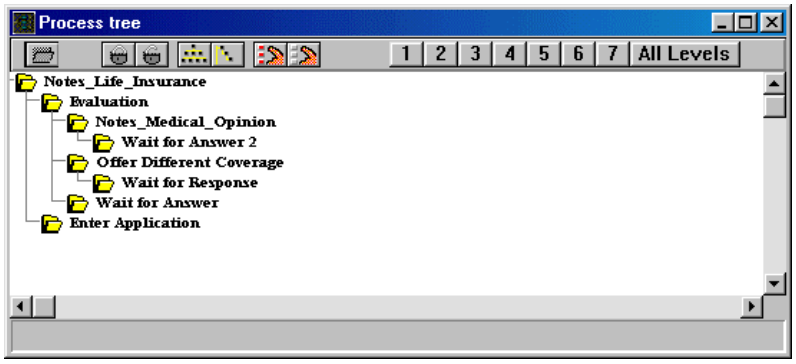
The Process Tree toolbar contains the following 15 buttons:

- **Open Selected Processes:** Opens all Processes that are highlighted in the window. The Process Tree Diagram will then close.
- **Lock Selected Processes:** Locks all Processes that are highlighted in the window. An icon of a lock will appear next to the Process.
- **Unlock Selected Processes:** Unlocks all Processes that are highlighted in the window. The icon of a lock next to the Process will be removed.
- **Display Horizontal Tree:** Displays the tree in a horizontal format.
- **Display Vertical Tree:** Displays the tree in a vertical format.
- **Select All Processes:** Highlights all Processes in the window.
- **Deselect All Processes:** Removes the highlight from all Processes that are highlighted in the window.
- **1:** Displays only the first level of the tree hierarchy for each independent top-level Process.
- **2:** Displays up to the first two levels of the tree hierarchy for each independent top-level Process.
- **3:** Displays up to the first three levels of the tree hierarchy for each independent top-level Process.
- **4:** Displays up to the first four levels of the tree hierarchy for each independent top-level Process.
- **5:** Displays up to the first five levels of the tree hierarchy for each independent top-level Process.
- **6:** Displays up to the first six levels of the tree hierarchy for each independent top-level Process.
- **7:** Displays up to the first seven levels of the tree hierarchy for each independent top-level Process.
- **All Levels:** Displays all levels of the tree hierarchy for each independent top-level Process.

2.1.2 Opening a Process Tree Diagram

To open a Process Tree Diagram:

1. Select **Process Tree** from the **Process** menu (see the figure below).



   * A **Wait** dialog box appears. If you want to stop, click Cancel.

2. A **Process Tree Diagram** appears in its vertical branching default format.
3. To represent the Process tree in a horizontal branching format, click the **Display Horizontal Tree** button. To represent the Process tree again in a vertical format, click the **Display Vertical Tree** button.
4. To select one or more Processes, click the folder beside the Process name in the vertical branching diagram, or the Process folder itself in the horizontal branching diagram.

   * You can select all Processes at once by clicking the **Select All Processes** button, and deselect all of them by clicking the **Deselect All Processes** button.

5. To lock a Process, select it first, and then click the **Lock Selected Processes** button. A small lock drawing will appear beside the Process name in the vertical branching diagram, or in the lower right corner of the Process square in the horizontal branching diagram.
6. To unlock a Process, click the **Unlock Selected Processes** button. The small lock icon will be removed.

7. To determine the number of Process levels to be displayed, click the number 1, 2, 3, 4, 5, 6, or 7. The **Process Tree Diagram** will display the specified number of levels. Click **All Levels** to display all your Process structure levels.
8. To open a Process, select it first, and then click the **Open Selected Processes** button. The Process window is opened with the **Activity Decision Flow Diagram.**
   * More than one Process can be selected, and Workflow•BPR will open all of them.
   * To deselect a Process, click again on the selected folder, or click on the **Deselect All Processes** Button.

2.2 Organization Chart

An Organization Chart represents your organization's structure, which is defined by the Organization Units that are in the Workflow•BPR Repository. Each Organization Unit can be assigned a head unit to which it is subordinate. In this way, an organizational hierarchy can be developed. The Organization Chart displays the organizational hierarchy. The boxes in the Organization Unit icon (which is the shape of a square) are colored according to the color that is assigned to them in the Repository.

The Organization Chart has two formats. The Default format is the vertical structure where all the Organization Units are listed vertically and linked to their subordinates. The Horizontal format displays your organization structure in a hierarchical, managerial level where all the subordinates of a certain entity are drawn in a lower level. In both formats, you can specify the number of levels to be displayed. In such cases, entities, which have hidden subordinates, are displayed.

2.2.1 The Organization Chart Toolbar

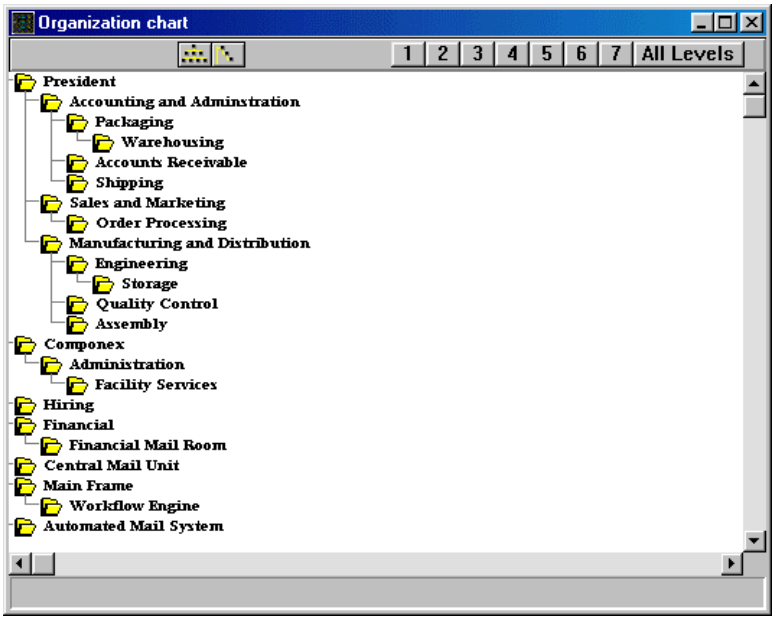
The Organization Chart toolbar contains the following 10 buttons:

- **Display Horizontal Tree:** Displays the tree in a horizontal format.
- **Display Vertical Tree:** Displays the tree in a vertical format.
- **1:** Displays only the first level of the tree hierarchy for each independent top-level Organization Unit.
- **2:** Displays up to the first two levels of the tree hierarchy for each independent top-level Organization Unit.
- **3:** Displays up to the first three levels of the tree hierarchy for each independent top-level Organization Unit.
- **4:** Displays up to the first four levels of the tree hierarchy for each independent top-level Organization Unit.
- **5:** Displays up to the first five levels of the tree hierarchy for each independent top-level Organization Unit.
- **6:** Displays up to the first six levels of the tree hierarchy for each independent top-level Organization Unit.
- **7:** Displays up to the first seven levels of the tree hierarchy for each independent top-level Organization Unit.
- **All Levels**: Displays all levels of the tree hierarchy for each independent top-level Organization Unit.

2.2.2 Opening an Organization Chart

To open an Organization Chart:

1. Choose **Organization Chart** from the **View** menu. Workflow•BPR displays the **Organization Chart** window with the default organization structure, showing your vertical branching Organization Chart (see the figure below).



2. To determine the number of organizational levels to be displayed, click **1, 2, 3, 4, 5, 6,** or **7**. The Organization Chart with the required number of levels will be displayed. Click **All Levels** to display all your organization structure levels.
3. To display the horizontal branching of your organization chart, click the **Display Horizontal Tree** button. To display again the vertical branching of your organization chart, click the **Display Vertical Tree** button.

2.3 Communication Diagram

Communication Diagrams show a Process Diagram from the perspective of a specified entity—for example, an Organization Unit—and its interdependencies with other entities. Workflow•BPR defines these interdependencies by the Phis that flow between the entities. The Response Entity is the focal point of the diagram. Communication Diagrams are utilized to validate the flow between Organization Units in your organization; as such, Communication Diagrams can be used for enterprise modeling.

To create a Communication Diagram, you must first open a Generated Case. When you select the Communication Diagram command from the View menu, Workflow•BPR opens a Communication Diagram window as a subordinate window inside the Generated Case window. The Generated Case window has precedence over the Communication Diagram window; otherwise, this window has all of the characteristics of a standard window, including its own toolbar.

2.3.1 The Communication Diagram Toolbar

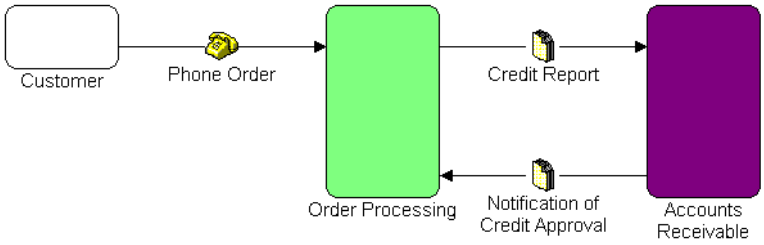
The Communication Diagram toolbar contains three buttons:

- **Zoom In:** Increases the scale of the image inside the Communication Diagram window by one increment.
- **Zoom Out:** Decreases the scale of the image inside the Communication Diagram window by one increment.
- **Response Entity:** Chooses the Organization Unit upon which the Communication Diagram will focus.

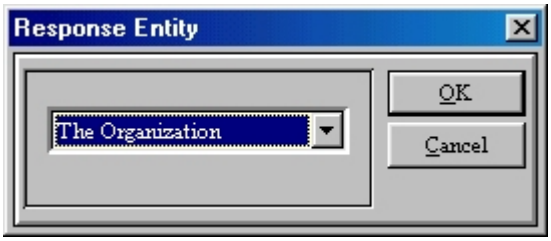
2.3.2 Creating a Communication Diagram

To create a Communication Diagram:

1. Open a Generated Case.
2. Choose **Communication Diagram** from the **View** menu. Workflow•BPR displays the Communication Diagram window with the default Communication Diagram View, showing your Organization Communication Diagram (see the figure below).



3. To select a **Response Entity**, which is the focal entity for the diagram, click the **Response Entity** button. Workflow•BPR displays the **Response Entity** dialog box (see the figure below). Click the down arrow to display the list of available response entities, then click once to make a selection. Workflow•BPR then displays the **Communication Diagram** for that particular **Response Entity**.



Chapter 3: Paths

Workflow•BPR uses two types of lines to draw connectors and the outlines of Process Objects in an Activity Decision Flow Diagram: Marked and Unmarked. Marked lines are, by default, red, and Unmarked lines are, by default, blue. You can change the color and line style of Marked and Unmarked lines in the Drawing Options window (refer to the section entitled "Customizing Activity Diagrams Using Drawing Options" in Chapter 6 of the *User's Guide*).

Marked lines are used to trace one of the three types of Paths in a drawing: the Critical Path, the Phi Path, and the Classifications Path. You can also use the Clear Path command to clear any tracing and have all the lines be Unmarked.

- ✍ **The Path features are not available in the IBM FlowMark Editing Mode or the IBM MQ Workflow Editing Mode.**

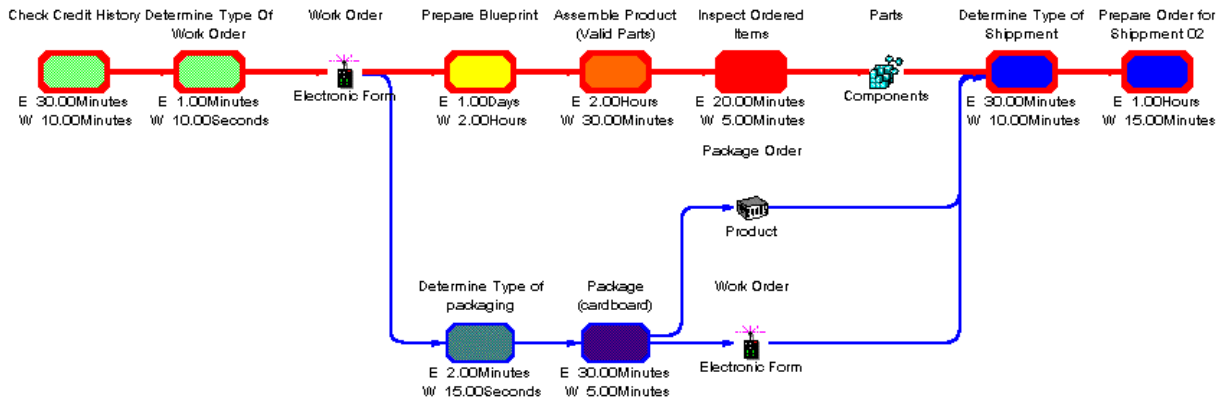
3.1 Critical Path

The Critical Path is the path with the longest duration in an Activity Decision Flow Diagram. It links all the activities that must occur as scheduled in order for the completion date to be met. In addition to viewing the Critical Path as horizontal bars in a Gantt chart, you can also view the critical line connecting critical activities in an Activity Decision Flow Diagram.

- ✍ **The Critical Path feature is only available for Generated Cases.**

- ✍ **The Critical Path feature is not available in the IBM FlowMark Editing Mode or the IBM MQ Workflow Editing Mode.**

The figure below demonstrates a Critical Path. The thick lines that connect and surround the Tasks in the drawing are the Marked lines of the Critical Path. The Marked lines are thicker to illustrate the difference between the Marked and Unmarked lines. By default, Marked and Unmarked lines have the same thickness.



3.1.1 Tracing the Critical Path

To trace a Critical Path:

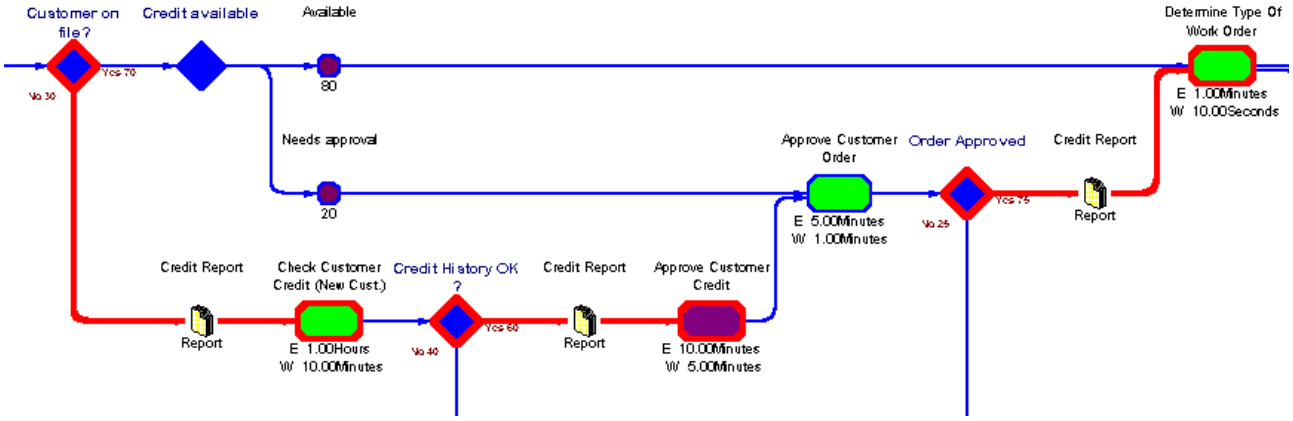
1. Open a Generated Case.
2. Select **Trace Critical Path** from the **Process** menu. Workflow•BPR then marks the Tasks and connectors that lie in the **Critical Path**.

3.2 Phi Path

A Phi Path shows all of the activities involved with a selected Phi in either a Process or a Generated Case. You can trace a Phi Path to track the progression and transformation of a specified Phi.

> **The Phi Path feature is not available in the IBM FlowMark Editing Mode or the IBM MQ Workflow Editing Mode.**

The figure below demonstrates a Phi Path. The thick lines that connect and surround the objects in the drawing are the Marked lines of the Phi Path. The Marked lines are thicker to illustrate the difference between the Marked and Unmarked lines. By default, Marked and Unmarked lines have the same thickness.



3.2.1 Tracing the Phi Path

To trace and cancel a Phi Path:

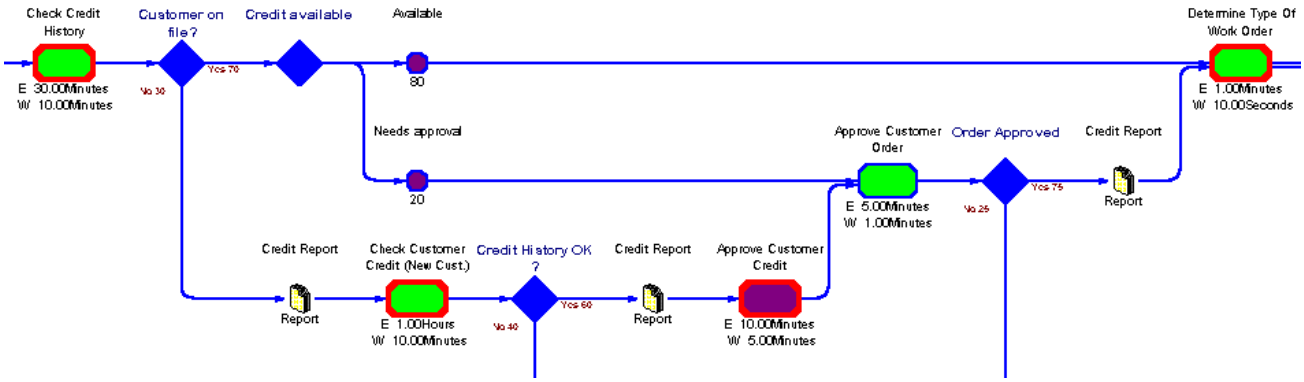
1. Open a Process or a Generated Case.
2. Select a **Phi** object.
3. Select **Trace Phi Path** from the **Process** menu. Workflow•BPR then Marks the Tasks connected to the instances of the selected Phi and Marks the connectors between the Phis and Tasks.

3.3 Classification Path

A Classification Path shows all of the activities that share a particular Classification within the context of an active Process or Generated Case. You use a Classification Path to mark specific activities based upon a Classification item, such as real value-added or business value-added.

> ✍ **The Classification Path feature is not available in the IBM FlowMark Editing Mode or the IBM MQ Workflow Editing Mode.**

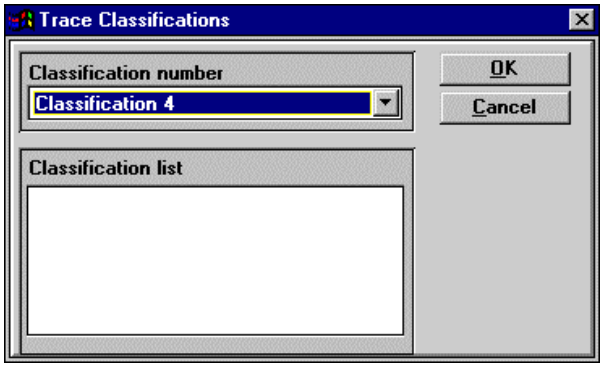
The figure below demonstrates a Classification Path. The thick lines that surround the Tasks in the drawing are the Marked lines of the Classification Path. The Marked lines are thicker to illustrate the difference between the Marked and Unmarked lines. By default, Marked and Unmarked lines have the same thickness.



3.3.1 Tracing a Classification Path

To trace a Classification Path:

1. Open a Process or a Generated Case.
2. From the **Process** menu, select the **Trace Classifications** command. The **Trace Classifications** dialog box appears (see the figure below).



3. In the **Trace Classifications** dialog box, select a **Classification** from the **Classification Number** selection box, and then select a **Classification** item from the **Classification** list. Workflow•BPR then Marks the Tasks that are assigned to the selected Classification item.

3.4 Clear Trace

Any of the tracings that are mentioned in the three (3) sections above can be cleared so that only the (default) blue, unmarked lines are displayed.

> ✍ **The Clear Trace feature is not available in the IBM FlowMark Editing Mode or the IBM MQ Workflow Editing Mode.**

To clear a Marked path:

1. Select the **Clear Trace** command from the **Process** menu. Workflow•BPR then displays the **Activity Decision Flow Diagram** in its previous state (i.e., all the lines are Unmarked).

Chapter 4: Tables

Tables display numeric and non-numeric data contained in an organization file. There are three categories of data that you can display using standard tables: Repository Organization Data, Repository Process Data, and Process Data. Repository Organization Data and Repository Process Data tables contain all of the information from their respective sections in the Repository. Process Data tables contain information derived from the active Process window. When the information category from the Table menu is selected for viewing, a default table for that information is opened. You then sort, filter, or format that information using the other Table menu features.

The windows for the tables that display Repository data are subordinate to the Application window—this means that only the Application window has precedence over the Table window. The windows for the tables that display Process data are subordinate to the Process window—this means that the Process window has precedence over the Table window (it is contained within the Process window). Workflow•BPR automatically displays scroll bars if the table information is larger than the current dimensions of the View window. Every table is separated into rows and columns; Workflow•BPR lists each entry field as a column and each entry as a separate row. The Table menu commands are used to define, filter, or format any of the information appearing in a table.

4.1 Repository Organization Data Tables

Repository Organization Data tables are utilized for viewing all the collective data for one selected Organization Data category from your organization's Repository. Every table displays all of the available entry field information from that Repository category. Workflow•BPR provides a table for 12 Organization Data categories:

- Chart of Accounts
- Organization Units
- External Entities
- Resource Allocation
- Currencies
- Functions
- Resources
- Employees
- Employees Roles
- Applications Paths
- Applications
- Application Fields

4.1.1 Opening a Repository Organization Data Table

To open a Repository Organization Data table:

1. Choose **Repository Organization Data** from the **Table** menu.
2. From the **Repository Organization Data** sub-menu, choose the table you want. Workflow•BPR automatically displays the selected table.

4.2 Repository Process Data Tables

Repository Process Data tables are used to view all the collective data for a selected Process Data category from your organization's Repository. Workflow•BPR provides a standard table for 16 data categories.

- Tasks
- Activity Group
- External Processes
- Phi Types
- Phis
- Phi Fields
- Phi States
- Media
- Classifications
- Delay Reasons
- Authorization
- Data Fields
- Resource Fields
- Decisions
- Decision Choices

Workflow•BPR also provides two additional tables:

- **Organization Processes:** Lists every diagram associated with your organization file.
- **Process Statistics:** Provides statistical information for every Process Diagram item per diagram included in your organization file.

4.2.1 Opening a Repository Process Data Table

To open a Repository Process Data table:

1. Choose Repository Process Data from the Table menu.
2. From the Repository Process Data sub-menu, choose the table you want. Workflow•BPR automatically displays the selected table.

4.3 Process Data Tables

Process Data tables are used to view data directly related to an active diagram. Workflow•BPR provides for 15 standard tables:

- Activity Group Object
- Task Objects
- Task Classifications
- Resource Requirements
- Task Automation
- Task Assignment
- Account Entries
- Fields Mapping
- Connectors
- Applied Phis
- Applied Phi Fields
- Process Objects
- Process Fields
- Process Decisions
- Process Decision Choices
- External Process Objects

4.3.1 Opening a Process Data Table

To open a Process Data table:

1. Open a **Process** or **Generated Case** containing the information you want to view.
2. Choose **Process Data** from the **Table** menu.
3. From the **Process Data** sub-menu, choose the table you want. Workflow•BPR automatically displays the selected table.

4.4 Modifying Tables

There are many ways to modify a table so that it meets the individual needs of your organization. You can directly manipulate the row and column sizes, or you can use Table menu commands to change the layout, filter the data, sort the data, or create a formula that would add a new column to a table. The following commands from the **Data** menu can be used to modify a table:

- Select Layout
- Define Layout
- Format Table
- Table Grids
- Filter Table
- Define Filter
- Sort
- Formulas

Within each table, Workflow•BPR lists the data fields as columns and the sets of data items as rows. In general, Define Layout is used to format and/or filter column information, Filter Table is used to format and/or filter row information, Sort is used to reorder the sets of data items, and Formulas is used to create new table data fields.

4.4.1 Re-sizing Table Rows And Columns

The two characteristics of a standard table that you can directly alter are row heights and columns widths. When you position your cursor on any line between a row or column header, the cursor changes to a two-way arrow. If you click and drag the line, the size of the row or column can be increased or decreased. Clicking and dragging the lines between rows increases or decreases all row heights simultaneously. Clicking and dragging the lines between columns increases or decreases only the width of the column to the left of the cursor. This feature can be used to remove columns from your standard table view—simply drag the right border so that it lays on top of the left border, changing the width of the column to zero. Once a column has been removed from your standard table view, that information is no longer available. It is necessary to recreate the entire standard table view if you want to retrieve the eliminated information.

4.4.2 Table Layouts

Each table is displayed in a layout format. The layout defines which data fields will be presented and in what order. Each table comes with one or more pre-defined layouts. Any pre-defined layout can be modified, and you can create and save your own layouts. It is not necessary to use all available data fields (columns) in a table layout, as they can be placed in any order you wish. Because each defined layout is saved separately, you can simultaneously open multiple versions of the same table, each one displayed in a different layout.

When Define Layout is selected, Workflow•BPR opens the **Table** dialog box. The Table dialog box is divided into three distinct areas: Name, Table Fields, and Attributes. You name your defined layout structure, or select a previously defined one, from the Name section. Next, select the table fields, the order in which they appear, their column headings, and the column alignment from the Table Fields section, then select the font, type, size, and color for all of the table headings and the table background color from the Attributes section.

4.4.2.1 Selecting a previously defined layout

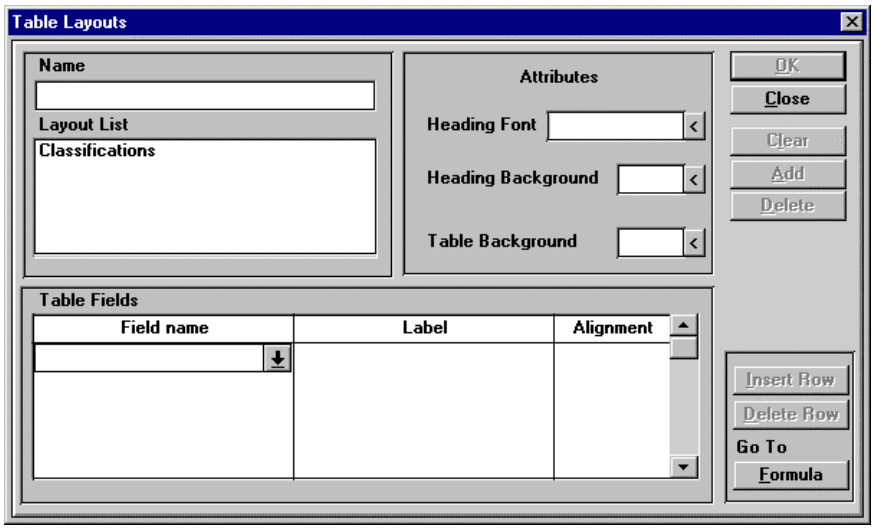
To select a table layout:

1. Open the table you want to see from the **Table** menu.
2. Choose **Select Layout** from the Table menu.
3. From the **Select Table** sub-menu, choose the pre-defined or user-defined layout you want. Workflow•BPR will redisplay the table with the selected layout.

4.4.2.2 Defining a new layout

To define a new table layout:

1. From the **Table** menu, open the table required to define a selected layout.
2. Choose **Define Layout** from the Table menu. The **Table Layouts** dialog box appears (see the figure below).



3. In the **Table Layouts** dialog box, type the name representing your new layout in the **Name** text box.
4. To define the font for the headings in your table, click the symbol beside the **Heading Font** selection box to display the Font dialog box. Click to select the font, style, point size, and color preferred. Click **OK** to return to the Table dialog box.
5. To select a color for your heading background, click the symbol beside the **Heading Background** list to display the **Color** dialog box, which contains a palette of pre-defined colors. To select a pre-defined color, click once on the color. To select a customized color, first select a pre-defined color close to the shade you want. Notice that Workflow•BPR places a cursor in the spectrum map defining that color. Click the cursor in the spectrum map until the shade changes to the one preferred, then click **Add To Custom Color**. Click **OK** to return to the Table dialog box.
6. To select a color for your table background, click the symbol beside the **Table Background** list to display the **Color** dialog box, which contains a palette of pre-defined colors. Select a color following the previous instructions (refer to step 5), then click **OK** to return to the Table dialog box.
7. To identify the first data field (column) for this layout, double-click in the blank area below **Field Name** to display the available selections. Click to select a data field.

8. To define the first data field's label, click in the blank area below **Label** to edit the default label.
9. To identify the first data field's alignment, click in the blank area below **Alignment** to display the available selections (Left, Center, and Right). Click to select one.
10. To add additional fields in the sequence, in which they are to be displayed, click directly below the first data field entries and make the appropriate selections.
11. To add a field between defined data fields, click **Insert Row** to add a row above the currently selected row.
12. To delete a data field, select the row and click **Delete Row**.
13. If you want to add a new numeric field to the table, click the Formula Go **To** button to go to the **Formula** dialog box (refer to the section entitled "Formulas" on Page 4-17).
14. If you are defining one layout, click **OK**. If you are defining multiple layouts, click **Add**. After the final layout has been added to the **Name** list, click **Close**.

4.4.2.3 Updating a defined layout

To update a table layout:

1. From the **Table** menu, open the table required to update a selected layout.
2. Choose **Define Layout** from the Table menu. The **Table Layouts** dialog box appears.
3. In the **Table** dialog box, select the layout from the **Table List** box.
4. To update the layout's attributes, select new options from the appropriate lists or type in new information (refer to the instructions in the previous section). Click **Update** or, to save the layout under a different name, edit the name in the **Name** box, and click **Save As**.
5. Click **Close**.

4.4.2.4 Deleting a defined layout

As with any default setting in Workflow•BPR, you cannot delete the default layout for a table.

To delete a table layout:

1. From the **Table** menu, open the table required to delete a selected layout.
2. Choose **Define Layout** from the Table menu. The **Table Layouts** dialog box appears.
3. In the **Table Layouts** dialog box, select the layout from the **Table List** box.
4. To delete the selected layout, click **Delete**. *(Note: You cannot delete the default layout for a table.)* Workflow•BPR will ask if you really want to delete this defined table. Click **OK**.
5. Click **Close**.

4.4.3 Table Formatting

To format specific subsets of row data included in a table, the Format Table command is used. Format Table is similar to Filter Table in that you define criterion as a formula and then apply it to a table to create subsets of data. The difference between them is that Filter Table displays only the data subset, while Format Table displays the entire table and formats the selected subset. For example, you might want rows in a **Resource Requirements** table to stand-out if the cost of the **Resource Requirements** exceeds a certain number (e.g., $100). Criteria could be defined that would display any row in bold and italic text where the cost exceeds that number.

When **Format Table** is selected, Workflow•BPR displays the **Criteria** dialog box. You create logical expressions in the Criteria dialog box the same way logical expressions for filters are created—you must specify an entry field, an operator, and an operand. **Operators** are used to make comparisons between a data field and an operand. Workflow•BPR has seven operators: = (equal to); >= (greater than or equal to); > (greater than); <= (less than or equal to); < (less than); != (not equal to); and **Within** (within range). **Operands** are utilized to define the value Workflow•BPR compares to the field being filtered. Depending upon the organization's needs, you can either create your own operand or use a pre-defined one. Each table has its own set of operands, based upon the entry field selected. Connectors are used to make more than one comparison at a time. Workflow•BPR has two different connectors: **AND** and **OR**. If there is more than one expression, they must be linked with connectors; otherwise, Workflow•BPR will not acknowledge them.

When two or more expressions are connected, Workflow•BPR has an order of precedence governing them. Each expression lower in the formula is directly associated with the expression preceding it. For example, given four different

expressions represented by the variables A, B, C, and D, the order of precedence would be:

(A + B)

A + (B or C)

A + (B + (C or D))

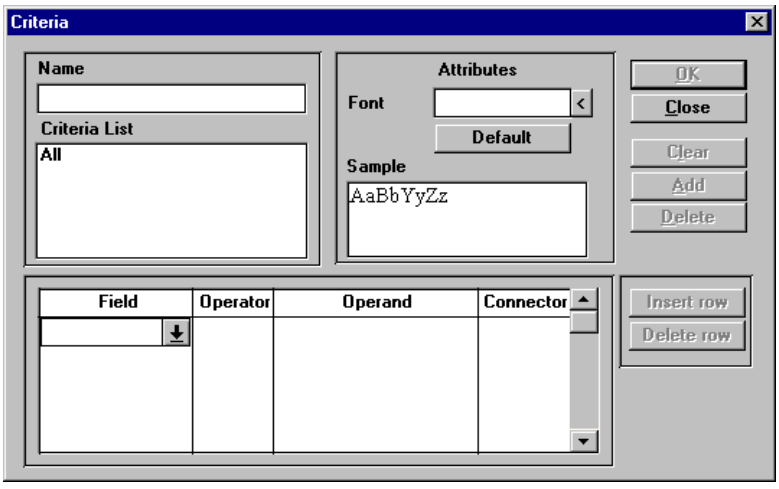
Workflow•BPR will first perform the operation in the innermost parenthesis and work its way out.

It is necessary to save each formatting criterion under a separate name. Workflow•BPR automatically applies *all defined formatting criteria to the active table.* When you first select the Table command and open the Criteria dialog box, you will find one criterion already defined named **All. All** represents the records that do not have another criterion applied to them and acts as the default. Once again, *you can edit All, but you cannot delete it*. If you have defined multiple formatting formulas for a table, Workflow•BPR applies all of them in descending alphabetical order based on their assigned names. If you decide that you do not want to apply a particular format once it has been defined, you must delete it.

4.4.3.1 Defining a New Format Criterion

To define a table row data format criterion:

1. From the **Table** menu, open the table you want to reformat.
2. Choose **Format Table** from the Table menu. The **Criteria** dialog box appears (see the figure below).



3. Type the name representing your new criterion in the **Name** text box.
4. To create a user-defined criterion, it is necessary to identify a data field.
   * Click the down arrow in the **Field** column to display the available selections.

- Click to select a data field.

5. To define the data field's operator:
   - Click in the blank area below **Operator** to display the down arrow.
   - Click on the down arrow to display the available selections.
   - Click to select an operator.
6. To define the data field's operand:
   - Click in the blank area below **Operand** to display the down arrow.
   - Click on the down arrow to display the available selections.
   - Either click to select an operand or type the specific value you want in the displayed blank text box.
7. If you are required to define additional expressions, it will be necessary to define the connector between the expressions.
   - Click in the blank area below **Connector** to display the down arrow, then click on the down arrow to display the available selections (AND and OR),
   - Then click to select one.
8. To add additional formula expressions, click directly below the last data field entry and make the appropriate selections.
9. To add information between defined formula expressions, click **Insert Row** to add an expression above the currently selected one.
10. To delete a formula expression, select it and click **Delete Row**.
11. Once the expressions to be used for formatting have been defined, click the symbol beside the **Font** list to display the **Font** dialog box. Click to select the font, style, point size, and color you want. Click **OK** to return to the **Criteria** dialog box.
12. When creating one criterion, click **OK**. If you are defining multiple criteria, click **Add**. After the final entry has been added to the **Criteria** list, click **Close**.

4.4.3.2 Updating a Format Criterion

To update a table row data format criterion:

1. From the **Table** menu, open the table you want to reformat.
2. 🖱 Choose **Format Table** from the Table menu. The **Criteria** dialog box appears.
3. 🖱 Select the criterion from the **Criteria List** box.
4. To update the criterion's attributes, 🖱 select new options from the appropriate lists or ⌨ type in new information (refer to the instructions in the previous section).
5. 🖱 Click **Update**.
6. 🖱 Click **Close**.

4.4.3.3 Deleting a Format Criterion

To delete a table row data format criterion:

1. Open the table you want to reformat from the **Table** menu.
2. 🖱 Choose **Format Table** from the Table menu. The **Criteria** dialog box appears.
3. 🖱 Select the criterion from the **Criteria List** box.
4. To delete the selected format formula, 🖱 click **Delete**. Workflow•BPR will ask if you really want to delete it. 🖱 Click **OK** to delete the formula.
5. 🖱 Click **Close**.

4.4.4 Table Filters

The **Filter** feature will hide and/or show specific subsets (rows) of information from a selected table. Each table comes with one or more pre-defined filters. Any pre-defined filter can be modified and you can create and save your own filters. Because each defined filter is saved separately, you can simultaneously open multiple versions of the same table, each one displayed with a different filter.

In Workflow•BPR, each table row represents a particular data entry. A table is filtered by applying formulas that instruct Workflow•BPR to filter out certain data entries from the selected table. For example, you could create a subset of the Resource table view of all employees with a standard cost of $500/week. The rest of the items originally included in the Resource standard table view would be filtered out.

A filter is similar to a mathematical equation. For each filter, you create logical expressions, each one consisting of a data field, an operator, and an operand. For each data field to be filtered, an operator to be used for comparison and an operand to compare to must be specified. If your filter contains more than one logical expression, it is necessary to link the expressions together with connectors.

Operators are used to make comparisons between the selected entry field and the operand to be selected. Workflow•BPR has seven operators: = (equal to); >= (greater than or equal to); > (greater than); <= (less than or equal to); < (less than); != (not equal to); and **Within** (within range). **Operands** are utilized to define the value Workflow•BPR compares to the field being filtered. Depending upon the organization's needs, you can either create your own operand or use a pre-defined one. Each table has its own set of operands, based upon the entry field selected. **Connectors** are used to make more than one comparison at a time. Workflow•BPR has two different connectors: **AND** and **OR**. If you have more than one expression in your filter, they must be linked with connectors; otherwise, Workflow•BPR will not acknowledge them.

When two or more expressions are connected together, Workflow•BPR has an order of precedence governing them. Each expression lower in the formula is directly associated with the expression preceding it. For example, given four different expressions represented by the variables A, B, C, and D, the order of precedence would be:

(A + B)

A + (B or C)

A + (B + (C or D))

Workflow•BPR will first perform the operation in the innermost parenthesis and will then work its way out.

4.4.4.1 Applying a Previously-Defined Filter

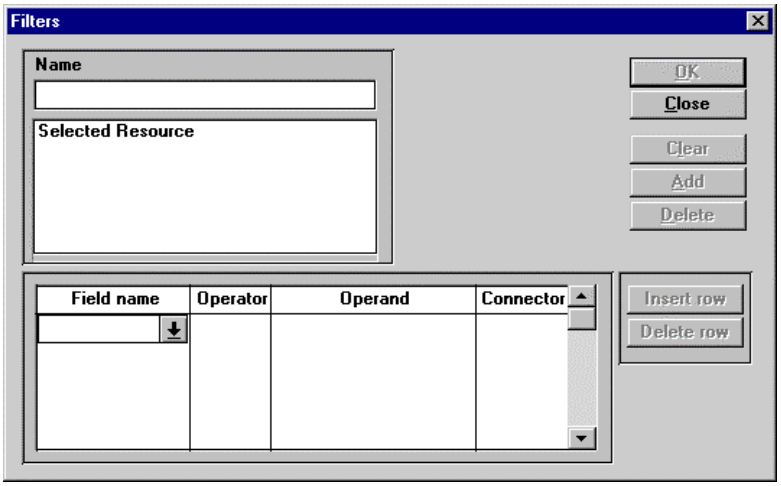
To apply a filter to a table:

1. From the **Table** menu, open the table you want to filter.
2. Choose **Filter Table** from the Table menu.
3. From the **Filter Table** sub-menu, choose the pre-defined or user-defined filter preferred. Workflow•BPR will redisplay the table with only the rows that match the filter expression.

4.4.4.2 Defining a New Filter for a Table

To define a filter for a table:

1. From the **Table** menu, open the table required to define a selected filter.
2. Choose **Define Filter** from the Table menu. The **Filters** dialog box appears (see the figure below).



3. Type the name representing your new filter in the **Name** text box.
4. To identify the first data field to be filtered:
   * Click in the blank area below **Field Name** to display the down arrow, then click on the down arrow to display the available selections.
   * Click to select a data field.
5. To define the first data field's operator:
   * Click in the blank area below **Operator** to display the down arrow, then click on the down arrow to display the available selections.
   * Double-click to select an operator.
6. To define the first data field's operand:
   * Click in the blank area below **Operand** to display the down arrow.

- Click on the down arrow to display the available selections.
- Either click to select an operand, or type the specific value you want in the displayed blank text box.

7. To define additional expressions, it is necessary to define the connector between the expressions:
   - Click in the blank area below **Connector** to display the down arrow.
   - Click on the down arrow to display the available selections (AND and OR).
   - Click to select one.
8. To add additional formula expressions, click directly below the last data field entry and make the appropriate selections.
9. To add information between defined formula expressions, click **Insert Row** to add an expression above the currently selected one.
10. To delete a formula expression, select it and click **Delete Row**.
11. When creating one filter, click **OK**. If defining multiple filters, click **Add**. After your final filter has been added to the **Name** list, click **Close**.

4.4.4.3 Updating a Filter for a Table

To update a filter for a table:

1. From the **Table** menu, open the table required to update a selected filter.
2. Choose **Define Filter** from the Table menu. The **Filters** dialog box appears.
3. In the **Filters** dialog box, select the filter name from the **Name** list.
4. To update the filter's attributes, select new options from the appropriate lists, or type in new information (refer to the instructions in the previous section).
5. Click **Update**.
6. Click **Close**.

4.4.4.4 Deleting a Filter for a Table

To delete a filter for a table:From the **Table** menu, open the table required to delete a selected filter.

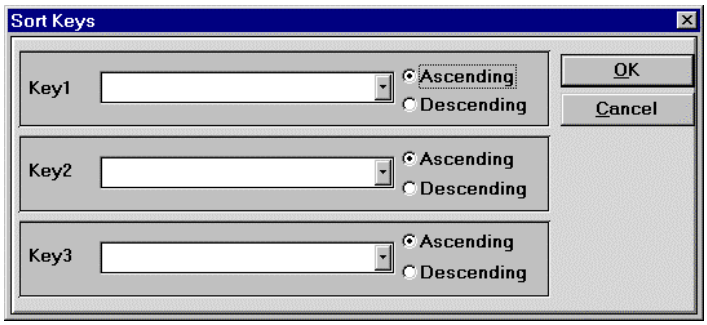
1. Choose **Define Filter** from the Table menu. The **Filters** dialog box appears.
2. Select the filter name from the **Name** list.
3. To delete the selected filter, click **Delete**. Workflow•BPR will ask if you really want to delete this filter. Click **OK** to delete the selected filter.
4. Click **Close**.

4.4.5 Sorting Table Data

Once a table has been opened, you can sort the data within it by using The **Sort** command. Workflow•BPR provides up to three nested levels to sort the entire contents of a table in either ascending or descending order.

To sort data in a table:

1. From the **Table** menu, open the table required to sort the selected data.
2. Choose **Sort** from the Table menu. The **Sort Keys** dialog box appears (see the figure below).



3. Click the arrow beside **Key 1** to display the data field choices for the first sorting level.
   * Click once to select a data field,
   * Then select either **Ascending** or **Descending** to determine the order in which Workflow•BPR should sort this data.
4. If there are additional sort levels, select options from the **Key 2** and **Key 3** lists.
5. Click **OK**. Workflow•BPR will represent the rows in the table in the order defined by the sort keys.

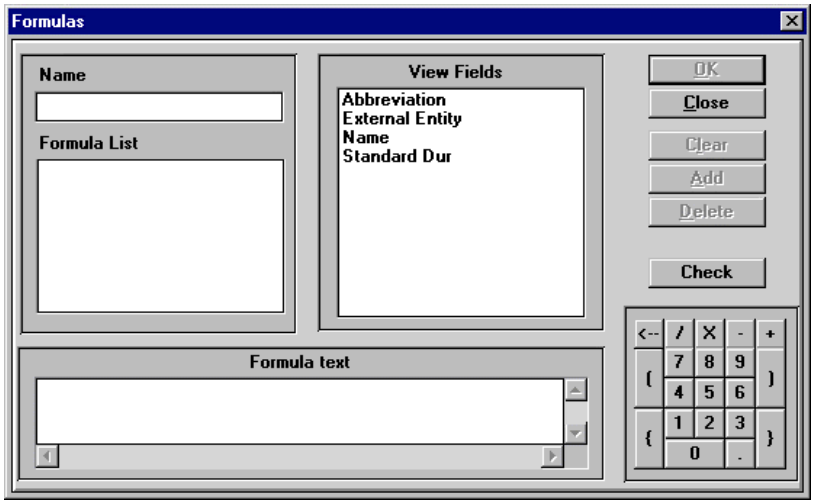
4.4.6 Formulas

A Table Formula will allow for the creation of a new numeric data field for a table that is represented in Workflow•BPR as table columns. The formula applies arithmetical operations to selected numeric data fields from a table. For example, if you want to create a table field displaying what Overtime Cost added to Standard Cost would be, you would create the formula: Overtime Cost + Standard Cost. Once a formula has been defined, Workflow•BPR lists it as an available data field for the selected table in **the Define Table's Field Names** list. The **Table** dialog box is used to add it to your table diagram (refer to the section entitled "Table Layouts" on page 4-6 of Chapter 5). There are three types of numeric fields: cost, duration, and unit number. Cost is a monetary unit. Duration (sometimes referred to as Work) can be specified in minutes, hours, days, or weeks. However, the variables for days and weeks depend upon the related calendar, meaning that Duration takes into account any defined holidays and/or different work schedules. Unit Number refers to the quantity available.

4.4.6.1 Creating a Formula

To create a formula:

1. From the **Table** menu, open the table required to add a selected formula.
2. Choose **Formulas** from the Table menu. The **Formulas** dialog box appears (see the figure below).



3. Type the name representing your new formula in the **Name** text box.
4. To identify an operand, either click to select a numeric data field from the **View Fields** list or type in the appropriate information, enclosed in brackets, in the **Formula Text** box. When a pre-defined numeric field is selected, Workflow•BPR places your operand in the **Formula Text** box.
5. To define the formula's operator, double-click to select an operation symbol from the dialog box keypad or type in the appropriate symbol in

the **Formula Text** box. If the dialog box keypad is used, Workflow•BPR places your operator in the **Formula Text** box.

6. Define additional operands and operators, ending with an operand, until your formula is complete.
7. To verify your formula's syntax, click **Check**. Workflow•BPR will display a message describing any syntax errors that it finds. If there are no syntax errors, Workflow•BPR displays a **No Error** message.
8. When creating one formula, and if your formula is error-free, click **OK**. If you are defining multiple formulas, click **Add**. The name of the new formula will appear in the title bar. After your final formula has been added to the Formula List, click **Close**.

4.4.6.2 Updating a Formula

To update a formula:

1. From the **Table** menu, open the table required to update a selected formula.
2. Choose **Formulas** from the Table menu. The **Add Formula** dialog box appears.
3. Select the formula name from the **Formula List** box.
4. To update the formula, select new operands from the appropriate list and new operators from the dialog box keypad, or type in new information (refer to the instructions in the previous section).
5. Click **Update**.
6. Click **Close**.

4.4.6.3 Deleting a Formula

To delete a formula:

1. From the **Table** menu, open the table to delete a selected formula.
2. Choose **Formulas** from the Table menu. The **Add Formula** dialog box appears.
3. Select the formula name from the **Formula List** box.
4. To delete the selected formula, click **Delete**. Workflow•BPR will ask if you really want to delete this formula. Click **OK**.
5. Click **Close**.

Chapter 5: Weighted Average Reports

Workflow•BPR generates reports that summarize measurements that can be made on the representation of a Process. Workflow•BPR generates 37 reports that are grouped into five (5) categories: Time, Costs, Classifications, Indices, and General. Refer to the Glossary for more details on the formulas used to create the reports.

Workflow•BPR Reports reflect several types of analysis based on the detailed data entries contained in a Process representation.

The whole function of Reports is to hide complexity by allowing users to examine and analyze the Process from many viewpoints with minimal effort. Part of the complexity of a Process is illustrated by the fact that there are Cases, which are alternative methods of performing the Process as determined by business conditions. Each Case has its own set of values for the measurable attributes and a probability that these values will be true.

A report is displayed in a table. The Report Tables are a separate feature from the Table feature presented earlier in this chapter. The columns of the table represent a set of measurable attributes; e.g., elapsed cycle time, transfer time, and cost. In most of the reports, the rows represent either the Cases or the Process itself. The type of attribute depends on which report is selected. The following is a list of reports according to type.

5.1 Report Types

There are five types of reports: Times, Costs, Classifications, Indices, and General Reports.

5.1.1 Times Reports

The following are the Reports that are categorized as Times Reports (for more information on the Time attributes, refer to the Glossary). These Reports display the:

1. **Cases Cycle Times:** Weighted Averages and the values for each case of the Cycle Time and the Minimum Cycle Time.
2. **Cases Process Times:** The Weighted Averages and the values for each case of the Process Time, External Time, Transfer Time, Wait Time, and Working Time.
3. **Cases Total Times:** The Weighted Averages and the values for each case of the Total Elapsed Duration, Total Working Time, Total External Time, Total Transfer Time, and Total Wait Time.
4. **Cases Resource Times:** The Weighted Average and the value for each case of the Labor Time and the Total Resource Time.
5. **Cycle Times:** The Weighted Averages of the Cycle Time and the Minimum Cycle Time.
6. **Process Times:** The Weighted Averages of the Process Time, External Time, Transfer Time, Wait Time, and Working Time.
7. **Total Times:** The Weighted Averages of the Total Elapsed Duration, Total Working Time, Total External Time, Total Transfer Time, and Total Wait Time.
8. **Resource Times:** The Weighted Average of the Labor Time and the Total Resource Time.

5.1.2 Costs Reports

The following are the Reports that are categorized as Cost Reports (for more information on the Cost attributes, refer to the Glossary). These Reports display:

1. **Cases Total Costs**: The Weighted Average and the value for each case of the Resource costs.
2. **Total Costs**: The Weighted Average of the Resource costs.

5.1.3 Classifications Reports

The following are the Reports that are categorized as Classification Reports (for more information on the Classification attributes, refer to the Glossary). These Reports display:

3. **Cases Value-Added Classification:** The Weighted Average and individual case time and cost for the Real Value-Added, Business Value-Added, and No Value-Added Classifications.
4. **Cases Quality Ctrl. Classification:** The Weighted Average and individual case time and cost for the Quality Control and the Not Quality Control Classifications.
5. **Cases Workflow Classification:** The Weighted Average and individual case time and cost for the Potential Workflow, Not Workflow, and Current Workflow Time Classifications.
6. **Value-Added Classification:** The Weighted Average time and costs of the Real Value-Added, Business Value-Added, and No Value-Added Classifications.
7. **Quality Control Classification:** The Weighted Average time and cost of the Quality Control and the Not Quality Control Classifications.
8. **Workflow Classification:** The Weighted Average time and cost of the Potential Workflow, Not Workflow, and Current Workflow Time Classifications.
9. **Classification 4:** The Weighted Average time and cost for the user-defined Classifications of Classification 4.
10. **Classification 5:** The Weighted Average time and cost for the user-defined Classifications of Classification 5.

5.1.4 Indices Reports

The following are the Reports that are categorized as Index Reports (for more information on the indices, refer to the Glossary). These Reports display the Weighted Average:

1. **Cases Wait Time Index**, plus the value for each case of the Wait Time Index.
2. **Cases Labor Index**, plus the value for each case of the Labor Index.
3. **Cases Concurrency Index**, plus the value for each case of the Concurrency Index.
4. **Cases Electronic Doc. Index**, plus the value for each case of the Electronic Document Index.
5. **Cases Real Value Index**, plus the value for each case of the Real Value Index.
6. **Cases Workflow Index**, plus the value for each case of the Workflow Index.
7. **Wait Time Index**
8. **Labor Index**
9. **Concurrency Index**
10. **Electronic Doc. Index**
11. **Real Value Index**
12. **Workflow Index**

5.1.5 General Reports

The following are the Reports that are categorized as General. These Reports display:

1. **Cases Activity Statistics:** The Weighted Average and value for each Case and the number of Tasks and External Processes.
2. **Activity Statistics:** The Weighted Average of the number of Tasks and External Processes.
3. **Process Cases:** The conditions and the probability for each case.
4. **Condition Statistics:** The number of Decisions and cases included in the Process.
5. **Condition Probabilities:** Each Decision, each Choice, and the probability associated with each Decision.
6. **Resources:** The Resource name and its duration and cost.
7. **Functions:** The function and its duration and cost.

5.2 Creating Weighted Average Reports

The data that is presented in the Weighted Average Reports is calculated from the data that is in the Process Models. To measure the attributes (e.g., time and cost) of a Process accurately, you must measure the attributes of the individual Cases that make-up the Process, and then factor in the probability that each Case will occur. The result of this is a Weighted Average of the time and cost attributes of a Process.

5.2.1 Calculate Averages Dialog Box

The following fields are present in the Calculate Averages dialog box:

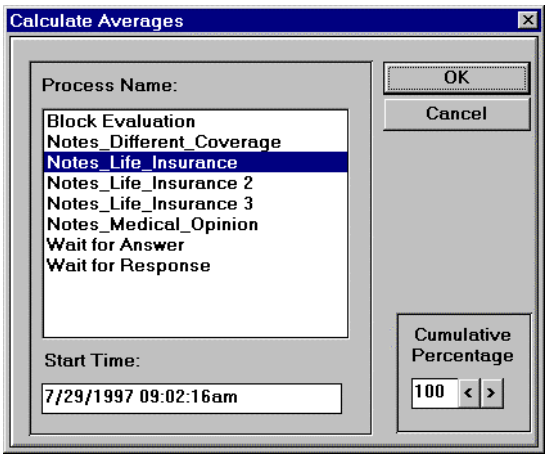
- **Process Name:** If a Process is active when the Create Report dialog box is opened, then that Process will be selected in the list. Otherwise, you can select a Process and the Report that will be created will apply to that Process.
- **Start Time:** This will set the time and date for the schedules that will be created for the Cases and used to calculate the cycle times.
- **Cumulative Percentage:** To restrict calculating averages to a set of Cases, you can type in a percentage of the Cases you want to select given that the Cases are in descending order with respect to Case probability. For example, 90% means that Workflow·BPR will choose the Cases that have a combined probability of 90%. Because the Cases are in descending order, the Cases that are chosen will have the highest probability and the Cases that are not chosen (the bottom 10%) will have the lowest probability. This feature is useful if your Process has many Cases (thousands) and you want a quick estimate of the Weighted Averages. Usually, there are numerous Cases with a very low percentage; by not selecting these Cases, the calculation of the averages will proceed much faster.

5.2.2 Calculating Averages

To calculate the weighted averages of a Process:

✍ **Before running a Calculation of Averages, it is recommended that all unnecessary applications be closed.**

1. 🖱 Choose the **Calculate Averages** command from the **Report** menu. The **Calculate Averages** dialog box appears (see the figure below).



2. 🖱 Select a Process from the **Process Name** list.
   * More than one Process can be selected. Each 🖱 click on a Process name on the list will select or deselect that Process.
3. To define a cumulative percentage of the Cases you want to consider for calculation, ⌨ type a percentage in the **Percent** text box (the default is 100% of the Cases).
4. 🖱 Click **OK** or ⌨ press **Enter**.
   * When there are previously calculated averages on a selected Process, Workflow•BPR presents a warning that displays the time and date that the calculation was performed. 🖱 Click **Yes** to continue and **No** to cancel the calculation.
   * A **Calc. Average of Process** dialog box appears which displays a thermometer showing the progress as the Cases are added to the calculation. To terminate the calculation, 🖱 click **Cancel**.

✍ **The data calculations may require extended time (from a few seconds to 30 minutes or more). The more Cases that apply to a Process, the longer it will take.**

✍ **The Report File generated may require a large amount of disk space. The greater the number of Cases that a Process has, the larger the Report File. If you plan to perform a lot of analysis on large Processes, allow a large amount of disk space (e.g., from 50MB to 100MB).**

5.3 Opening Weighted Average Reports

In the **Reports** menu, there are many items with sub-items. Any of these items bring up the **Weighted Average Reports** dialog box (except for Calculate Averages, Analysis Reports, Documentation Reports, and Procedure Report). All Weighted Average Reports can be created from this dialog box. When one of the sub-items that name a particular Weighted Average Report is selected, the dialog box will open with the Weighted Average Report selected. If a Process is the active window when you open the dialog box, then that Process will also be selected.

5.3.1 Weighted Average Reports Dialog Box

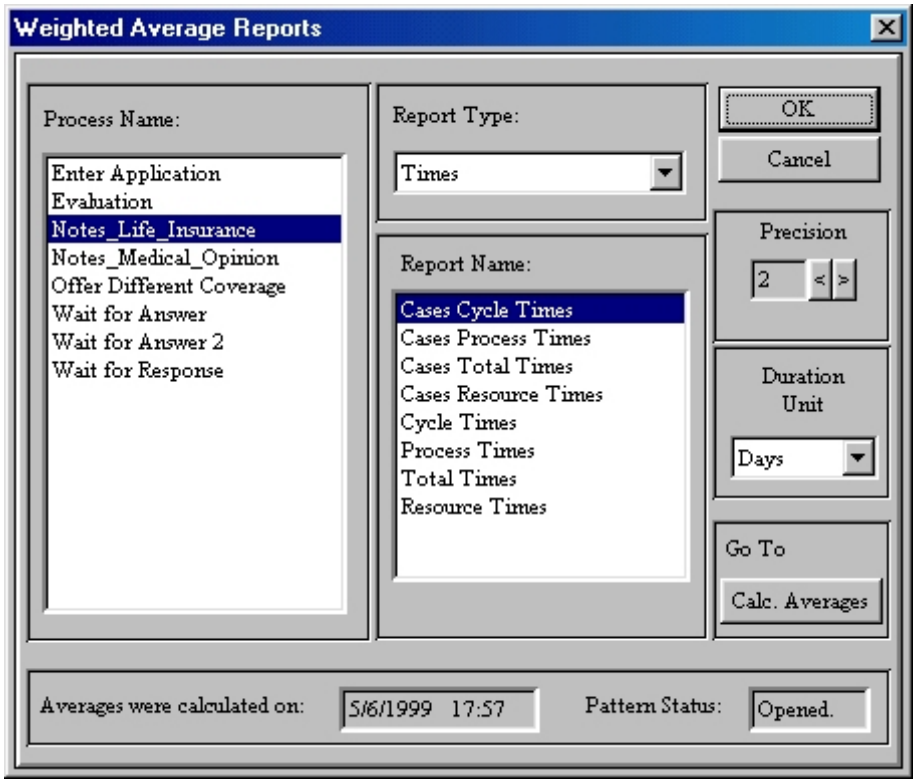
The following fields are contained in this dialog box:

- **Process Name:** If a Process is active when the Create Report dialog box is opened, then that Process will be selected. Otherwise, you can select a Process and the Report created will apply to that Process.
- **Report Type:** There are six types of reports: Times, Costs, Classifications, Indices, General, and All. These are the items (except for All) that appear in the Reports menu.
- **Report Name:** The sub-menu items in the Reports menu delineate specific Reports. When one of the sub-items is selected, the dialog box will open with that Report selected in the Report Name list box. If a Process (with the averages calculated) has not been selected, then you can't generate that Report. More than one Report can be selected, however, and they will all be created.
- **Precision:** This field sets the number of decimal places that will be displayed in the Report.
- **Duration Unit:** For those Reports that have time measurements, you can select the unit for the Time data. The default is set to report the Time in Days.
- **Averages Were Calculated On**: This field displays the last date and time of calculating averages. If the averages were not calculated yet, the message "No Report File" is displayed.
- **Pattern Status:** This field displays the status of the Process Diagram generating the Report. The status is either open or closed.

5.3.2 Opening a Weighted Average Report

To open a report:

1. Choose a report type (**Times, Costs, Classifications, Indices, or General**) from the **Reports** menu. A sub-menu appears.
2. Select a report (e.g., Cases Cycle Times). The **Weighted Average Reports** dialog box appears (see the figure below).



3. Select a **Process** from the **Process Name** list (if it is not already selected).
   - If the **Averages Were Calculated On** box says "No Report File," click **Calc**. **Averages** and follow the instructions in "Creating Weighted Average Reports" on page 5-5.
   - To open more than one Report, click to select another Report from the **Report Name** list.
4. Click the **<** button in the **Precision** box to *decrease* the precision (the number of decimal places) that will be displayed in the Report.
5. Click the **>** button in the **Precision** box to *increase* the precision (the number of decimal places) that will be displayed in the Report.
6. Select the time unit that will be displayed for time-based reports from the **Duration Unit** selection box.
7. Click OK or press **Enter**.

Chapter 6: Analysis Reports

After modeling a Process, you may want to generate reports beyond the standard outputs of Weighted Average and Simulation analyses. Workflow•BPR is supplemented with templates to help you with your redesign efforts. This chapter describes the templates and the procedures for using them. The procedures include creating detailed summary and comparison reports in Microsoft Excel workbooks. In addition, Workflow•BPR reduces the amount of time to create a Process Redesign Report by filling in a Rich Text Format template with the comparison data of two (2) Processes.

This chapter covers the creation of the following types of reports:

- **Exporting Weighted Average Reports**: This is an Excel workbook that contains macros that will create an Analysis Workbook, a Comparison Workbook, and update the data in a Redesign Report (Microsoft Word document). The macros are hidden. You will see a single sheet with buttons on it that will invoke the macros. You will use the Master Workbook in all the major steps used to perform the additional analysis and reporting that are documented in this Appendix.
- **Process Summary Report**: This is an Excel workbook that contains tables that store detailed Case and Summary Analysis information about a single Process. The Weighted Average reports that are exported for a Process are combined into a single Workbook. The Case details and summary of Time, Cost, Classification, and Indices are displayed for the Process. Refer to the section entitled "Creating a Process Summary Report" on page 6-3 for details about how to create a Process Summary Report.
- **Process Comparison Report**: This is an Excel workbook that contains tables for comparing summary information about two (2) Processes, typically an As-Is and To-Be version of a Process. The Process Summary Reports for the two (2) Processes are combined and the Time, Cost, Classification, and Indices are compared. Refer to the section entitled "Creating a Process Comparison Report" on page 6-11 for details about how to create a Process Comparison Report.

- **Process Redesign Report**: This is a Rich Text Format template that is formatted to provide you with a head start towards creating a Process Redesign Report. The data from a Process Comparison Report is automatically transferred to Rich Text Format template. Refer to the section entitled "Creating a Process Redesign Report" on page 6-16 for details about how to create a Process Redesign Report.

6.1 Exporting the Analysis Reports

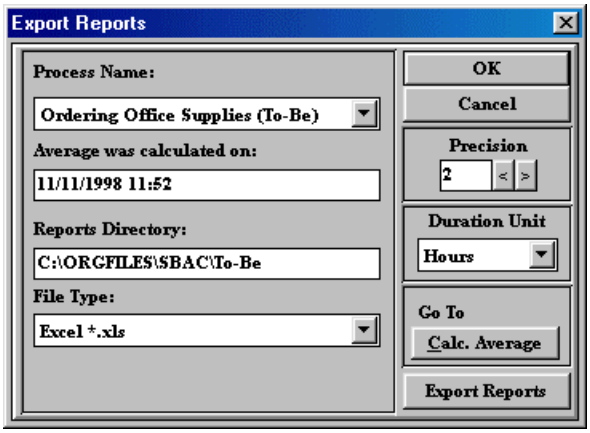
Any Weighted Average Report that has been created can be exported to Excel (.xls) files. Workflow•BPR has a utility to export a batch of Reports to Excel files. This batch of reports is the first step in creating a Process Summary Report, a Process Comparison Report, and a Process Redesign Report.

6.1.1 Export Reports Dialog Box

✍ **Prerequisite: a Calculate Averages must be performed on a Process before the Analysis Reports can be exported.**

To export the Analysis Reports:

1. 🖱 Choose **Analysis Reports** from the **Report** menu, then a sub-menu appears, select **Export**. The **Export Reports** dialog box appears (see the figure below).



2. 🖱 Select a Process from the **Process Name** selection list (if it is not already selected).
3. ⌨ Type the number of decimal places you want for the Reports in the **Precision** text box.
   * You can also 🖱 click the < and > buttons to decrement or increment the Precision (the number of decimal places) by one (1).

4. Select a unit for all the Time Reports (such as Cycle Times) from the **Duration Unit** selection box.
   * The unit options are Weeks, Days, Hours, Minutes, and Default (which is Days).
5. If the **Averages Were Calculated On** box says "No Report File," click the **Calc. Averages** Go To button and follow the instructions in the section entitled "Creating Weighted Average Reports" on page 5-5.
6. Type the path and folder where you want the Analysis Reports to be exported in the **Reports Folder** text box.
7. If you want to export the Analysis Reports and leave the dialog box open to export the reports for other Processes, then click the **Export Reports** button.
   * Excel (*.xls) is the only file type that is currently supported for the export of the Analysis Reports.
   * A **Generating Reports** dialog box appears, which displays a thermometer showing the progress as the Reports are exported. Click **Cancel** to terminate.
8. If you want to export the Analysis Reports and close the dialog box, then click **OK** or press **Enter**.

6.2 Creating a Process Summary Report

If you want to create a detailed summary report about the Weighted Average results of a Process, Workflow•BPR will produce an Excel workbook called a **Process Summary Report**, which is designed to organize the data from a Process. To fill the Analysis Workbook with data from Workflow•BPR, there is a utility for exporting a batch of 25 specific reports (refer to the previous section). The data in the Process Summary Report can be used later to support a Process Redesign Report. This section will document the steps required for exporting and reading the Workflow•BPR reports.

The general steps for creating a Process Redesign Report is as follows:

- Develop the As-Is and To-Be versions of a Process in Workflow•BPR.
- Calculate the Weighted Averages for each of the Processes
- Export the Weighted Average reports in two batches. All of the required 25 reports will be exported at one time for each Process. You will export for the As-Is and To-Be Processes separately (refer to the section entitled "Exporting the Analysis Reports" on page 6-2).

6.2.1 Data Required for the Process Summary Report

The Process Summary Report is based on the Weighted Average analysis of a Process. Refer to the section entitled "Creating Weighted Average Reports" on page 5-5 for more information about how to create Weighted Average reports. In addition to the data contained in the Weighted Average reports, there is more data required to complete the Process Summary Report. The following is a list of additional data that is required for the Process Summary Report:

- **Process Volume**: This number is used in the calculation of the burden percentage for the Process. The burden percentage is used to calculate the distributed indirect and one-time costs. This value is entered in the Details tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.
- **The Percentage of Allocated Employees Used in the Process**: In Workflow•BPR, you allocate Employees to a department for the organization as a whole. Some of the allocated Employees might not actually work on the Process that you are analyzing. Workflow•BPR will export the number of allocated Resources as specified in the Repository. For the purposes of the Process Summary Report, you can specify the percentage of the total number of allocated Employees per Role that will actually work on the Process being analyzed. The number of Resources working on a Process will affect the burden percentage of that Process. This value is entered in the Details tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.
- **The Number of Hours That a Resource Works Per Year**: The number of hours that a particular Role works during the year will affect the number of Resources that will be required to work on the Process during the year. This takes into account the number of hours that the Process will require during the year. For example, if you need a clerk for 4,000 hours for a particular Process and a typical clerk works 2,080 hours in a year, then you will need about two (2) clerks to work on the Process. The default value is 2080 hours per Role. However, you can modify this value in the Details tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.
- **Indirect Cost Items: Distributed**: These costs are not fully burdened to the Process because the items that make-up the cost are used by other Processes. The burden percentage determines how much of these costs will be applied to the Process. Make sure that the burden percentage is accurate by entering the number of Employee Resources that are involved in the Process. These items are entered in the Costs tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.

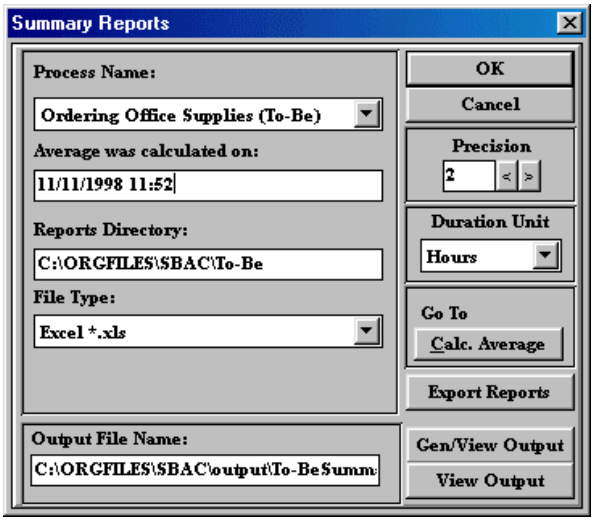
- **Indirect Cost Items: Dedicated**: These costs are fully burdened to the Process because the items that make-up the cost are used exclusively by this Process. These items are entered in the Costs tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.
- **One-Time Cost Items: Distributed**: Those one-time items that are used by more than one Business Process. For example, the personal computers that you will purchase will be used in many different Processes. Therefore, the cost of these items is burdened (the burden percentage) to the Business Process according to how much the Process consumes the working time of the employees that are involved in the Process. One-Time Costs are used to determine the amount of investment that is required to implement a To-Be Process and will also be used to determine the break-even point in the Process Redesign Report. These items are entered in the Costs tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.
- **One-Time Cost Items: Dedicated**: These costs are fully burdened to the Process because the items that make-up the cost are used exclusively by this Process. One-Time Costs are used to determine the amount of investment that is required to implement a To-Be Process and will also be used to determine the break-even point in the Process Redesign Report. These items are entered in the Costs tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.

6.2.2 Summary Reports Dialog Box

✍ **Prerequisite: the Analysis Reports must be exported for a Process before the Process Summary Report can be created.**

To create a Process Summary Report:

1. Choose **Analysis Reports** from the **Report** menu, then a sub-menu appears; select **Process Summary**. The **Summary Reports** dialog box appears (see the figure below).



2. Select a Process from the **Process Name** selection list (if it is not already selected).
3. Click the **<** button in the **Precision** box to *decrease* the precision (the number of decimal places) that will be displayed in the Report.
4. Click the **>** button in the **Precision** box to *increase* the precision (the number of decimal places) that will be displayed in the Report.
5. Select a unit for all the Time Reports (such as Cycle Times) from the **Duration Unit** selection box.
   * The unit options are Weeks, Days, Hours, Minutes, and Default (which is Days).
6. If the **Averages Were Calculated On** box says "No Report File," click the **Calc. Averages** Go To button and follow the instructions in the section entitled "Creating Weighted Average Reports" on page 5-5.
7. Type the path and directory where the Analysis Reports have *already been* exported in the **Reports Folder** text box.
   * If the Analysis Reports have not been exported, then:
     – Type the path and directory where you want the Analysis Reports to be exported,
     – Then click the **Export Reports** button.
8. Type the name and path and directory of the Process Summary Report to be created in the **Output File Name** text box.
9. If you want to create the Process Summary Report and leave the dialog box open to export the reports for other Processes, then click the **Gen/View Output** button.
   * Excel (*.xls) is the only file type that is currently supported for the Process Summary Report.

* A **Generating Reports** dialog box appears, which displays a thermometer showing the progress as the Reports are exported. Click **Cancel** to terminate.

10. If you want to view a previously generated Process Summary Report, then the **View Output** button.
11. If you want to create the Process Summary Report and close the dialog box, then click **OK** or press **Enter**.

6.2.3 The Process Summary Report

The Process Summary Report is an Excel document that has been set-up to store and analyze information about a Process. This workbook serves as a source of data that would be transferred to the Process Comparison Report, which would then be transferred to a Process Redesign Report (refer to the section entitled "Creating a Process Redesign Report" on page 6-16).

6.2.3.1 The Report Sections

The Analysis Workbook contains 15 worksheets that contain the data tables that store information about a Process.

Summary

This worksheet contains two (2) tables: Activity Statistics and Business Condition Statistics. The data in the Activity Statistics table is the Weighted Average of the number of Tasks and External Processes, and is linked from the "Activity Statistics" worksheet. The data in the Business Condition Statistics table is filled in from a file that was exported by Workflow•BPR.

Process Cases

This worksheet contains one (1) table that displays information about Cases contained in a Process. During creation of the Process Summary Report, rows will be added to this table to account for the number of Cases in the Process, and then the rows will be filled in with data from files that were exported by Workflow•BPR. You can also add an individual name for each Case. For details, refer to the section entitled "Modifying the Names for Each Case (Optional)" on page 6-10.

Cond Probs

This worksheet contains one (1) table that displays information about the Decisions and Choices that affect the Process. It lists each Decision, each Choice that the Decision has, and the probability associated with each Choice.

Activity Stats

This worksheet contains one (1) table that displays information about general statistics regarding a Process: the number of Tasks and External Processes. During creation of the Process Summary Report, rows will be added to this table to account for the number of Cases in the Process, and then the rows will be filled in with data from files that were exported by Workflow•BPR.

BP Times

This worksheet contains four (4) tables. Table 1 contains the Weighted Average Cycle Time and Minimum Cycle Time. Table 2 contains the Weighted Average Elapsed Time, External Time, Transfer Time, Wait Time, and Working Time. The last four measures totaled will equal the Elapsed Time. Table 3 contains the Weighted Average Total Elapsed Time, Total External Time, Total Transfer Time, Total Wait Time, and Total Working Time. Table 4 contains the Weighted Average Labor Time and All Resources Time.

PC Times

This worksheet contains four (4) tables. Table 1 contains the Weighted Average and the value for each Case of the Cycle Time and Minimum Cycle Time. Table 2 contains the Weighted Average and the value for each Case of the Elapsed Time, External Time, Transfer Time, Wait Time, and Working Time. Table 3 contains the Weighted Average and the value for each Case of the Total Elapsed Time, Total External Time, Total Transfer Time, Total Wait Time, and Total Working Time. Table 4 contains the Weighted Average and the value for each Case of the Labor Time and All Resources Time. During creation of the Process Summary Report, rows will be added to this table to account for the number of Cases in the Process, and then the rows will be filled in with data from files that were exported by Workflow•BPR.

BP Costs

This worksheet contains seven (7) tables. Table 1 contains the Weighted Average Resource Costs, which is linked from the "PC Costs" worksheet, and the Indirect Costs, which is linked from Table 2. Table 2 contains the Dedicated Indirect Costs, and the Distributed Indirect Costs. Table 3 contains the itemized Dedicated Indirect Costs. Table 4 contains the itemized Distributed Indirect Costs. Table 5 contains the Dedicated One-Time Costs, and the Distributed One-Time Costs. Table 6 contains the itemized Dedicated One-Time Costs. Table 7 contains the itemized Distributed One-Time Costs.

PC Costs

This worksheet contains one (1) table that displays the Weighted Average and the value for each Case of the Resource Costs of a Process. During creation of the Process Summary Report, rows will be added to this table to account for the number

of Cases in the Process, and then the rows will be filled in with data from files that were exported by Workflow•BPR.

Classification

This worksheet contains five (5) tables. Table 1 contains the Weighted Average time and costs of the Value-Added Classification (Real Value-Added, Business Value-Added, and No Value-Added). Table 2 contains the Weighted Average time and costs of the Quality Control Classification (Quality Control and Not Quality Control). Table 3 contains the Weighted Average time and costs of the Workflow Classification (Current Workflow, Potential Workflow, and Not Workflow). Table 4 contains the Weighted Average time and costs of the user-defined items of Classification 4. Table 5 contains the Weighted Average time and costs of the user-defined items of Classification 5.

PC Classification

This worksheet contains six (6) tables. Table 1 contains the Weighted Average and the value for each Case of the Time for the Value-Added Classification (Real Value-Added, Business Value-Added, and No Value-Added). Table 2 contains the Weighted Average and the value for each Case of the Time for the Quality Control Classification (Quality Control and Not Quality Control). Table 3 contains the Weighted Average and the value for each Case of the Time for the Workflow Classification (Current Workflow, Potential Workflow, and Not Workflow). Table 4 contains the Weighted Average and the value for each Case of the Costs for the Value-Added Classification (Real Value-Added, Business Value-Added, and No Value-Added). Table 5 contains the Weighted Average and the value for each Case of the Costs for the Quality Control Classification (Quality Control and Not Quality Control). Table 6 contains the Weighted Average and the value for each Case of the Costs for the Workflow Classification (Current Workflow, Potential Workflow, and Not Workflow). During creation of the Process Summary Report, rows will be added to this table to account for the number of Cases in the Process, and then the rows will be filled in with data from files that were exported by Workflow•BPR.

Indices

This worksheet contains one (1) table. The table contains the Weighted Average value for each of the six indices (Idle Time, Concurrency, Labor, Electronic Document, Real Value, and Automatability).

PC Indices

This worksheet contains six (6) tables, one for each of the six (6) indices (Wait Time, Concurrency, Labor, Electronic Document, Real Value, and Workflow). During creation of the Process Summary Report, rows will be added to this table to account for the number of Cases in the Process, and then the rows will be filled in with data from files that were exported by Workflow•BPR.

Resources

This worksheet contains one (1) table that displays information about the Resources used in a Process. The table lists all of the following information:

- The name Resources allocated to the Organization Units.
- The average amount of time the Resources are used in the Process (per Process performance).
- The cost associated with using the Resources.
- The number of Resources allocated in the organization.
- The percentage of the allocated Resources that are used in the Process. You can modify this number to suit your Process.
- The hours required of the Resource for the Process per year. This is the average amount of time per Process performance multiplied by the number of Process performances per year (from the "General Info" worksheet).
- The number of working hours of the Resource per year. You can modify this number to suit the Resources in your organization.
- The number of Resources required to meet the hours required. This is the hours required of the Resource for the Process per year divided by the number of working hours of the Resource per year.
- The number of Resources used in the Process. This is the number of Resources allocated in the organization multiplied by the percentage of the allocated Resources that are used in the Process.

Functions

This worksheet contains one (1) table that contains the Weighted Average time and cost of the items defined as Functions.

General Info

This worksheet contains general information about the Process.

6.2.3.2 Modifying the Names for Each Case (Optional)

You have the option of naming each of the Cases in a Process. These names will be used in all the tables that list Case information in the Analysis Workbook.

To update the names for each Case in the Process:

1. Go to the "**Process Cases**" worksheet.
2. Edit cells "**C4**" through "**C<N>**". N is equal to 4 plus the number of Cases.
   * The names that you enter in this Analysis Workbook table will appear in the other tables in the workbook that lists the cases.

6.3 Creating a Process Comparison Report

The Process Comparison Report takes the Weighted Average results of two (2) Processes and compares them. The report will list the Weighted Average Time, Cost, and other metrics of each Process, specify the difference between the averages, and specify the percentage change from the first Process to the second Process. Typically, a Process Comparison Report is performed on an As-Is Process as a baseline compared to a To-Be Process, which is the target Process for a Redesign effort.

The general steps for creating a Process Comparison Report are:

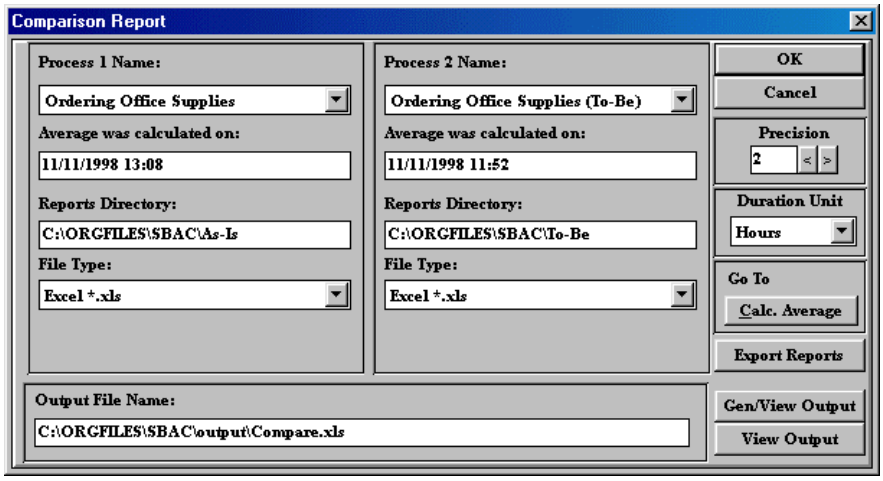
- Develop the As-Is and To-Be versions of a Process in Workflow•BPR.
- Calculate the Weighted Averages for each of the Processes
- Export the Weighted Average reports in two batches. All of the required 25 reports will be exported at one time for each Process. You will export for the As-Is and To-Be Processes separately (refer to the section entitled "Exporting the Analysis Reports" on page 6-2).
- Create a Process Summary Report for the two Processes. You will do this for the As-Is and To-Be Processes separately (refer to the section entitled "Creating a Process Summary Report" on page 6-3).
- Create a Process Comparison Report for the two Processes. This will be one (1) report that will combine the summary information of both Processes.

6.3.1 Comparison Report Dialog Box

✍ **Prerequisite: a Process Summary Report must be created for two (2) Processes before the Process Comparison Report can be created.**

To create a Process Comparison Report:

1. 🖱 Choose **Analysis Reports** from the **Report** menu, then a sub-menu appears, select **Process Comparison**. The **Process Comparison Reports** dialog box appears (see the figure below).



2. 🖱 Select a Process from the **Process 1 Name** selection list (if it is not already selected).
3. 🖱 Select another Process to compare with the first Process from the **Process 2 Name** selection list (if it is not already selected).
4. 🖱 Click the **<** button in the **Precision** box to *decrease* the precision (the number of decimal places) that will be displayed in the Report.
5. 🖱 Click the **>** button in the **Precision** box to *increase* the precision (the number of decimal places) that will be displayed in the Report.
6. 🖱 Select a unit for all the Time Reports (such as Cycle Times) from the **Duration Unit** selection box.
   * The unit options are Weeks, Days, Hours, Minutes, and Default (which is Days).
7. If the Process 1 **Averages Were Calculated On** box says "No Report File," 🖱 click the **Calc. Averages** Go To button and follow the instructions in the section entitled "Creating Weighted Average Reports" on page 5-5.
8. If the Process 2 **Averages Were Calculated On** box says "No Report File," 🖱 click the **Calc. Averages** Go To button and follow the instructions in the section entitled "Creating Weighted Average Reports" on page 5-5.

9. ⌨ Type the path and directory where the Process 1 Analysis Reports have *already been* exported in the **Reports Folder** text box.
10. ⌨ Type the path and directory where the Process 2 Analysis Reports have *already been* exported in the **Reports Folder** text box.
    * If the Analysis Reports for either Process 1 or Process 2 have not been exported, then:
      – ⌨ Type the path and directory where you want the Analysis Reports to be exported for each Process,
      – Then 🖱 click the **Export Reports** button.
11. ⌨ Type the name and path and directory of the Process Comparison Report to be created in the **Output File Name** text box.
12. If you want to create the Process Summary Report and leave the dialog box open to export the reports for other Processes, then 🖱 click the **Gen/View Output** button.
    * Excel (*.xls) is the only file type that is currently supported for the Process Comparison Report.
    * A **Generating Reports** dialog box appears, which displays a thermometer showing the progress as the Report is being created. 🖱 Click **Cancel** to terminate.
13. If you want to view a previously generated Process Summary Report, then 🖱 click the **View Output** button.
14. If you want to create the Process Summary Report and close the dialog box, then 🖱 click **OK** or ⌨ press **Enter**.

6.3.2 The Process Comparison Report

6.3.2.1 The Report Sections

The Process Comparison Report is an Excel document that has been set up to compare analysis results of two Processes. It was developed mainly as a place where you can compare analysis results of two Processes, and as a place to store information that would be transferred to a Process Redesign Report.

The Workbook Sheets

The Analysis Workbook contains 13 worksheets that contain the data tables that store information about comparing two Processes.

Executive Summary

This worksheet contains four (4) tables, and two (2) data fields. These items are used to provide data for the Executive Summary of the Redesign Report. Table 1 contains a before and after comparison and a percentage improvement of the Process cycle time. Table 2 contains a before and after comparison and a percentage improvement

of the Process cost. Table 3 contains a before and after comparison and a percentage improvement of the six indices (Wait Time, Concurrency, Labor, Electronic Document, Real Value, and Workflow). Table 4 contains a shortened version of the break-even analysis and is linked from the "Break-Even" worksheet. Data Field 1 contains the capital outlay which are the total One-Time Costs for the To-Be Process. Data Field 2 contains the time it will take to implement the To-Be Process.

Break-Even

This worksheet contains two (2) tables. Table 1 is a break-even analysis that compares the costs of the As-Is and To-Be Processes. This table details the monthly results for the first year and then yearly results for the next two (2) years. Table 2 is a shortened version of the break-even analysis, designed for the Executive Summary. This table details the results at three (3) months, six (6) months, 12 months, and two (2) years.

Time

This worksheet contains four (4) tables. Table 1 compares the Weighted Average of the Cycle Time and Minimum Cycle Time for the As-Is and To-Be Processes. Table 2 compares the Weighted Average of the Elapsed Time, External Time, Transfer Time, Wait Time, and Working Time for the As-Is and To-Be Processes. Table 3 compares the Weighted Average of the Total Elapsed Duration, Total External Time, Total Transfer Time, Total Wait Time, and Total Working Time for the As-Is and To-Be Processes. Table 4 compares the Weighted Average of the Labor Time and All Resources Time for the As-Is and To-Be Processes.

Cost

This worksheet contains one (1) table that compares the Weighted Average Resource Costs, Indirect Costs, and Total Costs for the As-Is and To-Be Processes.

Resources

This worksheet contains three (3) tables. Table 1 compares the Weighted Average time of the Employee Resources used in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Employee Resources used in the As-Is and To-Be Processes. Table 3 compares the number of Resources required by the As-Is and To-Be Processes.

Functions

This worksheet contains two (2) tables. Table 1 compares the Weighted Average time of the Function items in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Function items in the As-Is and To-Be Processes.

Value-Added

This worksheet contains two (2) tables. Table 1 compares the Weighted Average time of the Value-Added Classification items (Real Value-Added, Business Value-Added, and No Value-Added) in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Value-Added Classification items (Real Value-Added, Business Value-Added, and No Value-Added) in the As-Is and To-Be Processes.

Quality Control

This worksheet contains two (2) tables. Table 1 compares the Weighted Average time of the Quality Control Classification items (Quality Control and Not Quality Control) in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Quality Control Classification items (Quality Control and Not Quality Control) in the As-Is and To-Be Processes.

Workflow

This worksheet contains two (2) tables. Table 1 compares the Weighted Average time of the Workflow Classification items (Current Workflow, Potential Workflow, and Not Workflow) in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Workflow Classification items (Current Workflow, Potential Workflow, and Not Workflow) in the As-Is and To-Be Processes.

Classification 4

This worksheet contains two (2) tables. Table 1 compares the Weighted Average time of the Classification 4 items in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Classification 4 items in the As-Is and To-Be Processes.

Classification 5

This worksheet contains two (2) tables. Table 1 compares the Weighted Average time of the Classification 5 items in the As-Is and To-Be Processes. Table 2 compares the Weighted Average cost of the Classification 5 items in the As-Is and To-Be Processes.

Indices

This worksheet contains one (1) table. The table compares the Weighted Average value for each of the six indices (Wait Time, Concurrency, Labor, Electronic Document, Real Value, and Workflow) for the As-Is and To-Be Processes.

General Info

This worksheet contains general information about the As-Is and To-Be Processes, including the number of times that the Process will occur each year. This information is copied from the As-Is and To-Be Analysis Workbooks.

6.4 Creating a Process Redesign Report

After you have developed Process Models of an As-Is and a To-Be version of a Process in Workflow•BPR, then you can put together a Process Redesign Report. A Process Redesign Report is intended to highlight the differences between two Processes with respect to a large number of measurements. Because there is a large amount of data used in a Redesign Report, Workflow•BPR has utilities to save you a great deal of time in handling and transferring the data.

The general steps for creating a Process Redesign Report is as follows:

- Develop the As-Is and To-Be versions of a Process in Workflow•BPR.
- Calculate the Weighted Averages for each of the Processes
- Export the Weighted Average reports in two batches. All of the required 25 reports will be exported at one time for each Process. You will export for the As-Is and To-Be Processes separately (refer to the section entitled "Exporting the Analysis Reports" on page 6-2).
- Create a Process Summary Report for the two Processes. You will do this for the As-Is and To-Be Processes separately (refer to the section entitled "Creating a Process Summary Report" on page 6-3).
- Create a Process Comparison Report for the two Processes. This will be one (1) report that will combine the summary information of both Processes (refer to the section entitled "Creating a Process Comparison Report" on page 6-11).
- With the Process Comparison Report for the As-Is and To-Be Processes, you are now ready to create the Process Redesign Report. The following sections describe the Process Redesign Report and how it is created.

6.4.1 Data Required for the Process Redesign Report

The Process Redesign Report is based on the Weighted Average analysis of a Process. Refer to the section entitled "Creating Weighted Average Reports" on page 5-5 for more information about how to create Weighted Average reports. In addition to the data contained in the Weighted Average reports, there is more data required to complete the Process Redesign Report. The following is a list of additional data that is required for the Process Redesign Report:

- **Discount Rate**: This number is used in the calculation of the Net Present Value (NPV) for the Process. This value is entered in the Details tab of the

Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.

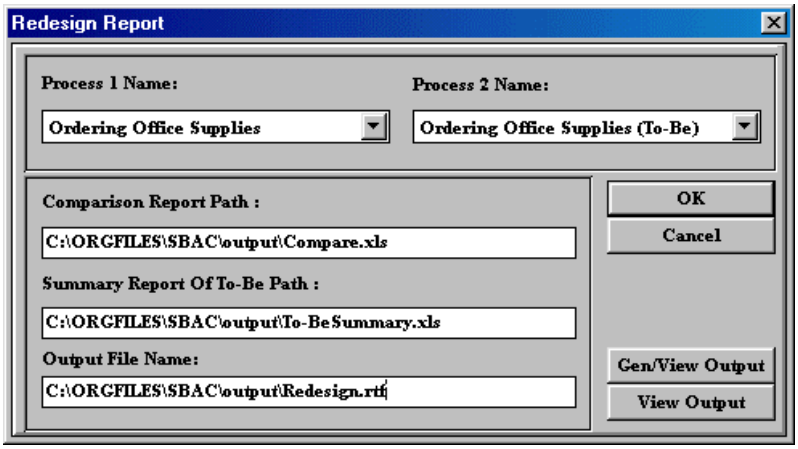
- **Payback Duration**: This number is used in the calculation of the Net Present Value (NPV) for the Process. This value is entered in the Details tab of the Info dialog box of the Process. Refer to the section entitled "Defining Information About a Process" in Chapter 2 of the *Modeling Guide*.

6.4.2 Redesign Report Dialog Box

✍ **Prerequisite: a Process Comparison Report must be created before the Process Redesign Report can be created.**

To create a Process Comparison Report:

1. Choose **Analysis Reports** from the **Report** menu, then a sub-menu appears, select **Process Redesign**. The **Redesign Report** dialog box appears (see the figure below).



2. Select a Process from the **Process 1 Name** selection list (if it is not already selected).
3. Select another Process to compare with the first Process from the **Process 2 Name** selection list (if it is not already selected).
4. Type the name and path where the Process Comparison Report for the two (2) selected Process is located in the **Comparison Report Path** text box.
   * If the Process Comparison Report for Process 1 or Process 2 has not been created, then close the Redesign Report dialog box. Refer the section entitled "Creating a Process Comparison Report" on page 6-11.
5. Type the name and path where the Process Summary Report for Process 2 is located in the **Path of Process 2 Summary Report** text box.
   * If the Process Summary Report for Process 2 has not been created, then close the Redesign Report dialog box. Refer the section entitled "Creating a Process Summary Report" on page 6-3.

6. ⌨ Type the name and path of the Process Redesign Report to be created in the **Output File Name** text box.
7. If you want to create the Process Redesign Report and leave the dialog box open to export the reports for other Processes, then 🖱 click the **Gen/View Output** button.
   * Rich Text Format (*.rtf) is the only file type that is currently supported for the Process Redesign Report.
   * A **Generating Reports** dialog box appears, which displays a thermometer showing the progress as the as the Report is being created. 🖱 Click **Cancel** to terminate.
8. If you want to view a previously generated Process Redesign Report, then 🖱 click the **View Output** button.
9. If you want to create the Process Redesign Report and close the dialog box, then 🖱 click **OK** or ⌨ press **Enter**.

6.4.3 The Process Redesign Report

6.4.3.1 The Report Chapters

There are four (4) main chapters in the Redesign Report, as well as an Executive Summary and an Appendix. The following sections describe the contents of these items.

Executive Summary

The Executive Summary provides a short but meaningful presentation of the results of the Redesign Analysis that is documented in the Redesign Report. This summary is suitable for presentation to management.

Introduction

The Introduction describes the purpose of the document, introduces the individuals that contributed to the reengineering effort (the BPI Team), and itemizes the time of significant events in the reengineering effort.

The Story of the Process

This chapter describes some basic background information about the Process and the reengineering effort. The Process is described in a story format and the following items are identified: the owner, the purpose, the requirements, the policies, the boundaries, the problems, and the reengineering goals of the Process.

The Redesigning of the Process

This chapter first summaries the reengineering activities that took place in preparing the Redesign Report. The chapter then describes the concept that was defined for creating a To-Be Process (i.e., how is the Process going to be improved?) and breaks down the Costs that it would take to implement the Process. Finally, the chapter presents a series of tables that compare time and cost analyses between the As-Is and To-Be Processes.

Conclusions

This chapter provides a brief summary of where the BPI Team expects to go next. Were the goals met? Is the To-Be Process an acceptable solution or should more analysis be done?

Chapter 7: Procedure Reports

Procedures are a series of activities or steps that are designed to accomplish a well-defined piece of work. For example, Procedures would be defined for adding a new account on to a system, for writing a check, and for accepting a credit card during a transaction. Organizations will publish procedure manuals to aid in training new employees, and for obtaining ISO9000 certification. Most complex Processes, such as processing an insurance application, will contain many Procedures that will be used during the performance of the Process.

Workflow•BPR allows you to create a documentation record of Procedures and associate them with the Processes (refer to the section entitled "Procedures" in Chapter 4 of the *User's Guide*). The Tasks and other objects in a Process correspond to the Steps of a Procedure.

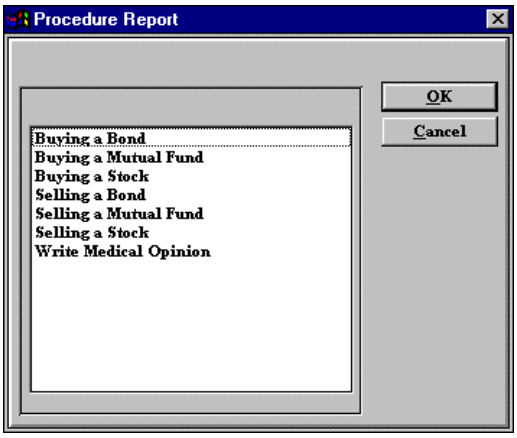
A Procedure can be assigned to a Process (refer to Chapter 2 of the *Modeling Guide*). However, if the Process has been set as being a Multi-Procedure Process, then a single Procedure cannot be assigned. A Multi-Procedure Process is usually a large Process that contains Tasks from more than one Procedure.

- ✍ **A Procedure is not a graphical modeling object. The information about a Procedure is defined in the Repository and is associated with one (1) or more Processes (refer to the section entitled "Procedures" in Chapter 4 of the *User's Guide*). The Process activities determine the Steps of the Procedure. This chapter only describes the steps for creating the Procedure Report.**

7.1 Creating a Procedure Report

There are two methods for creating a Procedure Report. The first method for creating a Procedure Report is as follows:

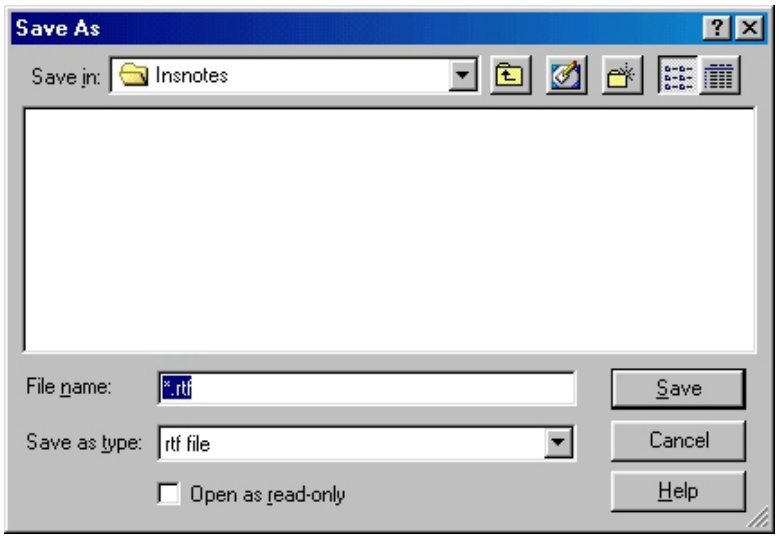
1. Choose **Procedure Report** from the **Report** menu. The **Procedure Report** dialog box appears (see the figure below).



2. Select the Procedure from the list box.

   * Refer to the section entitled "Procedures" in Chapter 4 of the *User's Guide* for information about how to define a Procedure.

3. Click **OK** or press **Enter**. The **Save As** dialog box appears (see the figure below).



4. Select the appropriate drive and/or folder where your Procedure Report is to be saved.
   * Double-click a folder in the large box to go down the tree.
   * Click the **Up One Level** button to go up the tree.
5. Type the name of the file under which you want your Procedure Report to be saved in the **File Name** text box.
   * Only the file type of RTF can be selected.
6. Click **OK** or press **Enter**. The Procedure Report will be opened in Microsoft Word.

The second method for creating a Procedure Report is as follows:

1. Open a Process that has a Procedure assigned in the Details tab of the Info dialog box.
   * Refer to the section entitled "Procedures" in Chapter 4 of the *User's Guide* for information about how to define a Procedure.
   * Refer to the section entitled "Details" in Chapter 2 of the *Modeling Guide* for information about how to assign a Procedure to a Process.
2. Choose **Procedure Report** from the **Process** menu. The **Save As** dialog box appears.
3. Select the appropriate drive and/or folder where your Procedure Report is to be saved.
   * Double-click a folder in the large box to go down the tree.
   * Click the **Up One Level** button to go up the tree.
4. Type the name of the file under which you want your Procedure Report to be saved in the **File Name** text box.
   * Only the file type of RTF can be selected.
5. Click **OK** or press **Enter**. The Procedure Report will be opened with Microsoft Word.

7.2 Procedure Report Sections

The following sections describe the sections that make up the Procedure Report.

7.2.1 Title

The title section identifies the name and number of the Procedure as well as some other basic information about the Procedure:

- **Number**: The full number of the Procedure will include all the parent Functions of the Procedure as defined in the Function Tree. For example, if

Procedure 1 (Number 210) is a child of Function 3 (Number 440), which is a child of Function 2 (Number 100), then the full Number of Procedure 1 would be 100.440.210.

- **Name**: The name of the Procedure is the name of the Procedure object that was defined in the General tab of the Repository.
- **Version**: This section will display the latest version of the Procedure as it moves through its revision cycle. The value is entered in the General tab of the Procedure dialog box.
- **Date Created**: This section will display the date that the Procedure was first defined. The value is entered in the General tab of the Procedure dialog box.
- **Date Revised**: This section will display the date that the latest revision of the Procedure was established. The value is entered in the General tab of the Procedure dialog box.
- **State**: There are four possible states for a Procedure: Draft, Working, Recommended, and Published. These four states represent an increasing level of completion as the Procedure is developed. The value is entered in the General tab of the Procedure dialog box.
- **Responsible**: An employee is assigned as being responsible for maintaining the accuracy of the Procedure. The Employee is assigned in the General tab of the Procedure dialog box.

7.2.2 Description

This section provides an overall description of the Procedure. The description is entered in the Details tab of the Procedure dialog box.

7.2.3 When to Use

This section provides a text description of when the Procedure should be applied. The description is entered in the Details tab of the Procedure dialog box.

7.2.4 Need to Know

This section provides a text description of what additional information is necessary when the Procedure is applied. This might specify what applications should be used, or what information should be asked of the customer. The description is entered in the Details tab of the Procedure dialog box.

7.2.5 Users

The users are the Roles that are assigned to the Steps of the Procedure. The roles are derived from the Tasks of the Primary Process of the Procedure. The Tasks of the Primary Process are the Steps of the Procedure and the Roles assigned to the Tasks become the Users of the Procedure. The Primary Process is assigned in the General

tab of the Procedure dialog box. The Roles are assigned in the General tab of the Task Object dialog box.

7.2.6 References

A set of Reference Procedures can be listed for a Procedure. This is a list of previously defined Procedures that are references as leading into, following, or occurring during the middle of the current Procedure. The References are assigned in the General tab of the Procedure dialog box.

7.2.7 Business Rules

Business Rules are very specific Policies that affect the Performance of a Procedure. For example, a Business Rule could be: "All applications for loans over $50,000 must be approved by a committee." Such Business Rules affect the sequence of Tasks and who performs the Tasks (or Steps) within the Procedure. You can assign a set of Business Rules that impact the Procedure in the General tab of the Procedure dialog box.

7.2.8 Primary Process

The Primary Process is the Process that defines the steps of the Procedure. This is a standard Process as defined in an Activity Decision Flow Diagram. However, this Process is focused on detailing a sequence of Steps that result in the completion of a objective for a specific situation. Examples of Procedures include "cutting" a check, deleting a database record, or scanning an incoming document. Many Processes are created to model a large-scale object, such as underwriting an insurance policy. These Processes are typically composed of many smaller Procedures. Procedures can be reused as components in many Processes.

The objects within the model of the Primary Process make up the Steps of the Procedure. Tasks, Process Objects, External Entities, External Processes, Decisions, and Choices define these Steps. You can assign the Primary Process of the Procedure in the General tab of the Procedure dialog box.

7.2.9 Other Processes using this Procedure

Within a definition of a Process, a Procedure can be assigned. For the Procedure, there can be only one Primary Process, but there can be many Processes that have the same Procedure associated to them. All the other Processes that have the Procedure assigned to them (and are not the Primary Process) are listed in this section. A Procedure can be assigned to a Process in the Details tab of the Info dialog box.

7.2.10 Procedure Steps

These are the sequence of activities that are performed in the Procedure. These steps are derived from the objects of the Primary Process and are presented in a table

within the Procedure Steps section of the Report. Each step has five associated attributes:

- **Number**: This number determines the exact order of the steps. This is determined by the relationships of the objects in the Primary Process as defined by the Connectors. As each object is connected to another and then another, these relationships determine the order of the Steps.
    - Tasks, External Entities, External Processes, Process Objects, and Decisions are given full step numbers. For example, the first Task in the Procedure would be Step 1. If the first Task is followed by a Decision, the Decision would be Step 2, and so on.
    - Sub-Process objects will be listed as Sub-Steps. A Sub-Step will maintain the number of the higher-level Step, followed by a period (.) separator, which is followed by the Sub-Step number. For example, if a Process Object is Step 2, then the first Task in the Sub-Process will be Step 2.1, and so on.
    - The Choices of Decisions will also be listed as a step subordinate to the Step number of the Decision. The Step number of the Choice will maintain the number of its Decision Step and then will be followed by a letter identifier. For example, if a Binary Decision is Step 2.4 (because it is in a Sub-Process), the Yes Choice for the Decision will be Step 2.4a and the No Choice for the Decision 2.4b.
- **Name**: The name of the Step will be the name of the object in the Primary Process that determines the Step.
- **Type**: The Step Type lists the type of object that created the Step: Tasks, External Entities, External Processes, Process Objects, Decisions, and Choices are possible Step Types.
- **Next**: Any Step listed in the Procedure Steps table can be connected to one or more of the other Steps listed in the table. The sequence of Steps, and thus, which Step is Next, is determined by the Connectors in the Primary Process. The Step Number for any object that follows the Object for the Step will be listed in the Next column.
- **Description**: The Description Notes of the object in the Primary Process that determines the Step will be used in this column of the table.

7.2.11 Procedure Inputs

This section is derived from Phis within the Primary Process. Any Phi that is an input to an activity but is not an output from another activity, is considered an input to the Process. That is, the Phi is connected to an object on its right, but is not connected from any object on its left. All input Phis within the Primary Process are listed in this section.

7.2.12 Procedure Outputs

This section is derived from Phis within the Primary Process. Any Phi that is an output of an activity but is not an input to another activity, is considered an output to the Process. That is, the Phi is connected from an object on its left, but is not connected to any object on its right. All output Phis within the Primary Process are listed in this section.

Chapter 8: Documentation Reports

A Documentation Report file lists the following information:

- **Process Statistics** (e.g., number of Tasks)
- **Tasks**
- **Decisions**
- **Choices**
- **Processes**
- **External Processes**
- **External Entity**
- **Phis**
- **Resources**
- **Media**

8.1 Documentation Report (Export) Dialog Box

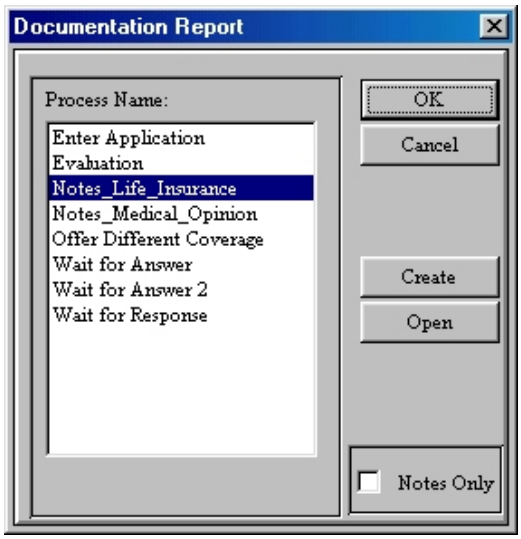
The **Create Document File** dialog box has two (2) fields:

- **Process Name**: A list of available Processes is displayed. The Analysis Reports batch of files can be exported to only one selected Process.
- **Notes Only**: A check box that specifies that you want a report that displays only the objects and notes associated with the objects.

8.2 Creating and Opening a Documentation Report

To create and open a Documentation Report:

1. Choose **Documentation Reports** from the **Reports** menu, and then choose **Standard** from the sub-menu. The **Documentation Report** dialog box appears (see the figure below).



2. Select one or more Processes from the **Process Name** list.
3. Click the **Notes Only** check box if you want to create a variation of the Documentation Report that contains only the names of the activities and the Notes associated with them.
4. Click **Create** to create a **Documentation Report** file.
5. Click **Open** to open a previously created **Documentation Report** file.
6. Click **OK** to create and open a Documentation Report. The **Documentation Report** dialog box will close.

Chapter 9: Data Matrices

The following sections describe four (4) data matrices produced by Workflow•BPR.

9.1 Data Flow Matrix

The Data Flow Matrix documents the relationship between Phis and the other objects in an Activity Decision Flow Diagram. The rows of the matrix list the objects of the diagram. The columns of the matrix list the Phis of the diagram. The cells that intersect the objects and Phis will list if the Phi is input, output, or both input and output for the object.

To open the Data Flow Matrix:

1. Choose **Data Matrices** from the **Report** menu, a sub-menu appears.

   ☞ **Data Matrices are not available in the Basic Editing Mode.**

2. Choose **Data Flow Matrix**. The **Data Flow Matrix** table will appear (see the figure below).

Data Flow Matrix

	A	B	C	D
1		*:Data Flow Matrix*		
2	*Objects - Phis*	*Type*	*Documentation*	*Life Insurance Application*
3	Accept	Choice		O
4	Acceptance Decision	Task		I
5	Acceptance Letter	Task		I
6	Block Evaluation	Process		I/O
7	Client	External Entity		O
8	Client	External Entity	I	
9	Create Customer Record	Task		I
10	Enter Application	Task		O
11	Find Client	Task		I
12	Mail Policy	Task	O	I
13	New Client?	Decision		O
14	Open Customer Database	Task		I
15	Reject	Choice		O
16	Rejection Letter	Task		I
17	Result of Evaluation?	Decision		
18	Update Client Information	Task		I/O

9.2 Data Elements Matrix

The Data Elements Matrix documents the relationship between Data Fields and the Phis in an Activity Decision Flow Diagram. The rows of the matrix list the Data Fields that are used in Phis within the diagram. The columns of the matrix list the Phis of the diagram. The cells that intersect the Data Fields and Phis will be marked with an 'X' if the Data Field is used for the Phi.

To open the Data Elements Matrix:

1. Choose **Data Matrices** from the **Report** menu, a sub-menu appears.

   ☞ **Data Matrices are not available in the Basic Editing Mode.**

2. Choose **Data Elements Matrix**. The **Data Elements Matrix** table will appear (see the figure below).

Data Element Matrix

	A	B
1	:Data Element Matrix	
2	Fields - Phis	Life Insurance Application
3	ClientID	X
4	FirstName	X
5	LastName	X
6	SSN	X

9.3 Program Elements Matrix

The Data Elements Matrix documents the relationship between Data Fields and the Applications in an Activity Decision Flow Diagram. The rows of the matrix list the Data Fields that are used in Applications assigned to Tasks within the diagram. The columns of the matrix list the Applications assigned to Tasks of the diagram. The cells that intersect the Data Fields and Applications specify the action that the Application will perform on the Data Field. You can specify four (4) types of action:

- Create
- Read
- Update
- Delete

To open the Program Elements Matrix:

1. Choose **Data Matrices** from the **Report** menu, a sub-menu appears.

   ☞ **Data Matrices are not available in the Basic Editing Mode.**

2. Choose Program Elements Matrix. The Program Elements Matrix table will appear (see the figure below).

Program Field Matrix

	A	F	G	H	I	J
1						
2	*Fields - Programs*	*CopyInputI*	*NOTESFORM*	*NOTESFC*	*NOTESFC*	*NOTESFC*
3	AcceptReject		Read	Read		
4	Accident					
5	Actions				Read	
6	Amount					
7	Application					Read
8	ClientID	Create				
9	CustomerInfo					
10	Default Data Structure			Read		
11	Default_DS					
12	DifferentCoverage					
13	DifferentCoverage2					
14	DocID					
15	Doctor					
16	Evaluation	Read			Read	
17	FirstName	Create				
18	FolderEvalID					

9.4 Program Activities Matrix

The Data Elements Matrix documents the relationship between Data Fields and the Tasks in an Activity Decision Flow Diagram. The rows of the matrix list the Data Fields that are used in Applications assigned to Tasks within the diagram. The columns of the matrix list the Tasks of the diagram. The cells that intersect the Data Fields and Applications specify the action that the Application of the Task will perform on the Data Field. You can specify four (4) types of action:

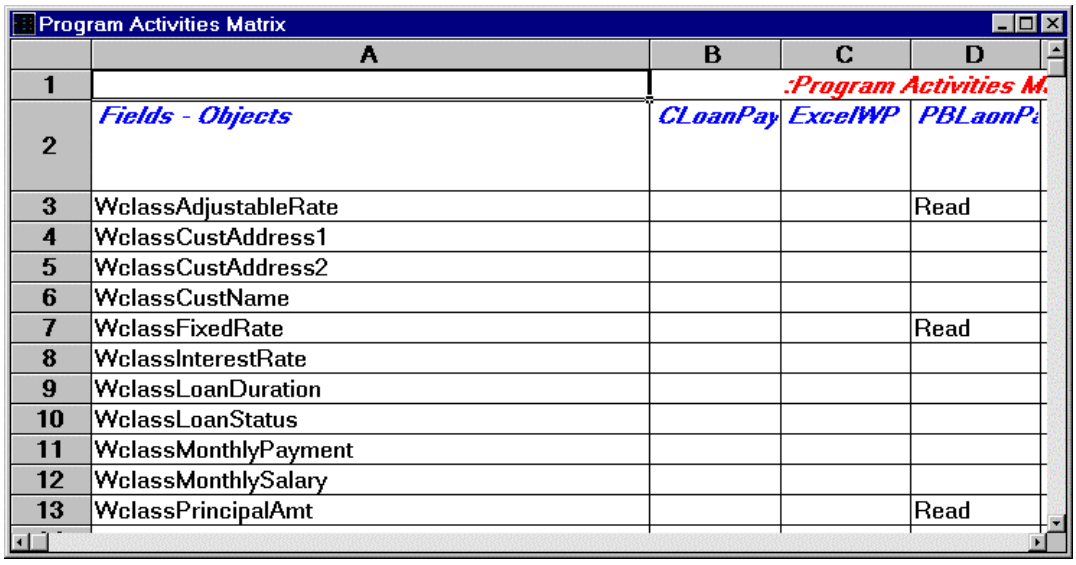
- Create
- Read
- Update
- Delete

To open the Program Activities Matrix:

1. Choose **Data Matrices** from the **Report** menu, a sub-menu appears.

   ☞ **Data Matrices are not available in the Basic Editing Mode.**

2. Choose Program Activities Matrix. The Program Activities Matrix table will appear (see the figure below).



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