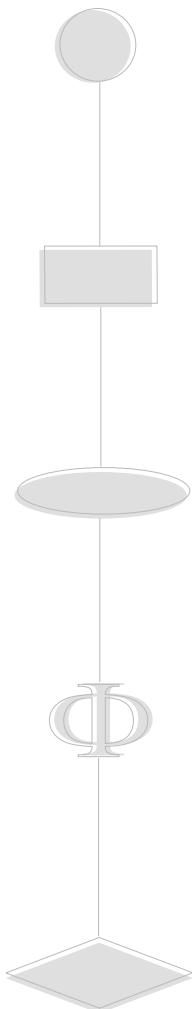
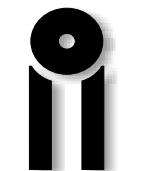


EiProcess Suite



WORKFLOW • BPR

User's Guide
Version 3.4



HOLOSOFX

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User's Guide

Workflow•BPR

Version 3, Release 4

HOLOSOFX, Inc.

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1. About This User's Guide

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

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

Chapter 1: *Introducing Workflow•BPR* introduces the main features of Workflow•BPR, provides information about basic operations in Workflow•BPR (such as opening and creating organization files, and working with Workflow•BPR's windows and dialog boxes), and places the application in the context of Business Process Reengineering.

Chapter 2: *Repository: Organization Data* includes information concerning how to add and update Organization Data in the Data Repository.

Chapter 3: *Repository: Process Data* includes information concerning how to add and update Process Data in the Data Repository.

Chapter 4: *Repository: Documentation Data* includes information concerning how to add and update Documentation Data in the Data Repository.

Chapter 5: *Preparing for Monitoring a Process* includes information concerning how to prepare a process for the workflow and business monitors.

Chapter 6: *Customizing Workflow•BPR, Printing Outputs, Exporting, and Importing* demonstrates how to customize the appearance of Activity Decision Flow Diagrams, print diagrams and other outputs, export and import data, and import Process Models from other Workflow•BPR organization files.

Glossary: Includes detailed definitions of the terms mentioned in the User's Guide. The formulas used for various metrics are also provided.

References: Includes a list of Business Process Reengineering publications.

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.

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.

Reporting Guide provides information about how to generate and use the many tables, charts, and reports produced from analysis of Workflow•BPR Processes.

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.

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Chapter 1: Introducing Workflow•BPR

The business community is beginning to recognize that defining and modeling processes is a prerequisite for improving performance. A **Process** is a variable pattern of interactions between an organization's components and its environment so that the organization can achieve its goals. Given this, modeling a process presents significant challenges. Modeling requires structure to ensure consistency and thoroughness in capturing relevant information. Alternatives and exceptions to standard procedures must be captured, in addition to normal operations. Business environments are ever-changing and often volatile, requiring continual "fine tuning" of processes; this is why business improvement is a perpetual race.

Workflow•BPR is a sophisticated and industry-independent BPR tool that allows realistic and visual modeling of the way a process is handled under specified conditions. Now, Workflow•BPR also supports Line of Visibility modeling with specialized Activity Decision Flow Diagrams that can capture the activities in the "swim lanes" of a particular Role. Customers using this tool can capture all possible alternative paths of a process and generate, on demand, an explicit path for evaluation and/or modification. The analysis capabilities of Workflow•BPR are threefold:

- A wide variety of pre-defined, customizable, and graphical management reports can be generated based on conditions and alternatives as specified for examination by the user. Reports include Cycle Time Analysis, Cost Accounting, and Resource Allocation and Utilization.
- Weighted Averages of Time, Cost, and Resource Allocation can be calculated for all possible alternatives, resulting in accurate measurements and key Process indices.
- The varying rates of input can be simulated and analyzed for a study of the dynamic and transient impact on Resource Cost, Time, and Requirements.

Workflow•BPR helps you pinpoint problem areas and reach more intelligent decisions. It is user-friendly because it was designed specifically for the business end-user. When you have completed your Process Models, Workflow•BPR facilitates integration with Workflow Engines if an automated solution is appropriate.

1.1 The Main Components of Workflow•BPR

There are six (6) main components of Workflow•BPR: Process Modeling, Process Case Analysis, Weighted Average Analysis, Process Simulation, Reporting, and Workflow Integration.

1.1.1 Process Modeling

The development of a Process Model can go through much iteration before it is complete. First, the Process Model has to be created; then it is necessary to verify that the data has been correctly entered into the Model. Next, a reality check must be conducted to determine whether the Model is an accurate representation of what the organization actually does. To pass the verification and reality check phases of Process Model development, Process data must be viewed and analyzed (with updates made to the Model accordingly). The User's Guide documents the techniques involved in completing a Process Model.

The key to process modeling using Workflow•BPR is based upon understanding four important concepts:

1. A Process is chronological. Accurate models must therefore be oriented on a timeline.
2. Flow modeling should display how objects and/or data are transferred and where they are going. The majority of business problems stem from interdependent relationships, which are best identified in a flow chart.
3. A Process can be modeled in a hierarchical fashion and can be viewed from many levels. That is, Processes can contain other Processes.
4. The Choices made for Decisions, which occur within a Process, determine which of all potential paths shall be taken. It is vital to capture all potential paths of a Process.

Data collection for Process Modeling efforts can be an individual or a group effort. Information is gathered and entered into the Data Repository to create Process Models. Sometimes a BPR Team is formed to organize and manage these activities, but a detailed discussion regarding the structure of a BPR effort is beyond the scope of this Guide.

Modeling a Process in Workflow•BPR primarily involves the creation of an **Activity Decision Flow** (ADF) Diagram, which captures the inner workings of the Process. The boundaries (i.e., beginning and ending) of a Process are defined first. If large in size, the Process can be broken down into smaller Processes. Each of these smaller Processes will have its own detailed ADF Diagram.

1.1.1.1 **Main Elements of an Activity Decision Flow Diagram**

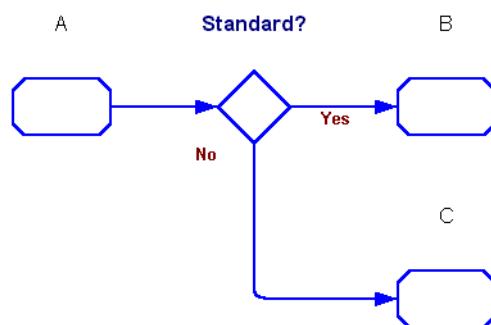
A Process is defined in Workflow-BPR in an Activity Decision Flow Diagram. The main Activity Decision Flow Diagram objects are activities - Tasks, Process Objects, and External Processes - which are connected and driven by Decisions and Phis.

- **Tasks:** A Task a low-level activity that takes place within a Process. It has a cost and duration associated with it and employs the resources (e.g., employee or software) of a particular group or organization.
- **Process Objects:** A Process Object is a high-level activity that takes place in a Process. A Process Object represents a lower-level Process that can contain Tasks or even other Process Objects, creating a hierarchy.
- **External Entities and External Processes:** An External Process is an activity performed in your Process by an External Entity. Although External Processes are outside the control of your organization, they are essential to modeling the realities of a Process.
- **Phis:** A Phi is an object that represents the input or output of an activity. [The inputs and outputs of activities are called Phis because the first letter of each (Input and Output) can be overlapped, forming the Greek character “Phi” (ϕ).] A Phi can exist in many states throughout the Process, and can also be known by a particular category, as well as by a particular type.
- **Decisions and Choices:** During a Process, Decisions, which influence the routing of work, may be required. A Choice must be made in order to identify the subsequent Tasks.
- **Connectors:** Connectors define the sequence of activities in a Process. In addition, Connectors can define the media that represents the method (e.g., courier, electronic mail) used to transport a Phi from one activity to the next.
- **Go To Objects:** This element can provide a short-cut for a connection that would stretch over a long distance in the diagram, or it can provide a mechanism for modeling a Loop within a Process.
- **Stops:** These graphical markers show that a particular path within the Process has stopped. For the DesignFlow variation of the ADF, they mark the end of paths that are part of the Multi-Thread and Choice Box modeling objects.
- **Role Objects:** These define “swim lanes” for a particular Role, Organization Unit, Function, Application, or External Entity. These are only available in the Line of Visibility and E-Commerce Editing Modes.
- **Multi-Instance:** These objects come in a start and end pairing and define a group of activities that will be repeated. These are only available in the Line of Visibility and E-Commerce Editing Modes.
- **Activity Group:** These are special objects that “surround” a group of activities to highlight them. They are also used for reporting in the DesignFlow methodology. These are only available in the Line of Visibility Editing Mode.

- **Partner Interaction:** These are similar to Phis. They represent the transfer of data via the internet for E-Commerce transactions. These are only available in the E-Commerce Editing Mode.

1.1.1.2 Alternative Nature of a Process: Process Cases

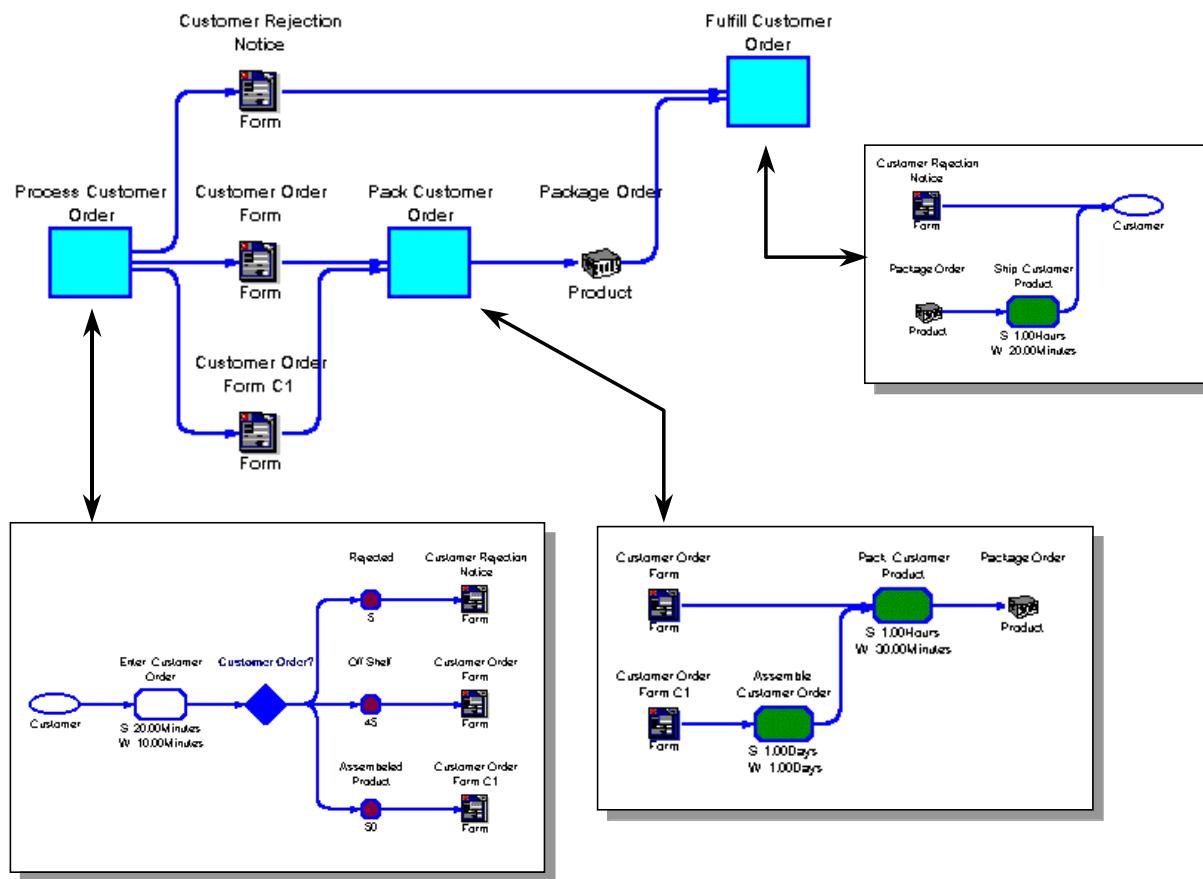
The presence of Decisions in a Process creates at least two alternative paths of execution. Each of these paths can result in completely different activities (see the figure below).



As the path of the Process is traveled, a Choice has to be made when a Decision Point is reached. There are as many unique paths through the Process as there are combinations of Decisions and Choices. Each unique path, from the beginning to the end, is called a **Case**.

1.1.1.3 Hierarchical Composition of a Process

The boundaries of a Process are set only by your point of view. In Workflow•BPR, a view is defined by the Activity Decision Flow (ADF) Diagram. For example, a Manager may maintain an overall point of view of her or his department, but each Unit Supervisor has their own point of view, as depicted in the inset boxes below. Each of the square Process Objects (i.e., Process Customer Order, Pack Customer Order, Fulfill Customer Order) contains their respective smaller Processes.



In this way, a hierarchical tree structure of your Process can be developed. You can think of Processes and Process Objects as the branches of the tree, and the Tasks as leaves on the branches.

1.1.2 Process Case Analysis

As discussed in “Alternative Nature of a Process: Process Cases” above, the valid combination of Decisions and their Choices creates a set of unique paths through the Process called Cases.

Cases can differ substantially in how they impact the overall time and cost of a Process, as well as the resources needed to perform it. Each Case has a probability of occurrence, which determines how much impact the Case will have on the overall Process. If Cases are not properly weighted, they can dramatically alter measurements. For example, one high-cost Case instance can skew a relatively inexpensive Process if its low probability of occurrence is not considered. The significance (or weight) of a Case relies solely on the percentage of its occurrence with respect to all other Cases. Workflow•BPR allows users to separate each Case, examine it, and generate a unique Activity Decision Flow diagram when needed.

Chapter 1: Introducing Workflow•BPR

There are many advantages to isolating and analyzing specific Cases:

- Process verification, by walking through the activities of a specific Case.
- Reviewing and examining the impact of relevant Cases on various metrics such as time, cost, and resources.
- Reviewing and examining the impact of the business rules on the overall Process performance.

All of the above operations can be done with extreme ease from the **Process Cases** window. The **Process Cases** window allows you to review all, or a selected range, of the Cases in a Process. Each Case is displayed individually with the set of Decision Choices that distinguish it. In addition, a Case can be selectively generated to create a corresponding Activity Decision Flow Diagram.

The Activity DecisionFlow Diagram generated for a Case allows analysis of all relevant data, including exact cost and cycle time. You can also perform these analyses for the Process in its entirety (i.e., all Cases collectively) without opening each Case singly and generating its Activity Decision Flow Diagram. This is accomplished through Weighted Average Analysis.

1.1.3 Weighted Average Analysis

To calculate accurately any metric of a Process (e.g., total cost), metrics from each of its individual Cases are multiplied (i.e., weighted) by the respective Case's occurrence probability. The sum of the weighted Case metrics provides an overall metric for the Process. Workflow•BPR generates 37 Weighted Average Analysis reports, which are grouped into five categories: Times, Costs, Classifications, Indices, and General. Refer to the Glossary for more details on the formulas used to create these reports.

1.1.4 Process Simulation

Aside from Weighted Average Analysis, Process Simulation is another method used to analyze a Process. Weighted Average Analysis provides a static, long-term view of the Process; Process Simulation captures the dynamics of a shorter-term view. This is important because, for example, a Process may have the resources to complete 200 jobs per year, but it cannot perform more than two (2) per day.

Process Simulation enables the simultaneous viewing and examination of all Cases, as they run in a real-life work environment. Process Simulation also provides the ability to vary Process input volume over time by adjusting Resources and current allocations. Simulation output provides detailed information regarding Resource utilization levels, as well as cost and cycle time calculations. Results change according to the Simulation session length or the number of entries completed by the Process. You can set the conditions that control a Simulation.

During a Simulation, Workflow•BPR dynamically generates a number of inputs. These inputs travel through one of the possible paths (Cases) of the Process. A Job is defined as the performance of the Process based on one (1) input. The number of Jobs is equal to the number of inputs. Throughout the Process Simulation, Resources are assigned to Tasks as needed. If inputs arrive at a Task and the required Resources are not available; the inputs may accumulate to form queues. The detection of a large number of items in the queues helps determine potential bottlenecks and their causes. Workflow•BPR is able to animate events as they occur, to help you visualize your analysis.

Various Resources may be shared among Tasks, just like in real life, where one Task may have to wait for a particular Resource to finish another Task before the first Task occurs. You can simulate scenarios in which a particular Task, or a sequence of Tasks, needs to be performed several times in sequence, or in parallel, before moving further in the Process. These scenarios offer the user the flexibility to simulate real-life situations, as well as alternatives, that lead to faster and better performance without the need to remodel the Process.

During Simulation, an External Entity or a Task starts a Job by creating a Phi. As they move through the Process from one Task to another, Phis are placed into the next sequential "In" box or queue. When a Decision is reached, a Choice is randomly selected based on its probabilities (as defined by the user during modeling). Phis travel until the Process ends.

Resource availability can be controlled by changing allocations to Organization Units. For example, if a Sales Order Activity uses one clerk and the Activity takes place in the Sales Department, a particular number of clerks can be allocated to the Sales Department. The more Resources that are allocated to it, the more inputs (Jobs) that can be simultaneously processed by that department (during Simulation). If many sales orders come in simultaneously, you may wish to allocate a larger number of clerks to the Sales Department in order to avoid bottlenecks and under-staffing. Conversely, if sales orders decline, the number of clerks allocated to the Sales Department can then be decreased.

During the Simulation period, Workflow•BPR gathers data related to the Jobs, Queues, and Resources involved in performing the Tasks. As the data is gathered, a summary of useful information can be viewed after completion of the Simulation, or it can be exported to Microsoft Excel.

One of the most important features of Simulation is the ability to perform “**what-if**” analysis on a Process Model and discern which variation of the Process Model best suits your needs. A specific set of Simulation parameters used for a Simulation is called a **Scenario**. Examples of these parameters are the rate of inputs (Jobs) or the number of Resources allocated to an Organization Unit. Running the Simulation under two different Scenarios yields two sets of results for comparison.

1.1.5 Reporting

Workflow•BPR allows you to produce reports that summarize different aspects of your Business Processes. The following is a list of the types of documents that can be created. Refer to the *Reporting Guide* for more information about these reports.

- Weighted Average reports (exported to Excel documents)
 - * There are 37 different Weighted Average reports
- Simulation reports (exported to Excel documents)
 - * There are four (4) different Simulation reports
- Documentation Report (exported to Excel document)
 - * Notes Only variation
- Procedure Reports (RTF document)
- Analysis Reports
 - * Process Cases Report (Excel document)
 - * Process Summary Report (Excel document)
 - * Process Comparison Report (Excel document)
 - * Process Redesign Report (RTF document)

1.1.6 Workflow Integration

One of the main objectives of BPR tools is to function as a universal builder and monitor for workflow engines. Workflow•BPR can be used as a front-end to workflow engines because it provides flexibility with the simulation and analysis capabilities necessary to refine a Process Model accurately.

In Workflow•BPR, integration with workflow engines is accomplished by selecting and filtering the appropriate workflow components from a Process Model and translating them into a format acceptable for use by other systems. Common methods used in this loosely integrated architecture are SQL, WFPL, CDL, and FDL. Currently, Workflow•BPR offers workflow integration in three vendor-specific or industry standard formats.

- FlowMark by IBM
- MQ Workflow by IBM
- Visual WorkFlo by FileNet
- Open Image by SNS
- Workflow Coalition Standard 1B (draft)

1.2 Workflow•BPR Basics

Workflow•BPR is a unique application in that it combines the ability to model and analyze a Process. It stores data like a database application, creates drawings like a drawing application, and calculates large amounts of data like a spreadsheet application. The application has many project management application features and performs animated simulation. Workflow•BPR has no equivalent in its management of the multi-faceted nature of Process Modeling and Analysis.

1.2.1 Organization Directory

The first step in using Workflow•BPR is the creation of an **Organization File**. When an Organization File is created, an Organization Directory is automatically created to store all related Process Model files.

1.2.1.1 *File Structure of an Organization Directory*

An organization's directory contains all files required to model Processes. Workflow•BPR creates and stores five (5) types of files in this Directory. The following table lists the types of files, with names and extensions, in the Organization Directory.

Type of File	File Name and Extension
Organization File	<Organization Name>.org
Process	DECWFaa.***
Generated Case File	BPDWFaa.***
Report File	REPWFaa.***
Documentation File	DOCWFaa.***

Workflow•BPR will also create temporary files that will be stored in the Organization Directory during operations such as Expansion and Simulation.

Organization File

The Organization File stores Repository Data, holding Organization and Process data for your organization. Organization Data contains the entities that comprise the organization (such as Units and Resources). Process Data contains all activities of the organization and the attributes of those activities, as well as their inputs and outputs.

- ☞ You do not need to “Save” the Organization File. This file is saved automatically. You only need to save the individual Process Diagrams that you create.

Processes

A Process File is created for each Process Model drawn. This file contains any Process Objects, associated data, and connections *specifically related to the Process*. Information in the file is used to display the model in an Activity Decision Flow Diagram. In this User's Guide, a Process File will be just referred to as a Process.

A Process is presented in a window which contains subordinate windows. The possible subordinate windows for a Process are:

- Standard or Line of Visibility ADF
- Expanded Process Window
- Process Cases Window
- Process Simulation Window
- IBM FlowMark Window
- IBM MQ Workflow Window
- FileNet Visual WorkFlo Window
- SNS Open Image Window
- Process Chart
- Process Data Table

A single Process window will contain a Standard ADF or a Line of Visibility ADF, but not both.

Generated Case Files

A Generated Case can be generated for each alternative Case of a Process. A Generated Case File is used to store the information about a Generated Case—this is similar to a Process File storing the information about a Process. This file contains all Process Objects, with their associated data and connections, specific to the Generated Case. A Generated Case File can be created through the Generate tool of the Process Cases window. In this User’s Guide, a Generated Case File will be referred to as a Generated Case.

The Generated Case is presented in a window that contains subordinate windows. The possible subordinate windows for a Generated Case are:

- Standard ADF
- Resource Requirements Chart
- Gantt Chart
- Communication Diagram
- Process Chart
- Process Data Table

Report Files

For each Process, Workflow•BPR can calculate a set of analysis reports that reflect relevant cost and time metrics for the whole Process and its Cases. Workflow•BPR stores this analysis data in a Reports File. The information can then be used to output Report Tables concerned with the time and cost measurements of the Process.

Process Documentation Files

For each Process, Workflow•BPR generates a Process Documentation File you can view. This file lists all the objects used in the Activity Decision Flow Diagram that are associated with a Process and the Object attributes. There is also a variation of the Process Documentation file that contains only the Notes of the objects in a Process.

Configuration File

The Configuration File stores the preferences set by the user, along with other configuration information.

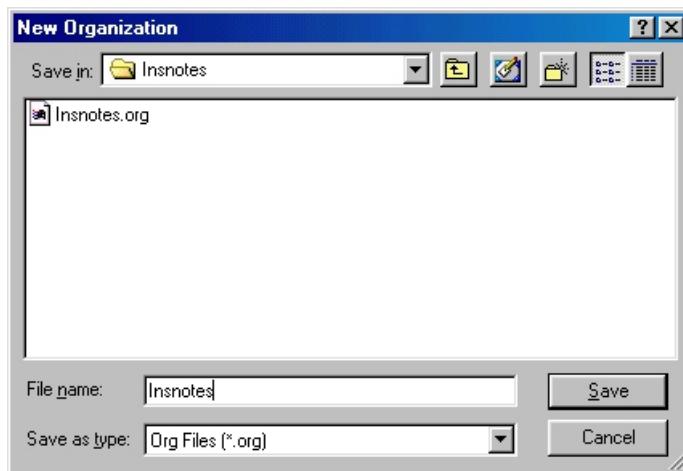
1.2.1.2 Managing Organization Files and Directories

Each Organization File is stored in a directory of the same name. The Organization Directory contains the Organization File and all the files related to the Organization File. The related files include Process Files, Generated Case Files, Report Files, and Documentation Files. The Organization File has an “.org” extension, and contains the Repository of data and links to the related files. Workflow•BPR allows for opening one Organization File at a time within its own directory.

Creating an Organization File and Directory

To create a new Organization File and Directory:

1. Choose New Organization from the File menu, or select the Create A New Organization option from the Organization File dialog box that appears when you first open Workflow•BPR. The New Organization dialog box appears (see the figure below).

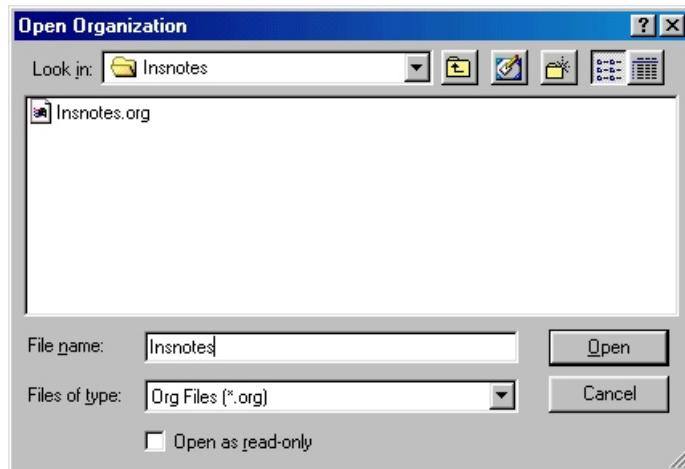


2. Select the appropriate drive and/or directory where your Organization File is to be saved.
 - * Double-click a folder in the large box to go down the tree.
 - * Click the Up One Level button to go up the tree.
3. Type the name of your Organization File in the File Name text box.
 - * If you do not include the .org extension, Workflow•BPR will automatically add it.
4. Click Save or press Enter. Workflow•BPR creates an Organization File and an Organization Directory in which to place the Organization File, and then creates and displays an untitled Process in an Activity Decision Flow Diagram.

Opening an Organization File

To open an existing Organization File:

1. Choose **Open Organization** from the File menu, or select the **Open an Existing Organization** option from the **Organization File** dialog box that appears when you first open Workflow•BPR. The **Open Organization** dialog box appears (see the figure below).



2. Select the drive and/or directory where your Organization File is located.
 - * Double-click a folder in the large box to go down the tree.
 - * Click the **Up One Level** button to go up the tree.
3. Select the Organization File from the **File Name** list, or type the name of your Organization File in the **File Name** text box.
 - * If you do not include the .org extension, Workflow•BPR will automatically add it.
4. Click the **Open as Read-Only** check box if you want to prevent changes being made to the Organization.
5. Click **Open** or press **Enter**. Workflow•BPR opens the Organization File and displays the **Open Process** dialog box to enable the opening of a Process Diagram.

Backing-Up an Organization Directory

The Organization Directory may contain files related to the Organization File. Some of the related files are Report Files and Documentation Files. These files can become large and are not as useful to back-up, since you can always generate them when needed, provided the Process Files are present. The standard method to back-up an Organization Directory is to back-up only the Organization File and its related Process Files and Generated Case Files.

To back-up an Organization Directory:

1. Insert a diskette in drive A or B.
2. Open Workflow•BPR and open the Organization File that is in the Organization Directory you want to back-up (refer to the section directly above for more information about opening Organization Files).
3.  Choose **Save Organization As** from the File menu. The **New Organization** dialog box appears.
4.  Select the appropriate drive and/or directory where your Organization File is to be saved from the tree chart in the **Directories** box.
5.  Type the name of your Organization File in the **File Name** text box.
6. Name the Organization File appropriately for the purpose of backing up the Organization Directory.
7.  Click **OK** or  press **Enter**. Workflow•BPR creates a new Organization Directory and Organization File in the specified location.
8. Open the original Organization Directory to close your back-up copy of the Organization File (refer to the previous section).

If you want to back-up the Organization Directory with all the related files, then use the Windows File Manager or Explorer to copy the Directory onto one or more diskettes.

-  **Some of the Report Files may be very large and may not fit on one diskette. You may want to back them up on a different storage medium (e.g., tape) and/or compress the Organization Directory before backing it up.**

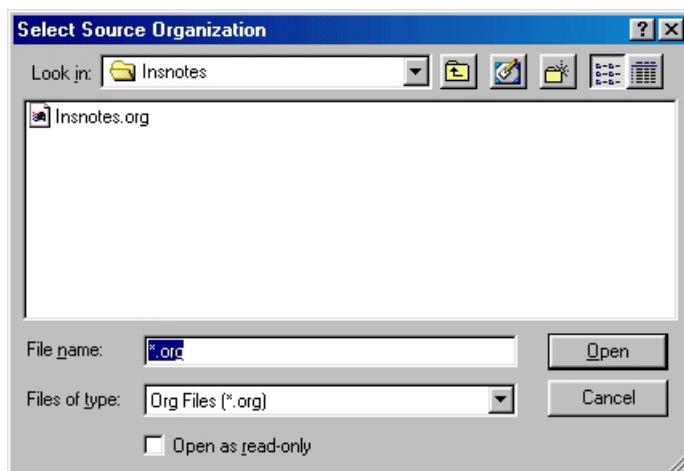
Backing Up the Repository

Backing up an Organization File alone can be useful if you want to communicate only the Repository data you created during Process Modeling, or if one user was assigned the task of entering a particular set of data. To perform this back-up, you need at least one Process, preferably empty.

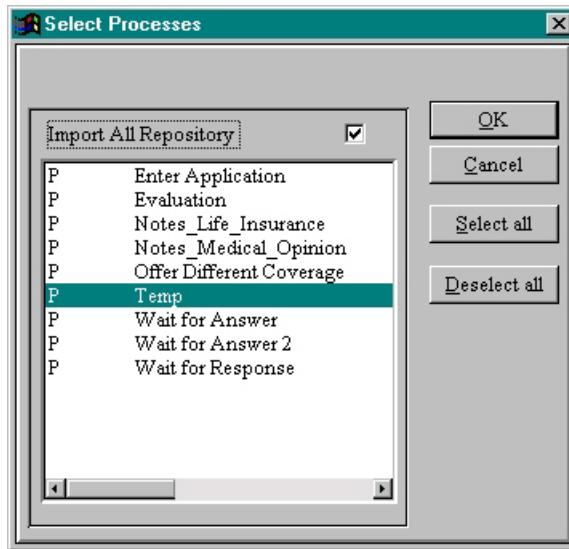
To back-up a Repository:

1. Open Workflow•BPR and open the Organization File that contains the Repository information that you want to save.
2. Create a new Process (refer to the section entitled “Creating a New Process” on Page 1-18 of this Chapter for more information about creating Processes).
3. Save it under any name (e.g., “Temp”), then close the empty process diagram.
4. Create a new, back-up Organization File on your hard disk (refer to the previous section).
5. Name the Organization File appropriately for the purpose of backing up the Repository.
6.  Choose **Import/Export** from the **File** menu. A sub-menu appears.
7.  Choose **Import Processes** from the sub-menu (refer to the section entitled “Importing Processes” in Chapter 6 for more information about Importing Processes). The **Select Source Organization** dialog box appears (see the figure below).

 You can access this command by  typing Ctrl+I.



8. Select the appropriate drive and/or directory where the Organization File from which you want to import is located.
 - * Double-click a folder in the large box to go down the tree.
 - * Click the **Up One Level** button to go up the tree.
9. Select the *source* Organization File that contains the Repository that you want to back-up.
10. Click **Open** or press **Enter**. The **Select Processes** dialog box appears (see the figure below).



11. Click the **Import All Repository** check box.
12. Select the “Temp” Process File.
13. Click **OK** or press **Enter**. The “Temp” Process and the Repository of the source Organization File will be imported into the *back-up* Organization File.

1.2.1.3 Managing Processes

The first step in modeling a Process is to create a file that will contain your model and, of course, you must know how to manage these files. Managing a Process primarily involves becoming familiar with basic operations such as saving, deleting, opening existing files for the Processes, and creating new ones. In this User's Guide, a Process File will just be referred to as a Process.

Creating a New Process

Creating a new Process will vary depending on the installation of Workflow•BPR and the current Editing Mode you are in.

To create a new Process in the Basic, IBM FlowMark, IBM MQ Workflow, FileNet Visual WorkFlo, and Advanced Editing Modes:

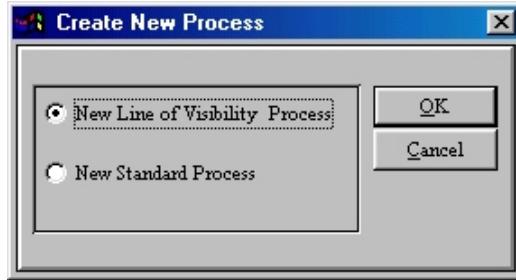
1. Choose **New Process** from the **File** menu. Workflow•BPR creates a new Process named “Untitled.”

 You can access this command by  typing **Ctrl+N**.

To create a new Process in the Line of Visibility and E-Commerce Editing Modes:

1. Choose **New Process** from the File menu. The **Create New Process** dialog box appears (see the figure below).

 You can access this command by  typing **Ctrl+N**.

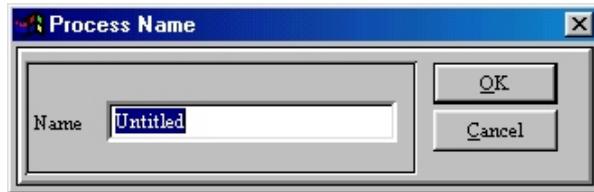


2.  Select the **New Line of Visibility Process** radio button or the **New Standard Process** radio button.
3.  Click **OK** or  press **Enter**. Workflow•BPR creates a new Process named “Untitled.”

To save a newly created Process:

1. ⌘ Choose **Save Process** or **Save Process As** from the **File** menu. The **Process Name** dialog box appears (see the figure below).

☞ You can access the **Save Process** command by ⌘ typing **Ctrl+S**.



2. If this **Process** (named “**Untitled**”) is closed before it has been saved, you will be asked whether “**Untitled**” is to be saved or not. If **Yes** is chosen, the **Process Name** dialog box appears.
3. ⌘ Delete the name “Untitled” and ⌘ type the new name in the Name text box.
4. ⌘ Click **OK** or ⌘ press **Enter**. The **Process** will be renamed.

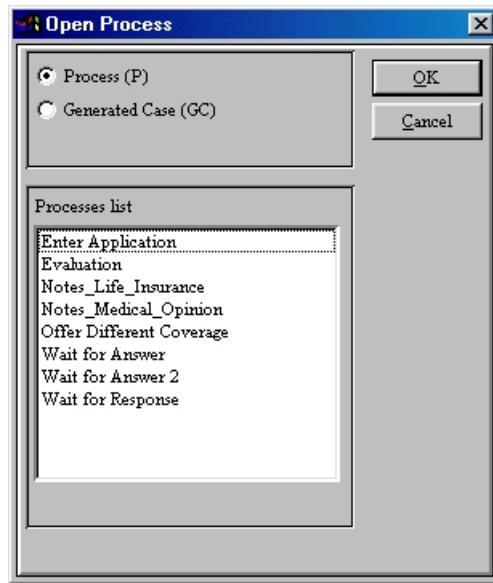
Opening an Existing Process

Opening a Process will vary depending on the installation of Workflow•BPR and the current Editing Mode you are in.

There are two ways to open a Process: from the File menu or from the **Process Tree Diagram**.

To open a **Process** from the **File** menu:

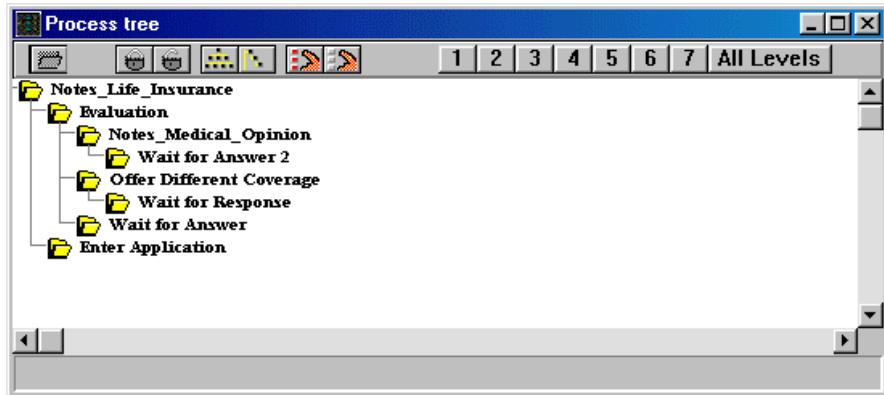
1. Choose **Open Process** from the **File** menu. The **Open Process** dialog box appears (from the Basic Editing Mode).
 You can access this command by typing **Ctrl+O**.



2. Click the **Process (P)** radio button (this is the default option).
 The Line of Visibility and E-Commerce Editing Modes include a third radio button, Line of Visibility Process (LP), not shown in the figure above.
3. Select the **Process(es)** preferred from the **Process** list.
 - * Click on a Process name will select that Process.
 - * Ctrl+Click on a Process name will add/subtract that Process to the list of selected Processes.
 - * Shift+Click on a Process name will add that Process, plus all Processes in between that Process and the previously selected Process, to the list of selected Processes.
4. Click **OK** or press **Enter**. All of the selected Processes will be opened.

To open a Process from the Process Tree Diagram:

1. Choose Process Tree from the Process menu. The **Process Tree Diagram** appears (see the figure below).



2. Click in the **Process Tree** window on the name of the Process you want to open.
* You can select more than one Process to open. Each click on a Process will select or deselect that Process.
3. Click the **Open Selected Processes** tool button . All of the selected Processes will be opened.

Saving an Existing Process

To save a Process:

1. Choose **Save Process** from the **File** menu. The **Process** will be saved.
 You can access this command by typing **Ctrl+S**.

Copying a Process (Save As)

Before you perform a **Save Process As**, be sure to save the original Process first (refer to the previous section); otherwise, the changes made to the original Process will not be saved.

To copy a **Process (Save As)**:

1. Choose **Save Process As** from the **File** menu with the **Process opened**.
The **Process Name** dialog box appears (see the figure below).

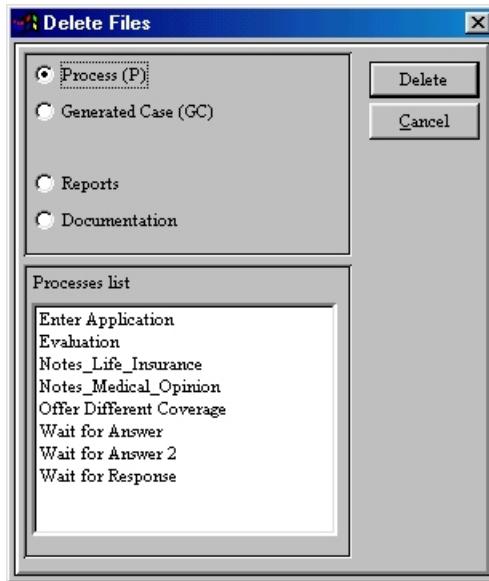


2. Type the name for your new **Process** in the **Name** text box.
3. Click **OK** or press **Enter**. A new **Process** will be created with the new name and the current **Activity Decision Flow Diagram**.

Deleting an Existing Process

To delete a Process:

1. Choose **Delete** from the **File** menu. The **Delete Files** dialog box appears (see the figure below, from the Basic Editing Mode).

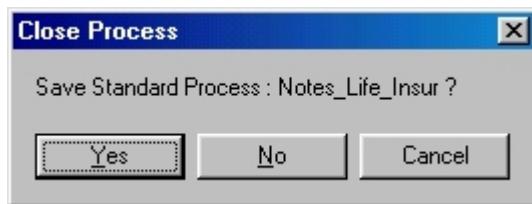


2. Click the **Process (P)** or the **Line of Visibility (LP)** radio button (this is the default option).
- The Line of Visibility Editing Mode includes a fifth radio button, Line of Visibility Process (LP), not shown in the figure above.**
3. Select the **Process** you want to delete from the **Process list**.
 4. Click **Delete** or press **Enter**. Workflow•BPR will scan all the **Processes** to make sure the selected **Process** is not being used as a **Process Object** in one of the other **Processes**. If the **Process** can be deleted, you will be prompted to confirm the deletion. If you click **Yes**, the **Process** will be deleted.
 5. Click **Cancel** when finished.
- The Process must be closed before you can delete it.**

Closing a Process

To close a **Process**:

1. Double-click the **Control Box** in the upper left-hand corner of the dominant **Process** window. OR
 2. Click the **Close** button (it looks like an “X”) in the upper right-hand corner of the dominant **Process** window. OR
 3. Select **Close Process** from the **File** menu.
- You can access this command by typing Ctrl+W.**
4. If the Process has been edited without being saved, then the Close process dialog box will appear and prompt you to save (or not to save) the Process (see the figure below).



- * Click **Yes** to save the Process.
- * Click **No** to close the Process without saving.
- * Click **Cancel** to leave the process open (without saving).

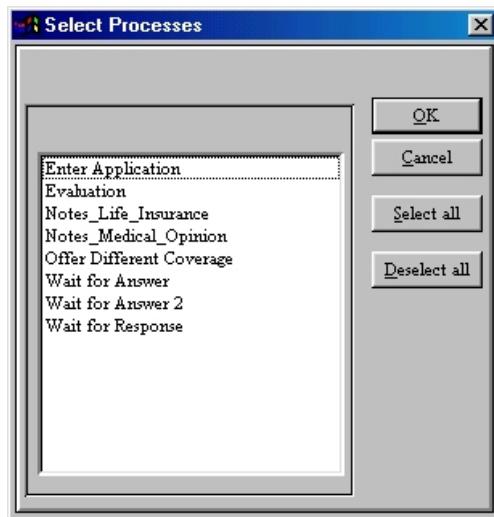
Backing Up Processes

For example, you can distribute your Process Models among different Workflow•BPR users. In addition, copies of Process Models should be archived in case of unfortunate circumstances such as hard disk corruption.

To back-up one or more **Process Files**:

1. Insert a diskette into drive A or B.
2. Open Workflow•BPR and the Organization File that contains the Processes you want to back-up.
3. Choose **Import/Export** from the **File** menu. A sub-menu appears.
4. Choose **Export Processes** from the sub-menu (refer to the section entitled “Exporting Processes” in Chapter 6 for more information about Exporting Processes). The **Select Processes** dialog box appears (see the figure below).

 You can access this command by  typing Ctrl+K.



5.  Select the Process Files you would like to import.
 - * If the Process you want to import contains nested Processes, then all of those nested Processes will automatically be imported.
6.  Click once on each Process that you want to import.
 - * The **Select All** button will select all processes.
 - * The **Deselect All** button will clear all selections.
7.  Click **OK**. The **New Target Organization** dialog box appears (see the figure below).



8. Select the appropriate drive and/or directory where your Organization File is to be saved from the tree chart in the **Directories** box.
 - * Double-click a folder in the large box to go down the tree.
 - * Click the **Up One Level** button to go up the tree.
9. Type the name of your Organization File in the **File Name** text box.
 - * Name the Organization File appropriately for the purpose of backing-up the selected Processes.
 - * If you do not include the .org extension, Workflow BPR will add it for you.
10. Click **OK** or press **Enter**. The Processes and the Repository of the source Organization File will be exported to the *back-up* Organization File.
11. Open and review the Processes to make sure that you have backed-up the appropriate ones.

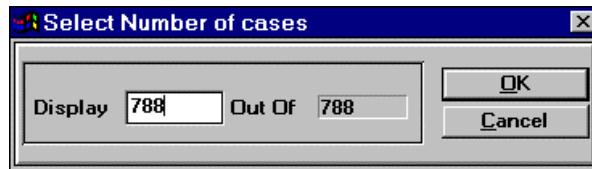
1.2.1.4 Managing Generated Cases

A **Generated Case** singles out a set of Conditions or Choices which lead to one particular path through the Process.

Managing a **Generated Case** primarily involves becoming familiar with the basic operations such as saving, deleting, and opening Processes (refer to the section entitled “Managing Processes” on page 1-18). A Generated Case can be created from a Standard ADF or a Line of Visibility ADF.

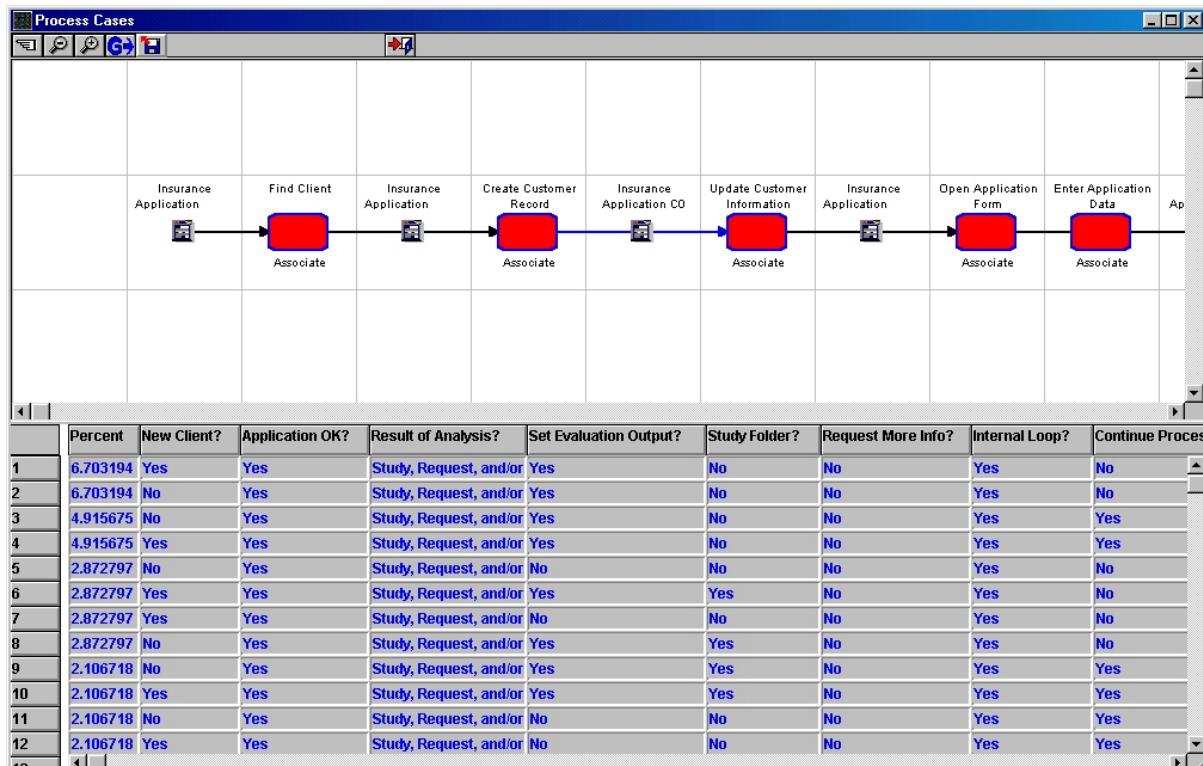
Creating Generated Case Files

1. Click the Expand Process tool button on the ADF Toolbar. The Expanded Process window appears.
2. Click the Cases tool button on the Expanded Process toolbar. The **Select Number of Cases** dialog box appears.
3. The total number of cases appears in the **Display** text box in the **Select Number of Cases** dialog box (see the figure below).



4. Click **OK**. The **Process Cases** window appears (see the figure below).

- When the Process Case View is opened a temporary file is created to display the Cases. Processes that contain a large number of Cases will generate a large temporary file. If you plan to perform extensive analysis on large processes, allow sufficient disk space (e.g., from 50MB to 100MB).



5. Click on a row from the **Process Cases** table (in the bottom half of the window) to select a Case. The diagram appropriate to the selected Case will appear in the Process Case View.

- Click the **Generate** tool button on the **Process Cases** toolbar. The **Process Name** dialog box appears (see the figure below).



7. Type the name of the Case in the **Name** text box.

- 8. Click **OK** or press **Enter**. The Generated Case window for the selected Case appears.

1.2.1.5 Managing Reports Files

A **Reports File** contains all the information that is used to create individual Reports provided by Workflow•BPR.

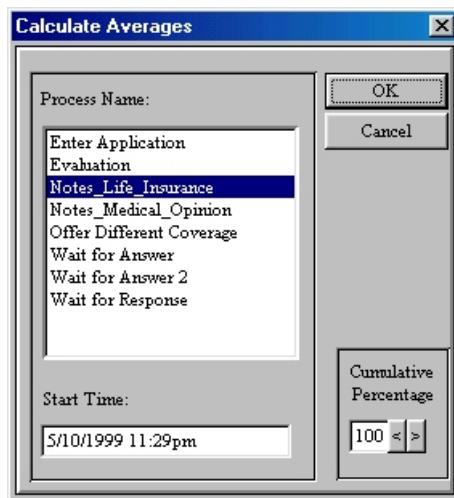
For more information about Reports, refer to the section entitled “Weighted Average Reports” in Chapter 5 of the Reporting Guide.

Creating Reports Files

The data that is presented in the **Reports File** must be calculated from the data contained in the **Process Models**. To accurately measure the attributes (e.g., Time and Cost) of a Process, the attributes of the individual **Cases** that make-up the **Process** must be measured with the probability that each **Case** will occur factored in. A weighted average of the time and cost attributes of a **Process** results. Thus, the **Reports File** is the result of the calculation of the Weighted Averages for a **Process**.

To create a Reports File by running the Calculate Averages feature:

1.  Select 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.
3. More than one **Process** can be selected to open. Each  click on a **Process** name on the list will select or deselect that **Process**.
4. To define a cumulative percentage of the cases considered for calculation,  type a percentage in the **Percent** text box (the default is 100% of the cases).
5.  Click **OK** or  press **Enter**.

6. If averages have been previously calculated on a selected Process, Workflow•BPR presents a warning that displays the time and date that the calculation was performed.  Click **Yes** to continue or **No** to cancel the calculation.
7. 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 one (1) or two (2) minutes to 30 or more minutes). The more Cases applied 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 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).**

Opening a Report from the Reports File

Workflow•BPR generates reports which summarize measurements that can be made on the representation of a **Process**. From the information contained in the **Reports File**, Workflow•BPR generates 37 reports, which are grouped into five (5) categories: **Times, Costs, Classifications, Indices, and General**.

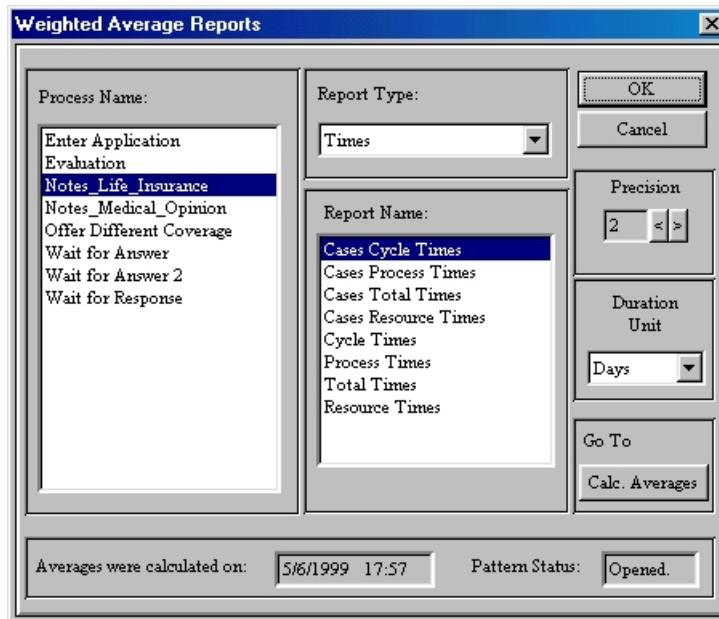
Workflow•BPR reports reflect several types of analysis based on the detailed data entries contained in a **Process** representation. As a reminder, these data entries include:

- The Elapsed and Working Durations of Tasks that affect the overall cycle time.
- The cost-per-unit of time for all Resources relevant to the Process.
- The time required to complete the work. Process costs are calculated through the Resource requirements.
- The classification values assigned to Tasks.
- The calendars that are utilized and affect the flow and cycle time of the Process.
- The conditions that affect the way activities are performed and the relative percentage of occurrence.
- The **Phis** (inputs/outputs) are assigned **Phi Types** to classify, distinguish, and categorize them.

A **Report** is represented by a table. The columns of the table represent a set of measurable attributes: (for example) 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.

To open a **Report**:

1. $\wedge\!\!\!$ Select a Report Type (**Times**, **Costs**, **Classifications**, **Indices**, or **General**) from the **Report** menu. A sub-menu appears.
2. From the **Report Type** sub-menu, $\wedge\!\!\!$ choose a Report (e.g., Cases Cycle Times). The **Weighted Average Reports** dialog box appears (see the figure below).

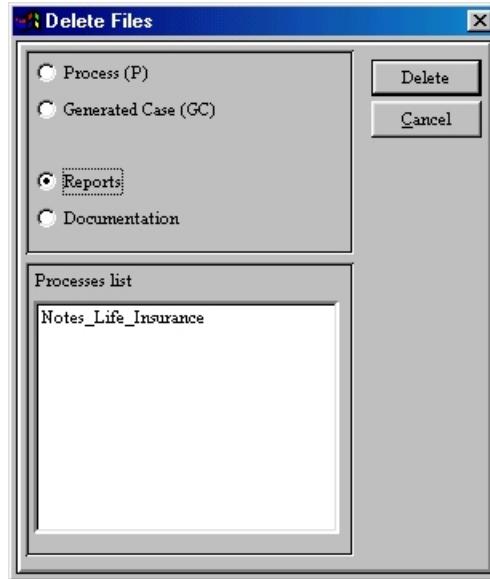


3. $\wedge\!\!\!$ Select a Process from the **Process Name** list (if it has not already been selected).
4. If the **Averages Were Calculated On** box says “No Report File,” $\wedge\!\!\!$ click **Calc. Averages** and follow the instructions in the previous section.
5. To open more than one Report, $\wedge\!\!\!$ click to select other reports from the **Report Name** list.
6. $\wedge\!\!\!$ Click OK or Esc press Enter. The selected Reports will be opened.

Deleting Reports Files

To delete a Report file:

1. Choose **Delete** from the **File** menu. The **Delete Files** dialog box appears (see the figure below—from the Basic Editing Mode).



2. Click the **Reports** radio button.
- The Line of Visibility Editing Mode includes a fifth radio button, Line of Visibility Process (LP), not shown in the figure above.**
3. Select the **Process** whose **Report** file is to be deleted from the **Process** list.
 4. Click **Delete** or press **Enter**. The **Report** file for the selected **Process** will be deleted.
 5. Click **Cancel** when finished.

1.2.1.6 Managing Process Documentation Files

A Documentation Report File includes:

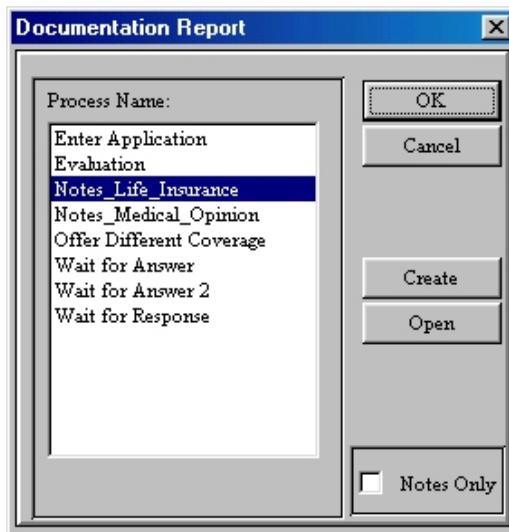
- Process Statistics (e.g., number of Tasks)
- Tasks
- Decisions
- Choices
- Processes

- External Processes
- External Entities
- This
- Resource Requirements

Creating and Opening Documentation Files

To create and open **Documentation Report**:

1. $\wedge\hat{\imath}$ Select **Documentation Reports** from the **Report** menu. A sub-menu appears.
2. $\wedge\hat{\imath}$ Select **Standard** from the sub-menu. The **Documentation Report** dialog box appears (see the figure below).

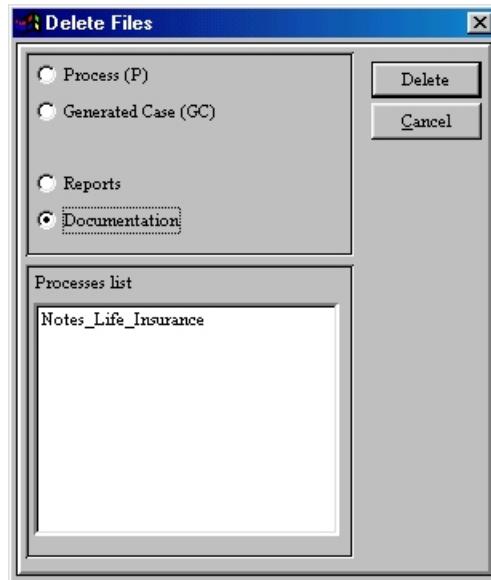


3. From the **Documentation Report** dialog box, $\wedge\hat{\imath}$ select a **Process** from the **Process Name** list (if it has not already been selected).
If you want to create a Documentation Report that contains only the Notes of the Process, then $\wedge\hat{\imath}$ select the Notes Only check box
4. $\wedge\hat{\imath}$ Click **Create**. A Documentation Report File will be created.
5. $\wedge\hat{\imath}$ Click **Open**. The Documentation Report File will be opened.
6. $\wedge\hat{\imath}$ Click **Cancel** in the **Documentation Report** dialog box.

Deleting Documentation Files

To delete a **Documentation Report File**:

1. Choose **Delete** from the **File** menu. The **Delete Files** dialog box appears (see the figure below—from the Basic Editing Mode).



2. Click the **Documentation** radio button.

The Line of Visibility Editing Mode includes a fifth radio button, Line of Visibility Process (LP), not shown in the figure above.

3. Select the **Process** whose **Documentation Report File** is to be deleted from the **Process** list.
4. Click **Delete** or press **Enter**. The **Documentation Report File** for the selected **Process** will be deleted.
5. Click **Cancel** when finished.

1.2.2 Windows in Workflow•BPR

All Microsoft Windows applications have a dominant window (the application window). Files for the application are opened in windows that are subordinate to the application window. Workflow•BPR extends this feature one level further.

Processes and **Generated Cases** are opened in a window that is subordinate to the Workflow•BPR application window. However, **Process** and **Generated Case** windows also contain other windows that are subordinate to them. An **Activity Decision Flow Diagram** window for a **Process** is actually subordinate to the **Process** window of that Process. Other subordinate windows to the **Process** window include Tables, Charts, Simulation windows, etc.

The **Process** window has precedence over the **Activity Decision Flow Diagram** window. For example, the **Process** window's minimize button shrinks the entire window down to an icon, while the maximize button enlarges the entire window to the maximum dimensions your monitor allows.

The minimize button of the **Activity Decision Flow Diagram** window shrinks the window down to an icon inside the **Process** window, not inside the Workflow•BPR application window. Its maximize button enlarges the drawing area only to the size of the **Process** window. The control box for the **Process** window is utilized to close it and all subordinate windows simultaneously. The **Process** window title bar is used to reposition the **Process** window and all subordinate windows to other screen locations.

If other windows that are subordinate to the **Process** window are opened, you can tile or cascade them within the **Process** window. With this “window inside of a window” construction, Workflow•BPR allows for opening multiple diagrams, tables, and charts simultaneously. The following are the main Workflow•BPR windows and their relationship hierarchy, not including dialog boxes.

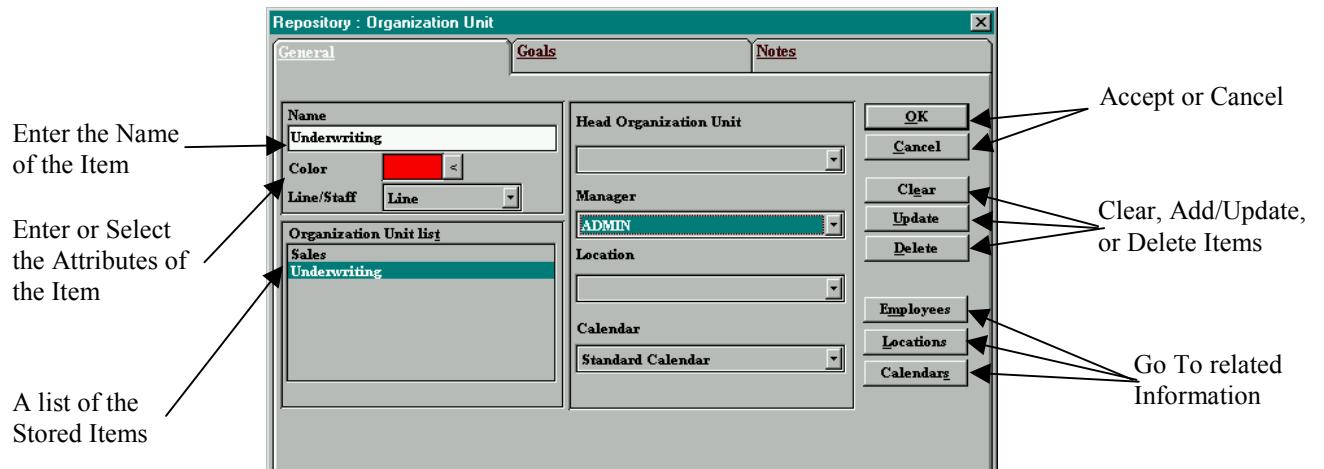
1.2.3 Dialog Boxes in Workflow•BPR

Many of the menu commands in Workflow•BPR take you to specialized dialog boxes. Dialog boxes are used to enter information into your organization's **Repository**, to define **Activity Decision Flow Diagram** objects, and to filter format table information. This section describes the different types of dialog boxes and their features.

1.2.3.1 Repository Dialog Boxes

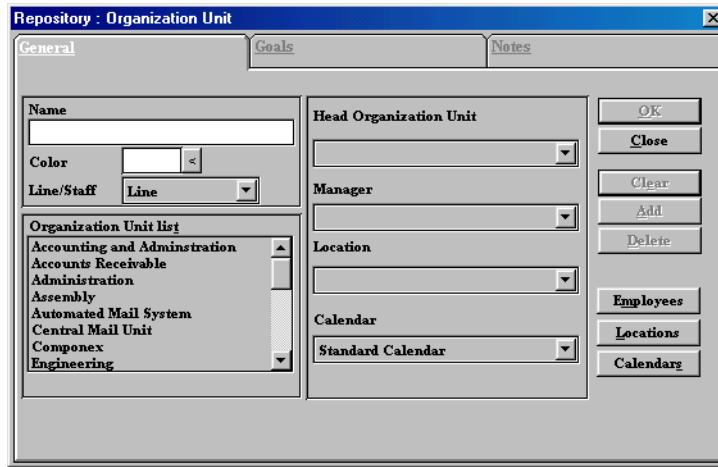
Commands from the **Repository** menu are utilized to create and/or update the information in your organization's **Repository**. Each command from the **Repository** menu opens a specialized data entry dialog box. The information in your **Repository** is entered by completing the data fields in each dialog box. When **Add** is clicked, Workflow•BPR saves that entry and clears the **Name** text box in the dialog box so that another record can be entered.

If a data entry error is made before that record has been added to your **Repository**, click **Clear** to clear the **Name** text box. To edit a record, simply select it from the category list located at the bottom of each dialog box, make the necessary changes in the appropriate entry fields, and click **Update**. Workflow•BPR then saves all of the edited entries.



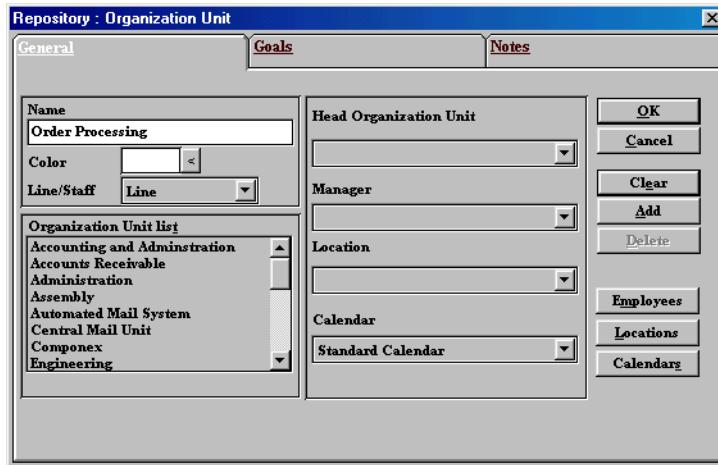
Repository dialog boxes have three basic states that determine the command button configuration.

- State 1 - Whenever you open a dialog box or  click the **Add/Update** or **Clear** buttons (see the figure below):



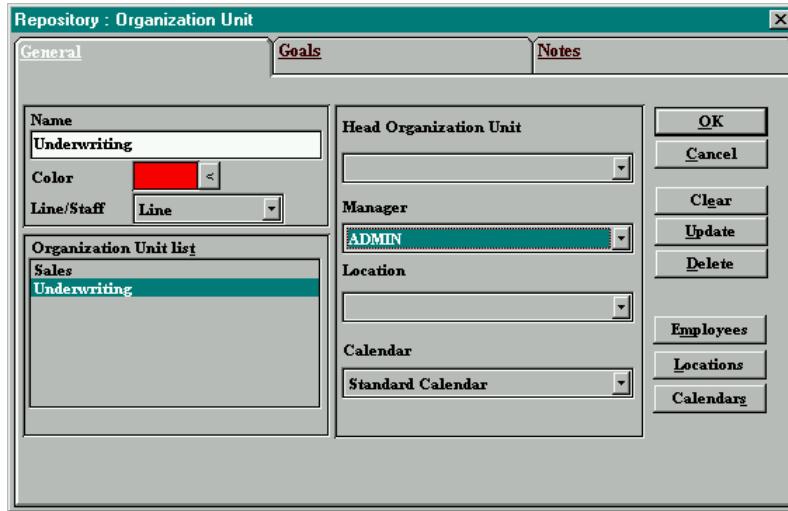
- * The Name text box will be cleared.
- * The OK button will be disabled.
- * The Cancel/Close button will be labeled “Close.”
- * The Clear button will be disabled.
- * The Add/Update button will be labeled “Add” and will be disabled.
- * The Delete button will be disabled.
- * The Broadcast button (if present) will be disabled.
- * All Go To buttons will be active.
- * The Notes button (if present) will be disabled.

- State 2 - Whenever text is  typed in a cleared **Name** text box (see the figure below):



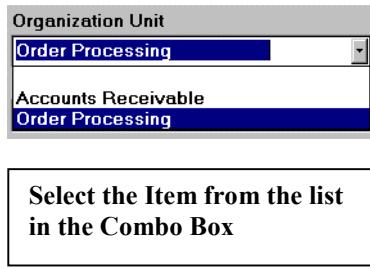
- * The **OK** button will be activated.
- * The **Cancel/Close** button will be labeled “Cancel”.
- * The **Clear** button will be activated.
- * The **Add/Update** button will be labeled “Add” and will be activated.
- * The **Delete** button will be disabled.
- * The **Broadcast** button (if present) will be disabled.
- * All **Go To** buttons will be activated.
- * The **Notes** button (if present) will be activated.

- State 3 - Whenever an item is selected from the list box at the bottom of the dialog box (see the figure below):

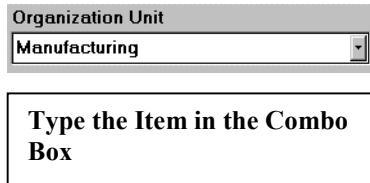


- * The OK button will be activated.
- * The Cancel/Close button will be labeled “Cancel”.
- * The Clear button will be activated.
- * The Add/Update button will be labeled “Update” and will be activated.
- * The Delete button will be activated.
- * The Broadcast button (if present) will be activated.
- * All Go To buttons will be activated.
- * The Notes button (if present) will be activated.

Many of the dialog boxes use information that is created or managed in other dialog boxes. For example, a **Repository** item that is a Task would be associated with other **Repository** items, such as an Organization Unit. When you want to associate an Organization Unit with a Task, select an Organization Unit from a list that is available within a combo box in the Task dialog box. To select an item, you click on the arrow to the right of the combo box and a list appears below the box. Click on one item in the list, and the item will be placed in the combo box. This procedure is also used for selection boxes (see the figure below).

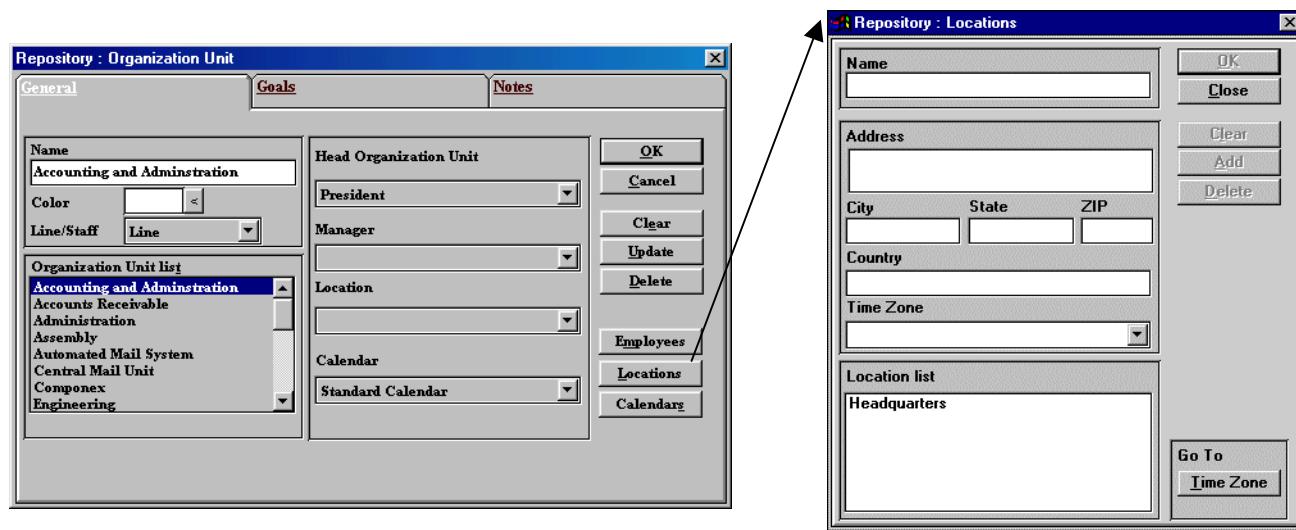


If the Organization Unit you want is not on the list, it can be created by typing the name of the item in the same combo box. To type a new item in an empty combo box, click the mouse on the box and a flashing cursor will appear in the box. Start typing and the text will appear as the cursor moves to the right (see the figure below).



All combo boxes in the Workflow•BPR dialog boxes allow for selecting an item from a list or typing in a new item.

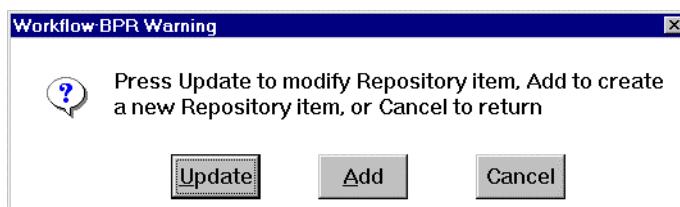
Another way to create new information that is related to a dialog box involves switching to the appropriate dialog box by using a **Go To** command button. Each **Go To** command button opens a related dialog box. When you are finished in a particular dialog box, click **OK** or **Close** to get back to the original box. For example, to add more information about the Resource you are associating with an Organization Unit, go directly to the **Resources** dialog box (see the figure below).



1.2.3.2 Diagram Object Dialog Boxes

After an object is drawn in an **Activity Decision Flow Diagram**, it is necessary to assign attributes or information so that it can be identified within the context of your Process. In Workflow•BPR, this is accomplished by defining the object. When an object such as a Task is defined, you connect it to data entries from the **Repository**.

An object is defined through its dialog box, which is obtained by double-clicking on the object in the **Activity Decision Flow Diagram** window. There are two methods to associate data information to that object: by making selections from lists of previously created items that are stored in the **Repository**, or by entering new information in the combo boxes. The new information will be copied into the **Repository**. When a data combo box has no value, you can either type in new information to create a new record, or you can select from a list of the current records. If a record is selected and the name is typed over or edited in any way, you will be prompted with a dialog box asking you whether to update the originally selected record or to add a new record to your current list (see the figure below).



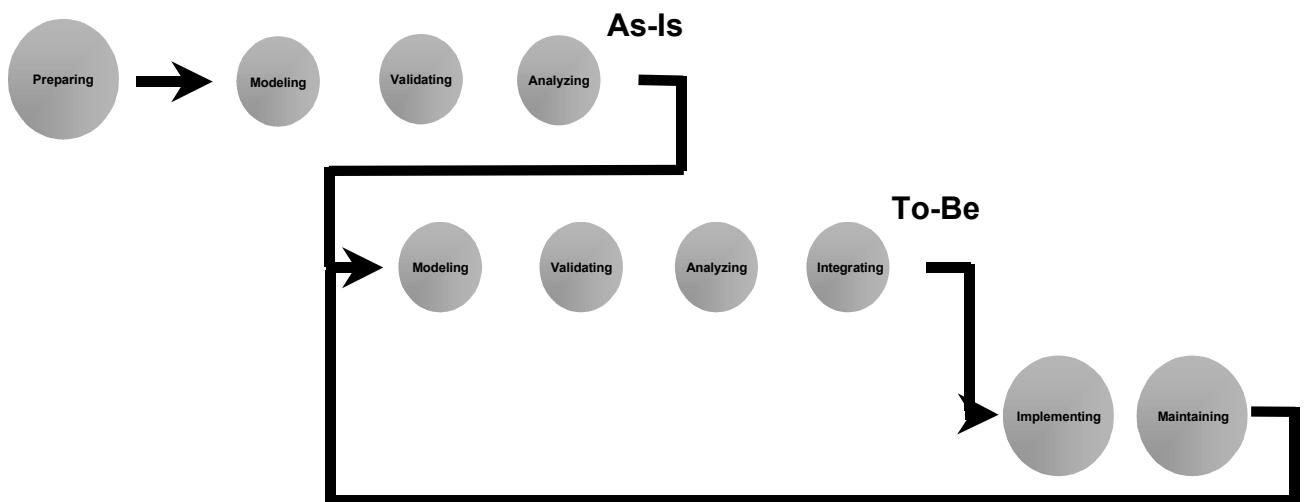
1.3 Using Workflow•BPR Within Your Organization

Process modeling is often performed in a context of business process improvement. For the improvement to be successful, the organization is required to perform a rigorous process that can be defined as a Business Process Redesign Methodology. The use of Workflow•BPR within an organization will support some aspects of the BPR Methodology and will also enable the knowledge captured relating to the Processes to be shared by the people of an organization.

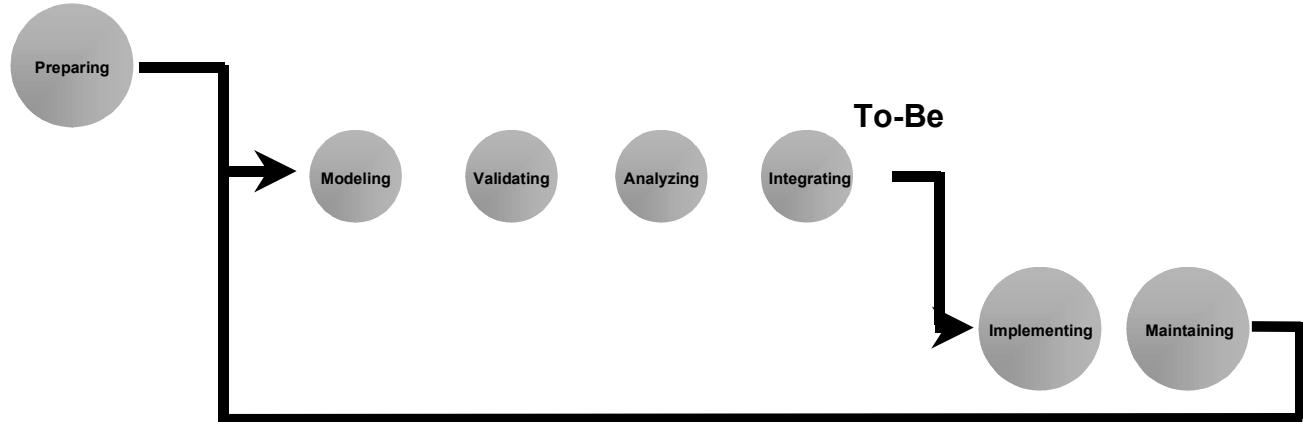
1.3.1 A Business Process Redesign (BPR) Methodology

There are several BPR Methodologies that have been used by different organizations to accomplish Process Improvement. HOLOSOFX has studied these methodologies and has consequently developed a simple methodology that incorporates Workflow•BPR as a tool to support the many aspects of the improvement process. The figure below presents the five main phases of the HOLOSOFX Process Management Methodology.

Workflow•BPR currently supports two phases of BPR: Modeling and Analyzing Processes. BPR has two main forms that are being used by organizations: Incremental and Radical. The difference between these two forms of BPR lies in the Modeling and Analysis phases. Incremental BPR will take into account the way the Processes are currently being performed by an organization and then try to improve those Processes.



Radical BPR will ignore the current Processes and try to create a new Process based on an analysis of the requirements.



The following sections provide a brief description of the five main phases. To obtain more detailed information related to BPR methodologies, refer to the Resource listing in the References section.

1.3.1.1 *Preparing for Redesign*

There will always be resistance to change on the part of organization personnel. If high-level management is not willing to commit to and install the infra-structure that will carry out the improvement, then the improvement is not likely to succeed.

Not all Processes should be improved at the same time. The Processes that are most critical to the organization's success should be considered first. A Business Process Improvement (BPI) team determines the Processes that are appropriate for improvement. After designating a small set of Processes for improvement, the BPI team sets specific goals that the improvement must accomplish for each Process. Usually, these goals will address specific problems that can mainly be identified through customer feedback (i.e., complaints and recommendations). These are the main items that should be accomplished in preparation for Redesign:

- Identify Champion and Team
- Identify Critical Business Processes
- Identify Terms of Change
- Identify Goals of Change
- Gather Data
- Select BPR Tools

1.3.1.2 Modeling Processes

Modeling the Processes accurately is a basic requirement for the improvement process. It is difficult to make improvements when a thorough understanding of the subject is not apparent (i.e., if the Process is not modeled in detail). Part of understanding the Process involves describing it in a way that provides information related to characteristics such as time and cost that enable you to consider making improvements. That is, a fine level of detail about the interacting parts of the Process—the activities, the products, and the resources—is required. With this information, you will have the ability to alter the way that the parts interact, resulting in a more efficient Process. For a more detailed description of the Process Modeling capabilities of Workflow•BPR, refer to the *Modeling Guide*. The main steps in the Modeling phase of BPR are:

- Organize for Modeling
- Model Processes
- Verify Processes
- Validate Processes (Perform Reality Check)
- Redesign Processes (Model and Verify the To-Be)
- Workflow Integration

The analysis of a Process is very much intertwined with the modeling of a Process. The steps of verifying, validating, and redesigning Processes include analysis techniques.

1.3.1.3 Analyzing Processes

After a Process is analyzed, you will understand better how the Process works, and how to improve the Process materializes. Analyzing a Process that represents how the Process **is currently** performed (the As-Is) provides the baseline measurements for the goals set for improvement. Analyzing a Process that represents how the Process **will be** performed (the To-Be) provides the measurements for comparison against the baseline, which determine whether the goals have been met. Many types of analysis can be performed, such as:

- Identification of Time Problems
- Identification of Cost Saving Opportunities
- Identification of Resource Allocation Problems
- Identification of Cash Flow Issues
- Selection of Technology for Change
- Justification of Technology Cost

For a more detailed description of the analysis and reporting capabilities of Workflow•BPR, refer to the *Analysis Guide* and the *Reporting Guide*.

Redesigning Processes

There are four main phases of improvement activities that are performed in order to create a To-Be Process Model: Evaluation of process policies, identification of improvement opportunities, selection of appropriate technologies, and redesign of the Process.

Evaluation and Identification of Process Policies

The first activity for a Process redesign involves reviewing the policies that affect the Process. These are generally identified during preparation for improvement. The policies differ from the requirements in that these requirements are derived from customer needs and should not be modified. Indeed, the requirements are really the only absolutely necessary entities that the Process activities must address. Policies, on the other hand, exist for a variety of reasons that do not necessarily have to include customer needs and, therefore, can be removed or modified. An example of a policy is “All orders are received and distributed through the warehouse.”

Removing and/or modifying the policies of a Process can eliminate large groups of As-Is activities. This saves considerable time while going through BPI techniques (as described below) because there are fewer activities involved and many of the problems that the other techniques would have discovered no longer apply. If the above example policy was removed, then the orders could be shipped by the manufacturer directly to the person or department that originated the order. Thus, a large portion of internal handling, as well as shipping activities required by the order, could be eliminated.

Policies are often tied to management or political concerns. An analyst studying a Process cannot make arbitrary decisions as to what policies should be removed and/or modified. The analyst, whether internal or external, can only make suggestions. All policy-related action must have the support of high-level management, starting with the Business Process Improvement Team. Whatever improvements are considered, the To-Be process must still be constrained by company policy as mandated by the organization.

Selection of Appropriate Technologies

Before creating a To-Be version of the Process, it is necessary to determine the technologies that are required to support the Process. Some technologies will be mandated by a proposed set of Process policies. In most cases, however, the choice of technologies is an open issue. Examples of technologies that are often used to improve Process performance include workflow applications, imaging systems, client server, EDI, bar coding, etc.

Redesign of a Process

The main reason to redesign a Process is to meet improvement goals. A new Process design will be approved by management when it clearly meets improvement goals and is cost-effective (i.e., the long-term savings are greater than the implementation costs).

After Process policies have been evaluated and the technologies selected, the many techniques for redesigning a Process can be considered. As the techniques are performed, the model representing the To-Be version of your Process will differ from the As-Is version of the model. To-Be models have a set of activities that differ in name, duration, and resource requirements. This section does not go into detail about these techniques. For further information on the techniques for improvement, refer to the listings in the References section of this *User's Guide*. A list of sample redesign techniques follows:

- Policy Evaluation
- Technology Evaluation
- Handling and Transfer Time Reduction
- Bottleneck Reduction
- Standardization Enforcement

1.3.1.4 *Implementing Processes*

This phase of the Redesign Process occurs after a Process has been redesigned and approved. The main components of this phase are:

- Creating a road map to get from here (the As-Is) to there (the To-Be)
- Establishing Measures, Metrics, and Feedback
- Identifying Missing Data Required for Automation
- Specifying Automated Process Details
- Validating Models
- Preparing Hardware/Software Sites
- Running Automated Process

1.3.1.5 *Maintaining Processes*

This phase of the Redesign Process occurs after a Process has been implemented. The main components of this phase are:

- Monitoring Process Performance
- Analyzing Real Time Data
- Recommending Process Changes

1.3.2 Process Knowledge-Sharing

From an organization's point of view, the ultimate output of modeling would be a set of Process Model Diagrams that span all the Processes performed by the organization. In other words, the "blueprints" to an entire organization are electronically captured in Workflow•BPR. This is the first step toward successfully implementing any enterprise-wide technology, as well as empowering businesses to respond cohesively to rapid change.

Communication is always a substantial ingredient of success. Workflow•BPR provides a universal language that can be understood by business users and technology specialists alike. Process Models can be accessed and used by everyone, expediting and enhancing their understanding of where they fit in the "big picture". This leads to a dramatic improvement in productivity and better alignment of individual goals and objectives with the overall goals and objectives of the organization.

In addition, Process Models can be used aggressively to minimize time-consuming human resource management functions. New employees oriented with Process Models will have a shorter learning curve. In addition, Process Models successfully managed with Workflow•BPR can effectively identify positions and tasks that become obsolete with gradual (as well as significant) change. Finally, employee classification and identification of requisite skill levels are more effectively performed with Process Models because every task is clearly defined.

Every Process Model can potentially be used for fiscal and strategic management as well. From the obvious examples of activity-based costing and budget management to more progressive applications such as company valuation, Workflow•BPR provides a foundation for more accurate and robust strategic planning. As a result, Workflow•BPR becomes a powerful weapon in business management, which can be used universally by line and staff personnel, from the "front line" to executive levels.

Chapter 2: Repository: Organization Data

The Repository allows for the storage and management of different types of data tailored to individual Processes, independent of Process Model construction. It is divided into two categories: Organization Data and Process Data. It allows multi-purpose data record retrieval among various Process Models. Once a data record (such as a Task with time attributes) has been created either in the Repository or in a Process Model, this record is stored in the Repository and made available to other Process Models. This chapter describes each of the Repository items and how they are created and updated. The section entitled “Tables” in Chapter 6 describes how to access tables to view the contents of the Repository.

Organization Data is accessed from the Repository menu. This command is used when creating, updating, or deleting a record containing information relevant to the core organization.

Organization Data is used to define a company’s basic organizational structure, working calendars, and Resources. Entering the organizational information of your company first, before doing anything else, is convenient since this data is easily gathered and relatively fixed.

Before creating the Organization Data portion of your organization’s Repository, we recommend that you enter the following basic information about the company:

- Name of the company
- Organizational Units (departments, divisions, groups, sections, etc.)
- Functions (accounting, manufacturing, shipping, etc.)
- Employees of the company
- Roles of the Employees of the company
- Applications that Employees use
- Resources (equipment, facilities, materials, etc.)
- Business calendars

Chapter 2: Repository: Organization Data

- Locations of offices, plants, stores, and branches
- Time zones
- Currencies used by the organization
- External Entities (banks, customers, suppliers, etc.) that exist in the organization's business environment.

There are 28 data category sub-menus within the Organization Data: Organization Information, Calendars, Time Zones, Locations, Currencies, Resources, Applications, Servers, Domain, System Group, System, Node, Queue, Operations, Work Performer Classes, Organization Units, Resource Allocation, External Entities, Chart of Accounts, Roles, Employees, Levels, Data Bases, Operating Systems, Skills, Skill Types, Functions, and Partner Roles.

The menu items that are available will vary depending on the Editing Mode that is used for modeling processes. The Editing Modes feature was designed because Process Modeling can be performed for many purposes. Not all menu items are necessary for every modeling purpose. Therefore, the Editing Mode will affect the list of items that appear in the Organization Data sub-menu of the Repository menu. The following table shows the menu items and tells in which Editing Modes they will appear.

Editing Mode:	Basic	IBM Flow-Mark	IBM MQ Work-flow	FileNet Visual WorkFlo	Line of Visibility	E-Comm.	Adv.
Menu Item							
Organization Info	✓	✓	✓	✓	✓	✓	✓
Calendars	✓			✓	✓	✓	✓
Time Zones	✓			✓	✓	✓	✓
Locations	✓			✓	✓	✓	✓
Currencies	✓			✓	✓	✓	✓
Resources	✓	✓	✓	✓	✓	✓	✓
Applications	✓	✓	✓		✓	✓	✓
Servers		✓					✓
Domain			✓				
System Group			✓				
System			✓				
Node			✓				
Queue			✓				
Operations				✓			
Work Performer Classes				✓			
Organization Units	✓	✓	✓	✓	✓	✓	✓
Resource Allocation	✓	✓	✓	✓	✓	✓	✓
External Entities	✓			✓	✓	✓	✓
Chart of Accounts				✓	✓	✓	✓
Roles	✓	✓	✓	✓	✓	✓	✓
Employees	✓	✓	✓	✓	✓	✓	✓
Levels		✓	✓	✓	✓	✓	✓
Data Bases					✓		✓
Operating Systems					✓		✓
Skills					✓		✓
Skill Types					✓		✓
Functions		✓	✓				
Partner Roles						✓	

The following sections describe the procedures for modifying and creating data items for each of the 28 categories.

2.1 Organization Information

Organization Information identifies the basic elements of your company.

The following information is required to create and update Organization Information:

- Your organization's name. This name is used in the header, footer, and legend for printed Activity Decision Flow Diagrams. This name is also required if you want Processes from the Organization File to be monitored with the Workflow Monitor.
- Discount Rate. This is used in the calculations of Net Present Value and Internal Rate of Return. This is the rate of interest that the organization uses for projects of future costs. Refer to the *Reporting Guide* for more information about these calculations.
- Location of the organization's headquarters (optional).
- Default business calendar.
- Currencies required by the organization.
- Organization Mission Statement (Optional).

To create and modify Organization Information:

1. ⌘ Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. ⌘ Choose **Organization Info** from the sub-menu. The **Organization Info** dialog box appears (see the figure below).



3. Type the organization's discount rate in the **Discount Rate** text box.
4. Type the name of your company in the **Name** text box.
5. Select a location from the **Location** list to identify the organization's headquarters.
 - * If the location you want is not on the list, it needs to be defined. Click **Location** to go to the **Locations** dialog box (refer to the section entitled "Locations" on page 2-10). Upon returning to the **Organization Info** dialog box, the new item(s) will be included on the list.
6. Select a calendar from the **Calendar** list. This calendar becomes the default calendar for the organization.
 - * If the calendar you want is not included in the list, it needs to be defined. Click **Calendar** to go to the **Calendars** dialog box (refer to the section entitled "Calendars" on page 2-1). Upon returning to the **Organization Info** dialog box, the new item(s) will be included on the list.
7. Select your organization's currency from the **Currency** list. This currency becomes the default currency for the organization.
 - * If the currency you want is not included in the list, it needs to be defined. Click **Currency** to go to the **Currencies** dialog box (refer to the section entitled "Currencies" on page 2-12). Upon returning to the **Organization Info** dialog box, the new item(s) will be included on the list.
8. Type the organization's mission statement in the **Mission Statement** text box.
 - * The Mission Statement has a brief Description and an extensive Notes section.
9. Click **OK** or press **Enter**.

2.2 Calendars

 **The Calendars dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

A calendar defines the daily work shifts, the weekly working/non-working days, and the annual holidays of your organization. Workflow•BPR comes with a standard calendar already installed. This calendar can be used as a default calendar or as a template to create special work calendars customized to meet organizational needs. The default settings of the standard calendar are:

- Working hours are divided into two shifts: 8:00 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m., Monday through Friday.
- Saturdays and Sundays are non-working days.
- Total working hours is designated as 8 hours per day, 40 hours per week.

Calendar is a required entry field in three other Repository categories: Organization Information, Resources, and Organization Units. At least one calendar must be defined for your organization.

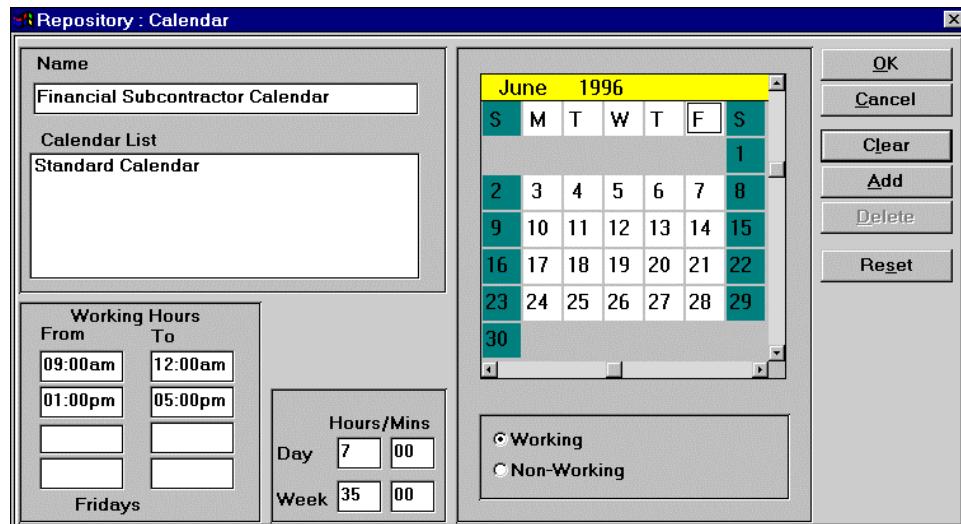
 **Workflow•BPR does not allow for shifts that overlap on the same day. If your organization has overlapping shifts, it will be necessary to define separate work calendars for each of them. In addition, shift times require separate definition for each day of the week.**

The following information is required to create a customized work calendar:

- Name the calendar for identification purposes.
- Define a regular work week, including working hours per day and per week.
- Define recognized holidays.
- Identify daily shifts.

To create a calendar Repository item:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Calendars**. The **Calendar** dialog box appears (see the figure below).



3. Type the calendar name in the **Name** text box.
* You can also select a name from the **Calendar List** list box.
4. Define the hours in your workweek and type in the number of hours worked per day and per week in the **Hours/Mins** text boxes.
5. Type in starting and ending times in the **Working Hours From** and **To** text boxes. Working hours show the work shifts identified for a selected calendar day.
6. To change whether a day is working or non-working, click on the work day selected for change, then click the appropriate radio button, either **Non-Working** or **Working**.
7. Click **Reset** to clear all special days from a particular calendar.
8. Use the *vertical* scroll bar to change the calendar year and the horizontal scroll bar to change the calendar month.
9. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after adding the last entry.

2.3 Time Zones

 **The Time Zones dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

The world is separated into time zones that circle the globe from east to west. Each time zone is the geographic region containing a single plus or minus time period in relation to Greenwich, England (Greenwich meantime). Time zones to the east of Greenwich are indicated with increasing plus values (+1, +2, ...); time zones to the west of Greenwich are indicated with increasing minus values (-1, -2, ...). For example, the time zone for Los Angeles, California is -8, while the time zone in Frankfort, Germany is +1. These plus and minus values are called the *Time Zone Variance*.

For example, your organization may have facilities in more than one location. If one branch is in Los Angeles, California and another in Vancouver, British Columbia, both share the same time zone even though they are in different countries. However, if one branch is in Los Angeles, California and another in Elmira, New York, they have different time zones. In this example, a time difference of three hours must be considered.

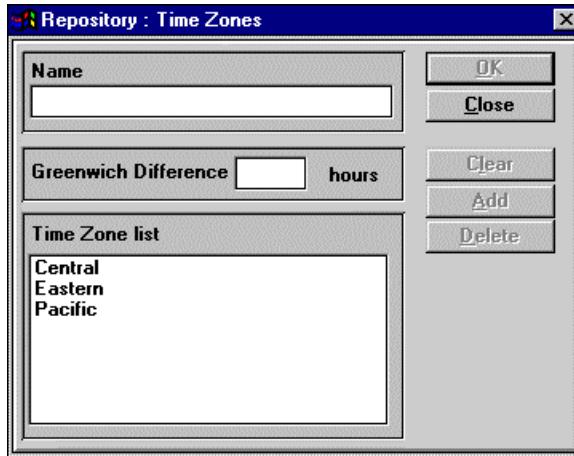
 **Location is a required entry field for Time Zones, and Currency is a required entry field for Locations.**

The following information is required to create a customized time zone:

- Name for the zone (for example, in the United States: Eastern, Central, Mountain, and Pacific)
- Time difference between the created zone and Greenwich meantime

To create a Time Zone Repository item:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Time Zones**. The **Time Zones** Dialog box appears (see the figure below).



3. Type the name of the time zone in the **Name** text box.
 - * You can also select a name from the **Time Zone List** list box.
4. Type the time zone variance in the **Greenwich Difference** text box.
5. Click **OK** or press **Enter** when defining one entry. Click **Add** if you are defining multiple entries, then click **Close** after the last entry has been added.

2.4 Locations

 **The Locations dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

A Location is the physical address for either your entire organization or any of its parts. Location is used to identify the geographic areas where your organization conducts business.

Location is a required entry field in two Repository categories: Organization Information and Organization Units. Location has one mandatory Data Category entry field: Time Zone. A time zone must be defined and assigned before a location data entry can be completed.

The following information is required to define a location:

- Name for your company at that location
- Address with city, state, zip code, and country (optional)
- Time zone

To create a Location Repository item:

1. Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Locations**. The **Locations** dialog box appears (see the figure below).



3. Type the name of your company in the **Name** text box.
 - * You can also select a name from the **Location List** list box.
4. Type the address of the company in the **Address** text box.
5. Select the time zone from the **Time Zone** list in the **Location** dialog box.
 - * If the time zone you want is not included in the list, it needs to be defined. Click **Time Zone** to go to the **Time Zones** dialog box (refer to the section entitled "Time Zones" on page 2-8). Upon returning to the **Locations** dialog box, the new item(s) will be included on the list.
6. Click **OK** or press **Enter** when defining one entry. Click **Add** when defining multiple entries, then click **Close** after the last entry has been added.

2.5 Currencies

 **The Currencies dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

Currencies are used to express your organization's common form of monetary exchange as well as its financial transactions. Organizations may use more than one currency, depending upon its branch locations. For example, your company could have branches in the United States, Great Britain, and Switzerland. In this case, the company would use U.S. dollars, pounds sterling, and Swiss francs as its currencies. Workflow•BPR caters to multi-currency operations. It is necessary to provide the current exchange rate for the conversion from one currency to another.

Workflow•BPR automatically uses the U.S. dollar as the default currency, unless a new one is defined.

Currency is a required entry field for Resources. When you define Resources, Workflow•BPR automatically assigns the default currency to each Resource, unless another currency is selected. There is only one (1) default or Reference Currency. The Reference Currency always has an exchange rate of one (1). By default, the Reference Currency is the U.S. Dollar, but this can be renamed to any Currency you would like. Then, you could add a new item for the U.S. Dollar with an exchange rate relative to the Reference Currency.

The following information is required to define a currency for your organization:

- Name of the currency
- Symbol for that currency (for example, \$)
- Exchange rate for the company standard/default currency

To create a Currency Repository item:

1. Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Currencies**. The **Currencies** dialog box appears (see the figure below).



3. Type the name of the currency in the **Name** text box.
 - * You can also select a name from the **Currency List** list box.
4. Type the symbol for your currency in the **Symbol** text box.
5. Type the exchange rate in the **Exchange Rate** text box.
6. Click **OK** or press **Enter** when defining one entry. Click **Add** if you are defining multiple entries, then click **Close** after the last entry has been added.

2.6 Resources

Workflow•BPR defines a Resource as a participant or a Work Aid.. There are two types of participants: Roles or Applications that “perform” a Task in your organization’s Process. Both types of participants have a separate dialog box for gathering information about them (refer to the section entitled “Roles” on page 2-125 and the section entitled “Applications” on page 2-18).

A Work Aid is an identifiable Resource that has a direct impact on the organization’s Process. There are seven (7) types of Work Aids: Equipment, Consumable, Facility, Machine, Tool, General Service, and Communication Service. The important thing to remember is that participants perform Tasks in your organization using Work Aids and, by doing so, consume related time and costs. The Resources dialog box captures information about Work Aids.

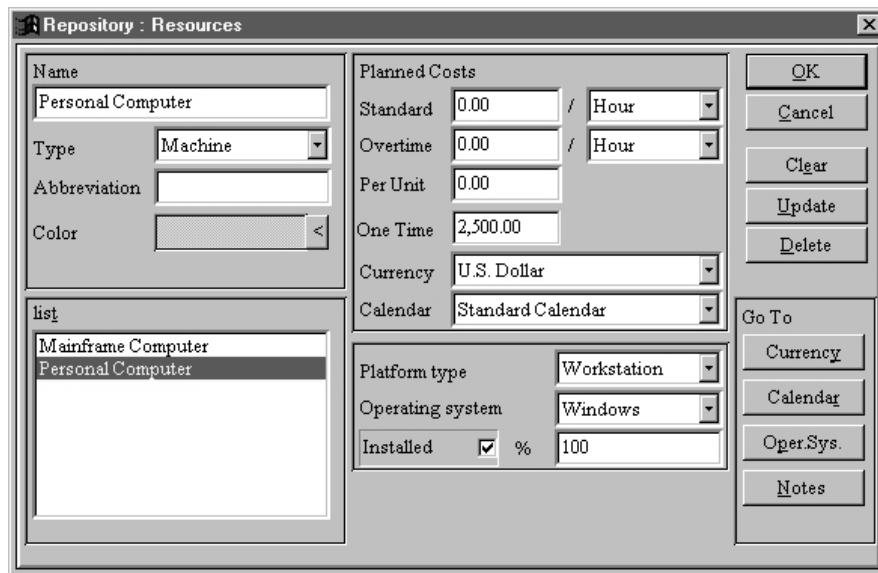
Resources have two required Repository entry fields: Currency and Calendar. If these entry fields are left blank, Workflow•BPR assigns the current default values for these fields.

The following information is required to define a Resource for your organization:

- Type of Resource
- Name of Resource
- Standard Cost: A rate (cost and unit) for standard working hours. (optional)
- Overtime Cost: A rate (cost and unit) for overtime working hours. This cost is not currently used in any calculations. (optional)
- Per Unit Cost: A fixed cost incurred each time you use the Resource. (optional)
- One-Time Cost: A fixed cost incurred when the Application was introduced for use in the Process. This is used for generating break-even analyses when comparing an As-Is version of the Process to the To-Be version of the Process.
- Currency related to Costs.
- Work Calendar.

To create a Resource Repository item:

1. Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Resources**. The **Resources** dialog box appears (see the figure below).

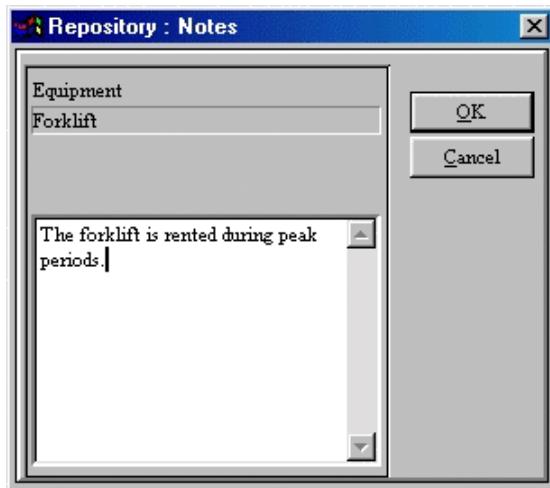


3. To define its type, select a type from the **Type** list (the default is Equipment).
4. Type a name in the **Name** text box.
 - * You can also select a name from the **Resource list** list box.
5. Type an abbreviation in the **Abbreviation** text box.
6. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined 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 you want, then click **Add to Custom Colors**.
 - * Click **OK** to return to the **Resources** dialog box.

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7. To define a participant's cost to your organization, type both the **Standard** and **Overtime Costs** in the **Planned Cost** text boxes and then select a cost increment. Click on the down arrow beside the boxes to display all of your available increment selections. With Workflow•BPR, six (6) different increments can be selected: Minute, Hour, Day, Week, Month, and Year.
 - * Standard and Overtime Costs are not available for Resources of type Consumable.
8. To define a work aid's usage cost to your organization, type its cost in the **Per Unit** text box.
9. To define a work aid's One-Time cost to your organization, type its cost in the **One-Time** text box.
10. Select a currency from the **Currency** list to define the currency related to the Resources cost. If a currency is not selected, Workflow•BPR automatically selects the default currency for your organization.
 - * If the currency you want is not included in the list, it needs to be created.
 Click **Currency** to go to the **Currencies** dialog box (refer to the section entitled "Currencies" on page 2-12). Upon returning to the **Resources** dialog box, the new item(s) will be included on the list.
11. Select a calendar from the **Calendar** list to define the work days related to the participant or work aid. If a work calendar is not selected, Workflow•BPR automatically selects the default calendar for your organization.
 - * If the calendar you want is not included in the list, it needs to be created.
 Click **Calendar** to go to the **Calendars** dialog box (refer to the section entitled "Calendars" on page 2-6). Upon returning to the **Resources** dialog box, the new item(s) will be included on the list.
12. Select the platform type from the **Platform Type** selection box.
 - * There are two (2) possible platform types: Server and Workstation.
 - * This item is only available for Resources of type Machine.
13. For **Resources** of type **Machine**, there are three additional fields:
 - * Select the operating system from the **Operating System** selection box.
 - If the Operating System you want is not included in the list, it needs to be created. Click **Oper.Sys.** to go to the **Operating Systems** dialog box (refer to the section entitled "Operating Systems" on page 2-142). Upon returning to the **Resources** dialog box, the new item(s) will be included on the list.
 - * If the Machine is already installed, select the **Installed** check box.
 - * Type the percentage that the Machine is installed in the % text box.

14. Click the **Notes** button to go to the **Notes** dialog box (see the figure below).



- * Type in the notes for the Resource in the text box.
 - * If you want to add a **Carriage Return** to the text of your Notes, then type **Ctrl+Enter**.
 - * Click **OK** or press **Enter** to return to the **Resources** dialog box.
15. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

2.7 Applications

 **The Applications dialog box is available in all Editing Modes except the FileNet Visual WorkFlo Editing Mode.**

Workflow•BPR defines a Resource as a participant or a Work Aid. There are two types of participants: Roles or Applications that “perform” a Task in your organization’s Process. Both types of participants have a separate dialog box for gathering information about them (refer to the section entitled “Roles” on page 2-125). The Applications dialog box (described in this section) gathers information about Roles. A Work Aid is an identifiable Resource—such as material, equipment, or facilities—that has a direct impact on the organization’s Process. The Resources dialog box captures information about Work Aids (refer to the section entitled “Resources” on page 2-14).

Applications can be used by the Role performing the Task, or Applications can perform Tasks that are automated. Workflow•BPR uses the basic information about the Application (e.g., the name, cost and calendar information) for Analysis and Simulation. If you are defining Applications for the purposes of integration with Workflow Engines, you can also enter more detailed information that a Workflow Engine can use to run the Application when the Process is being performed (refer to the *Integration with Workflow Applications Guide*).

Applications have two required Repository entry fields: Currency and Calendar. If these entry fields are left blank, Workflow•BPR assigns the current default values for these fields.

The following information is required to define an Application for your organization:

- Name of the Application
- Standard Cost: A rate (cost and unit) for standard working hours. (optional)
- Overtime Cost: A rate (cost and unit) for overtime working hours. This cost is not currently used in any calculations. (optional)
- Per Unit Cost: A fixed cost incurred each time you use the Resource. (optional)
- One-Time Cost: A fixed cost incurred when the Application was introduced for use in the Process. This is used for generating break-even analyses when comparing an As-Is version of the Process to the To-Be version of the Process.
- Currency related to Costs.
- Work Calendar.

The requirements for Applications will vary depending on the purpose for modeling them. For example, if you are defining a model for a specific Workflow Application, then the Application requirements will be very specific and different from if you were modeling for other purposes. The Editing Modes feature was designed because Process Modeling can be performed for many purposes. Therefore, the Editing Mode will affect the appearance of the Applications dialog box. The following table shows the tabs of the Applications dialog box and in which Editing Modes the tabs will appear (*the Applications dialog box does not appear in the FileNet Visual WorkFlo Editing Mode*).

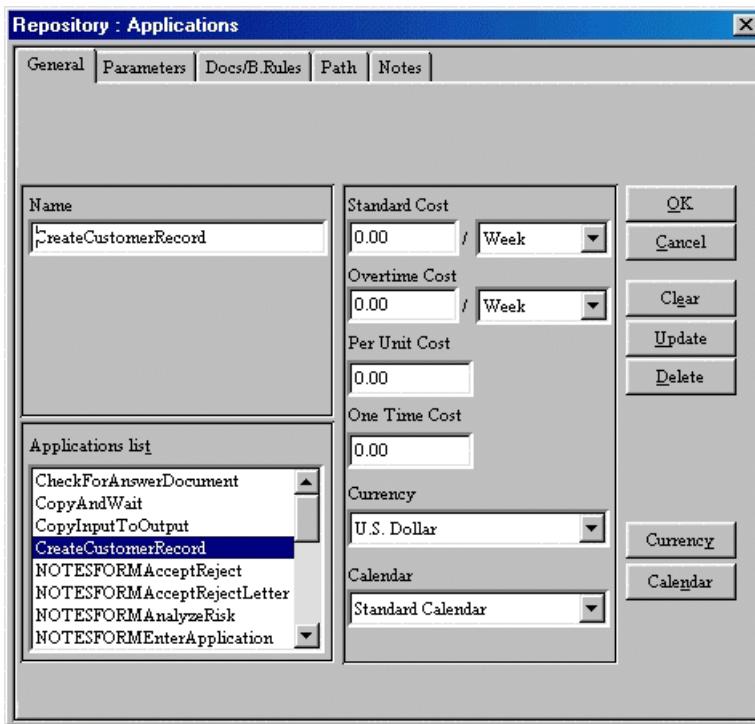
Editing Mode: Tab:	Basic	IBM FlowMark	IBM MQ Workflow	Line of Visibility	E- Comm.	Advanced
General	✓	✓	✓	✓	✓	✓
Details				✓	✓	✓
Parameters	✓	✓	✓	✓	✓	✓
Documents/ Business Rules	✓			✓	✓	✓
OS390			✓			
Windows		✓	✓	✓	✓	✓
Path	✓					
OS/2		✓	✓	✓	✓	✓
AIX		✓	✓	✓	✓	✓
HP/UX		✓	✓	✓	✓	✓
Solaris		✓	✓	✓	✓	✓
Windows NT		✓	✓	✓	✓	✓
Notes	✓	✓	✓	✓	✓	✓

2.7.1 General

This tab gathers general information about the Application.

To create an Applications Repository item:

1. Select **Organization** Data from the **Repository** menu. A sub-menu will appear.
2. Select **Applications** from the sub-menu. The **Applications** dialog box will appear—open to the **General** tab (see the figure below, from the Basic Editing Mode).



3. Type the name of the Application in the **Name** text box.
 - * You can also select a name from the **Applications List** box.
4. Type the **TCP/IP** address of the target machine in the **TCP/IP** text box.
 - * This item is not available in the Basic Editing Mode.
 - * This protocol is available for all platforms.
5. Type the **APPN** address of the target machine in the **APPN** text box.
 - * This item is not available in the Basic Editing Mode.
 - * This protocol is available for the OS/2 platform only.

6. Select the Active Platform for the Application from the Active Platform selection box.
 - * This item is not available in the Basic Editing Mode.
 - * You can select Windows (default), OS/2, AIX, HP/UX, or Windows NT.
7. Select the **Run Unattended** check box if the program is for an automatic Task and you want it to be started even if no eligible user is logged on.
 - * This item is not available in the Basic Editing Mode.
 - * If you select this item you must also specify at least one target machine address.
8. To define the Application's cost to your organization, type both the **Standard** and **Overtime Costs** in the **Planned Cost** text boxes, and then select a cost increment. Click on the down arrow beside the boxes to display all of your available increment selections.
 - * You can select six (6) different increments: Minute, Hour, Day, Week, Month, and Year.
9. To define an Application's usage cost to your organization, type its cost in the **Per Unit** text box.
10. To define an Application's One-Time cost to your organization, type its cost in the **One-Time** text box.
11. Select a currency from the **Currency** list to define the currency related to the Resources cost. If a currency is not selected, Workflow•BPR automatically selects the default currency for your organization.
 - * If the currency you want is not included in the list, it needs to be created. Click **Currency** to go to the **Currencies** dialog box (refer to the section entitled "Currencies" on page 2-12). Upon returning to the **Applications** dialog box, the new item(s) will be included on the list.
12. Select a calendar from the **Calendar** list to define the workdays related to the application. If a Work Calendar is not selected, Workflow•BPR automatically selects the default calendar for your organization.
 - * If the calendar you want is not included in the list, it needs to be created. Click **Calendar** to go to the **Calendars** dialog box (refer to the section entitled "Calendars" on page 2-6). Upon returning to the **Applications** dialog box, the new item(s) will be included on the list.
13. Click **Add** to create the item or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.2 through 2.7.13).

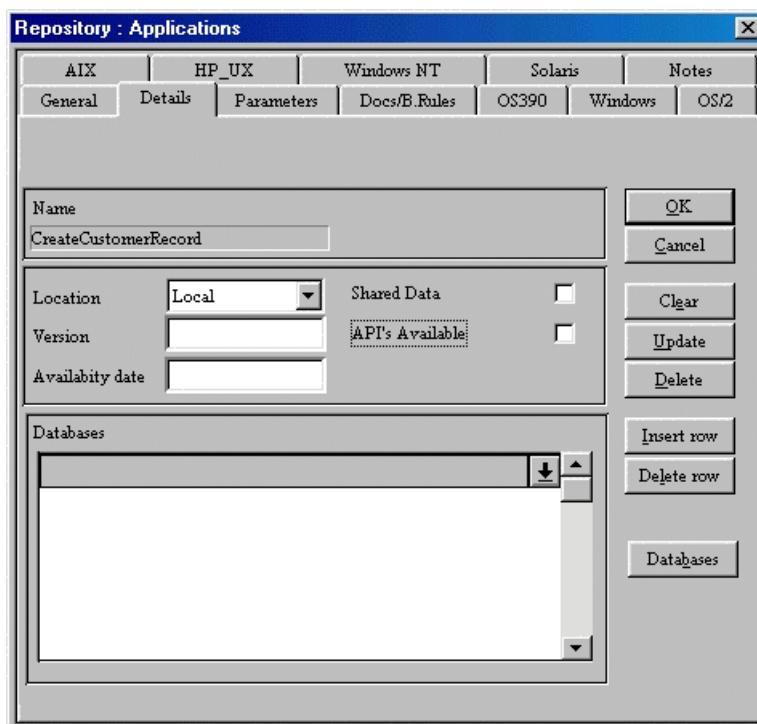
2.7.2 Details

- ☞ The Details tab is available only in the Line of Visibility, E-Commerce, and Advanced Editing Modes.

You can modify the Databases that are accessed by the Application in the Details tab.

To define the Details of an Application:

1. ☞ Select the **Details** tab in the **Applications** dialog box (see the figure below, from the Advanced Editing Mode).



2. ☞ Select **Location** of the Application from the Location selection box.
 - * There are three (3) Locations: Local, Server, and Remote.
3. ☞ Type version number in the Version text box.
4. ☞ Type the availability date of the Application in the **Availability date** text box.
5. If the Database is shared, then ☞ select the **Shared Data** check box.
6. If there are APIs available, then ☞ select the **APIs Available** check box.

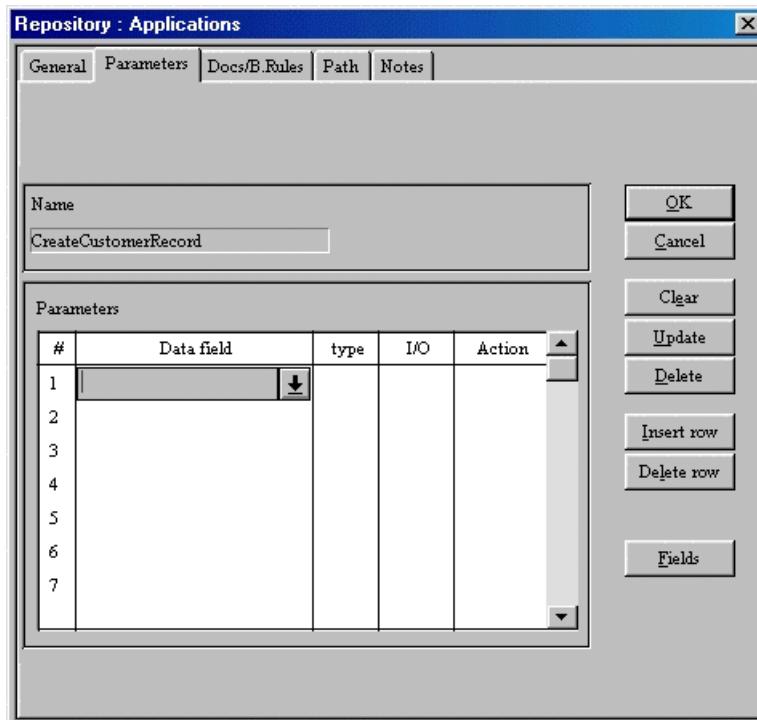
7. You can select more than one Database for the Application. To do so:
 - * Click on the Arrow button at the end of the first row of the **Databases** list box. A list of Databases will appear.
 - If the Database you want is not included on the list, it needs to be created. Click the **Databases Go To** Button to open the **Databases** dialog box (refer to the section entitled “Databases” on page 2-140). Upon returning to the **Applications** dialog box, the new item(s) will be included on the list.
 - * Select the Database item you want to include in the list.
 - * To add additional items, Click below the **Database** item that you just inserted to move the selection box to the next row in the Databases list box. Again, Click on the Arrow button at the end of the row and then select another Database item.
8. Click **OK** to close the **Applications** dialog box and save the data you entered, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

2.7.3 Parameters

In Workflow•BPR, Data Fields and Data Structures are assigned to applications to create their inputs and outputs. You can specify whether the Data Fields and Data Structures are inputs, outputs, or both. The Data Fields and Data Structures are referred to as Parameters of the Application.

To define the Parameters of an Application:

1. Select the **Parameters** tab in the Applications dialog box (see the figure below, from the Basic Editing Mode).



2. In **Line 1** of the **Parameters** list box, click on the **Arrow** button that is on the right side of the **Data Field** column. A list of Data Fields and Structures will appear.
 - * Select the appropriate Data Field or Data Structure.
3. Click on the **Arrow** button that is on the right side of the **In/Out** column of the **Parameters** list box. A list will appear.
 - * Select **In** (default), **Out**, or **In/Out**.
4. Click on the **Arrow** button that is on the right side of the **Action** column of the **Parameters** list box. A list will appear.
 - * Select **Create** (default), **Read**, **Update**, or **Delete**.

5. Repeat steps 2 through 6 to add other Data Fields to the list.
 - * Use the Insert Row button to create lines between entries.
 - * Use the Delete Row button to delete entries.
6. Select a Data Structure from the **Input Structure** selection box.
 - * This item is not available in the Basic or FileNet Visual WorkFlo Editing Modes.
 - * If the Data Field you want is not included in the list, it needs to be created. Click **Fields** to go to the **Data Fields** dialog box (refer to the section entitled “Data Fields” in Chapter 3 of the *User’s Guide*). Upon returning to the **Applications** dialog box, the new item(s) will be included on the list.
7. Select a Data Structure from the **Output Structure** selection box.
 - * This item is not available in the Basic or FileNet Visual WorkFlo Editing Modes.
8. Deselect the **Same data as task** check box if you want to specify data structures for the Task input and output containers that are different from the data structures of the program—the check box is selected by default.
 - * This item is not available in the Basic or FileNet Visual WorkFlo Editing Modes.
9. Click **Add** to create the item or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

2.7.4 Documents and Business Rules

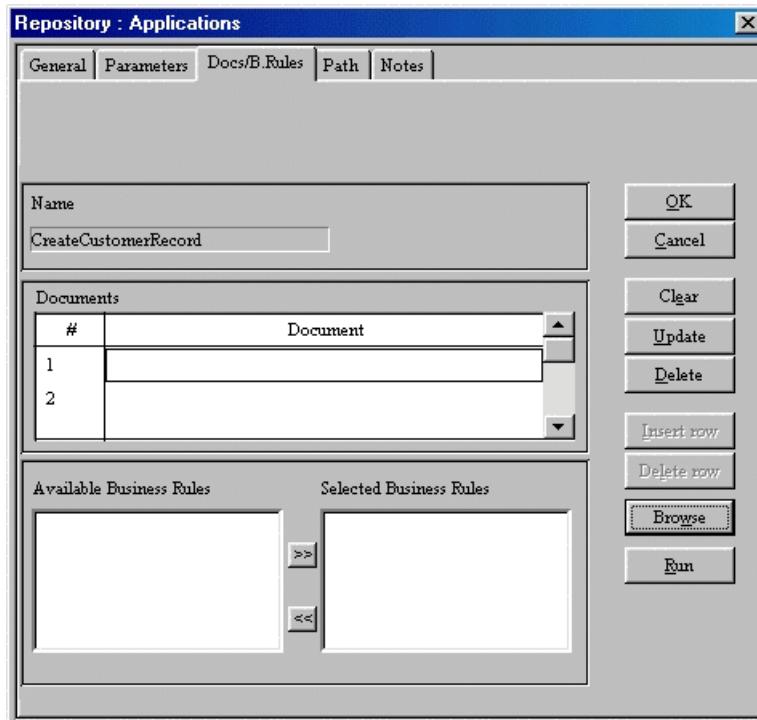
 The Documents and Business Rules tab is available only in the Basic, Line of Visibility, E-Commerce, and Advanced Editing Modes.

You can associate many documents or programs with an Application item. These documents may describe technical details of the application, or they may display Graphical User Interfaces (GUIs) of the application. You can define the following types of associations:

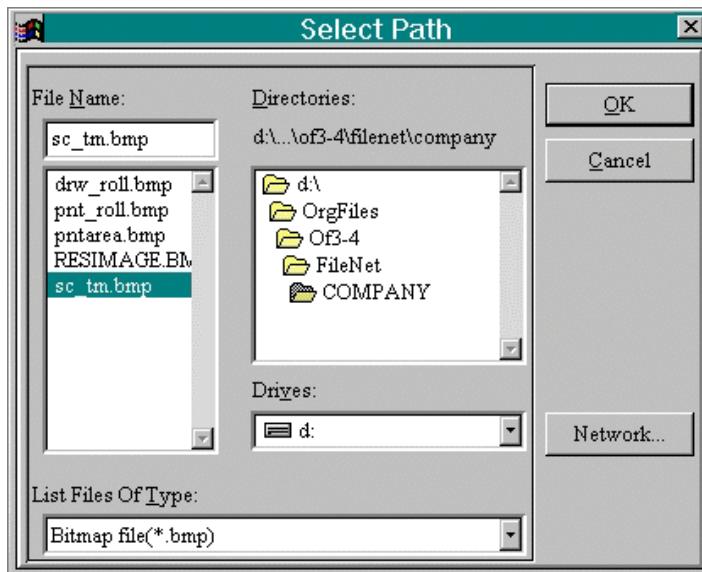
- Microsoft Excel files (.xls)
- Microsoft Word files (.doc)
- Any executable program (.exe)
- Dynamic Link Library (.dll)
- Visual Basic files (.vbp)
- Form files (.frm)
- Bitmap Files (.bmp)

To associate a document with an application:

1.  Select the **Docs/B.Rules** tab in the **Applications** dialog box (see the figure below).



2. Click in the first available row of the Document list.
3. Click **Browse** to open the **Select Path** dialog box (see the figure below).



- * Select the drive and/or directory where the file is located in the **Select Path** dialog box, then select the Organization File from the **File Name** list.
 - * Click **OK** to return to the Applications dialog box. The name and path of the document/application will be displayed in the selected row.
4. Repeat steps 3 and 4 to add other documents/applications to the list that are associated with the Repository application item.
 - * Use the **Insert Row** button to create lines between entries.
 - * Use the **Delete Row** button to delete entries.
 5. To assign a Business Rule to the Application:
 - * Click on the appropriate Business Rule listed in the **Available Business Rules** list box.
 - * Click on the **>>** button. The Business Rule will be moved from the **Available Business Rules** list box to the **Selected Business Rules** list box.
 6. To remove the assignment of a Business Rule to the Application:
 - * Click on the appropriate Business Rule listed in the **Selected Business Rules** list box.
 - * Click on the **<<** button. The Business Rule will be moved from the **Selected Business Rules** list box to the **Available Business Rules** list box.

7.  Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

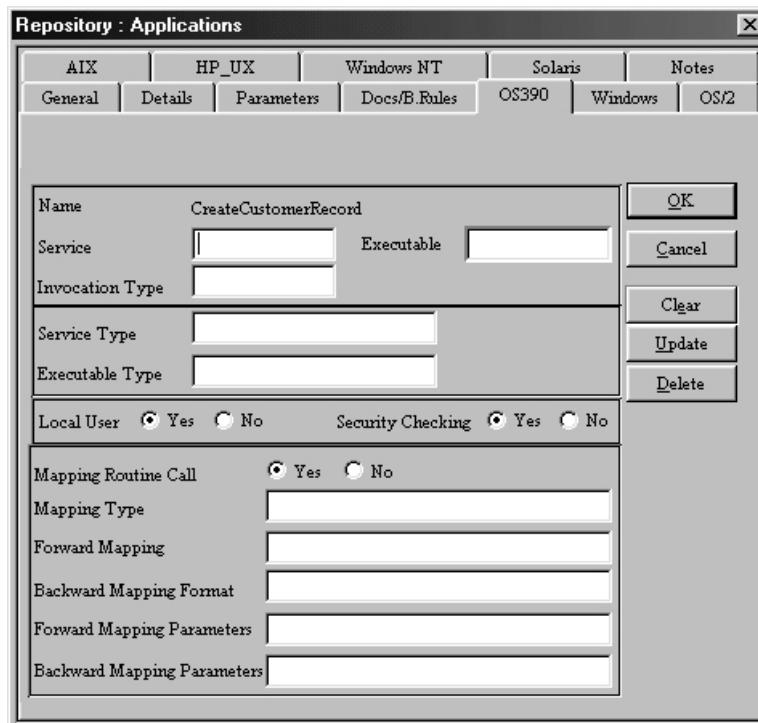
2.7.5 OS390

-  The **OS390** tab is available in all **Editing Modes** except the **Basic Editing Mode**, the **IBM FlowMark Editing Mode**, and the **FileNet Visual WorkFlo Editing Mode**.

This tab allows you to enter information about the program that will run on an OS/2 platform.

To define the Application details for the OS/390 platform:

1.  Select the **OS390** tab in the Applications dialog box (see the figure below, from the Advanced Editing Mode).



2.  Type the name of the service that will be called in the **Service** text box (Required).
3.  Type the invocation type that will be used by the specified service in the **Invocation Type** text box (Required).

4. Type the name of the executable that will be called by the specified service in the **Executable** text box (Required).
5. Type the service type in the **Service Type** text box (Required).
 - * For example, you can specify: **CICS** or **IMS**.
6. Type the execution type in the **Execution Type** text box (Required).
7. Select the **Yes** radio button in the **Local User** box to specify that the Employee password should be used for the Application.
 - * This radio button is selected by default.
8. Select the **No** radio button in the **Local User** box to specify that the Employee password should *not* be used for the Application.
9. Select the **Yes** radio button in the **Security Checking** box to specify that security checking will be invoked at the launch of the Application.
 - * This radio button is selected by default.
10. Select the **No** radio button in the **Security Checking** box to specify that security checking will *not* be invoked at the launch of the Application.
11. Select the **No** radio button in the **Mapping Routine Call** line to specify that the mapping routine will *not* be invoked at the launch of the Application.
 - * This radio button is selected by default.
12. Select the **Yes** radio button in the **Mapping Routine Call** line to specify that the mapping routine will be invoked at the launch of the Application.
13. If the **Yes** radio button in the **Mapping Routine Call** line is selected then the following attributes are available:
 - * Type the mapping type in the **Mapping Type** text box (Optional).
 - * Type the format that should be used for forward mapping in the **Forward Mapping Format** text box (Optional).
 - * Type the format that should be used for backward mapping in the **Backward Mapping Format** text box (Optional).
 - * Type additional parameters that should be used for forward mapping in the **Forward Mapping Parameters** text box (Optional).
 - * Type additional parameters that should be used for backward mapping in the **Backward Mapping Format** text box (Optional).
14. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

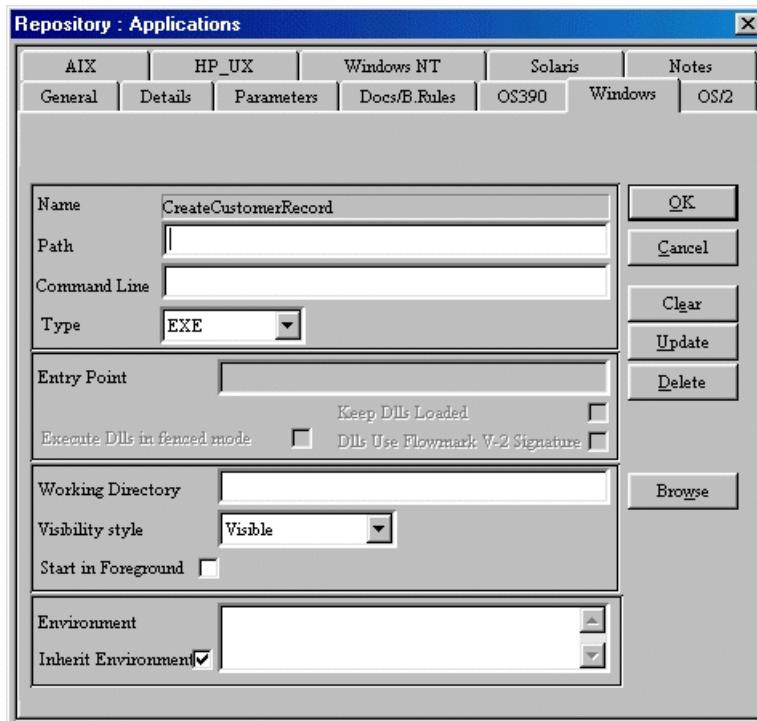
2.7.6 Windows

- ☞ The Windows tab is available in all Editing Modes except the Basic Editing Mode and the FileNet Visual WorkFlo Editing Mode.
- ☞ The information in the Windows tab is the same as what will appear in the Path tab in the Basic Editing Mode.

This tab allows you to enter information about the program that will run on a Windows platform. For data requirements of a specific Workflow Engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the Windows platform:

1. ☞ Select the **Windows** tab of the **Applications** dialog box (see the figure below, from the Advanced Editing Mode – the Windows tab is not available in the Basic Editing Mode).



2. ☞ Type the path and filename of the program.
3. ☞ Type any valid parameters for the executable program in the **Command Line** text box.
4. ☞ Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.

5. Type an entry point in the **Entry Point** text box.
 - * Entry points are only specified for **.DLL** files.
6. Type a working directory for the program in the **Working Directory** text box.
7. Select the visibility style of the application from the **Visibility Style** selection box.
 - * There are four (4) initial states for the program: **Visible** (default), **Invisible**, **Minimum**, and **Maximum**.
8. To specify that the program starts in the foreground, select the **Start in Foreground** check box.
 - * Do not select the check box for Presentation Manager programs. If you do, the Task list pops up when the program is started.
 - * This setting will override the visibility style of Minimized.
 - * If the visibility style is Invisible, this check box has no effect.
9. Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the Windows environment settings if the **Inherit Environment** check box is selected.
10. To use the Windows environment settings, select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
11. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

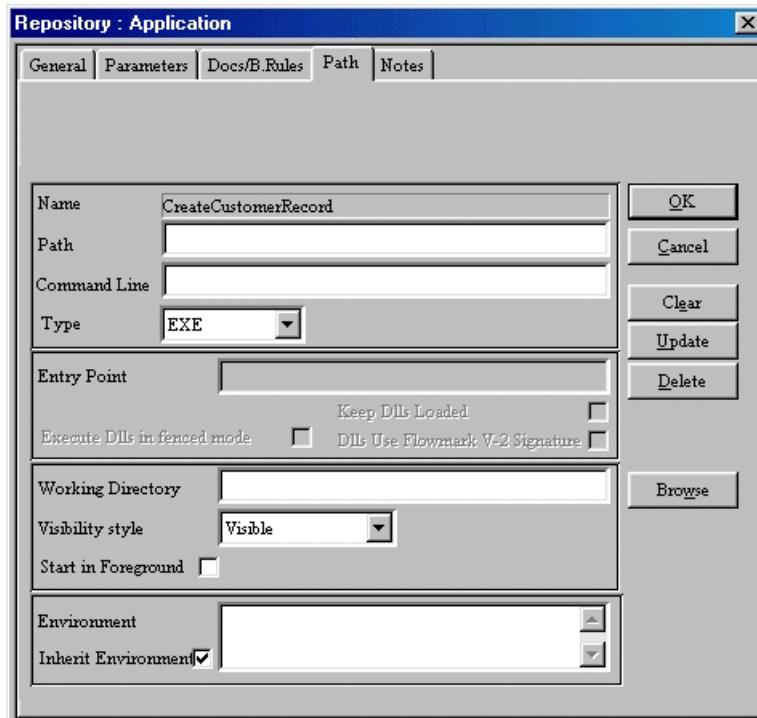
2.7.7 Path

- ☞ The Path tab is available only in the Basic Editing Mode; it is not available in any other Editing Mode.
- ☞ The information in the Path tab is the same as what will appear in the Windows tab (in the other Editing Modes).

This tab allows you to enter generic information about the program or specific information about the program that will run for a FileNet Visual WorkFlo Process. For data requirements of a specific Workflow Engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the Windows platform:

1. ☞ Select the Path tab of the **Applications** dialog box (see the figure below).



2. ☞ Type the path and filename of the program.
 - * The full file path is not required. The path can be specified in the CONFIG.SYS file of the client where the program will run.
 - * If the filename does not have an extension of **.EXE**, **.COM**, **.CMD**, **.PIF**, and **.BAT**, then the program will be assumed to be a **.DLL**.

3. Type any valid parameters for the executable program in the **Command Line** text box.
4. Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.
5. Type an entry point in the **Entry Point** text box.
 - * Entry points are only specified for **.DLL** files.
6. Type a working directory for the program in the **Working Directory** text box.
7. Select the visibility style of the application from the **Visibility Style** selection box.
 - * There are four (4) initial states for the program: **Visible** (default), **Invisible**, **Minimum**, and **Maximum**.
8. To specify that the program starts in the foreground, select the **Start in Foreground** check box.
 - * Do not select the check box for Presentation Manager programs. If you do, the Task list pops up when the program is started.
 - * This setting will override the visibility style of Minimized.
 - * If the visibility style is Invisible, this check box has no effect.
9. Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the Windows environment settings if the **Inherit Environment** check box is selected.
10. To use the Windows environment settings, select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
11. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

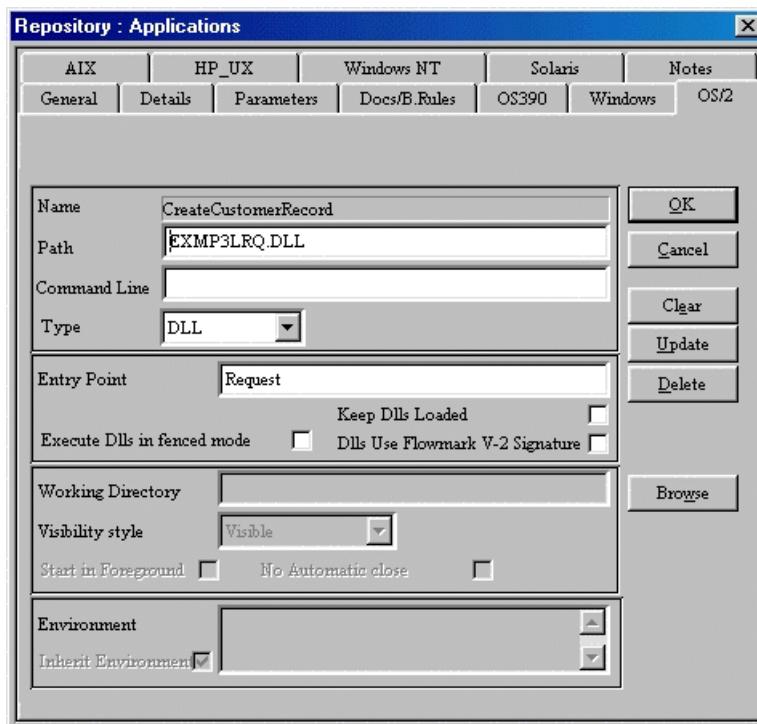
2.7.8 OS/2

- ☞ The OS/2 tab is available in all Editing Modes except the Basic Editing Mode and the FileNet Visual WorkFlo Editing Mode.

This tab allows you to enter information about the program that will run on an OS/2 platform. For data requirements of a specific workflow engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the OS/2 platform:

1. ☞ Select the **OS/2** tab of the **Applications** dialog box (see the figure below, from the Advanced Editing Mode).



2. ☞ Type the path and filename of the program.
3. ☞ Type any valid parameters for the executable program in the **Command Line** text box.
4. ☞ Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.
5. ☞ Type an entry point in the **Entry Point** text box.
 - * Entry Points are only specified for **DLL** files.

6.  Type a Working Directory for the program in the **Working Directory** text box.
7.  Select the visibility style in the **Visibility Style** selection box.
 - * There are four initial states for the program: **Visible** (default), **Invisible**, **Minimum**, and **Maximum**.
8. To specify that the program starts in the foreground,  select the **Start in Foreground** check box.
 - * Do not select the check box for Presentation Manager programs. If you do, the Task list pops up when the program is started.
 - * This setting will override the visibility style of Minimized.
 - * If the visibility style is Invisible, this check box has no effect.
9. To specify that the program will not close automatically when the program finishes,  select the **No Automatic Close** check box.
10.  Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the OS/2 environment settings if the **Inherit Environment** check box is selected.
11. To use the OS/2 environment settings,  select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
12.  Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

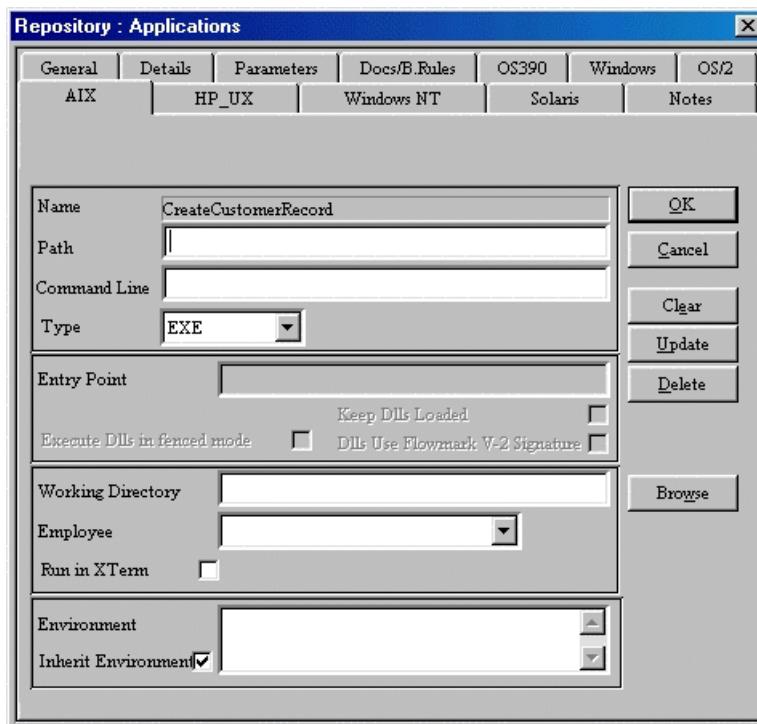
2.7.9 AIX

- ☞ The AIX tab is available in all Editing Modes except the Basic Editing Mode and the FileNet Visual WorkFlo Editing Mode.

This tab allows you to enter information about the program that will run on an AIX platform. For data requirements of a specific workflow engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the AIX platform:

1. ☞ Select the **AIX** tab of the **Applications** dialog box (see the figure below, from the Advanced Editing Mode).



2. ☞ Type the path and filename of any executable files or scripts.
3. ☞ Type any valid parameters for the executable program in the **Command Line** text box.
4. ☞ Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.
5. ☞ Type an entry point in the **Entry Point** text box.
 - * Entry Points are only specified for **.DLL** files.

6. Type a working directory for the program in the **Working Directory** text box.
7. You can specify the User Account ID by selecting an employee from the **Employee** selection box.
8. To specify that the program is an X-Windows application, select the **Run in XTerm** check box.
9. Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the AIX environment settings if the **Inherit Environment** check box is selected.
10. To use the AIX environment settings, select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
11. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

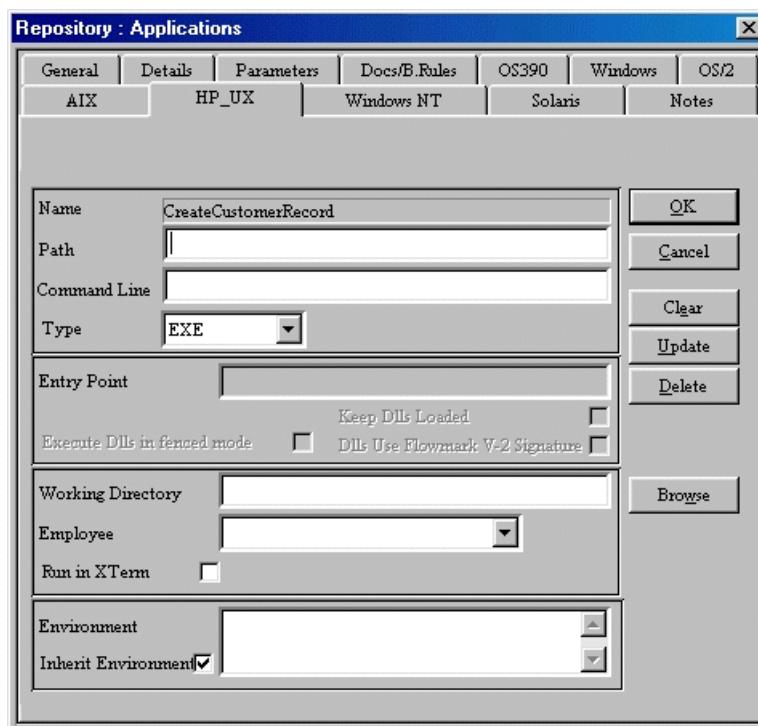
2.7.10 HP_UX

- ☞ The HP_UX tab is available in all Editing Modes except the Basic Editing Mode and the FileNet Visual WorkFlo Editing Mode.

This tab allows you to enter information about the program that will run on a HP/UX platform. For data requirements of a specific workflow engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the HP/UX platform:

1. ☞ Select the HP_UX tab of the **Applications** dialog box (see the figure below, from the Advanced Editing Mode).



2. ☞ Type the path and filename of any executable files or scripts.
3. ☞ Type any valid parameters for the executable program in the **Command Line** text box.
4. ☞ Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.
5. ☞ Type an entry point in the **Entry Point** text box.
 - * Entry Points are only specified for **.DLL** files.

6.  Type a working directory for the program in the **Working Directory** text box.
7. You can specify the User Account ID by  selecting an employee from the **Employee** selection box.
8. To specify that the program is an X-Windows Application,  select the **Run in XTerm** check box.
9. Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the HP_UX environment settings if the **Inherit Environment** check box is selected.
10. To use the HP_UX environment settings,  select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
11.  Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

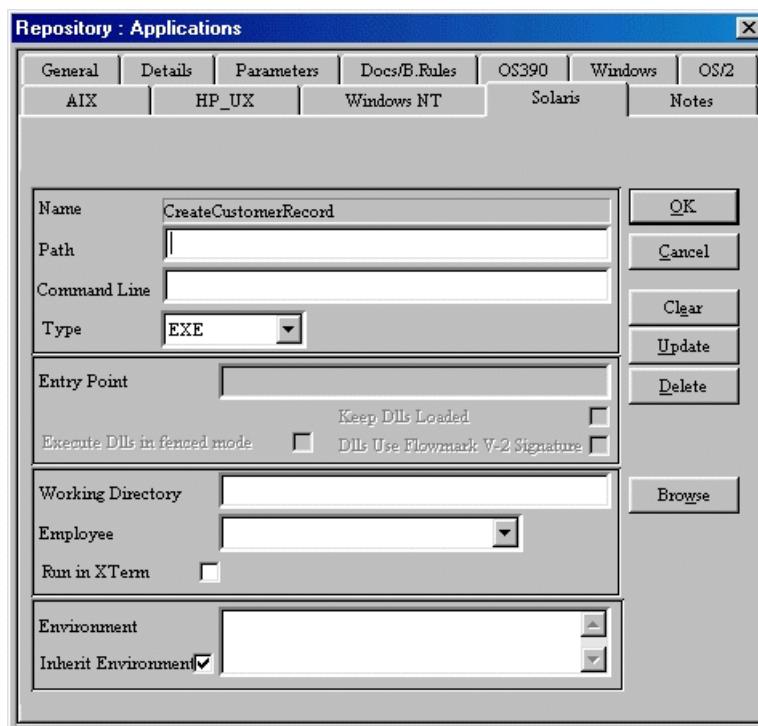
2.7.11 Solaris

- ☞ The Solaris tab is available in all Editing Modes except the Basic Editing Mode and the FileNet Visual WorkFlo Editing Mode.

This tab allows you to enter information about the program that will run on a Solaris platform. For data requirements of a specific workflow engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the Solaris platform:

1. ☞ Select the **Solaris** tab of the **Applications** dialog box (see the figure below, from the Advanced Editing Mode).



2. ☞ Type the path and filename of any executable files or scripts.
3. ☞ Type any valid parameters for the executable program in the **Command Line** text box.
4. ☞ Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.
5. ☞ Type an entry point in the **Entry Point** text box.
 - * Entry Points are only specified for **.DLL** files.

6.  Type a working directory for the program in the **Working Directory** text box.
7. You can specify the User Account ID by  selecting an employee from the **Employee** selection box.
8. To specify that the program is an X-Windows Application,  select the **Run in XTerm** check box.
9. Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the Solaris environment settings if the **Inherit Environment** check box is selected.
10. To use the Solaris environment settings,  select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
11.  Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

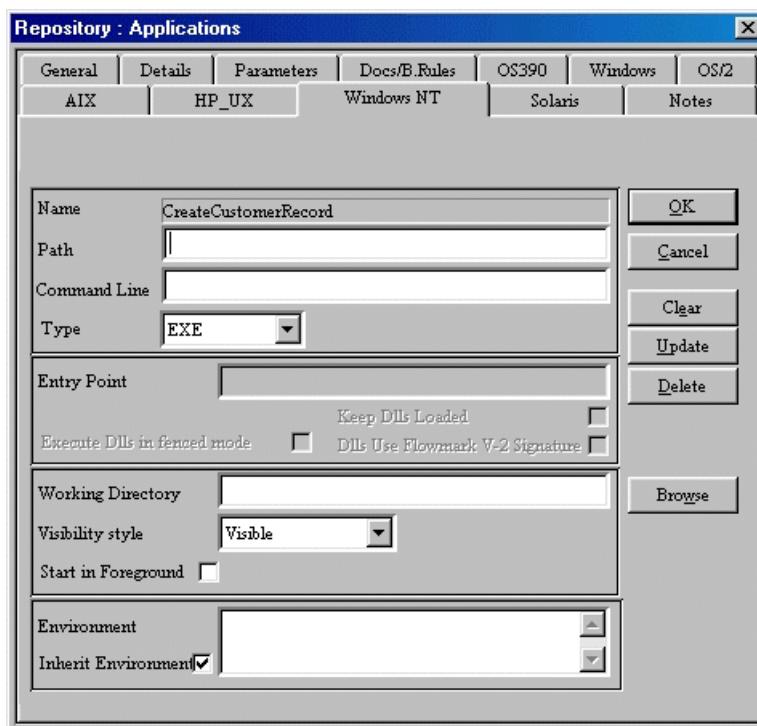
2.7.12 Windows NT

- ☞ The Windows NT tab is available in all Editing Modes except the Basic Editing Mode and the FileNet Visual WorkFlo Editing Mode.

This tab allows you to enter information about the program that will run on a Windows NT platform. For data requirements of a specific workflow engine, refer to the *Integration with Workflow Applications Guide*.

To define the application details for the Windows platform:

1. ☞ Select the **Windows NT** tab of the **Applications** dialog box (see the figure below, from the Advanced Editing Mode).



2. ☞ Type the path and filename of the program.
3. ☞ Type any valid parameters for the executable program in the **Command Line** text box.
4. ☞ Select the type of program in the **Type** selection box
 - * The following types are possible: **.EXE**, **.DLL**, **.COM**, **.CMD**, **.BAT**, and **.PIF**.
5. ☞ Type an entry point in the **Entry Point** text box.
 - * Entry points are only specified for **.DLL** files.

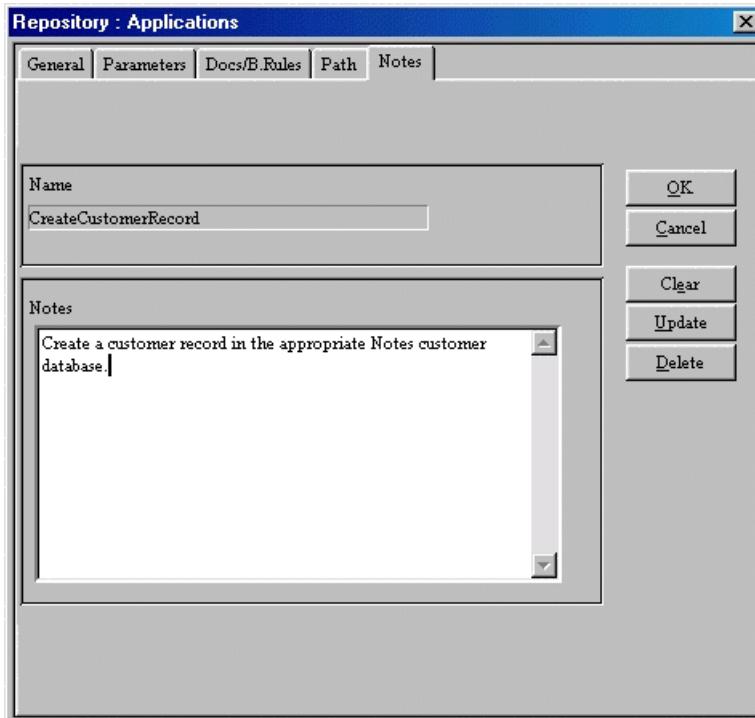
6. Type a working directory for the program in the **Working Directory** text box.
7. Select the visibility style in the **Visibility Style** selection box.
 - * There are four initial states for the program: **Visible** (default), **Invisible**, **Minimum**, and **Maximum**.
8. To specify that the program starts in the foreground, select the **Start in Foreground** check box.
 - * This setting will override the visibility style of Minimized.
 - * If the visibility style is Invisible, this check box has no effect.
9. Type any environment settings in the **Environment** text box.
 - * These settings will be merged with the Windows NT environment settings if the **Inherit Environment** check box is selected.
10. To use the Windows NT environment settings, select the **Inherit Environment** check box.
 - * These settings will be merged with any user-defined environment settings.
11. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.13).

2.7.13 Notes

This tab allows you to enter notes about the application.

To define the notes for the application:

1. Select the Notes tab of the **Applications** dialog box (see the figure below).



2. Type notes in the Notes text box.
 - * If you want to add a **Carriage Return** to the text of your notes, then type **Ctrl+Enter**.
3. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Applications** dialog box (refer to sections 2.7.1 through 2.7.11).

2.8 Servers

 **The Servers dialog box is available only in the IBM FlowMark and Advanced Editing Modes.**

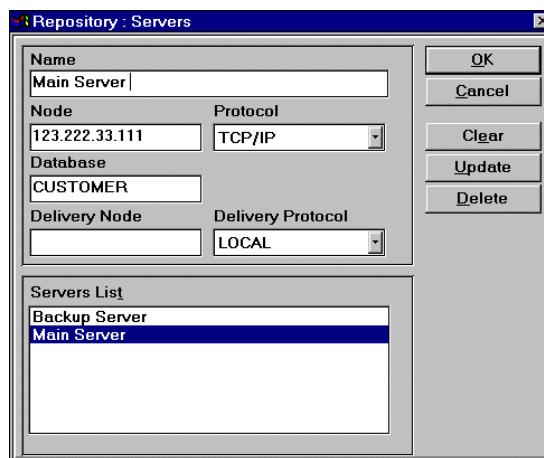
Workflow•BPR allows for the identification of database and workflow servers. The information about the servers can be used by workflow engines when the Process is translated into a workflow engine execution file (such as the IBM FlowMark FDL files) —refer to the *Integration with Workflow Applications Guide*.

The following information is required to define servers for your organization:

- Name for the server
- Protocol and Node address
- Database (optional)
- Delivery Protocol and Node address

To create a Server Repository item:

1.  Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Servers**. The **Servers** dialog box appears (see the figure below, from the Advanced Editing Mode).



3.  Type the name of the Server in the **Name** text box.
* You can also  select a name from the **Servers List** list box.

4. Select the protocol from the **Protocol** selection box.
 - * If you select **APPCC** as the Protocol, then type the APPC address in the **Node** text box.
 - * If you select **TCP/IP** as the Protocol, then type the TCP/IP address in the **Node** text box.
5. Type the name of the database, if any, in the **Database** text box.
6. Select the delivery protocol from the **Delivery Protocol** selection box.
 - * If you select **APPCC** as the Protocol, then type the APPC address in the **Delivery Node** text box.
 - * If you select **TCP/IP** as the Protocol, then type the TCP/IP address in the **Delivery Node** text box.
7. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

2.9 Domain

- ☞ **The Domain dialog box is available only in the IBM MQ Workflow Editing Mode; it is not available in any other Editing Mode.**

There are three levels of hierarchy in the IBM MQ Workflow environment: Domain, System Group, and System. Workflow•BPR allows for the field-level description of each of these levels of hierarchy, so that a Workflow•BPR Process edited in the IBM MQ Workflow Editing Mode can be smoothly translated into an IBM MQ Workflow FDL file. (Please refer to the Integration with Workflow Applications Guide for more information.) This section deals with the Domain level of the hierarchy.

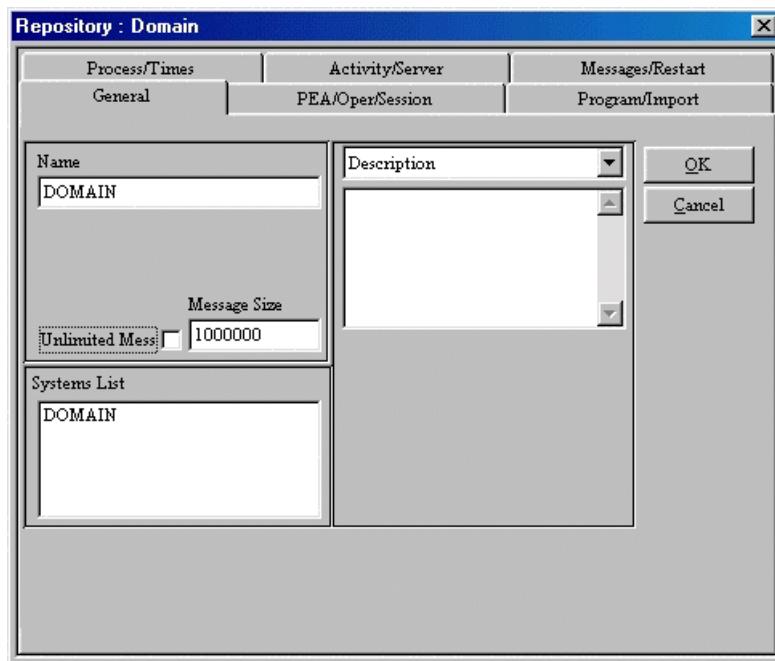
The information about the Domain is captured with the **Domain** dialog box. Each of the tabs in the Domain dialog box is described in the sections below

2.9.1 General

This tab gathers general information about the Domain.

To create or modify an IBM MQ Workflow Domain Repository item:

1. Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2. Select **Domain** from the sub-menu. The **Domain** dialog box will appear—open to the **General** tab (see the figure below, from the IBM MQ Workflow Editing Mode).



3. Type the name of the Domain in the **Name** text box.
 - * You can also select a name from the **Systems List** list box.
 - * This field is required.
4. Select the **Unlimited Mess** checkbox to allow Domain messages of unlimited size.
 - * If the **Unlimited Mess** checkbox is not selected, then you must type the number, in bytes, of the maximum allowable message size in the **Message Size** text box.
 - The IBM default is "**1000000**" bytes (1 MB).
 - This field is required.

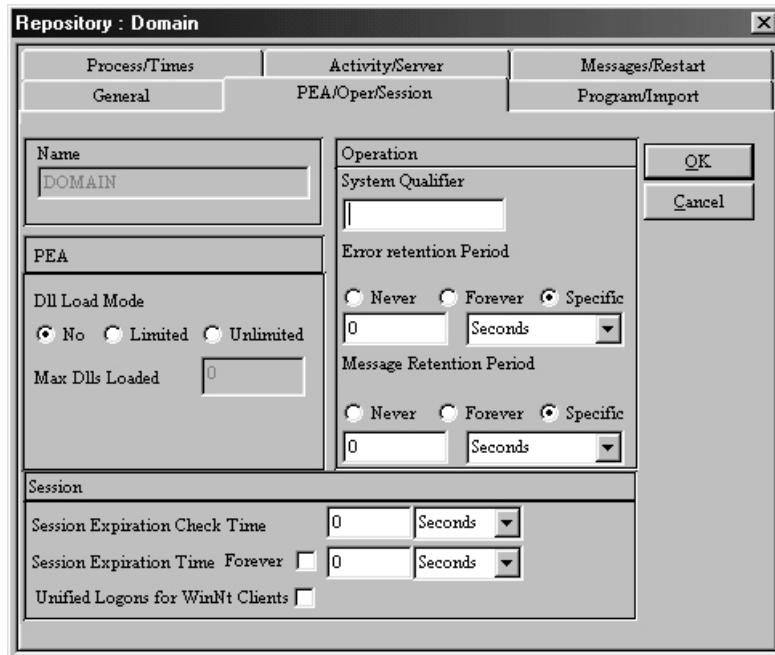
5.  Select a Notes Header from the drop-down list in the Notes Header selection box.
 - * There are two (2) independent types of Notes available for a Domain: **Description** (default) and **Documentation**.
6.  Type the Notes appropriate to the Header you have selected in the text box below the Notes Header selection box.
 - * The Notes pertaining to the **Description** Header will be exported in the FDL file.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.

2.9.2 PEA/Oper/Session

This tab gathers information about the Domain's Program Execution Agent, Operator, and Session.

To create or modify an IBM MQ Workflow Domain PEA/Oper/Session item:

1. Select the **PEA/Oper/Session** tab in the **Domain** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Select the **No** radio button in the **DLL Load Mode** box to keep no inactive DLL files loaded.
3. Select the **Limited** radio button in the **DLL Load Mode** box to keep a specific number of inactive DLL files loaded.
 - * Type the specific number of inactive DLL files to be kept loaded in the **Max Dlls Loaded** text box.
4. Select the **Unlimited** radio button in the **DLL Load Mode** box to keep all inactive DLL files loaded (default).
5. Type the name of the System Qualifier in the **System Qualifier** text box.
 - * The IBM default is "FMC."
6. Select the **Never** radio button below the **Error Retention Period** label to keep no error messages in the error database of the administration server.

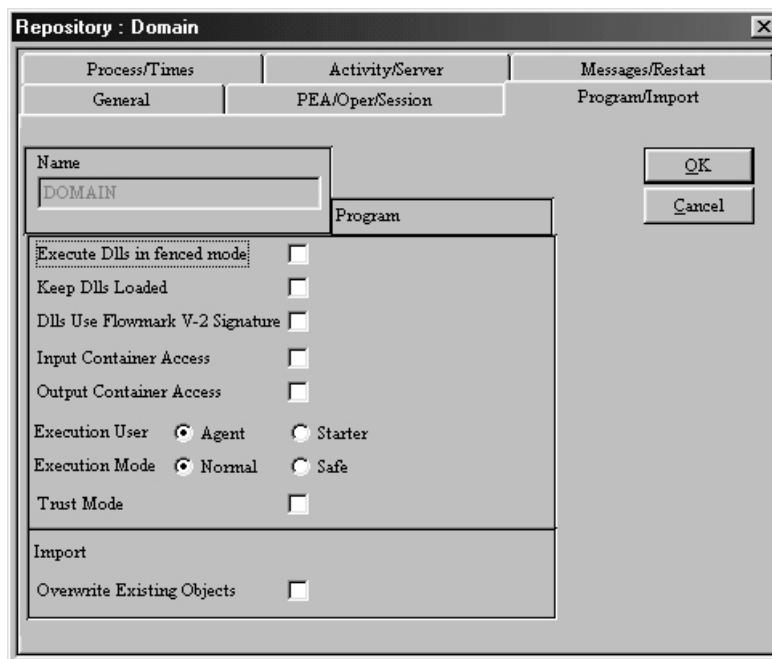
7. Select the **Forever** radio button below the **Error Retention Period** label to keep all error messages in the error database of the administration server.
8. Select the **Specific** radio button below the **Error Retention Period** label to keep only those error messages that issued within a specific past time frame (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Days**."
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**7**."
9. Select the **Never** radio button in the **Message Retention Period** box to keep no messages in the message database of the administration server.
10. Select the **Forever** radio button in the **Message Retention Period** box to keep all messages in the message database of the administration server.
11. Select the **Specific** radio button in the **Message Retention Period** box to specify how long messages are kept in the message database of the administration server (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Days**."
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**7**."
12. Enter the **Session Expiration Check Time**:
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
13. Select the **Forever** checkbox to set no time limit for the session—i.e., the session is never terminated by the system (default).
 - * If the **Forever** checkbox is not selected, then you must enter the **Session Expiration Time**:
 - Select the units of time from the drop-down list in the box on the right.
 - Type the specific number of those units in the box on the left.
14. Select the **Unified Logons for WinNt Clients** check box to have MQ Workflow takes its user ID and password from the Windows NT logon. (Do not select the check box if the MQ Workflow user must enter a separate user ID and password.)

2.9.3 Program/Import

This tab gathers information about the Domain's Program and Import parameters.

To create or modify an IBM MQ Workflow Domain Program/Import item:

1. Select the **Program/Import** tab in the **Domain** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Select the **Execute Dlls in Fenced Mode** checkbox to have the PEA and program Dll files run in separate processes (default).
3. Select the **Keep Dlls Loaded** checkbox to have the PEA keep program Dll files loaded (default).
4. Select the **Dlls Use Flowmark V-2 Signature** checkbox to use the Version 2 signature to invoke a Dll file.
 - * The IBM default is the **Dlls Use Flowmark V-2 Signature** checkbox not selected (the Version 3 signature is used).
5. Select the **Input Container Access** checkbox to have the program access the input container of the activity (default).
6. Select the **Output Container Access** checkbox to have the program access the output container of the activity (default).
7. Select the **Agent** radio button beside the **Execution User** label to run the program under the operating system identifier of the PEA or server (default).
 - * If the **Execute Dlls in Fenced Mode** checkbox is not selected, then the **Agent** radio button must be selected.

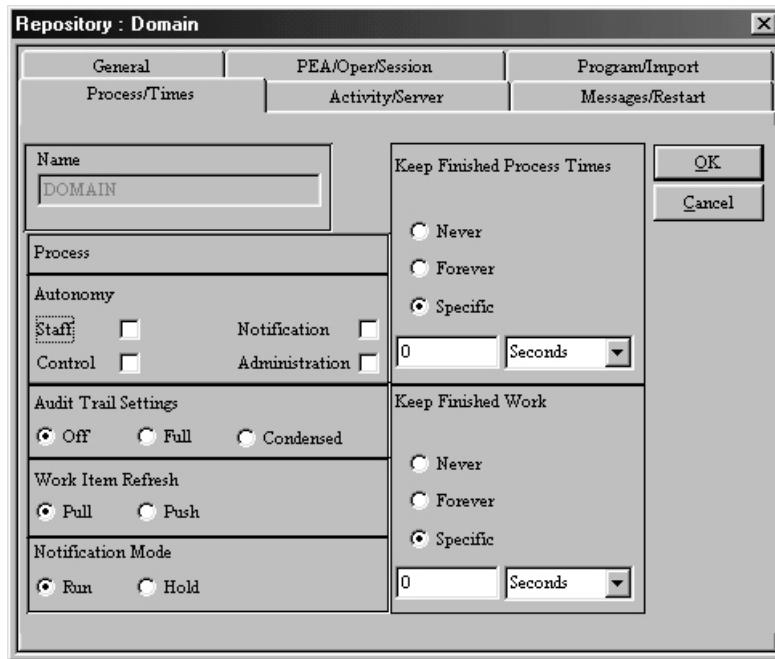
8. Select the **Starter** radio button beside the **Execution User** label to run the program under the operating system identifier of the user who started the work item associated with the activity.
 - * The operating system identifier is set equal to the IBM MQ Workflow user ID.
 - * The **Starter** radio button can only be selected for an EXE, a fenced DLL, or external services.
 - * The **Starter** radio button cannot be selected unless the **Execute Dlls in Fenced Mode** checkbox is also selected.
9. Select the **Normal** radio button beside the **Execution Mode** label to send non-persistent messages among IBM MQ Workflow components (default).
10. Select the **Safe** radio button beside the **Execution Mode** label to send persistent messages IBM MQ Workflow components.
 - * If the **Safe** radio button is selected for both **Execution Mode** and **Support Mode** (refer to the section entitled "Program Execution Server" on page 2-67), the program runs as a safe application in the transaction context of the Program Execution Server.
11. Select the **Trust Mode** checkbox to have the executable program obtain a correlation ID.
 - * The IBM default is the **Trust Mode** checkbox not selected.
12. Select the **Overwrite Existing Objects** checkbox to overwrite the currently existing object in the database during import.

2.9.4 Process/Times

This tab gathers information about the Domain's Process and Times parameters.

To create or modify an IBM MQ Workflow Domain Process/Times item:

1. Select the **Process/Times** tab in the **Domain** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Select the **Staff** checkbox in the **Autonomy** box to disregard the organization and staff of the parent process.
3. Select the **Control** checkbox in the **Autonomy** box to disregard the terminate, suspend, and resume requests from the parent process (default).
4. Select the **Notification** checkbox in the **Autonomy** box to disregard the notification specifications of the parent process.
5. Select the **Administration** checkbox in the **Autonomy** box to disregard the process administrator of the parent process.
6. Select the **Off** radio button in the **Audit Trail Settings** box to keep no audit trail records (default).
7. Select the **Full** radio button in the **Audit Trail Settings** box to keep a full set of audit trail records.
8. Select the **Condensed** radio button in the **Audit Trail Settings** box to keep a limited set of audit trail records.

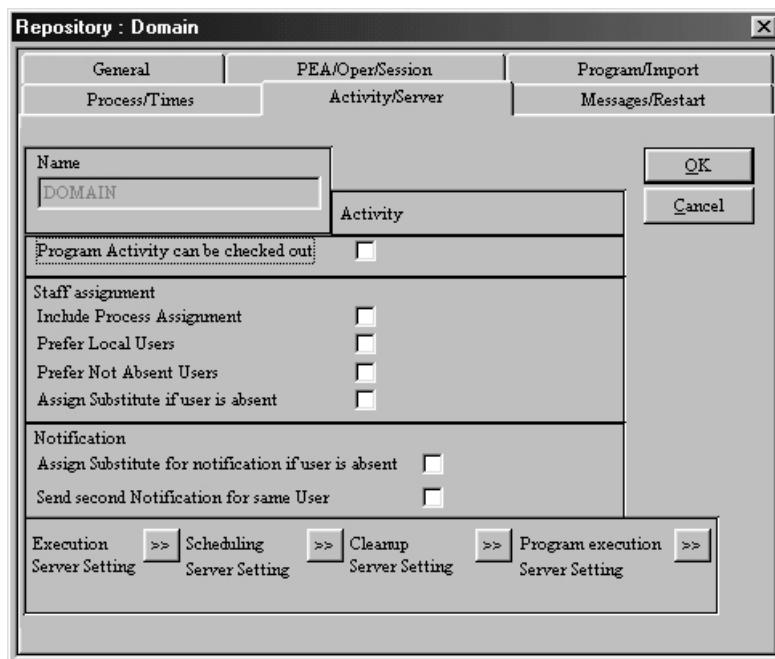
9. Select the **Pull** radio button in the **Work Items Refresh** box to make the user explicitly request to receive new work items in the user's Worklist (default).
10. Select the **Push** radio button in the **Work Items Refresh** box to have the user automatically receive new work items in the user's worklist.
11. Select the **Run** radio button in the **Notification Mode** box to have the notification timer continue running when the process instance is suspended (default).
12. Select the **Hold** radio button in the **Notification Mode** box to have the notification timer pause when the process instance is suspended.
13. Select the **Never** radio button in the **Keep Finished Process Times** box to keep no finished processes (default).
14. Select the **Forever** radio button in the **Keep Finished Process Times** box to keep all finished processes.
15. Select the **Specific** radio button in the **Keep Finished Process Times** box to specify how long finished processes are kept.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
16. Select the **Never** radio button in the **Keep Finished Work** box to keep no finished work items (default).
17. Select the **Forever** radio button in the **Keep Finished Work** box to keep all finished work items.
18. Select the **Specific** radio button in the **Keep Finished Work** box to specify how long finished work items are kept.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.

2.9.5 Activity/Server

This tab gathers information about the Domain's Activity and Server parameters.

To create or modify an IBM MQ Workflow Domain Activity/Server item:

1. Select the **Activity/Server** tab in the **Domain** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Select the **Program Activity Can Be Checked Out** checkbox to allow program activities to be checked out (default).
3. Select the **Include Process Assignment** checkbox in the **Staff Assignment** box to use the role and organization settings of the process model as part of the final staff assignment of the activity (default).
4. Select the **Prefer Local Users** checkbox in the **Staff Assignment** box to have staff resolution prefer local users to receive work items in a distributed environment (default).
5. Select the **Prefer Not Absent Users** checkbox in the **Staff Assignment** box to have staff resolution prefer users who are not absent to receive work items (default).
6. Select the **Assign Substitute if User is Absent** checkbox in the **Staff Assignment** box to have staff resolution select a substitute if the user is absent.

7. Select the **Assign Substitute for Notification if User is Absent** checkbox in the **Notification** box to have the substitute for a user receive the notification (default).
8. Select the **Send Second Notification for Same User** checkbox in the **Notification** box to have a second notification sent to the same person who received the first notification (default).

Each of the buttons in the **Server Settings** box—**Execution Server Setting**, **Scheduling Server Setting**, **Cleanup Server Setting**, and **Program Execution Server Setting**—opens a new dialog box. These are discussed in the following sections.

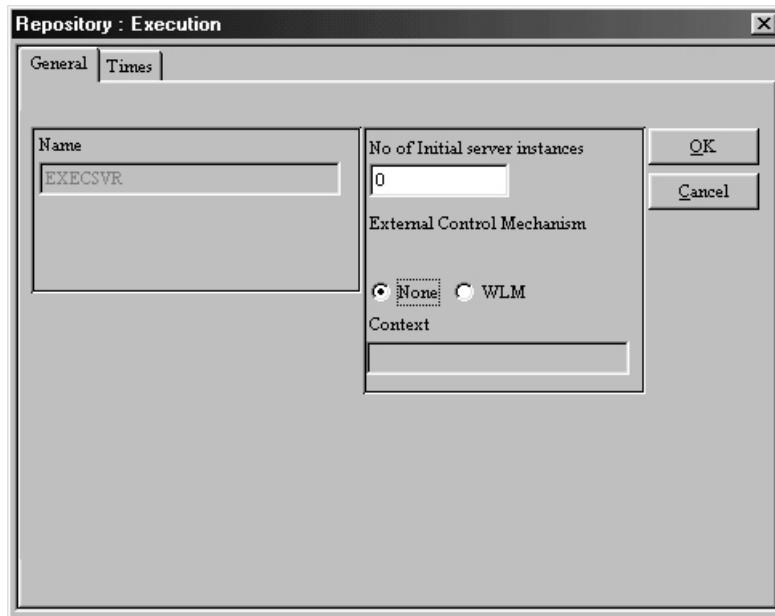
2.9.5.1 Execution Server Setting

This dialog box gathers information about the Domain's Execution Server. There are two tabs in this dialog box: **General** and **Times**. These tabs are discussed in the sections below.

General

This tab gathers general information about the Domain's Execution Server. To modify this information:

1. Click on the **Execution Server Setting** button. The **Execution** dialog box will appear—open to the **General** tab (see the figure below, from the IBM MQ Workflow Editing Mode).

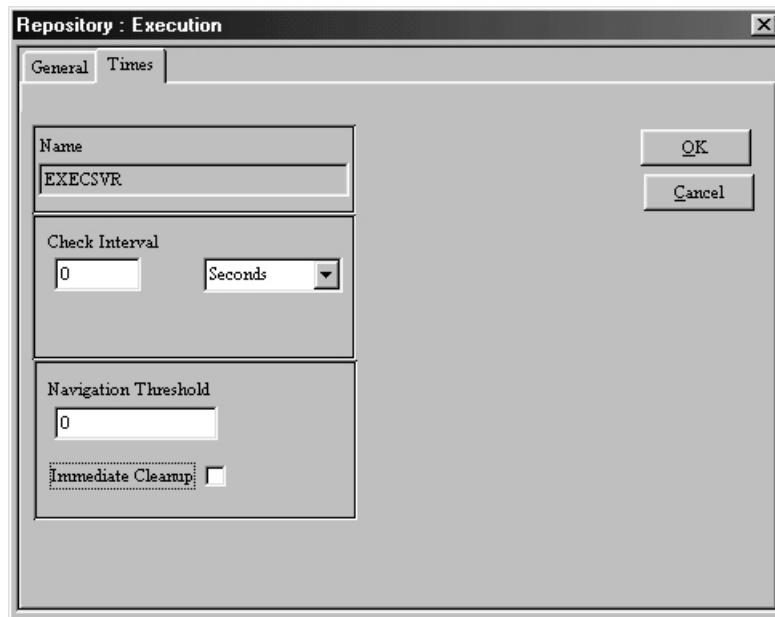


2. Type the number of multiple-instance Execution Server hotpool instances to be created when an Execution Server is started in the **No of Initial Server Instances** text box.
 - * The IBM default is "5."
3. Select the **None** radio button below the **External Control Mechanism** label to have the start and stop of the Execution Server and the number of hotpool instances not controlled externally (default).
4. Select the **WLM** radio button below the **External Control Mechanism** label to have the OS/390 workload manager control all servers.
 - * If the **WLM** radio button is selected, then you must type in the **Context** text box the context string that is passed from the administration server to the control mechanism.

Times

This tab gathers timer information about the Domain's Execution Server. To modify this information:

1. Select the **Times** tab in the **Execution** dialog box (see the figure below, from the IBM Workflow Editing Mode).



2. Enter the desired Execution Server check interval rate in the boxes below the **Check Interval** label.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
3. Type the maximum number of generated work items to be allowed within a navigation transaction in the **Navigation Threshold** text box.
 - * If the number of generated work items exceeds this number, the transaction becomes a stratified transaction.
 - * The IBM default is "10."
4. Select the **Immediate Cleanup** checkbox to physically remove process instances and work items at the time they are marked deleted.
 - * If the **Immediate Cleanup** checkbox is not selected, process instances and work items marked deleted are physically removed by the cleanup server.

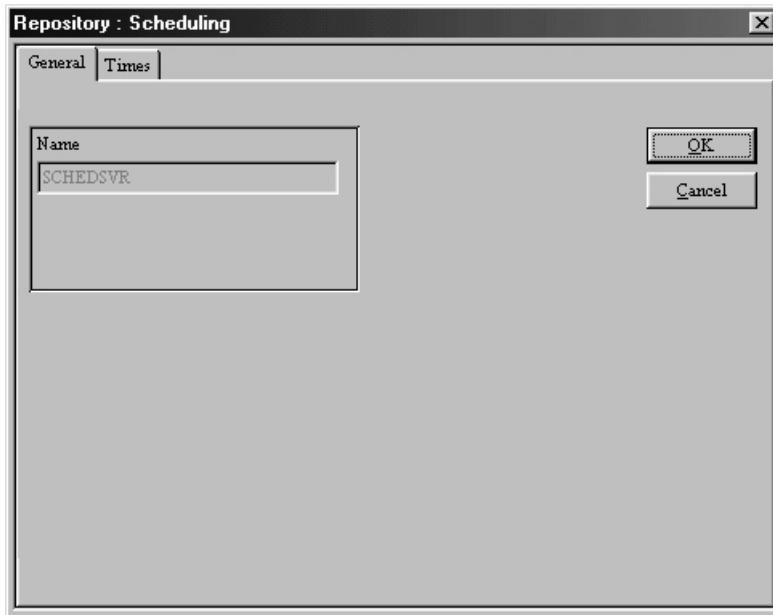
2.9.5.2 Scheduling Server Setting

This dialog box gathers information about the Domain's Scheduling Server. There are two tabs in this dialog box: General and Times. These tabs are discussed in the sections below.

General

This tab displays general information about the Domain's Scheduling Server. To view this information:

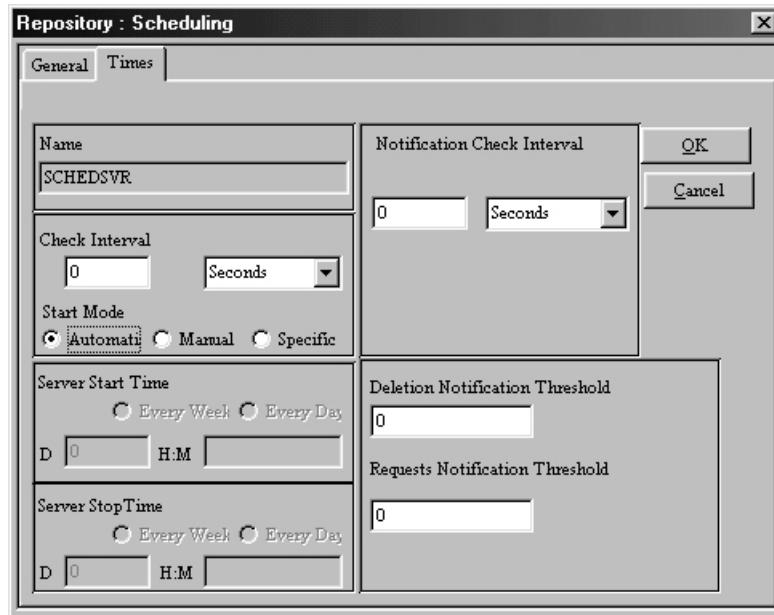
1. Click on the **Scheduling Server Setting** button. The Scheduling dialog box will appear—open to the **General** tab (see the figure below, from the IBM MQ Workflow Editing Mode).



Times

This tab gathers times information about the Domain's Scheduling Server. To modify this information:

1. Select the **Times** tab in the **Scheduling** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Enter the desired Scheduling Server check interval rate in the boxes below the **Check Interval** label.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
3. Select the **Automatic** radio button below the **Start Mode** label to start and stop the Scheduling Server automatically with the start and stop of the corresponding IBM MQ Workflow system.
4. Select the **Manual** radio button below the **Start Mode** label to start and stop the Scheduling Server manually with the operation administration command.
5. Select the **Specific** radio button below the **Start Mode** label to start and stop the Scheduling Server as defined by the **Server Start Time** and the **Server Stop Time** (default).
6. Select the **Every Week** radio button in the **Server Start Time** box to start the Scheduling Server every week on a regular day and at a regular time.
 - * Enter the day of the week in the **D** text box.

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- Type the number, **1...7**, corresponding to the desired day, **Sunday...Saturday**.
 - * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
7. Select the **Every Day** radio button in the **Server Start Time** box to start the Scheduling Server every day at a regular time.
- * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
8. Select the **Every Week** radio button in the **Server Stop Time** box to stop the Scheduling Server every week on a regular day and at a regular time.
- * Enter the day of the week in the **D** text box.
 - Type the number, **1...7**, corresponding to the desired day, **Sunday...Saturday**.
 - * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
9. Select the **Every Day** radio button in the Sunday...Saturday box to stop the Scheduling Server every day at a regular time.
- * Enter the day of the week in the **D** text box.
 - Type the number, **1...7**, corresponding to the desired day, **Sunday...Saturday**.
 - * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
10. Enter the desired notification check interval rate in the boxes below the **Notification Check Interval** label.
- * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
11. Type the number of notification items to be deleted by the server in one transaction in the **Deletion Notification Threshold** text box (required).
- * The IBM default is "**100**."
12. Type the number of notification item requests to be sent from the Scheduling Server to the Execution Server in one transaction in the **Requests Notification Threshold** text box (required).
- * The IBM default is "**100**."

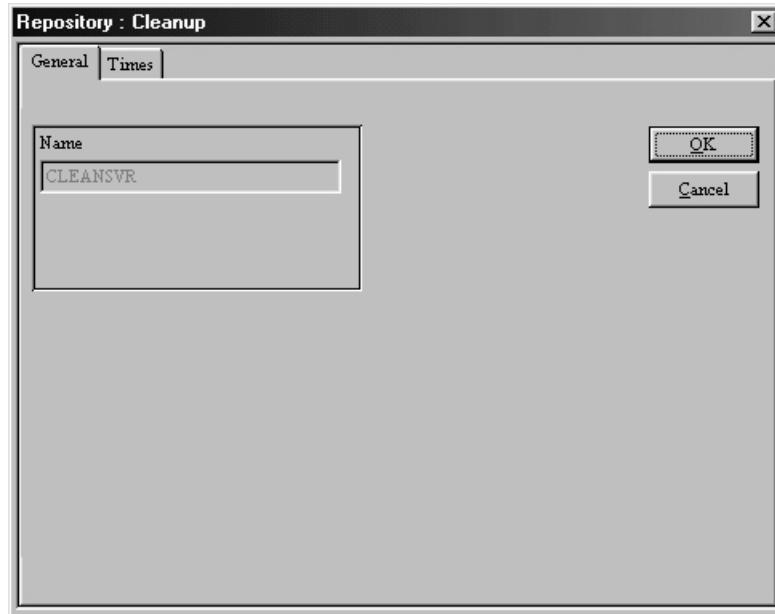
2.9.5.3 **Cleanup Server Setting**

This dialog box gathers information about the Domain's Cleanup Server. There are two tabs in this dialog box: **General** and **Times**. These tabs are discussed in the sections below.

General

This tab displays general information about the Domain's Cleanup Server. To view this information:

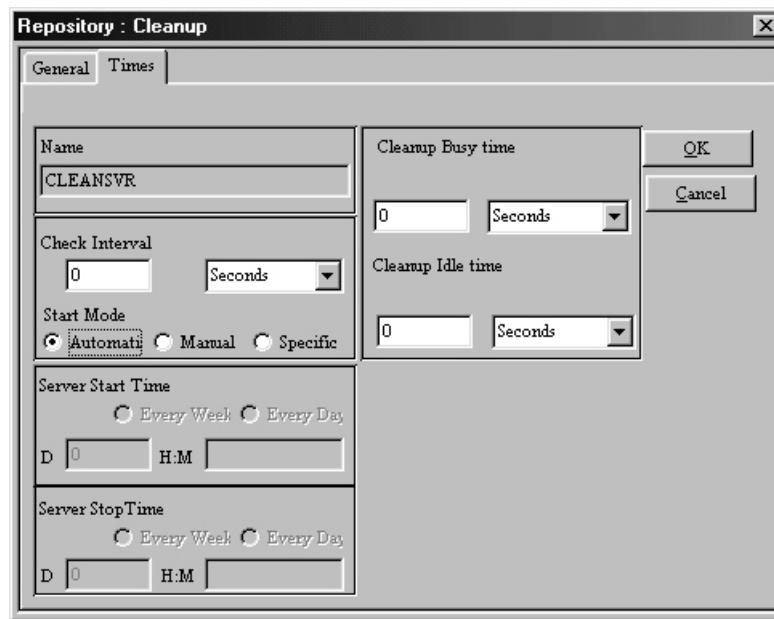
1. Click on the **Cleanup Server Setting** button. The **Cleanup** dialog box will appear-open to the **General** tab (see the figure below, from the IBM Workflow Editing Mode).



Times

This tab gathers times information about the Domain's Cleanup Server. To modify this information:

1. Select the **Times** tab in the **Cleanup** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Enter the desired Cleanup Server check interval rate in the boxes below the **Check Interval** label.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
3. Select the **Automatic** radio button below the **Start Mode** label to start and stop the Cleanup Server automatically with the start and stop of the corresponding IBM MQ Workflow system.
4. Select the **Manual** radio button below the **Start Mode** label to start and stop the Scheduling Server manually with the operation administration command.
5. Select the **Specific** radio button below the **Start Mode** label to start and stop the Cleanup Server as defined by the **Server Start Time** and the **Server Stop Time** (default).
6. Select the **Every Week** radio button in the **Server Start Time** box to start the Cleanup Server every week on a regular day and at a regular time.
 - * Enter the day of the week in the **D** text box.

- Type the number, **1...7**, corresponding to the desired day, **Sunday...Saturday**.
 - * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
7. Select the **Every Day** radio button in the **Server Start Time** box to start the Cleanup Server every day at a regular time.
- * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
8. Select the **Every Week** radio button in the **Server Stop Time** box to stop the Cleanup Server every week on a regular day and at a regular time.
- * Enter the day of the week in the **D** text box.
 - Type the number, **1...7**, corresponding to the desired day, **Sunday...Saturday**.
 - * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
9. Select the **Every Day** radio button in the **Server Stop Time** box to stop the Cleanup Server every day at a regular time.
- * Enter the day of the week in the **D** text box.
 - Type the number, **1...7**, corresponding to the desired day, **Sunday...Saturday**.
 - * Enter the time of day in the **H:M** text box.
 - Type the two digits of the hour, **00...23**, then a colon, then the two digits of the minute, **00...59**, i.e., **HH:MM**.
10. Enter the desired Cleanup Server busy time in the boxes below the **Cleanup Busy Time** label.
- * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
11. Enter the desired Cleanup Server idle time in the boxes below the **Cleanup Idle Time** label.
- * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.

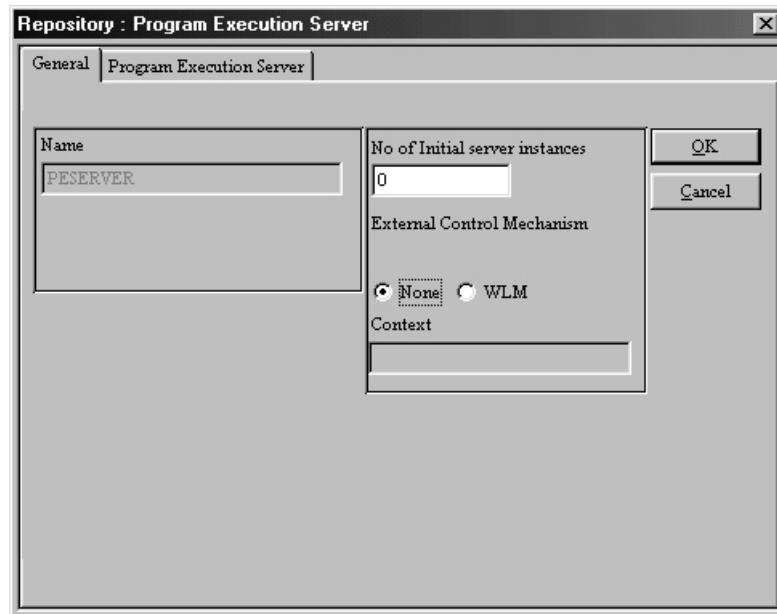
2.9.5.4 Program Execution Server Setting

This dialog box gathers information about the Domain's Program Execution Server. There are two tabs in this dialog box: **General** and **Program Execution Server**. These tabs are discussed in the sections below.

General

This tab gathers general information about the Domain's Program Execution Server. To modify this information:

1. Click on the **Program Execution Server Setting** button. The **Program Execution Server** dialog box will appear—open to the **General** tab (see the figure below, from the IBM MQ Workflow Editing Mode).

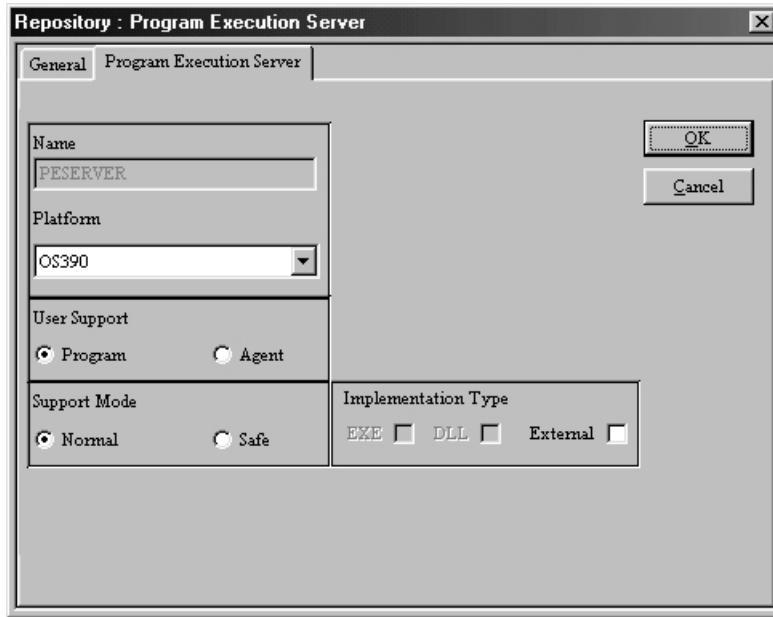


2. Type the number of multiple-instance Program Execution Server hotpool instances to be created when a Program Execution Server is started in the **No of Initial Server Instances** text box.
 - * The IBM default is "5."
3. Select the **None** radio button below the **External Control Mechanism** label to have the start and stop of the Program Execution Server and the number of hotpool instances not controlled externally (default).
4. Select the **WLM** radio button below the **External Control Mechanism** label to have the OS/390 workload manager control all servers.
 - * If the **WLM** radio button is selected, then you must type the context string that is passed from the administration server to the control mechanism.

Program Execution Server

This tab gathers times information about the Domain's Program Execution Server. To modify this information:

1. Select the **Program Execution Server** tab in the **Program Execution Server** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Select the platform on which the Program Execution Server is to run from the drop-down list in the **Platform** selection box.
 - * The IBM default is "**OS390**."
 - * If "**OS390**" is selected, the program execution server only supports external services (IMS and CICS), and is controlled by the local administration server.
3. Select the **Program** radio button in the **User Support** box to run the program under the operating system identifier of the user who started the work item associated with the activity.
 - * The operating system identifier becomes the IBM MQ Workflow user ID.
 - * This setting must be used for an EXE, a fenced DLL, or external services.
4. Select the **Agent** radio button in the **User Support** box to run the program under the operating system identifier of the Program Execution Agent or Server (default).
 - * This setting must be used for unfenced DLL files.

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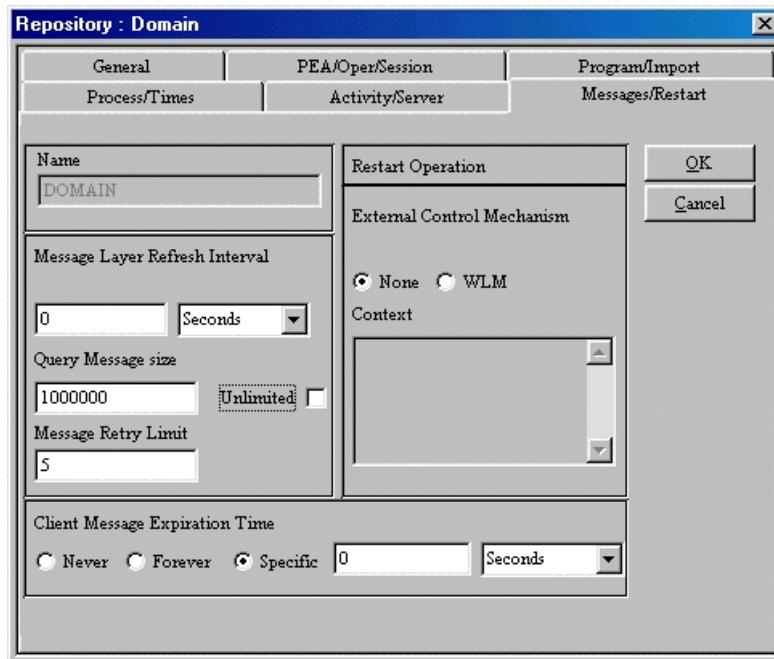
5. Select the **Normal** radio button in the **Support Mode** box to prevent the program from running as a safe application—an activity implementation may be run more than once (default).
6. Select the **Safe** radio button in the **Support Mode** box to enable the program to run as a safe application (an activity implementation runs exactly once).
 - * If the **Safe** radio button is selected for both **Execution Mode** (see Program/Import on page 2-52) and **Support Mode**, the program runs as a safe application in the transaction context of the Program Execution Server.
7. Select the **EXE** checkbox in the **Implementation Type** box to designate the selected operating system Implementation Type as EXE.
8. Select the **DLL** checkbox in the **Implementation Type** box to designate the selected operating system Implementation Type as DLL.
9. Select the **External** checkbox in the **Implementation Type** box to designate the selected operating system Implementation Type is External.
 - * External is the only Implementation Type available for the OS390 Platform.

2.9.6 Messages/Restart

This tab gathers information about the Domain's Messages and Restart parameters.

To create or modify an IBM MQ Workflow Domain Messages/Restart item:

1. Select the **Messages/Restart** tab in the **Domain** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



2. Enter the message refresh rate in the boxes below the **Message Layer Refresh Interval** label.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
3. Select the **Unlimited** checkbox to allow Domain messages of unlimited size in response to user queries.
 - * This **Unlimited** checkbox may not be selected unless the **Unlimited Mess** checkbox in the **General** tab is also selected. (See General on page 2-48.)
 - * If the **Unlimited** checkbox is not selected, then you must type the number, in bytes, of the maximum allowable query message size in the **Query Message Size** text box.
 - The number may not exceed the number given in the **Message Size** text box in the **General** tab, unless the **Unlimited Mess** checkbox in the **General** tab is also selected. (See General on page 2-48.)

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4. Type the maximum number of attempts to process a message before it is placed on the hold queue in the **Message Retry Limit** text box.
 - * The IBM default for a domain is "5."
5. Select the **WLM** radio button below the **External Control Mechanism** label in the **Restart Operation** box to have the OS/390 workload manager control all servers upon restart.
 - * If the **WLM** radio button is selected, then you must type in the **Context** text box the context string that is passed from the administration server to the control mechanism.
6. Select the **Never** radio button in the **Client Message Expiration Time** box to keep all messages from a server to a client.
7. Select the **Forever** radio button in the **Client Message Expiration Time** box to keep no messages from a server to a client.
8. Select the **Specific** radio button in the **Client Message Expiration Time** box to specify how long server-to-client messages are kept (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Minutes**."
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**15**."

2.10 System Group

- ☞ The System Group dialog box is available only in the IBM MQ Workflow Editing Mode; it is not available in any other Editing Mode.

There are three levels of hierarchy in the IBM MQ Workflow environment: Domain, System Group, and System. Workflow•BPR allows for the field-level description of each of these levels of hierarchy, so that a Workflow•BPR Process edited in the IBM MQ Workflow Editing Mode can be smoothly translated into an IBM MQ Workflow FDL file. (Please refer to the Integration with Workflow Applications Guide for more information.) This section deals with the System Group level of the hierarchy.

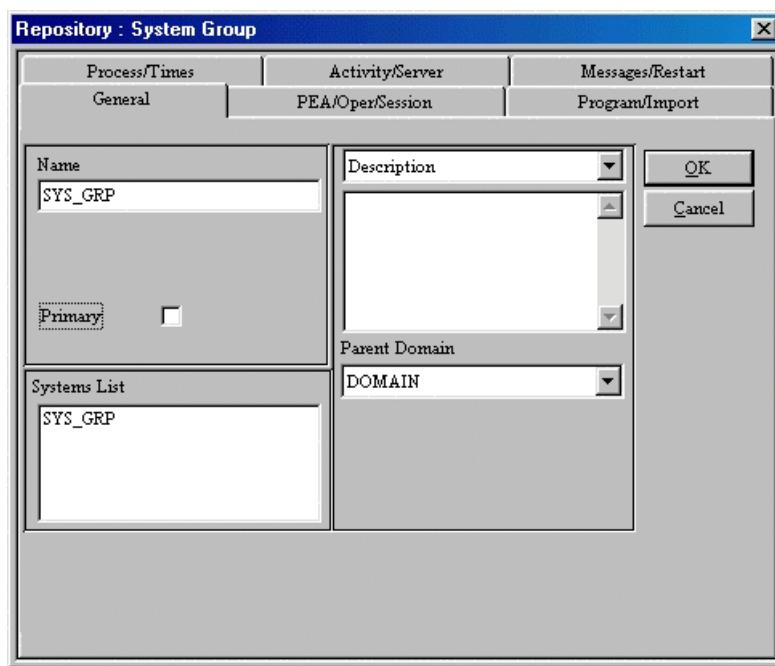
The information about the System Group is captured with the **System Group** dialog box. Each of the tabs in the System Group dialog box is described in the sections below.

2.10.1 General

This tab gathers general information about the System Group.

To create or modify an IBM MQ Workflow System Group Repository item:

1. Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2. Select **System Group** from the sub-menu. The **System Group** dialog box will appear—open to the **General** tab (see the figure below, from the IBM MQ Workflow Editing Mode).



3. Type the name of the System Group in the **Name** text box (required).
 - * You can also select a name from the **Systems List** list box.
4. Select the **Primary** checkbox to designate this System Group as the primary System Group within the Domain.
 - * The IBM default is the **Primary** checkbox not selected.
 - * If only one System Group is defined, it becomes the primary System Group.

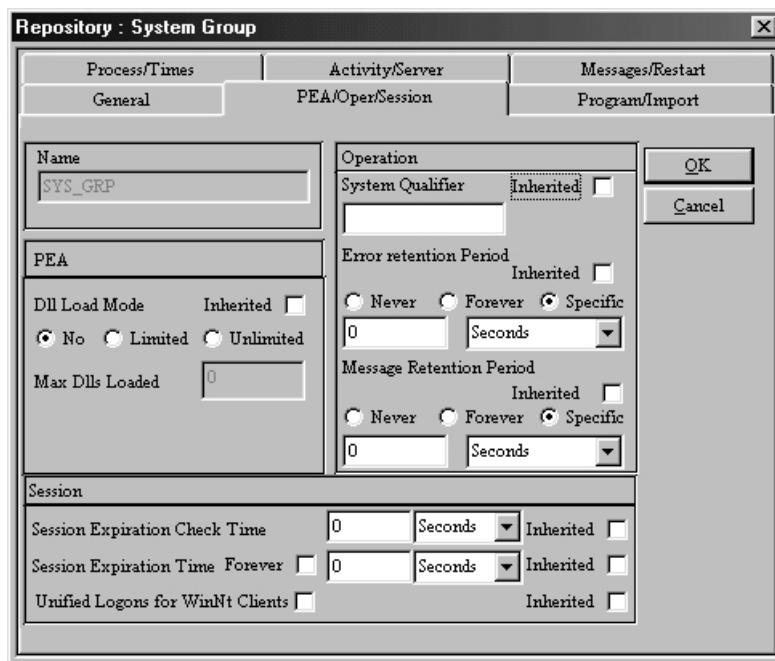
5. Select a Notes Header from the drop-down list in the Notes Header selection box.
 - * There are two (2) independent types of Notes available for a System Group: **Description** (default) and **Documentation**.
6. Type the Notes appropriate to the Header you have selected in the text box below the Notes Header selection box.
 - * The Notes pertaining to the **Description** Header will be exported in the FDL file.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.
7. Select a Domain from the drop-down list in the **Parent Domain** selection box to designate this System Group as belonging to that Domain (required).

2.10.2 PEA/Oper/Session

This tab gathers information about the System Group's Program Execution Agent, Operator, and Session.

To create or modify an IBM MQ Workflow System Group PEA/Oper/Session item:

1. Select the **PEA/Oper/Session** tab in the **System Group** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



- In any section having an **Inherited** checkbox displayed, select the **Inherited** checkbox to take the System Group settings for that section from the Domain settings for the equivalent section.

2. Select the **No** radio button in the **DLL Load Mode** box to keep no inactive DLL files loaded.
3. Select the **Limited** radio button in the **DLL Load Mode** box to keep a specific number of inactive DLL files loaded.
 - * Type the specific number of inactive DLL files to be kept loaded in the **Max Dlls Loaded** text box.
4. Select the **Unlimited** radio button in the **DLL Load Mode** box to keep all inactive DLL files loaded (default).
5. Type the name of the System Qualifier in the **System Qualifier** text box.
 - * The IBM default is "FMC."

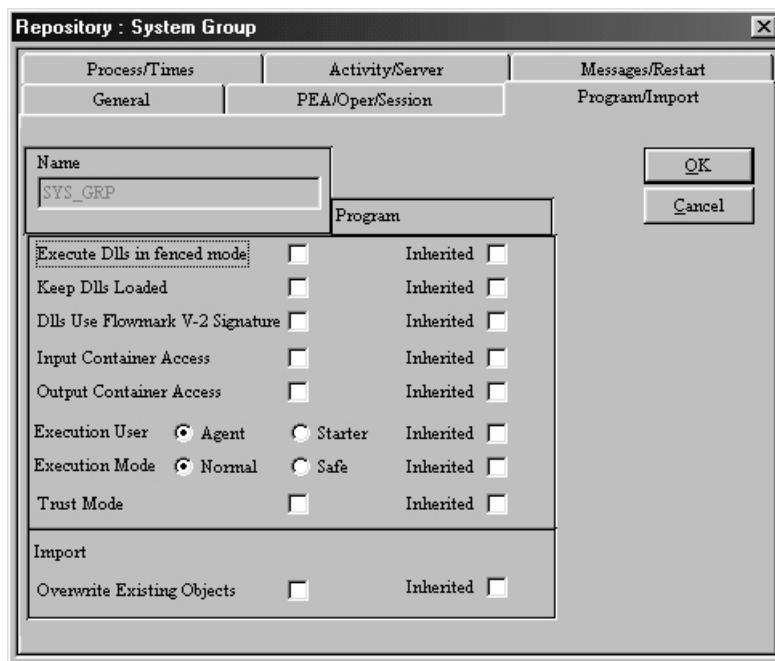
6. Select the **Never** radio button below the **Error Retention Period** label to keep no error messages in the error database of the administration server.
7. Select the **Forever** radio button below the **Error Retention Period** label to keep all error messages in the error database of the administration server.
8. Select the **Specific** radio button below the **Error Retention Period** label to keep only those error messages that issued within a specific past time frame (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Days**."
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**7**."
9. Select the **Never** radio button in the **Message Retention Period** box to keep no messages in the message database of the administration server.
10. Select the **Forever** radio button in the **Message Retention Period** box to keep all messages in the message database of the administration server.
11. Select the **Specific** radio button in the **Message Retention Period** box to specify how long messages are kept in the message database of the administration server (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Days**."
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**7**."
12. Enter the **Session Expiration Check Time**:
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
13. Select the **Forever** checkbox to set no time limit for the session—i.e., the session is never terminated by the system (default).
 - * If the **Forever** checkbox is not selected, then you must enter **the Session Expiration Time**:
 - Select the units of time from the drop-down list in the box on the right.
 - Type the specific number of those units in the box on the left.
14. Select the **Unified Logons for WinNt Clients** check box to have MQ Workflow takes its user ID and password from the Windows NT logon. (Do not select the check box if the MQ Workflow user must enter a separate user ID and password.)

2.10.3 Program/Import

This tab gathers information about the System Group's Program and Import parameters.

To create or modify an IBM MQ Workflow System Group Program/Import item:

1. Select the **Program/Import** tab in the **System Group** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



- In any section having an Inherited checkbox displayed, select the Inherited checkbox to take the System Group settings for that section from the Domain settings for the equivalent section.

2. Select the **Execute Dlls in Fenced Mode** checkbox to have the PEA and program Dll files run in separate processes (default).
3. Select the **Keep Dlls Loaded** checkbox to have the PEA keep program Dll files loaded (default).
4. Select the **Dlls Use Flowmark V-2 Signature** checkbox to use the Version 2 signature to invoke a Dll file.
 - * The IBM default is the **Dlls Use Flowmark V-2 Signature** checkbox not selected (the Version 3 signature is used).

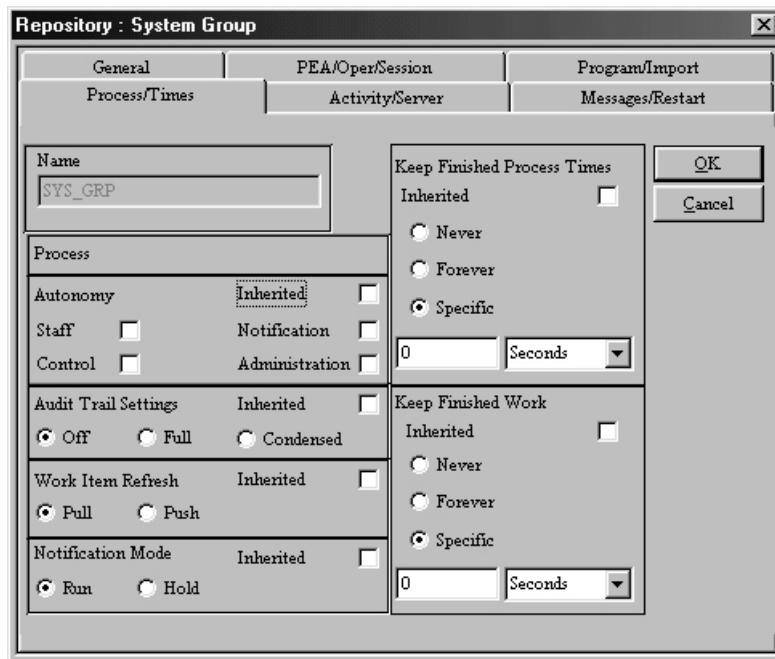
5. Select the **Input Container Access** checkbox to have the program access the input container of the activity (default).
6. Select the **Output Container Access** checkbox to have the program access the output container of the activity (default).
7. Select the **Agent** radio button beside the **Execution User** label to run the program under the operating system identifier of the PEA or server (default).
 - * If the **Execute Dlls in Fenced Mode** checkbox is not selected, then the **Agent** radio button must be selected.
8. Select the **Starter** radio button beside the **Execution User** label to run the program under the operating system identifier of the user who started the work item associated with the activity.
 - * The operating system identifier is set equal to the IBM MQ Workflow user ID.
 - * The **Starter** radio button can only be selected for an EXE, a fenced DLL, or external services.
9. The **Starter** radio button cannot be selected unless the **Execute Dlls in Fenced Mode** checkbox is also selected.
10. Select the **Normal** radio button beside the **Execution Mode** label to send non-persistent messages among IBM MQ Workflow components.
11. Select the **Safe** radio button beside the **Execution Mode** label to send persistent messages IBM MQ Workflow components.
 - * If the **Safe** radio button is selected for both **Execution Mode** and **Support Mode** (refer to the section—for Domain—entitled "Program Execution Server" on page 2-67), the program runs as a safe application in the transaction context of the Program Execution Server.
12. Select the **Trust Mode** checkbox to have the executable program obtain a correlation ID.
 - * The IBM default is the **Trust Mode** checkbox not selected.
13. Select the **Overwrite Existing Objects** checkbox to overwrite the currently existing object in the database during import.

2.10.4 Process/Times

This tab gathers information about the System Group's Process and Times parameters.

To create or modify an IBM MQ Workflow System Group Process/Times item:

1. Select the **Process/Times** tab in the **System Group** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



- In any section having an **Inherited** checkbox displayed, select the **Inherited** checkbox to take the System Group settings for that section from the Domain settings for the equivalent section.

2. Select the **Staff** checkbox in the **Autonomy** box to disregard the organization and staff of the parent process.
3. Select the **Control** checkbox in the **Autonomy** box to disregard the terminate, suspend, and resume requests from the parent process (default).
4. Select the **Notification** checkbox in the **Autonomy** box to disregard the notification specifications of the parent process.
5. Select the **Administration** checkbox in the **Autonomy** box to disregard the process administrator of the parent process.
6. Select the **Off** radio button in the **Audit Trail Settings** box to keep no audit trail records (default).
7. Select the **Full** radio button in the **Audit Trail Settings** box to keep a full set of audit trail records.

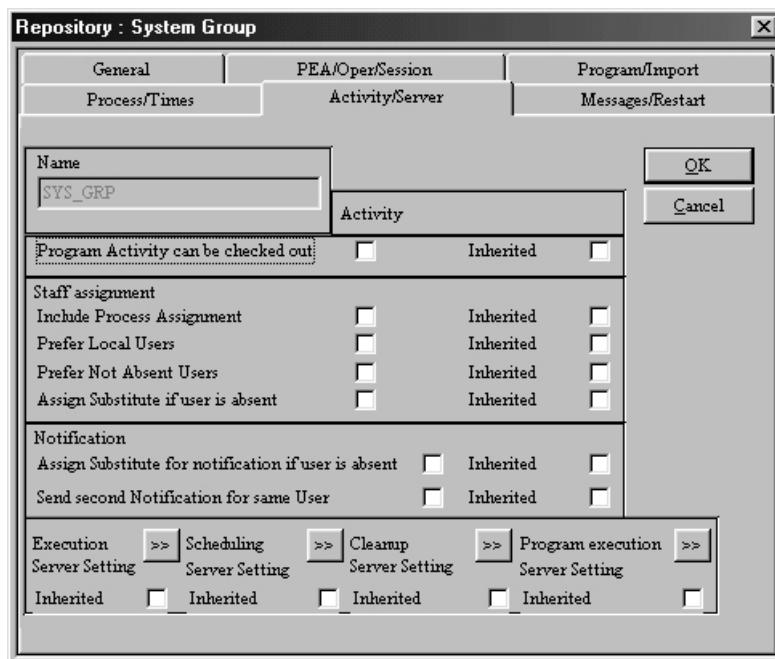
8. Select the **Condensed** radio button in the **Audit Trail Settings** box to keep a limited set of audit trail records.
9. Select the **Pull** radio button in the **Work Item Refresh** box to make the user explicitly request to receive new work items in the user's worklist (default).
10. Select the **Push** radio button in the **Work Item Refresh** box to have the user automatically receive new work items in the user's worklist.
11. Select the **Run** radio button in the **Notification Mode** box to have the notification timer continue running when the process instance is suspended (default).
12. Select the **Hold** radio button in the **Notification Mode** box to have the notification timer pause when the process instance is suspended.
13. Select the **Never** radio button in the **Keep Finished Process Times** box to keep no finished processes (default).
14. Select the **Forever** radio button in the **Keep Finished Process Times** box to keep all finished processes.
15. Select the **Specific** radio button in the **Keep Finished Process Times** box to specify how long finished processes are kept.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
16. Select the **Never** radio button in the **Keep Finished Work** box to keep no finished work items (default).
17. Select the **Forever** radio button in the **Keep Finished Work** box to keep all finished work items.
18. Select the **Specific** radio button in the **Keep Finished Work** box to specify how long finished work items are kept.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.

2.10.5 Activity/Server

This tab gathers information about the System Group's Activity and Server parameters.

To create or modify an IBM MQ Workflow System Group Activity/Server item:

1. Select the **Activity/Server** tab in the **System Group** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



In any section having an **Inherited** checkbox displayed, select the **Inherited** checkbox to take the System Group settings for that section from the Domain settings for the equivalent section.

Each **Inherited** checkbox in the Server Settings box represents all of the settings in the corresponding button.

2. Select the **Program Activity Can Be Checked Out** checkbox to allow program activities to be checked out (default).
3. Select the **Include Process Assignment** checkbox in the **Staff Assignment** box to use the role and organization settings of the process model as part of the final staff assignment of the activity (default).

4. Select the **Prefer Local Users** checkbox in the **Staff Assignment** box to have staff resolution prefer local users to receive work items in a distributed environment (default).
5. Select the **Prefer Not Absent Users** checkbox in the **Staff Assignment** box to have staff resolution prefer users who are not absent to receive work items (default).
6. Select the **Assign Substitute if User is Absent** checkbox in the **Staff Assignment** box to have staff resolution select a substitute if the user is absent.
7. Select the **Assign Substitute for Notification if User is Absent** checkbox in the **Notification** box to have the substitute for a user receive the notification (default).
8. Select the **Send Second Notification for Same User** checkbox in the **Notification** box to have a second notification sent to the same person who received the first notification.

Each of the buttons in the **Server Settings** box—**Execution Server Setting**, **Scheduling Server Setting**, **Cleanup Server Setting**, and **Program Execution Server Setting**—opens a new dialog box. These are discussed in the following section.

2.10.5.1 *Execution, Scheduling, Cleanup, and Program Server Settings*

Please refer to sections **Execution Server Setting**, **Scheduling Server Setting**, **Cleanup Server Setting**, and **Program Execution Server Setting** in the Domain Activity/Server section, pages 2-56 to 2-69 for information on entering data into these dialog boxes.

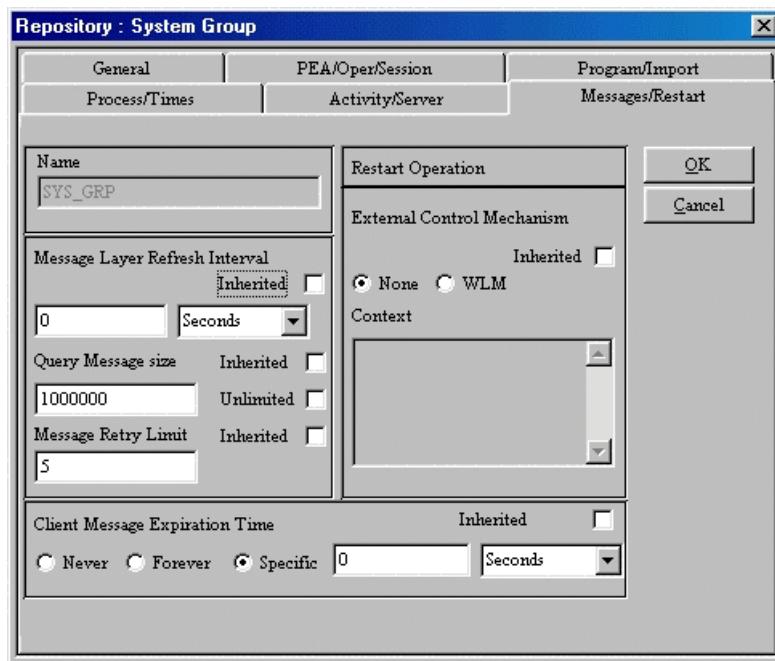
-  **In any section having an Inherited checkbox displayed, select the Inherited checkbox to take the System Group settings for that section from the Domain settings for the equivalent section.**

2.10.6 Messages/Restart

This tab gathers information about the System Group's Messages and Restart parameters.

To create or modify an IBM MQ Workflow System Group Messages/Restart item:

1. Select the **Messages/Restart** tab in the **System Group** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



In any section having an Inherited checkbox displayed, select the Inherited checkbox to take the System Group settings for that section from the Domain settings for the equivalent section.

2. Enter the message refresh rate in the boxes below the Message Layer Refresh Interval label.
 - * Select the units of time from the drop-down list in the box on the right.
 - 3. Type the specific number of those units in the box on the left.
4. Select the **Unlimited** checkbox to allow System Group messages of unlimited size in response to user queries.
 - * This **Unlimited** checkbox may not be selected unless the **Unlimited** **Mess** checkbox in the **General** tab in the **Domain** dialog box is also selected. (See General on page 2-48.)

- * If the **Unlimited** checkbox is not selected, then you must type the number, in bytes, of the maximum allowable query message size in the **Query Message Size** text box.
 - The number may not exceed the number given in the **Message Size** text box in the **General** tab in the **Domain** dialog box, unless the **Unlimited Mess** checkbox in the **General** tab in the **Domain** dialog box is also selected. (See General on page 2-48.)
- 5. Type the maximum number of attempts to process a message before it is placed on the hold queue in the **Message Retry Limit** text box.
 - * The IBM default for a system group is "0."
- 6. Select the **WLM** radio button below the **External Control Mechanism** label in the **Restart Operation** box to have the OS/390 workload manager control all servers upon restart.
 - * If the **WLM** radio button is selected, then you must type in the **Context** text box the context string that is passed from the administration server to the control mechanism.
- 7. Select the **Never** radio button in the **Client Message Expiration Time** box to keep all messages from a server to a client.
- 8. Select the **Forever** radio button in the **Client Message Expiration Time** box to keep no messages from a server to a client.
- 9. Select the **Specific** radio button in the **Client Message Expiration Time** box to specify how long server-to-client messages are kept (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Minutes**."
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**15**."

2.11 System

 **The System dialog box is available only in the IBM MQ Workflow Editing Mode; it is not available in any other Editing Mode.**

There are three levels of hierarchy in the IBM MQ Workflow environment: Domain, System Group, and System. Workflow•BPR allows for the field-level description of each of these levels of hierarchy, so that a Workflow•BPR Process edited in the IBM MQ Workflow Editing Mode can be smoothly translated into an IBM MQ Workflow FDL file. (Please refer to the Integration with Workflow Applications Guide for more information.) This section deals with the System level of the hierarchy.

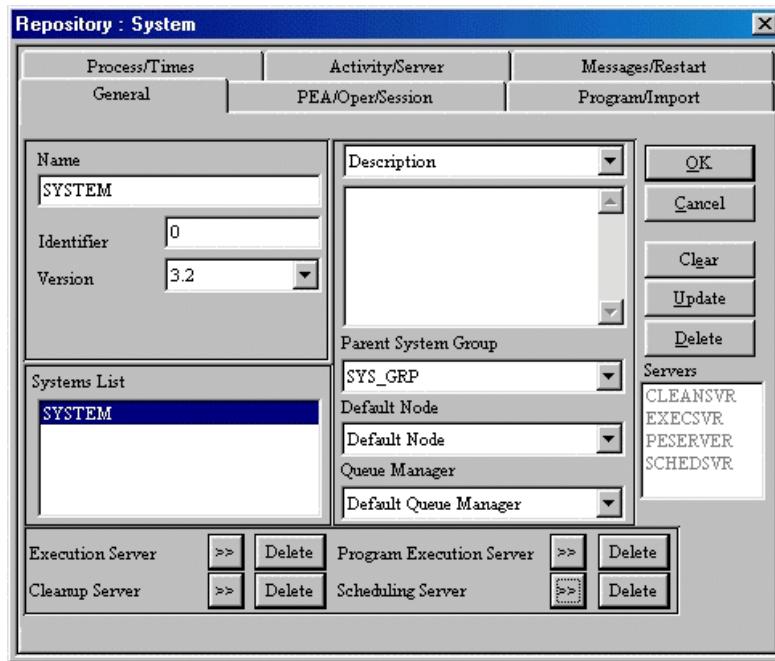
The information about Systems is captured with the System dialog box. Each of the tabs in the **System** dialog box is described in the sections below.

2.11.1 General

This tab gathers general information about the System.

To create or modify an IBM MQ Workflow System Repository item:

1. Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2. Select **System** from the sub-menu. The System dialog box will appear—open to the **General** tab (see the figure below, from the IBM MQ Workflow Editing Mode).



3. Type the name of the System in the **Name** text box (required).
 - * You can also select a name from the **Systems List** list box.
4. Type the System Identifier Number in the **Identifier** text box (required).
 - * This field is used by IBM MQ Workflow to generate object identifiers.
5. Select the IBM MQ Workflow version number from the drop-down list in the **Version** selection box.
6. Select a Notes Header from the drop-down list in the Notes Header selection box.
 - * There are two (2) independent types of Notes available for a System: **Description** (default) and **Documentation**.

Chapter 2: Repository: Organization Data

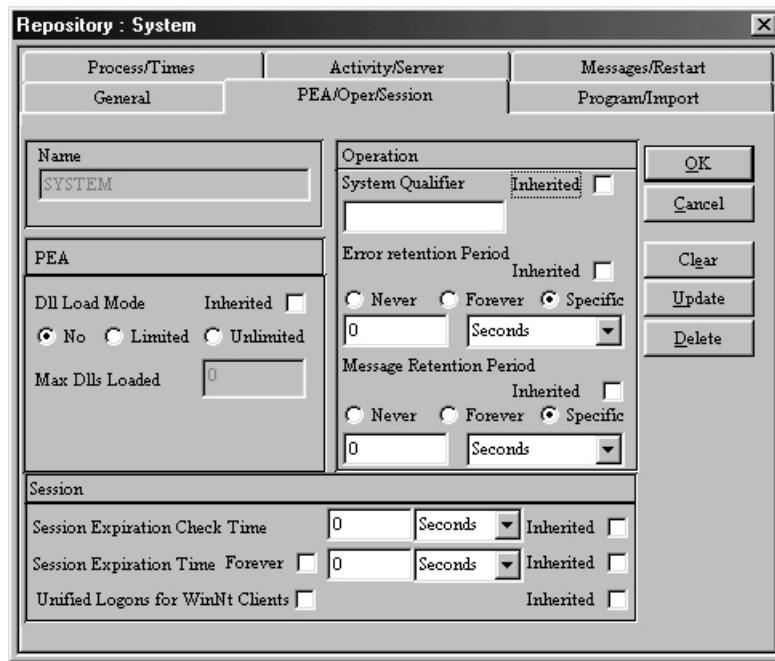
7. Type the Notes appropriate to the Header you have selected in the text box below the Notes Header selection box.
 - * The Notes pertaining to the **Description** Header will be exported in the FDL file.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.
8. Select a System Group from the drop-down list in the **Parent System Group** selection box to designate this System as belonging to that System Group (required).
9. Select a Node from the drop-down list in the **Default Node** selection box to designate this System as belonging to that Node (required).
10. Select the Queue Manager with which this System is associated from the drop-down list in the **Queue Manager** selection (required).
11. Click on the button to the right of the **Execution Server**, **Cleanup Server**, **Program Execution Server**, or **Scheduling Server** label to add that Server to the list of associated Servers in the **Servers** list box.
 - * Clicking on the button brings up the dialog box for that Server; you must click on the **OK** button to add it to the list.
 - Clicking on the **Cancel** button will not add that Server to the list.
 - All the Server dialog boxes contain the **General** tab, and the Program Execution Server adds the **Program Execution Server** tab, so you can change the settings for that Server from this dialog box (see Program Execution Server—for Domain—on page 2-67).
 - * Click on the **Delete** button to the right of the **Execution Server**, **Cleanup Server**, **Program Execution Server**, or **Scheduling Server** label to remove that Server from the list of associated Servers in the **Servers** list box.

2.11.2 PEA/Oper/Session

This tab gathers information about the System's Program Execution Agent, Operator, and Session.

To create or modify an IBM MQ Workflow System PEA/Oper/Session item:

1. Select the **PEA/Oper/Session** tab in the **System** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



- In any section having an Inherited checkbox displayed, select the Inherited checkbox to take the System settings for that section from the System Group settings for the equivalent section.**
- 2. Select the **No** radio button in the **DLL Load Mode** box to keep no inactive DLL files loaded.
- 3. Select the **Limited** radio button in the **DLL Load Mode** box to keep a specific number of inactive DLL files loaded.
 - * Type the specific number of inactive DLL files to be kept loaded in the **Max Dlls Loaded** text box.
- 4. Select the **Unlimited** radio button in the **DLL Load Mode** box to keep all inactive DLL files loaded.
- 5. Type the name of the System Qualifier in the System Qualifier text box.
 - * The IBM default is "FMC."

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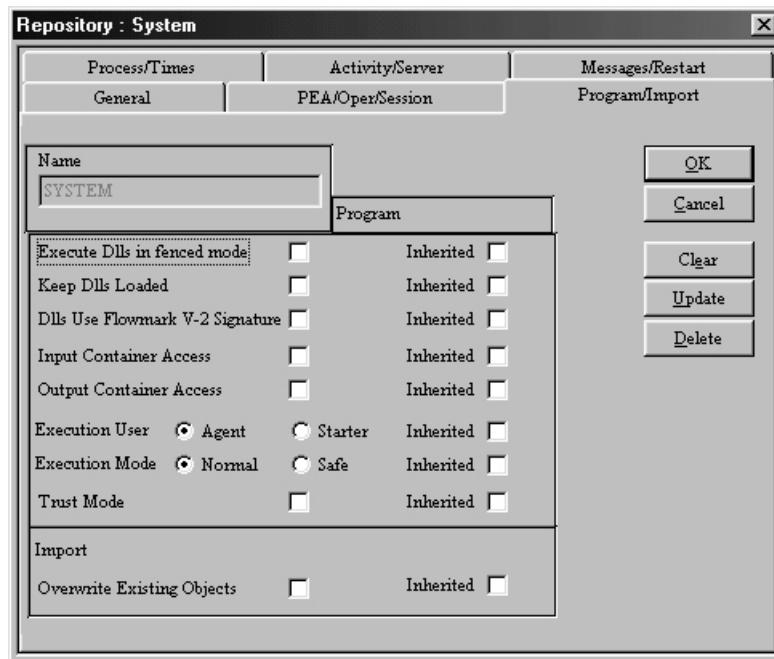
6. Select the **Never** radio button below the **Error Retention Period** label to keep no error messages in the error database of the administration server.
7. Select the **Forever** radio button below the **Error Retention Period** label to keep all error messages in the error database of the administration server.
8. Select the **Specific** radio button below the **Error Retention Period** label to keep only those error messages that issued within a specific past time frame (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Days.**"
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**7.**"
9. Select the **Never** radio button in the **Message Retention Period** box to keep no messages in the message database of the administration server.
10. Select the **Forever** radio button in the **Message Retention Period** box to keep all messages in the message database of the administration server.
11. Select the **Specific** radio button in the **Message Retention Period** box to specify how long messages are kept in the message database of the administration server (default).
 - * Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Days.**"
 - * Type the specific number of those units in the box on the left.
 - The IBM default is "**7.**"
12. Enter the **Session Expiration Check Time:**
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
13. Select the **Forever** checkbox to set no time limit for the session—i.e., the session is never terminated by the system (default).
 - * If the **Forever** checkbox is not selected, then you must enter the **Session Expiration Time:**
 - Select the units of time from the drop-down list in the box on the right.
 - Type the specific number of those units in the box on the left.
14. Select the **Unified Logons for WinNt Clients** check box to have MQ Workflow takes its user ID and password from the Windows NT logon. (Do not select the check box if the MQ Workflow user must enter a separate user ID and password.)

2.11.3 Program/Import

This tab gathers information about the System's Program and Import parameters.

To create or modify an IBM MQ Workflow System Program/Import item:

1. Select the **Program/Import** tab in the **System** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



- In any section having an Inherited checkbox displayed, select the Inherited checkbox to take the System settings for that section from the System Group settings for the equivalent section.

2. Select the **Execute Dlls in Fenced Mode** checkbox to have the PEA and program Dll files run in separate processes (default).
3. Select the **Keep Dlls Loaded** checkbox to have the PEA keep program Dll files loaded (default).
4. Select the **Dlls Use Flowmark V-2 Signature** checkbox to use the Version 2 signature to invoke a Dll file.
 - * The IBM default is the **Dlls Use Flowmark V-2 Signature** checkbox not selected (the Version 3 signature is used).

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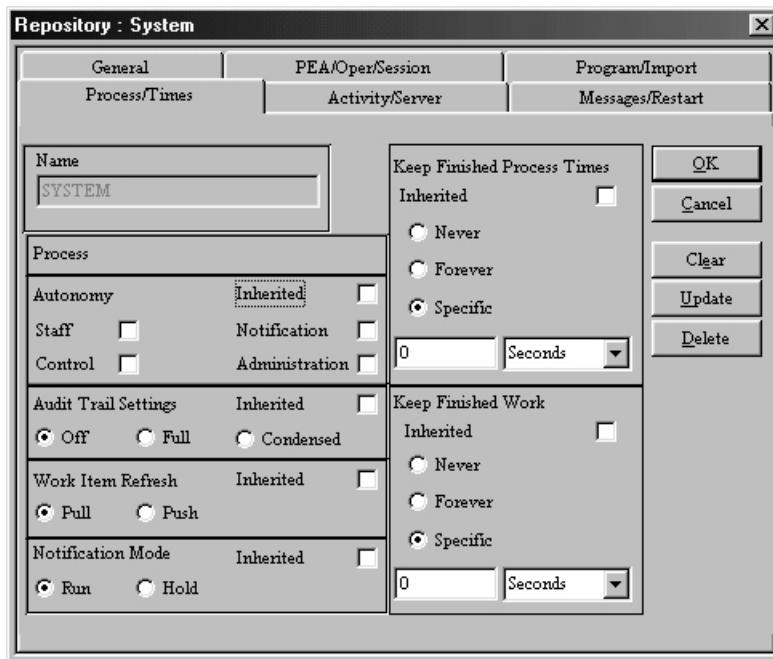
5. Select the **Input Container Access** checkbox to have the program access the input container of the activity (default).
6. Select the **Output Container Access** checkbox to have the program access the output container of the activity (default).
7. Select the **Agent** radio button beside the **Execution User** label to run the program under the operating system identifier of the PEA or server (default).
 - * If the **Execute DLLs in Fenced Mode** checkbox is not selected, then the **Agent** radio button must be selected.
8. Select the **Starter** radio button beside the **Execution User** label to run the program under the operating system identifier of the user who started the work item associated with the activity.
 - * The operating system identifier is set equal to the IBM MQ Workflow user ID.
 - * The **Starter** radio button can only be selected for an EXE, a fenced DLL, or external services.
 - * The **Starter** radio button cannot be selected unless the **Execute DLLs in Fenced Mode** checkbox is also selected.
9. Select the **Normal** radio button beside the **Execution Mode** label to send non-persistent messages among IBM MQ Workflow components.
10. Select the **Safe** radio button beside the **Execution Mode** label to send persistent messages IBM MQ Workflow components.
 - * If the **Safe** radio button is selected for both **Execution Mode** and **Support Mode** (refer to the section—for Domain—entitled "Program Execution Server" on page 2-67), the program runs as a safe application in the transaction context of the Program Execution Server.
11. Select the **Trust Mode** checkbox to have the executable program obtain a correlation ID.
 - * The IBM default is the **Trust Mode** checkbox not selected.
12. Select the **Overwrite Existing Objects** checkbox to overwrite the currently existing object in the database during import.

2.11.4 Process/Times

This tab gathers information about the System's Process and Times parameters.

To create or modify an IBM MQ Workflow System Process/Times item:

1. Select the **Process/Times** tab in the **System** dialog box (see the figure below).



In any section having an **Inherited** checkbox displayed, select the **Inherited** checkbox to take the **System** settings for that section from the **System Group** settings for the equivalent section.

2. Select the **Staff** checkbox in the **Autonomy** box to disregard the organization and staff of the parent process.
3. Select the **Control** checkbox in the **Autonomy** box to disregard the terminate, suspend, and resume requests from the parent process (default).
4. Select the **Notification** checkbox in the **Autonomy** box to disregard the notification specifications of the parent process.
5. Select the **Administration** checkbox in the **Autonomy** box to disregard the process administrator of the parent process.
6. Select the **Off** radio button in the **Audit Trail Settings** box to keep no audit trail records (default).
7. Select the **Full** radio button in the **Audit Trail Settings** box to keep a full set of audit trail records.

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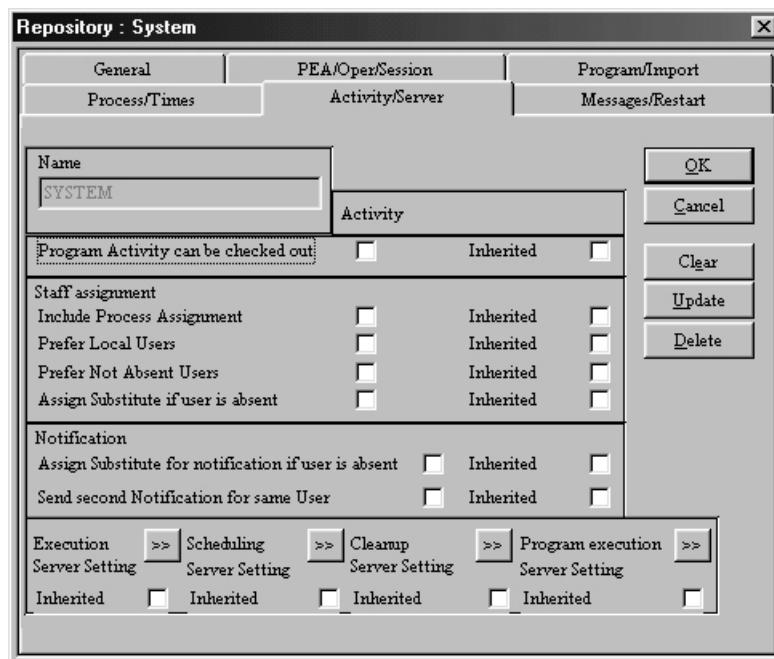
8. Select the **Condensed** radio button in the **Audit Trail Settings** box to keep a limited set of audit trail records.
9. Select the **Pull** radio button in the **Work Items Refresh** box to make the user explicitly request to receive new work items in the user's worklist (default).
10. Select the **Push** radio button in the **Work Items Refresh** box to have the user automatically receive new work items in the user's worklist.
11. Select the **Run** radio button in the **Notification Mode** box to have the notification timer continue running when the process instance is suspended (default).
12. Select the **Hold** radio button in the **Notification Mode** box to have the notification timer pause when the process instance is suspended.
13. Select the **Never** radio button in the **Keep Finished Process Times** box to keep no finished processes.
 - * The IBM default is the **Never** radio button selected.
14. Select the **Forever** radio button in the **Keep Finished Process Times** box to keep all finished processes.
15. Select the **Specific** radio button in the **Keep Finished Process Times** box to specify how long finished processes are kept.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
16. Select the **Never** radio button in the **Keep Finished Work** box to keep no finished work items (default).
17. Select the **Forever** radio button in the **Keep Finished Work** box to keep all finished work items.
18. Select the **Specific** radio button in the **Keep Finished Work** box to specify how long finished work items are kept.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.

2.11.5 Activity/Server

This tab gathers information about the System's Activity and Server parameters.

To create or modify an IBM MQ Workflow System Activity/Server item:

1. Select the **Activity/Server** tab in the **System** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



- In any section having an Inherited checkbox displayed, select the Inherited checkbox to take the System settings for that section from the System Group settings for the equivalent section.
 - Each Inherited checkbox in the Server Settings box represents all of the settings in the corresponding button.
2. Select the **Program Activity Can Be Checked Out** checkbox to allow program activities to be checked out (default).
 3. Select the **Include Process Assignment** checkbox in the **Staff Assignment** box to use the role and organization settings of the process model as part of the final staff assignment of the activity (default).

4. Select the **Prefer Local Users** checkbox in the **Staff Assignment** box to have staff resolution prefer local users to receive work items in a distributed environment (default).
5. Select the **Prefer Not Absent Users** checkbox in the **Staff Assignment** box to have staff resolution prefer users who are not absent to receive work items (default).
6. Select the **Assign Substitute if User is Absent** checkbox in the **Staff Assignment** box to have staff resolution select a substitute if the user is absent.
7. Select the **Assign Substitute for Notification if User is Absent** checkbox in the **Notification** box to have the substitute for a user receive the notification (default).
8. Select the **Send Second Notification for Same User** checkbox in the **Notification** box to have a second notification sent to the same person who received the first notification.

Each of the buttons in the **Server Settings** box—**Execution Server Setting**, **Scheduling Server Setting**, **Cleanup Server Setting**, and **Program Server Setting**—opens a new dialog box. These are discussed in the following sections.

2.11.5.1 **Execution, Scheduling, Cleanup, and Program Server Settings**

Please refer to sections Execution Server Setting, Scheduling Server Setting, Cleanup Server Setting, and Program Execution Server Setting in the Domain Activity/Server section, pages 2-56 to 2-69 for information on entering data into these dialog boxes.

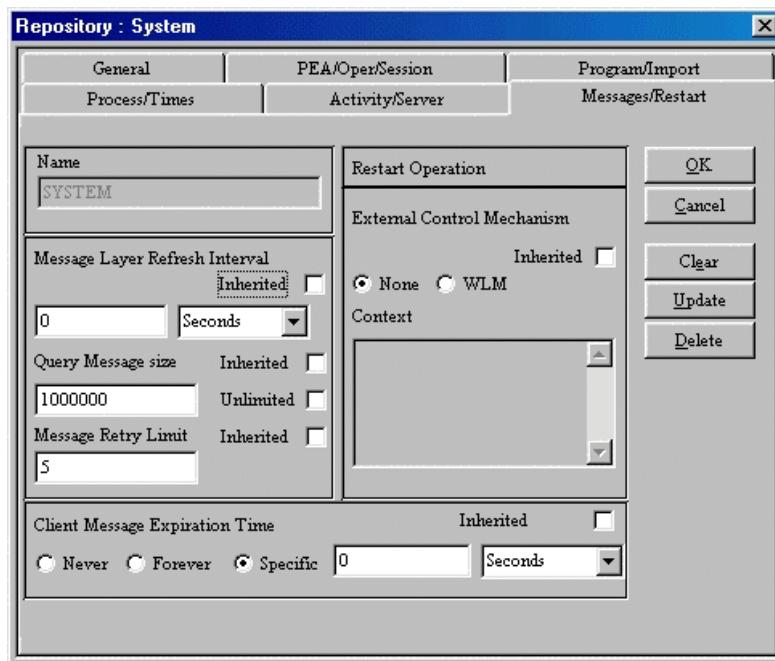
-  In any section having an **Inherited** checkbox displayed, select the **Inherited** checkbox to take the System settings for that section from the **System Group** settings for the equivalent section.

2.11.6 Messages/Restart

This tab gathers information about the System's Messages and Restart parameters.

To create or modify an IBM MQ Workflow System Messages/Restart item:

1. Select the **Messages/Restart** tab in the **System** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode).



In any section having an **Inherited** checkbox displayed, select the **Inherited** checkbox to take the System settings for that section from the System Group settings for the equivalent section.

2. Enter the message refresh rate in the boxes below the **Message Layer Refresh Interval** label.
 - * Select the units of time from the drop-down list in the box on the right.
 - * Type the specific number of those units in the box on the left.
3. Select the **Unlimited** checkbox to allow System messages of unlimited size in response to user queries.
 - * This **Unlimited** checkbox may not be selected unless the **Unlimited** **Mess** checkbox in the **General** tab in the **Domain** dialog box is also selected. (See General on page 2-48.)
 - * If the **Unlimited** checkbox is not selected, then you must type the number, in bytes, of the maximum allowable query message size in the **Query Message Size** text box.

- The number may not exceed the number given in the **Message Size** text box in the **General** tab in the **Domain** dialog box, unless the **Unlimited Mess** checkbox in the **General** tab in the **Domain** dialog box is also selected. (See General on page 2-48.)
4. Type the maximum number of attempts to process a message before it is placed on the hold queue in the **Message Retry Limit** text box.
 - * The IBM default for a system is "0."
 5. Select the **WLM** radio button below the **External Control Mechanism** label in the **Restart Operation** box to have the OS/390 workload manager control all servers upon restart.
 - * If the **WLM** radio button is selected, then you must type in the **Context** text box the context string that is passed from the administration server to the control mechanism.
 6. Select the **Never** radio button in the **Client Message Expiration Time** box to keep all messages from a server to a client.
 7. Select the **Forever** radio button in the **Client Message Expiration Time** box to keep no messages from a server to a client.
 8. Select the **Specific** radio button in the **Client Message Expiration Time** box to specify how long server-to-client messages are kept (default).
 - Select the units of time from the drop-down list in the box on the right.
 - The IBM default is "**Minutes**."
 - * Type the specific number of those units in the box on the left.
 - *The IBM default is "**15**."

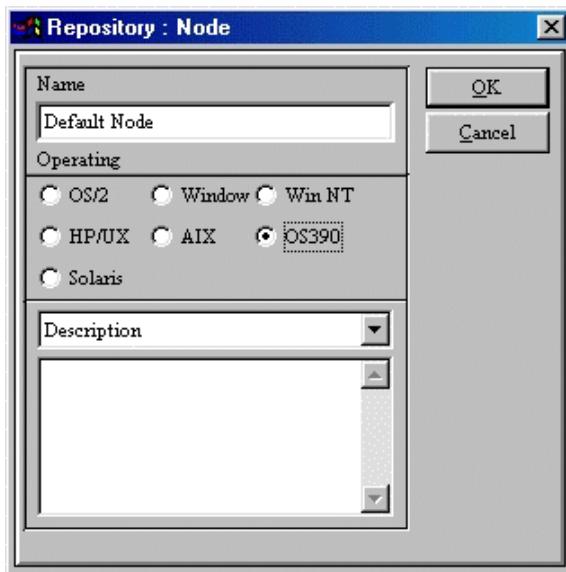
2.12 Node

- ☞ The Node dialog box is available only in the IBM MQ Workflow Editing Mode; it is not available in any other Editing Mode.

"Node" is the IBM MQ Workflow term for the operating system image that hosts the software. The information about the default Node is captured with the Node dialog box.

To create or modify an IBM MQ Workflow Node Repository item:

1.  Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2.  Select **Node** from the sub-menu. The **Node** dialog box will appear (see the figure below, from the IBM MQ Workflow Editing Mode).



3.  Type the name of the Node in the **Name** text box (required).
4.  Select the radio button below the **Operating** label that best represents the operating system that is to host MQ Workflow.

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5. Select a Notes Header from the drop-down list in the Notes Header selection box.
 - * There are two (2) independent types of Notes available for a System: **Description** (default) and **Documentation**.
6. Type the Notes appropriate to the Header you have selected in the text box below the Notes Header selection box.
 - * The Notes pertaining to the **Description** Header will be exported in the FDL file.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.

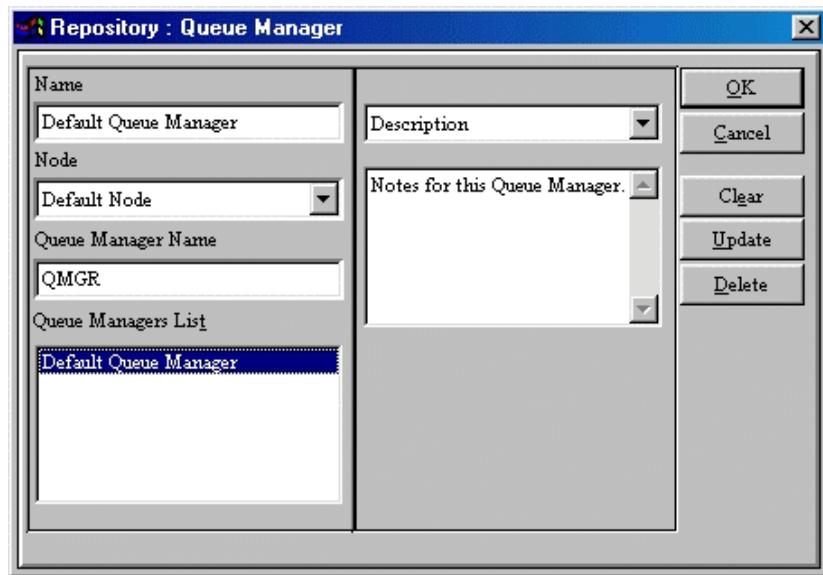
2.13 Queue

-  **The Queue dialog box is available only in the IBM MQ Workflow Editing Mode; it is not available in any other Editing Mode.**

A "Queue Manager" is a named entity within an IBM MQ Workflow Domain. The information about the Queue Manager is captured with the Queue Manager dialog box.

To create or modify an IBM MQ Workflow Queue Manager Repository item:

1.  Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2.  Select **Queue** from the sub-menu. The **Queue Manager** dialog box will appear (see the figure below, from the IBM MQ Workflow Editing Mode).



3.  Type the name of the Queue Manager in the **Name** text box.
 - * You can also  select a name from the **Queue Managers List** list box.
 - * This field is required.
4.  Select the Node on which this Queue Manager is to run from the drop-down list in the **Node** selection box.
5.  Type the name of the Queue Manager as it is to be known within the Queue Manager Network in the **Queue Manager Name** text box (required).
 - * This name will typically be an abbreviation of the name you entered in the **Name** field.

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6.  Select a Notes Header from the drop-down list in the Notes Header selection box.
 - * There are two (2) independent types of Notes available for a System: **Description** (default) and **Documentation**.
7.  Type the Notes appropriate to the Header you have selected in the text box below the Notes Header selection box.
 - * The Notes pertaining to the **Description** Header will be exported in the FDL file.
 - * If you want to add a **Carriage Return** to the text of your notes,  type **Ctrl+Enter**.

2.14 Operations

- ☞ The Operations dialog box is available only in the FileNet Visual Workflo Editing Mode; it is not available in any other Editing Mode.

Visual WorkFlo controls the activation of software programs. These programs have specific data inputs and outputs (Parameters defined in a data structure).

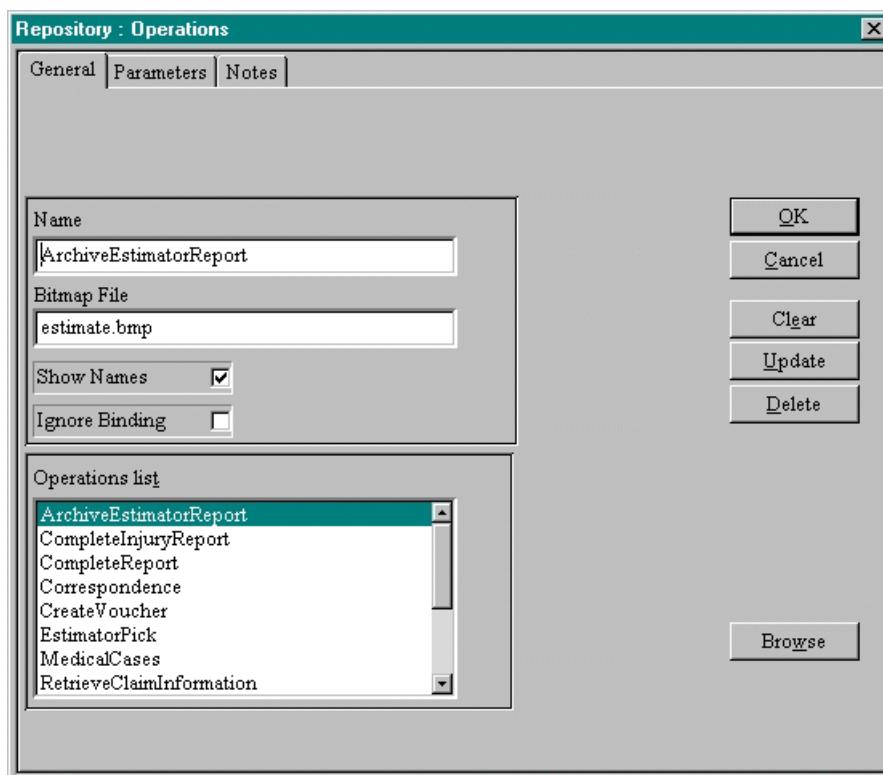
Operations dialog box contains information about Operations. You enter information in three (3) tabs in the dialog box. The following three (3) sections describe the information for the General, Parameters, and Notes tabs. In Workflow•BPR, Data Fields are assigned to Operations to create the Visual WorkFlo Parameters of the Operations. You can also specify whether the Data Fields are inputs, outputs, or both. Each of the tabs in the **Operations** dialog box is described in one of the sections below.

2.14.1 General

This tab gathers general information about the **Operation**.

To create or modify an **Operation** Repository item:

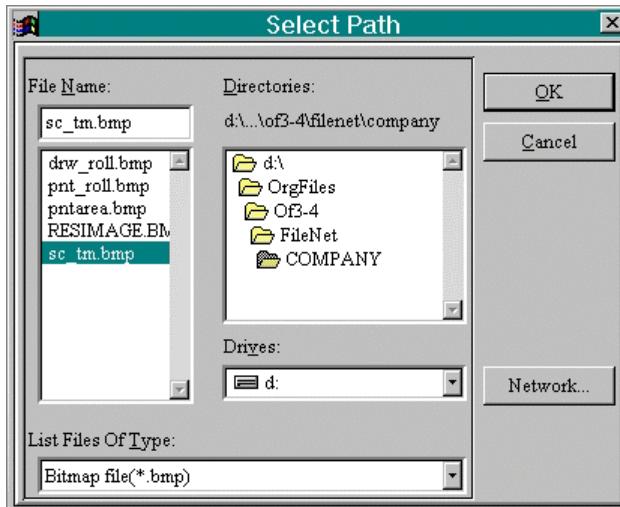
1. Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2. Select **Operations** from the sub-menu. The **Operations** dialog box will appear—open to the **General** tab (see the figure below, from the FileNet Visual WorkFlo Editing Mode).



3. Type the name of the Operation in the **Name** text box.
 - * You can also select a name from the **Operations List** list box.

4. Type the name of the bitmap associated with the Operation in the **Bitmap File** text box.

- * You can also browse for a bitmap file: Click **Browse** to open the **Select Path** dialog box (see the figure below).



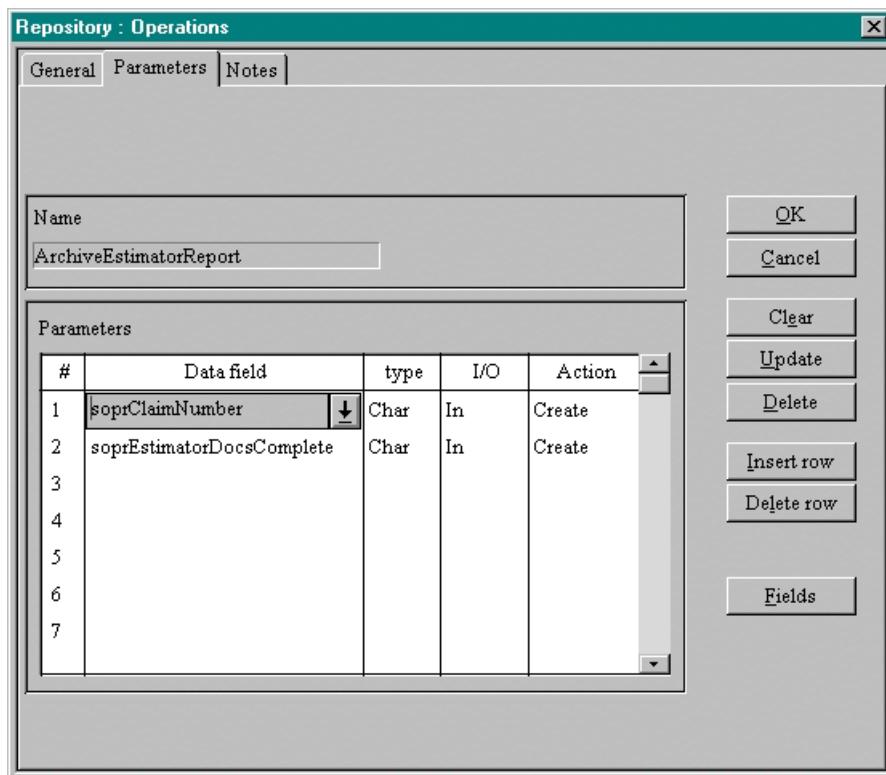
- Select the drive and/or directory where the file is located in the **Select Path** dialog box, then select the Bitmap File from the **File Name** list.
 - Click OK to return to the Operations dialog box. The name and path of the file will be displayed in the text box.
5. Click on the **Show Names** check box to select or deselect that Visual WorkFlo option.
- * The default setting for the check box is Checked.
6. Click on the **Ignore Bindings** check box to select or deselect that Visual WorkFlo option.
- * The default setting for the check box is Unchecked.
7. Click **Add** to create the item or you can continue to add more information about the Operations in the other tabs of the **Operations** dialog box.

2.14.2 Parameters

In Workflow•BPR, Data Fields and Data Structures are assigned to applications to create their inputs and outputs. You can specify whether the Data Fields and Data Structures are inputs, outputs, or both. The Data Fields and Data Structures are referred to as Parameters of the Operation.

To define the Parameters of an Operation:

1. Select the **Parameters** tab in the **Operations** dialog box (see the figure below, from the FileNet Visual WorkFlo Editing Mode).



2. In **Line 1** of the **Parameters** list box, click on the **Arrow** button that is on the right side of the **Data Field** column. A list of Data Fields and Structures will appear
 - * Select the appropriate Data Field or Data Structure.
 - * If the Data Field you want is not included in the list, it needs to be created. Click **Fields** to go to the **Data Fields** dialog box (refer to the section entitled “Data Fields” in Chapter 3 of the *User’s Guide*). Upon returning to the **Applications** dialog box, the new item(s) will be included on the list.

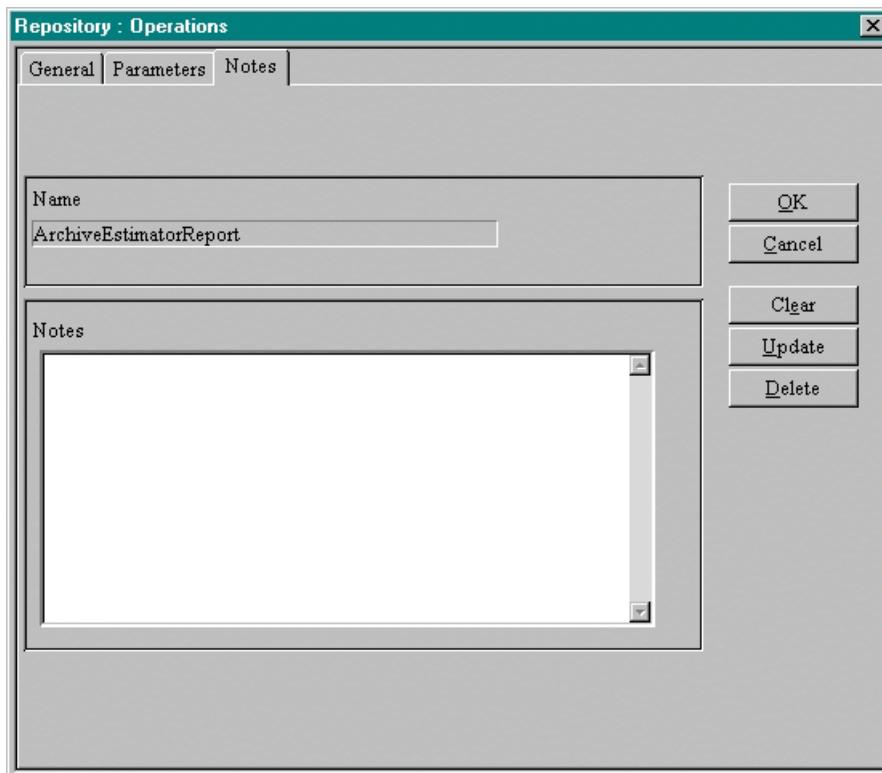
3. Click on the **Arrow** button that is on the right side of the **In/Out** column of the **Parameters** list box. A list will appear.
 - * Select **In** (default), **Out**, or **In/Out**.
4. Click on the **Arrow** button that is on the right side of the **Action** column of the **Parameters** list box. A list will appear.
 - * Select **Create** (default), **Read**, **Update**, or **Delete**.
5. Repeat steps 4 through 6 to add other Data Fields to the list.
 - * Use the Insert Row button to create lines between entries.
 - * Use the Delete Row button to delete entries.
6. Click **Add** to create the item or you can continue to add more information about the operations in the other tabs of the **Operations** dialog box).

2.14.3 Notes

This tab allows you to enter or modify notes about the operation.

To define the notes for the operation:

1. Select the Notes tab of the **Applications** dialog box (see the figure below, from the FileNet Visual WorkFlo Editing Mode).

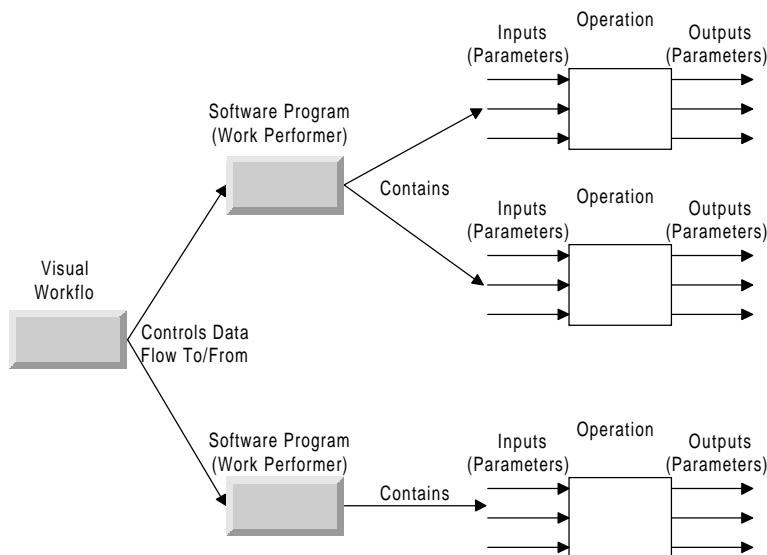


2. Type notes in the **Notes** text box.
 - * If you want to add a **Carriage Return** to the text of your notes, then type **Ctrl+Enter**.
3. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Operations** dialog box).

2.15 Work Performer Classes

- ☞ The Work Performer Classes dialog box is available only in the FileNet Visual Workflow Editing Mode; it is not available in any other Editing Mode.

Visual WorkFlo controls the activation of Software Operations. These Operations have specific data inputs and outputs (Parameters). The figure below shows the relationships between Visual WorkFlo and the Programs it controls and the Operations, which are components of the Programs.



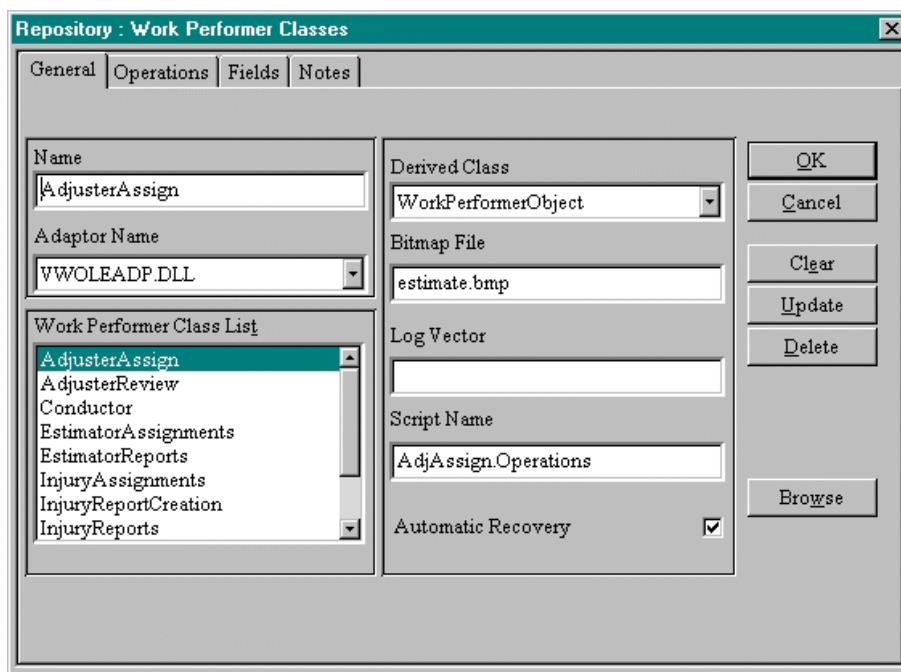
Workflow•BPR allows you to define the Work Performer Classes and associate the appropriate Operations with the Work Performer Classes. Each of the tabs in the Work Performer Classes dialog box is described in one of the sections below.

2.15.1 General

This tab gathers general information about the **Work Performer Class**.

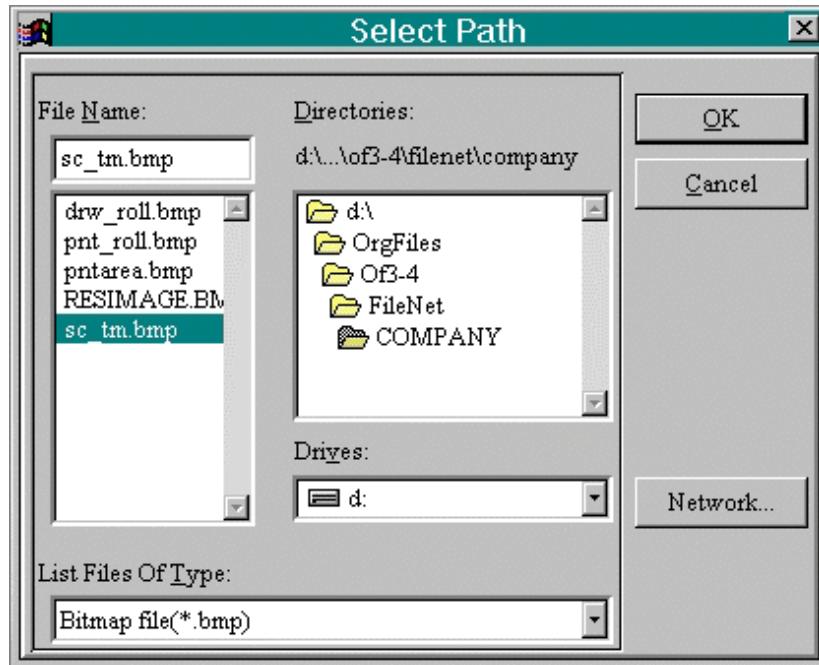
To create or modify a **Work Performer Class** Repository item:

1. Select **Organization Data** from the **Repository** menu. A sub-menu will appear.
2. Select **Work Performer Classes** from the sub-menu. The **Work Performer Classes** dialog box will appear—open to the **General** tab (see the figure below from the FileNet Visual WorkFlo Editing Mode).



3. Type the **Name** of the Work Performer Class in the **Name** text box.
 - * You can also select a name from the **Work Performer Class List** box.
4. Select an Adaptor from the **Adaptor Name** selection box.
 - * The list of Adaptors is consistent with what is supported by Visual WorkFlo.
5. Select a Work Performer Class as the parent class from the Derived Class selection box.
 - * Previously defined Work Performer Classes and the default “WorkPerformerObject” are available on the list.

6. Type the file name of the bitmap in the **Bitmap File** text box.
- * You can use the Browse button to locate the bitmap within the Folder structure of your disk drives (see figure below).



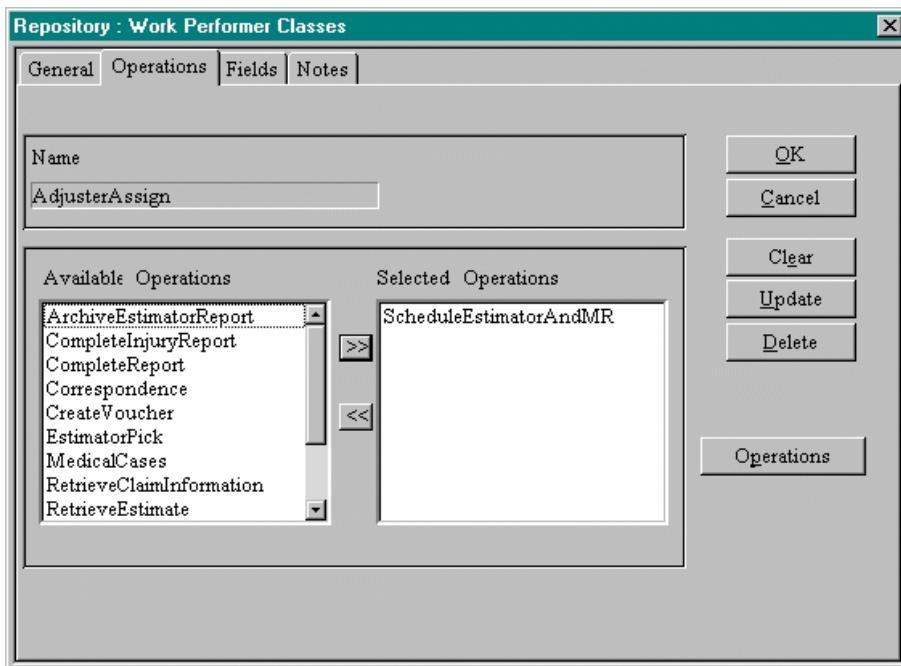
- Select the drive and/or directory where the file is located in the **Select Path** dialog box, then select the Bitmap File from the **File Name** list.
 - Click OK to return to the Work Performer Classes dialog box. The name and path of the file will be displayed in the text box.
7. Type the log vector in the Log Vector text box.
8. Type the script name in the **Script Name** text box.
9. Click on the **Automatic Recovery** check box to select or deselect that Visual WorkFlo option.
- * The default setting for the check box is Checked.
10. Click **Add** to create the item or you can continue to add more information about the Work Performer Class in the other tabs of the **Work Performer Classes** dialog box.

2.15.2 Operations

You can associate one or more Operations with a Work Performer Class.

To define the Operations of a Work Performer Class:

1. Select the Operations tab in the **Work Performer Classes** dialog box (see the figure below, from the FileNet Visual WorkFlo Editing Mode).



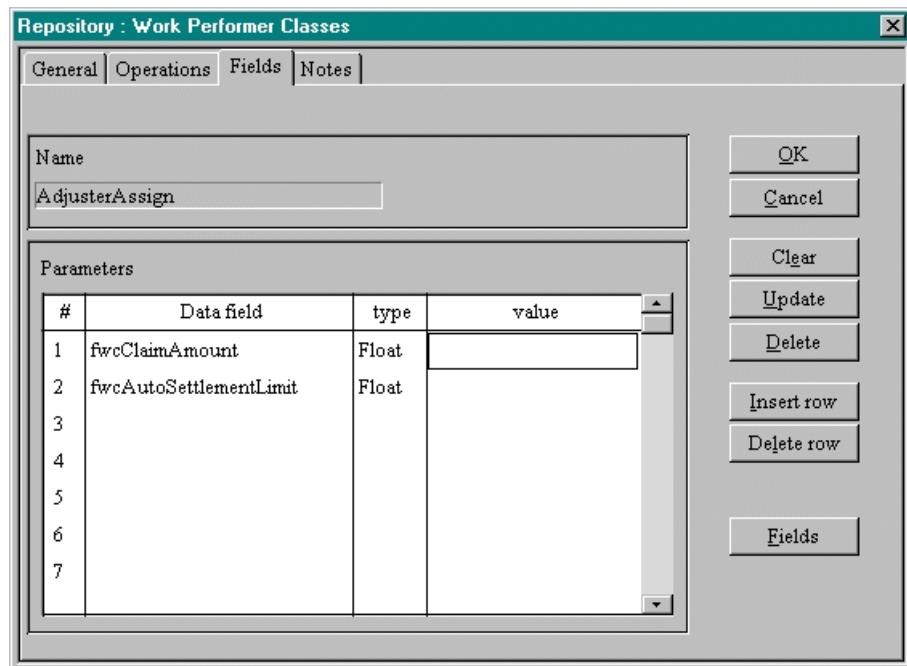
2. To associate an Operation with a Work Performer Class:
 - * Select the Operation from the **Available Operations** list box.
 - * Click on >> next to the **Selected Operations** text box to complete the selection.
 - * Repeat to add more Operations to the association.
3. To remove the association of an Operations with a Work Performer Class:
 - * Select the Operation from the **Selected Operations** list box.
 - * Click on << next to the **Selected Operations** text box to remove the association of the selection
 - * Repeat to remove more Operations from the association.
4. Continue editing in the other tab or Click **OK** when defining one entry.
 Click **Add** if you are defining multiple entries and then click **Close**.

2.15.3 Fields

You can associate one or more Data Fields with a Work Performer Class.

To define the Fields for a Work Performer Class:

1. Select the **Fields** tab of the **Work Performer Classes** dialog box (see the figure below, from the FileNet Visual WorkFlo Editing Mode).



2. In **Line 1** of the **Parameters** list box, click on the **Arrow** button on the right side of the **Data Field** column. A list of Data Fields will appear.
* Select the **Data Field**.
3. Type an initial value of the Data Field in the **Value** column of the **Parameters** list box.

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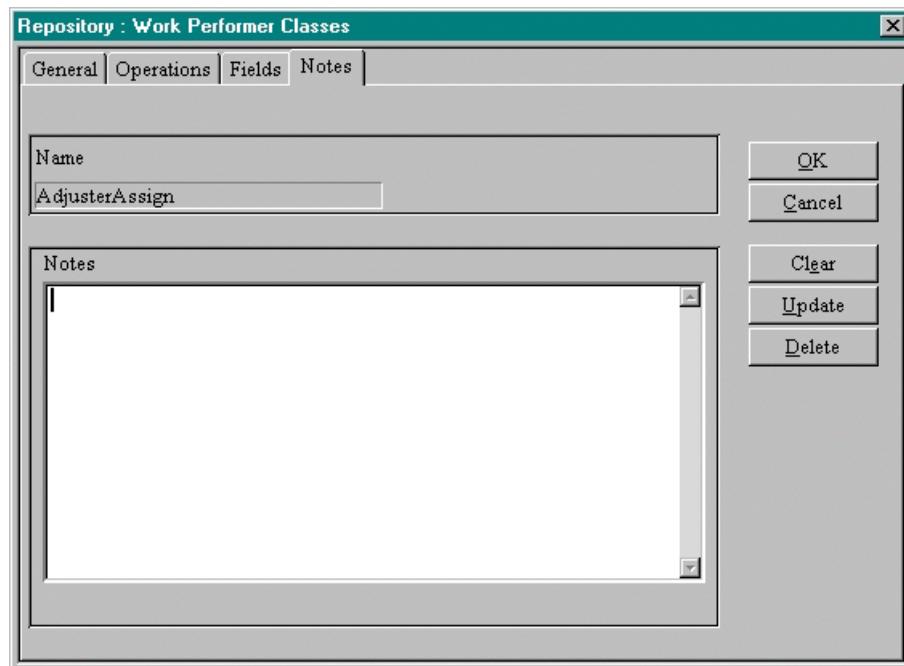
4. Repeat Steps 2 and 3 for each line of the **Data Field** column until all Data Fields have been selected.
 - * If a Data Field you want is not on the list, then you need to create it:
 -  Click the **Fields Go To** button to open the **Data Field** dialog box (refer to the section entitled “Data Fields” in Chapter 3 of the *User’s Guide*). Upon returning to the **Operations** dialog box, the new item(s) will be included on the list.
 - *  Use the Delete Row button to delete Data Field items.
 - *  Use the Insert Row button to insert a Data Field row.
5. When you have finished defining the parameters,  click **OK** or  press **Enter**, or you can continue to edit the Work Performer Classes in one of the other tabs.

2.15.4 Notes

This tab allows you to enter or modify notes about the Work Performer Class.

To define the Notes for a Work Performer Class:

1. Select the Notes tab of the **Work Performer Classes** dialog box (see the figure below, from the FileNet Visual WorkFlo Editing Mode).



2. Type notes in the **Notes** text box.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.
3. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Work Performer Classes** dialog box (refer to sections 0 through 0).

2.16 Organization Units

Organization Units are the building blocks of your organization's structure. Units usually represent departments, divisions, or sections. These units are responsible for the completion of specific Tasks that contribute to the overall work Process of your company.

Basically, there are two categories of Organization Units: **Head Units** and **Reporting Units**. All Reporting Units report to a designated Head Unit. An Organization Unit can be both a Head Unit and a Reporting Unit simultaneously, depending upon its position in the organization hierarchy.

- ☞ When Organization Units are created in Workflow•BPR, you essentially create Reporting Units. It is easier to create Organization Units from the top downward. For example, create Headquarters first, then the Head Units, and then create their corresponding Reporting Units.

For example, the Manufacturing Division in your organization hierarchy could include Manufacturing Engineering, Test Engineering, and Quality Assurance. The Manufacturing Division would be the Head Uni, and Manufacturing Engineering, Test Engineering, and Quality Assurance would be the Organization Units reporting to it; hence, Reporting Units.

- ☞ Since Workflow•BPR creates both Head Units and Reporting Units, be certain that each unit name you define is unique.

In addition, you can designate whether a Head Unit or Reporting Unit is a Staff or Line Unit. A Line Unit is a department that interacts directly with departments either above or below it in the organization hierarchy. A Staff Unit is a department that interacts on an equal basis with many other departments.

- ☞ Using the above example, Manufacturing Engineering could be a Line Unit, since it would only interact with the departments above and below it in the organization hierarchy. Quality Assurance could be a Staff Unit, since Quality Assurance would interact equally with any department requiring inspection.

An Organization Unit is a required entry field for the Resource Allocation Repository category. Organization Units have three required Repository entry fields: Resources, Locations, and Calendar. If these three fields are left blank, Workflow•BPR assigns the current default values for these categories.

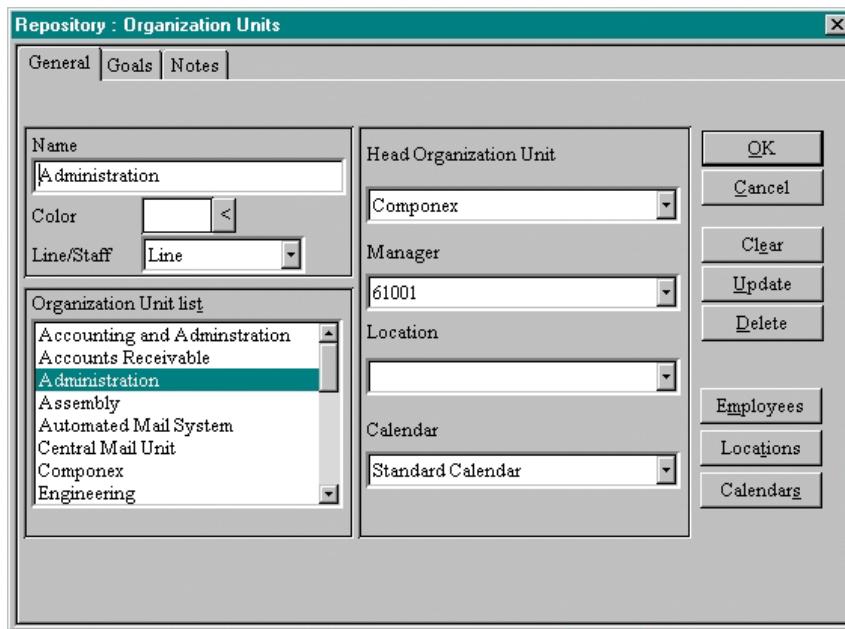
The following information is required to define an Organization Unit:

- Unit name
- Color: Workflow•BPR allows for attaching a different color to each unit for easier identification (optional)
- Head Unit (optional)
- Manager (optional)
- Location (optional)
- Calendar (optional)
- Goals (optional)

2.16.1 General

To create an Organization Unit Repository item:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Organization Units**. The **Organization Unit** dialog box appears—open to the **General** tab (see the figure below).



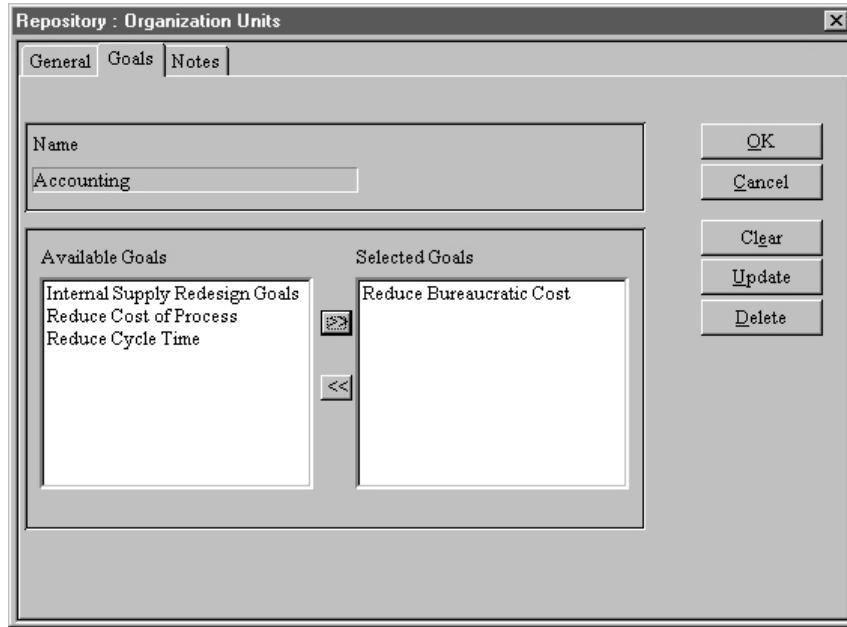
3. Type the unit name in the **Name** text box.
* You can also select a name from the **Organization Unit List** box.

4. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined 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 on the spectrum map defining that color.
 - * Click the cursor in the spectrum map until the shade changes to the one you want, then click **Add to Custom Colors**.
 - * Click **OK** to return to the **Organization Units** dialog box.
5. To define the **Head Unit**, select one from the **Head Unit** list. If creating your organization's Head Unit, leave this blank.
6. To identify the **Manager**, select one from the **Manager** list.
 - * If the manager you want is not on the list, it needs to be defined. Click **Employees** to go to the **Employees** dialog box (refer to the section entitled "Employees" on page 2-129). Upon returning to the **Organization Units** dialog box, the new item(s) will be included on the list.
7. To identify a **Location**, select one from the **Location** list.
 - * If the location you want is not included on the list, it needs to be defined. Click **Locations** to go to the **Locations** dialog box (refer to the section entitled "Locations" on page 2-10). Upon returning to the **Organization Units** dialog box, the new item(s) will be included on the list.
8. To identify a **Work Calendar**, select one from the **Calendar** list. If a work calendar is not selected or created, Workflow•BPR automatically selects the default calendar for your organization.
 - * If the work calendar you want is not included on the list, it needs to be defined. Click **Calendars** to go to the **Calendars** dialog box (refer to the section entitled "Calendars" on page 2-6). Upon returning to the **Organization Units** dialog box, the new item(s) will be included on the list.
9. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

2.16.2 Goals

To add Goals to an Organization Unit Repository item:

1. Select the **Goals** tab in the **Organization Units** dialog box (see the figure below).

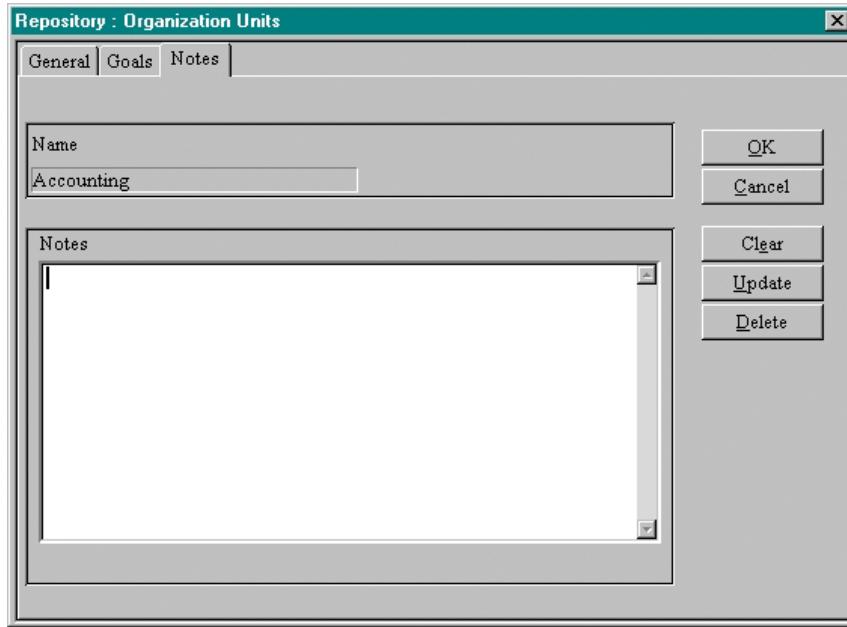


2. To assign a Business Rule to the Application:
 - * Click on the appropriate Business Rule listed in the **Available Business Rules** list box.
 - * Click on the >> button. The Business Rule will be moved from the **Available Business Rules** list box to the **Selected Business Rules** list box.
3. To remove the assignment of a Business Rule to the Application:
 - * Click on the appropriate Business Rule listed in the **Selected Business Rules** list box.
 - * Click on the << button. The Business Rule will be moved from the **Selected Business Rules** list box to the **Available Business Rules** list box.
4. Click **Add** to create the item or you can continue to add more information about the applications in the other tabs of the **Organization Units** dialog box.

2.16.3 Notes

To add Notes to an Organization Unit Repository item:

1. Select the **Notes** tab of the **Applications** dialog box (see the figure below).



2. Type notes in the Notes text box.
 - * If you want to add a **Carriage Return** to the text of your notes, then type **Ctrl+Enter**.
3. Click **Add** to create the item, or you can continue to add more information about the applications in the other tabs of the **Organization Units** dialog box.

2.17 Resource Allocation

Resource Allocation defines the number of Resources that are associated with specific Organization Units. A number of available Resources are used during Simulation to determine whether a scheduled Task can begin. If the input to a Task has arrived, the Simulation Engine determines if the Resources allocated to the Task are available. The types of allocated Resources may be used by another Task in the Process.

-  **Simulations of the Process will halt if your Resource Allocation is less than what is required for a Task.**

Organization Unit and Resource are required entry fields for Resource Allocation. As a result, both entries must be defined before you can create any associations.

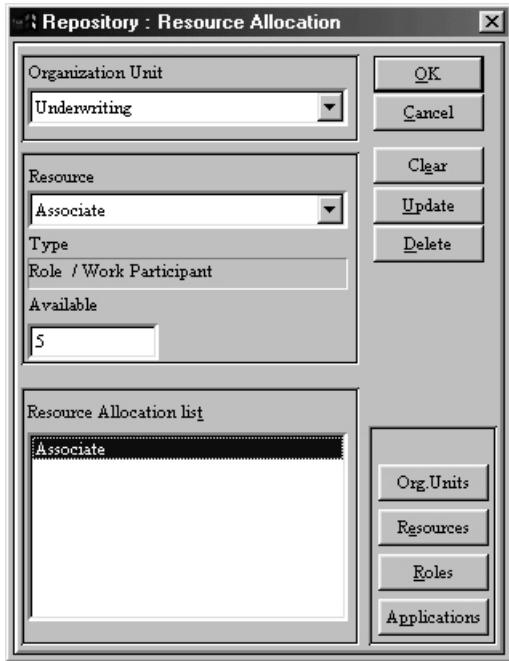
The following information is required to define an Organization Unit Resource:

- Organization Unit
- Associated Resource and available number

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To create a Resource Allocation:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Resource Allocation**. The **Resource Allocation** dialog box appears (see the below).



3. Select an Organization Unit from the Organization Unit list within the Resource Allocation dialog box.
 - * If the unit you want is not included on the list, it needs to be defined. Click **Org. Units** to go to the **Organization Units** dialog box (refer to the section entitled “Organization Units” on page 2-114). Upon returning to the **Resource Allocation** dialog box, the new item(s) will be included on the list.
4. Select a **Resource** from the **Resources** list to associate it with the selected Organization Unit.
 - * If the Resource you want is not included on the list, it needs to be defined. Click **Roles** to go to the Roles dialog box (refer to the section entitled “Roles” on page 2-125). Upon returning to the **Resource Allocation** dialog box, the new item(s) will be included on the list.
5. In the **Available** text box, type the number of the selected Resources available for the selected unit.
6. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

2.18 External Entities

 The External Entities dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.

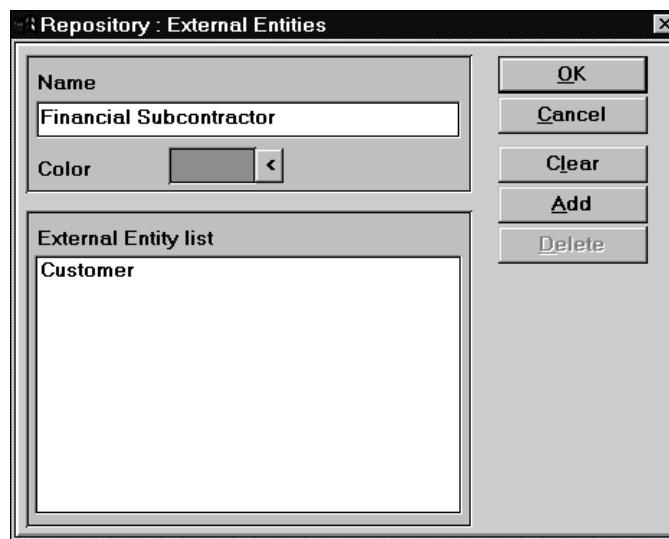
An External Entity is an individual or company outside the organization that affects your organization's Process. These entities either provide input to your organization or receive output from your organization. In Workflow•BPR, External Entities can either send or receive Phis, but not both in the same diagram. Examples of External Entities are a customer, a supplier, or a service organization such as a bank or travel agency.

The following information is required to define External Entities for your organization:

- Name for the External Entity
- A color to identify it in the diagram (optional)

To create an External Entity Repository item:

1.  Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **External Entities**. The **External Entities** dialog box appears (see the figure below).



3.  Type the **External Entity**'s name in the **Name** text box.
* You can also  select a name from the **External Entity** list box.

4. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined 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 you want, then click **Add to Custom Colors**.
 - * Click **OK** to return to the **External Entities** dialog box.
5. Click **OK** or when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

2.19 Chart Of Accounts

-  **The Chart of Accounts dialog box is available in all Editing Modes except the Basic, IBM FlowMark, and IBM MQ Workflow Editing Modes.**

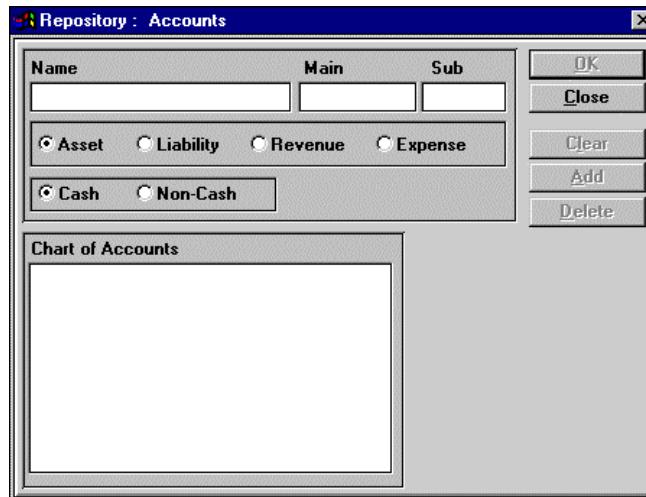
A Chart of Accounts is a list of all your organization's accounting centers. It is the list of all accounts that are used to post accounting entries and produce the organization's financial statements. In Workflow•BPR, the Chart of Accounts is used to display financial information and to produce financial reports.

The following information is required to define a Chart of Accounts for your organization:

- Account number. Each account number can contain two sections: a main account (required) and a sub-account (optional).
- Account name.
- Type of account, either debit or credit.
- Type of report, either a balance sheet or an income statement.
- Type of payment, either cash or non-cash. This information is utilized to report cash flow.

To create a Chart of Accounts Repository item:

1.  Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Chart Of Accounts**. The **Accounts** dialog box appears (see the figure below, from the Advanced Editing Mode).



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3. Type the account name in the **Name** text box.
 - * You can also select a name from the **Chart of Accounts** list box.
4. Type the main account number in the **Main** text box, and the sub-account number in the **Sub** text box.
5. Click the appropriate radio button to choose whether this account is a debit or credit, a balance sheet, an income statement, or a cash or non-cash account.
6. Click OK or press Enter when defining one entry. Click Add if you are defining multiple entries, and then click Close after the last entry has been added.

2.20 Roles

Workflow•BPR defines a Resource as a participant or a work aid. There are two types of participants: Roles or applications that “perform” a Task in your organization’s Process. Both types of participants have a separate dialog box for gathering information about them (refer to the section entitled “Applications” on page 2-18). The Roles dialog box (described in this section) gathers information about Roles. A work aid is an identifiable Resource—such as material, equipment, or facilities—that has a direct impact on the organization’s Process. The Resources dialog box captures information about work aids (refer to the section entitled “Resources” on page 2-14).

Roles have two required Repository entry fields: Currency and Calendar. If these entry fields are left blank, Workflow•BPR assigns the current default values for these fields.

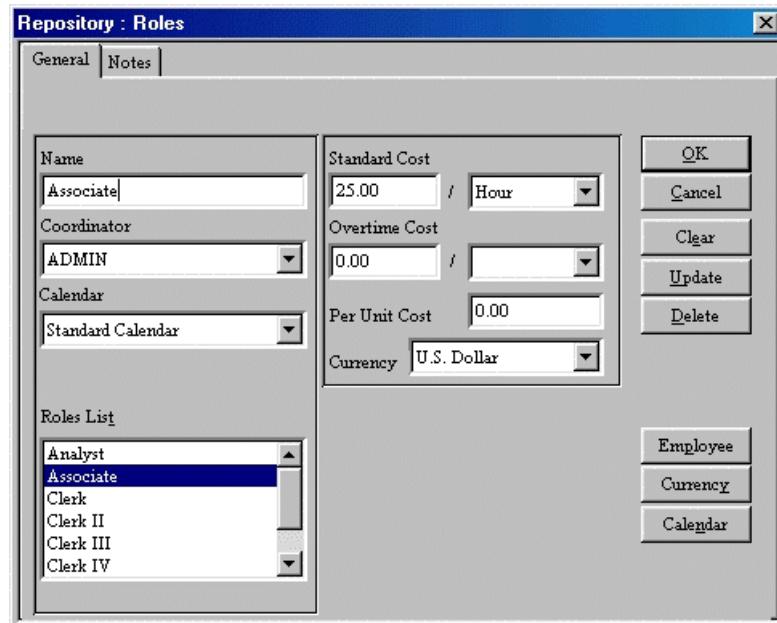
The following information is required to define a Role for your organization:

- Name of the Role
- Standard Cost: A rate (cost and unit) for standard working hours. (optional)
- Overtime Cost: A rate (cost and unit) for overtime working hours. This cost is not currently used in any calculations. (optional)
- Per Unit Cost: A fixed cost incurred each time you use the Resource. (optional)
- Currency related to Costs.
- Work Calendar.

2.20.1 General

To create a Role Repository item:

1. Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Roles**. The **Roles** dialog box appears—open to the **General** tab (see the figure below).



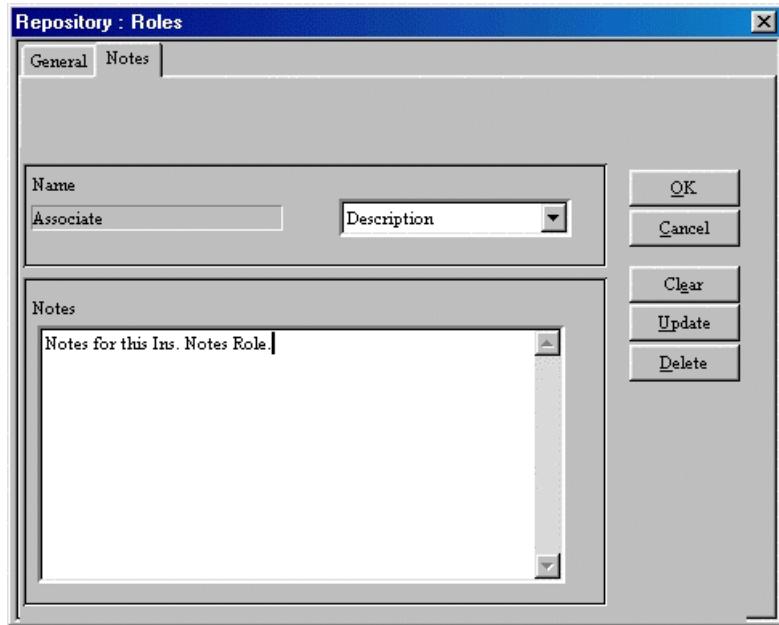
3. Type a name in the **Name** text box. Remember, if your participant is an Employee, use the employee's job title rather than his or her name.
 - * You can also select a name from the **Roles List** list box.
4. Select a **Coordinator** from the **Coordinator** list.
 - * If the Coordinator you want is not included in the list, it needs to be created. Click **Employees** to go to the **Employees** dialog box (refer to the section entitled “Employees” on page 2-129). Upon returning to the **Roles** dialog box, the new item(s) will be included on the list.
5. Select a calendar from the **Calendar** list to define the workdays related to the participant or work aid. If a work calendar is not selected, Workflow•BPR automatically selects the default calendar for your organization.
 - * If the calendar you want is not included in the list, it needs to be created. Click **Calendar** to go to the **Calendars** dialog box (refer to the section entitled “Calendars” on page 2-6). Upon returning to the **Roles** dialog box, the new item(s) will be included on the list.

6. To define a participant's cost to your organization, type both the **Standard** and **Overtime Costs** in the **Planned Cost** text boxes and then select a cost increment. Click on the down arrow beside the boxes to display all of your available increment selections. With Workflow•BPR, you can select six (6) different increments: minute, hour, day, week, month, and year.
 7. To define a work aid's one-time usage cost to your organization, type its cost in the **Per Unit** text box.
 8. Select a currency from the **Currency** list to define the currency related to the Resources cost. If a currency is not selected, Workflow•BPR automatically selects the default currency for your organization.
 - * If the currency you want is not included in the list, it needs to be created. Click **Currency** to go to the **Currencies** dialog box (refer to the section entitled "Currencies" on page 2-12). Upon returning to the **Roles** dialog box, the new item(s) will be included on the list.
- In the Line of Visibility and Advanced Editing Modes, additional fields and buttons appear in the Roles dialog box to allow the input of data relating to Skills. These additional fields and buttons are described in steps 9 through 11 below.**
9. In **Line 1** of the **Skills** list box, click on the **Arrow** button that is on the right side of the **Skill** column. A list of Skills will appear.
 - * Select the appropriate Skill
 - * If the Skill you want is not included in the list, it needs to be created. Click **Skills** to go to the **Skills** dialog box (refer to the section entitled "Skills" on page 2-143). Upon returning to the **Roles** dialog box, the new item(s) will be included on the list
 10. Type a skill level in the **Level** column
 11. Repeat steps 9 and 10 to add other Skills to the list.
 - * Use the **Insert Row** button to create lines between entries.
 - * Use the **Delete Row** button to delete entries.
 12. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

2.20.2 Notes

To define the notes for the Role:

1. Select the Notes tab of the **Roles** dialog box (see the figure below).



- * There are two (2) independent types of Notes available for a Task:
Description (default) and Areas of Responsibility.
- 2. To add or update Description Notes about the Task, type in the **Notes** text box.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.
- 3. To add or update Areas of Responsibility Notes about the Task, select **Areas of Responsibility** from the Notes Header selection box. Then type in the **Notes** text box.
- 4. Click **Add** to create the item or you can continue to add more information about the **Roles** in the other tabs of the **Roles** dialog box (refer to sections 2.7.1through 2.7.11).

2.21 Employees

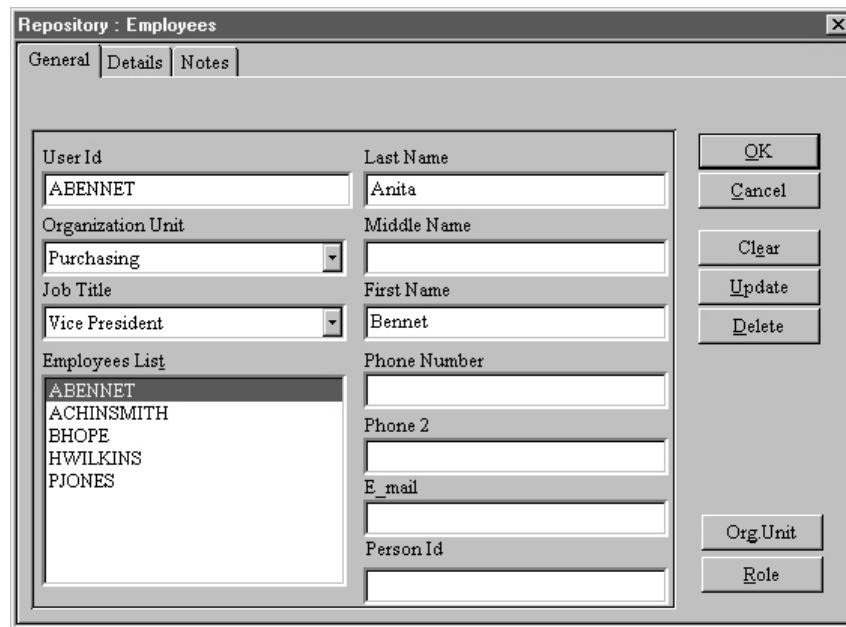
Staff or Employees are the people that perform the work (Tasks) for an organization. Workflow•BPR assigns Roles to a Task; however, an employee will actually perform the Task. Thus, employee information is included in Workflow•BPR so that workflow engines will have the information that is needed to appropriately route the work (refer to the *Integration with Workflow Applications Guide*). The following sections describe the information that is stored for the employees.

2.21.1 General

The General tab contains general information about the employees. Each employee must have a User ID, an Organization Unit, a Job Title, and a Full Name. Other information about the employee includes their Phone Number, a Phone Number 2, an E-Mail address, and a Person ID.

To define an Employee Repository item:

1.  Select Organization **Data** from the **Repository** menu. A sub-menu will appear.
2.  Select **Employees** from the sub-menu. The **Employee** dialog box will appear—open to the **General** tab (see the figure below, from the Basic Editing Mode).



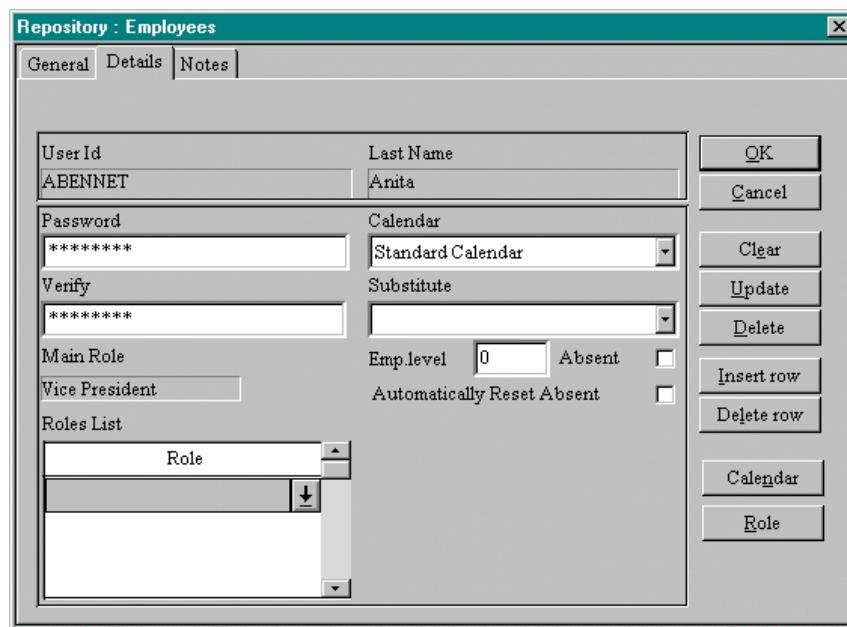
3. Type the User ID of the employee in the **User ID** text box. This number will be used to select the employee in other dialog boxes.
 - * You can also select a User ID from the **Employees List** box.
 - * The User ID must be numeric or capitalized letters.
4. Select the employee's **Organization Unit** from the **Organization Unit** selection box.
 - * If the Organization Unit you want is not included on the list, then it needs to be created. Click **Org. Unit** to access the **Repository Organization Units** dialog box to create the item (refer to the section entitled "Organization Units" on page 2-114). Upon returning to the **Employee** dialog box, the new item(s) will be included on the list.
5. Select the employee's **Job Title** from the **Job Title** selection box. This will be the list of **Repository Roles**.
 - * If the Role you want is not included on the list, then it needs to be created. You can click the **Role Go To** button to access the **Repository Roles** dialog box to create the item (refer to the section entitled "Roles" on page 2-125 of the *User's Guide*). Upon returning to the **Employee** dialog box, the new item(s) will be included on the list.
 - * The Job Title will appear as the first Role in the **Roles** list box of the Details tab (refer to the next section).
6. Type the following information in the appropriate text box.
 - * Last Name
 - * Middle Name
 - * First Name
 - * Phone Number
 - * Phone 2
 - * E-Mail
 - * Person ID
7. Click **Add** to create the item, or you can continue to add more information about the employees in the other tabs of the **Employees** dialog box (refer to sections 2.21.2 through 2.21.5).

2.21.2 Details

Additional and optional information about an employee is stored in the Details tab: User Password, Verification Of User Password, Person ID, Level, Absent Checkbox, Substitute, and Calendar. If the Absent checkbox is checked, then a workflow engine will route any work to the employee selected in the Substitute selection box. During the performance of the Process, Jobs are only routed to the employee if the employee is assigned to an activity and the Level of the employee is within the range defined in the activity.

To add more details about an employee:

1. Select the **Details** tab in the **Employees** dialog box (see the figure below, from the Basic Editing Mode).



2. Type the employee's password in the **Password** text box.
3. Type the employee's password again in the **Verify** text box.
4. If you want to change the employee's Level, edit the number in the **Emp. level** text box.
 - * The Level can be used by workflow engines to filter out employees during dynamic assignment at run-time.
5. In the **Roles List** box, click on the **Arrow** button on the right side of the **Role** column. A list of Roles will appear. Add as many Roles as are appropriate.

- * If the Role you want is not included on the list, then it needs to be created. You can  click the **Role Go To** button to access the **Repository Roles** dialog box to create the item (refer to the section entitled “Roles” on page 2-125). Upon returning to the **Employee** dialog box, the new item(s) will be included on the list.
6. If you want to change the Level of the first Role,  edit the number in the text box in the **Level** column of the **Roles** list box.
 - * Each Role for an employee can be set to a Level from 0 to 999.
 7. If you want to change the calendar for the employee,  select the calendar from the **Calendar** selection box.
 - * If the calendar you want is not included on the list, then it needs to be created. You can  click the **Calendar Go To** button to access the **Repository Calendars** dialog box to create the item (refer to the section entitled “Calendars” on page 2-6). Upon returning to the **Employee** dialog box, the new item(s) will be included on the list.
 8.  Select the Employee who will substitute when the current employee is absent from the **Substitute** selection box.
 9.  Select the **Absent** checkbox if the employee is currently absent.
 10.  Select the **Automatically Reset Absent** checkbox if you want the Absent status of the Employee to be reset the next time they logon.

 In the Line of Visibility and Advanced Editing Modes, additional fields and buttons appear in the Employees dialog box to allow the input of data relating to Skills. These additional fields and buttons are described in steps 11 through 13 below.

11. In **Line 1** of the **Skills** list box,  click on the **Arrow** button on the right side of the **Skill** column. A list of Skills will appear.
 - *  Select the appropriate Skill.
 - * If the Skill you want is not included in the list, it needs to be created.  Click **Skills** to go to the **Skills** dialog box (refer to the section entitled “Skills” on page 2-143). Upon returning to the **Roles** dialog box, the new item(s) will be included on the list.
12.  Type a skill level in the **Level** column.
13.  Repeat steps 11 and 12 to add other Skills to the list.
 - * Use the **Insert Row** button to create lines between entries.
 - * Use the **Delete Row** button to delete entries.
14.  Click **Add** to create the item or you can continue to add more information about the employees in the other tabs of the **Employees** dialog box (refer to sections 2.21.1 through 2.21.5).

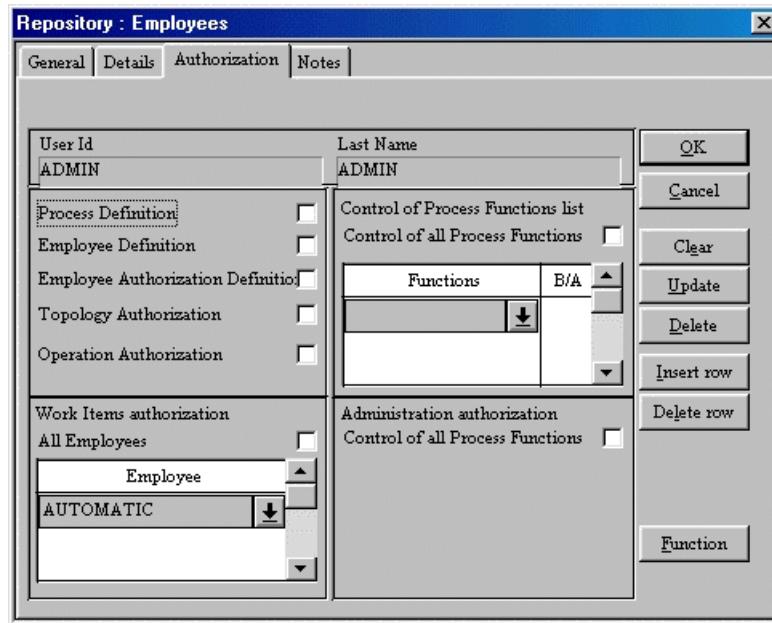
2.21.3 Authorization

In the Authorization tab, you can give the employee control over parts of the Process or control over other employees. If the employee is given Process control, you can specify whether the control is for all Process functions or for selected functions. If the employee is given employee control, you can specify whether the control is for all employees or for selected employees.

 **The Authorization tab is available in all Editing Modes except the Basic Editing Mode.**

To add authorization details about an employee:

1.  Select the Authorization tab in the **Employees** dialog box (see the figure below, from the Advanced Editing Mode).



2.  Select the **Process Definition** check box if the Employee is to create, retrieve, update, delete, and translate process models and process templates.
3.  Select the **Employee Definition** check box if the Employee is to define staff, that is, create, retrieve, update, and delete staff data. This includes the ability to add people or to create worklists for users.
4.  Select the **Employee Authorization Definition** check box to create, retrieve, update, and delete authorization information.

5. Select the **Topology Authorization** check box if the Employee is to define or change topology information, such as to define new IBM MQ Workflow systems.
6. Select the **Operation Authorization** check box if the Employee is to manage the administration server and its related functions. This Employee can handle operation administrator tasks, such as block a user or unblock a blocked user.
7. In the **Work Items Authorization** box, select the **All Employees** check box if this Employee is to access the activities of all Employees. This Employee can transfer, for example, work items and query worklists.
 - * Employees who are authorized for a worklist can declare the owner absent and assign themselves as substitutes for the owner.
8. You can select specific Employees whose worklists this Employee will have access to. In the **Work Items Authorizaton** list box, click on the **Arrow** button on the right side of the **Employees** column. A list of Employees will appear. Add as many Employees as are appropriate.
 - * If the Employee you want is not included on the list, he needs to be inserted.
9. In the **Control of Process Functions List** box, Select the **Control of all Process Functions** check box if the Employee can, for example, create, start, and restart process instances, or set attributes.
10. You can select specific functions over which the Employee has control. In the **Control of Process Functions List** box, click on the **Arrow** button on the right side of the **Functions** column. A list of functions will appear. Add as many functions as are appropriate.
 - * If the function you want is not included on the list, it needs to be created. You can click the **Function Go To** button to access the **Repository Functions** dialog box to create the item (refer to the section entitled “Function” in Chapter 4). Upon returning to the **Employee** dialog box, the new item(s) will be included on the list.
11. For each function that is listed, you can specify the type of control. Click on the **Arrow** button that is on the right side of the **B/A** column and select either **Basic** (default) or **Admin**.
12. In the **Administration Authorization** box, Select the **Control of all Process Functions** check box if the Employee is to have process administration authorization for this person for all process categories. Process administration authorization applies to Runtime processes only and enables a user to perform, for example, the following actions:
 - * Delete process templates of the category for which the user is authorized.
 - * Suspend, resume, restart, delete, and terminate process instances of the category for which the user is authorized.
13. Click **Add** to create the item or you can continue to add more information about the Employees in the other tabs of the **Employees** dialog box (refer to sections 2.21.1through 2.21.5).

2.21.4 PEA

- ☒ The PEA tab is available only in the IBM MQ Workflow Editing Mode; it is not available in any other Editing Mode.
- ☒ In the MQ Workflow Buildtime, the Program Execution Agent is defined as a sub-item of a System, not as a property of a Staff member.

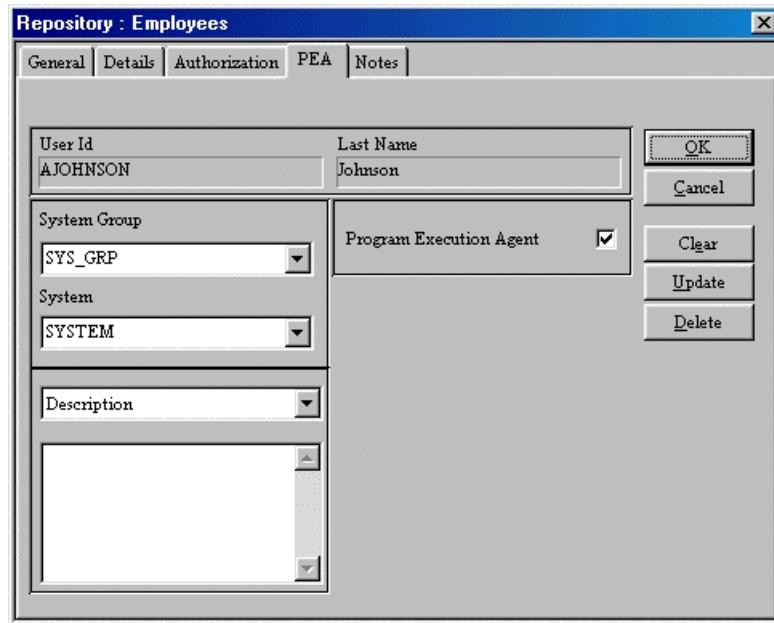
For the MQ Workflow Runtime, you can use one of the following to run programs:

- The program execution agent runs on the workstation of the user for whom the program is started.
- The program execution server runs on a server machine.

You can use the PEA tab of the Employees dialog box to define the settings for a program execution agent on a user's workstation.

To add program execution agent details about an employee:

1. ☐ Select the **PEA** tab in the **Employees** dialog box (see the figure below, from the IBM MQ Workflow Editing Mode – the Authorization tab is not available in the Basic Editing Mode).



2. ☐ Select the **Program Execution Agent** check box if you want to associate a Program Execution Agent with the Employee.
 - * The other attributes of the tab will become available.

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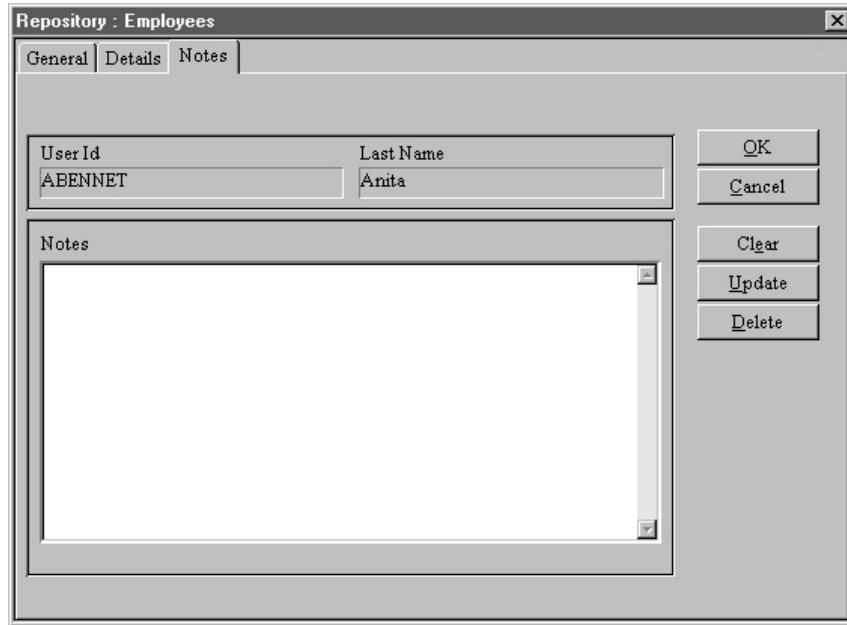
3. Select the System Group that contains the Program Execution Agent from the **System Group** list box.
4. Select the System that contains the Program Execution Agent from the **System** list box.
5. Select a Notes Header from the drop-down list in the Notes Header selection box.
 - * Two (2) independent types of Notes are available for a Domain: **Description** (default) and **Documentation**.
6. Type the Notes appropriate to the Header you have selected in the text box below the Notes Header selection box.
 - * The Notes pertaining to the **Description** Header will be exported in the FDL file.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.

2.21.5 Notes

In the Notes tab, you can store descriptive notes for each employee.

To add notes about an employee:

1. Select the **Notes** tab in the **Employees** dialog box (see the figure below, from the Basic Editing Mode).



2. Type notes about the employee in the **Notes** text box.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.
3. Click **Add** to create the item or you can continue to add more information about the employees in the other tabs of the **Employees** dialog box (refer to sections 2.21.1 through 2.21.5).

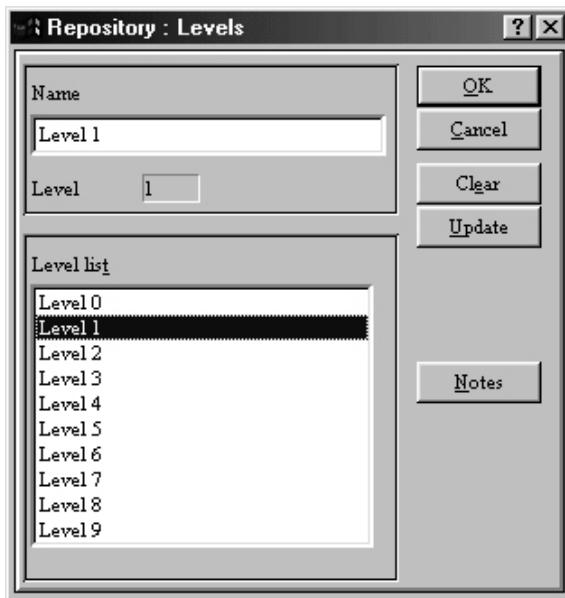
2.22 Levels

-  The Levels dialog box is available in all Editing Modes except the Basic Editing Mode.

Levels are included in the Workflow•BPR Repository for export into workflow engines. In general, you will not need to modify the data that is stored for levels. You can, however, change the names of the levels.

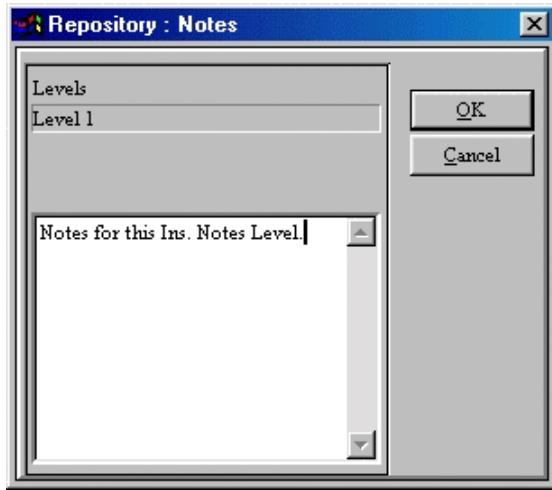
To edit Levels:

1.  Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Levels**. The **Levels** dialog box appears (see the figure below, from the Advanced Editing Mode).



3.  Select the level from the **Level** list box.
4.  Change the name of the selected level item.

5. Click **Notes** to open the **Notes** dialog box (see the figure below).



- * Type in the notes for the level in the text box.
 - * If you want to add a Carriage Return to the text of your notes, type Ctrl+Enter.
 - * Click **OK** or press **Enter** to return to the **Levels** dialog box.
6. Click **OK** or press **Enter** when defining one entry. If you are editing multiple entries, click **Update**, and then click **Close** after the last entry has been edited.

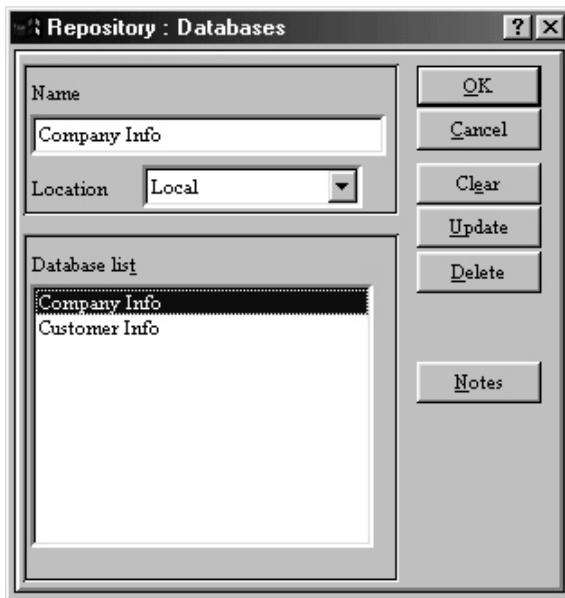
2.23 Databases

-  The **Databases** dialog box is available only in the Line of Visibility and Advanced Editing Modes.

You can identify the Databases that are used to store data for the Applications of a Process. Databases can be assigned as an attribute to Applications (refer to the section entitled “Applications” on page 2-18). In future versions of Workflow•BPR, you will be able to define or import the structure and properties of the Databases.

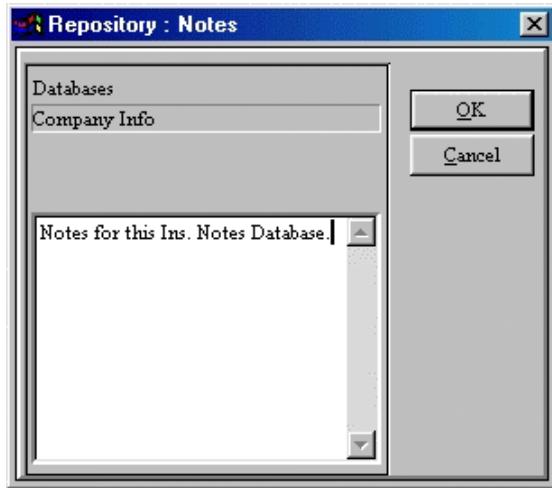
To edit Databases:

1.  Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Databases**. The **Databases** dialog box appears (see the figure below, from the Advanced Editing Mode).



3.  Type the name of the Database in the Name text box.
 - * You can also  select a name from the **Database List** list box.
4.  Select the Location of the Database from the **Location** Selection Box.
 - * There are three (3) possible Locations: Local, Server, and Remote.

5. If you want to add notes about the Database,  click the Notes button. The Notes dialog box will appear (see the figure below).



- *  Type in the notes for the Database in the text box.
 - * If you want to add a **Carriage Return** to the text of your Notes,  type **Ctrl+Enter**.
 - *  Click **OK** or  press **Enter** to return to the **Databases** dialog box.
6.  Click **OK** or  press **Enter** when defining one entry. If you are defining multiple entries,  click **Add**, and then  click **Close** after the last entry has been defined.

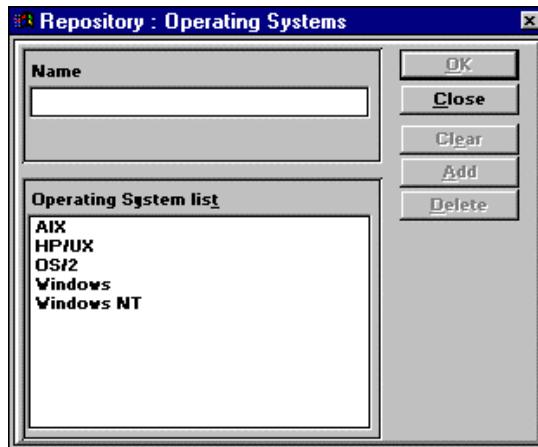
2.24 Operating Systems

-  The Operating Systems dialog box is available only in the Line of Visibility and Advanced Editing Modes.

You can identify the Operating Systems of the Machines where the Applications of a Process reside. An Operating System is an attribute of the Machine Resource object (refer to the section entitled “Resources” on page 2-14 of this Chapter).

To edit Operating Systems:

1.  Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Operating Systems**. The **Operating Systems** dialog box appears (see the figure below, from the Advanced Editing Mode).



3.  Type the name of the Operating System in the **Name** text box.
 - * You can also  select a name from the **Operating System List** box.
4.  Click **OK** or  press **Enter** when defining one entry. If you are defining multiple entries,  click **Add**, and then  click **Close** after the last entry has been defined.

2.25 Skills

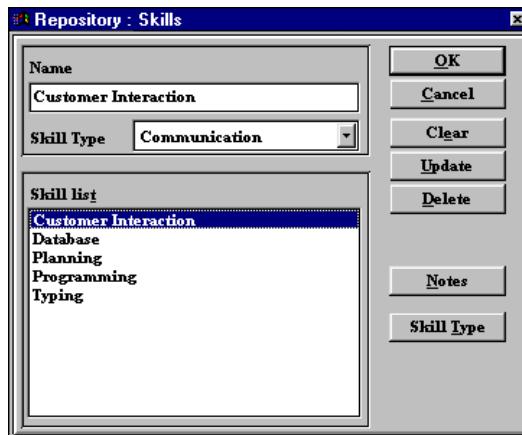
 **The Skills dialog box is available only in the Line of Visibility and Advanced Editing Modes.**

Skills are attributes of the following Organization and Process data objects:

- Tasks (refer to the section entitled “Tasks” in Chapter 3)
- Roles (refer to the section entitled “Roles” on page 2-125)
- Employees (refer to the section entitled “Employees” on page 2-129)

To edit Skills:

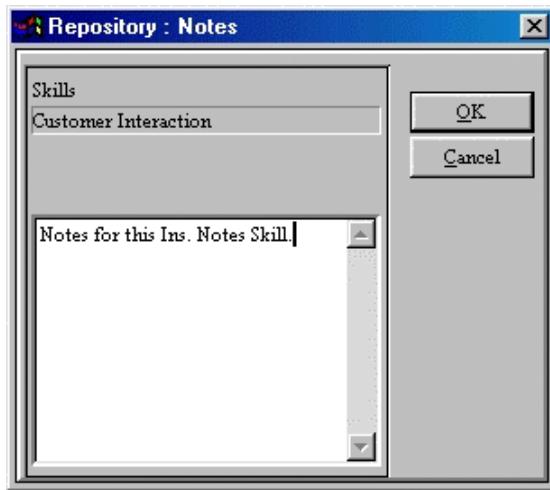
1.  Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Skills**. The **Skills** dialog box appears (see the figure below, from the Advanced Editing Mode).



3.  Type the name of the Skill in the **Name** text box.
* You can also  select a name from the **Skill List** list box.
4.  Select the Skill Type of the Skill from the **Skill Type** selection box.
* If the Skill Type you want is not included on the list, it needs to be created.  Click **Skill Types** to go to the **Skill Types** dialog box (refer to the section entitled “Skill Types” on page 2-145). Upon returning to the **Skills** dialog box, the new item(s) will be included on the list.

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5. If you want to add notes about the Skill, $\text{Ctrl}+\text{click}$ the **Notes** button. The **Notes** dialog box will appear (see the figure below).



- * $\text{Ctrl}+\text{click}$ Type in the notes for the Skill in the text box.
 - * If you want to add a Carriage Return to the text of your Notes, then $\text{Ctrl}+\text{Enter}$.
 - * $\text{Ctrl}+\text{click}$ Click **OK** or $\text{Ctrl}+\text{press Enter}$ to return to the Skills dialog box.
6. $\text{Ctrl}+\text{click}$ Click **OK** or $\text{Ctrl}+\text{press Enter}$ when defining one entry. If you are defining multiple entries, $\text{Ctrl}+\text{click}$ **Add**, and then $\text{Ctrl}+\text{click}$ **Close** after the last entry has been defined.

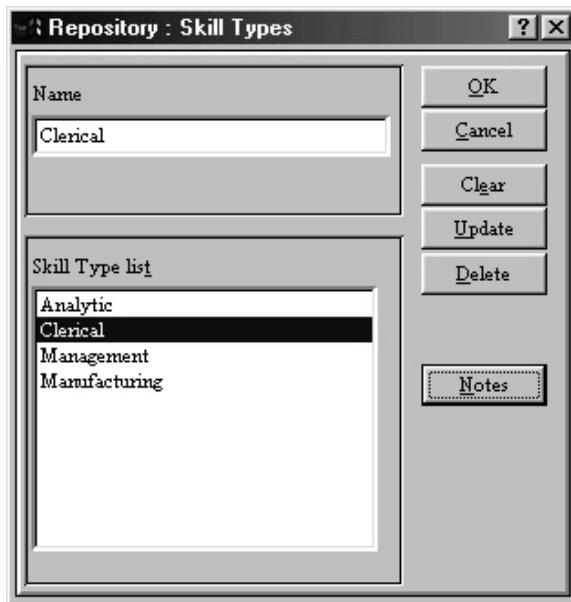
2.26 Skill Types

- ☞ The Skills dialog box is available only in the Line of Visibility and Advanced Editing Modes.

A Skill Type is an optional attribute of the Skill Repository object. These can be used to organize Skills into the Skill Type categories.

To edit Skill Types:

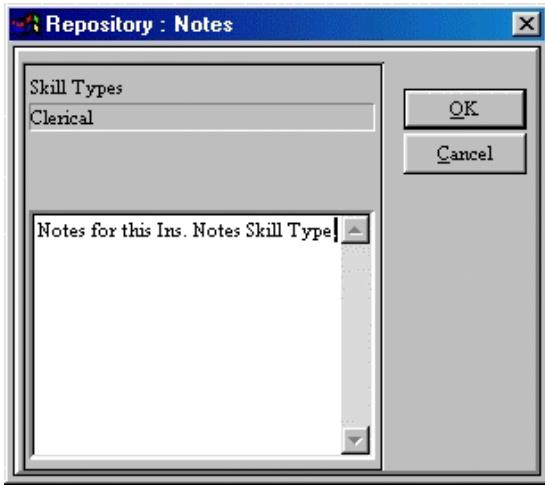
1. ⌘ Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. ⌘ Choose **Skill Types**. The **Skill Types** dialog box appears (see the figure below, from the Advanced Editing Mode).



3. ☰ Type the name of the Skill Type in the **Name** text box.
* You can also ⌘ select a name from the **Skill Type List** box.

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4. If you want to add notes about the Skill Type,  click the **Notes** button. The **Notes** dialog box will appear (see the figure below).



- *  Type in the notes for the Skill Type in the text box.
 - * If you want to add a **Carriage Return** to the text of your Notes,  type **Ctrl+Enter**.
 - *  Click **OK** or  press **Enter** to return to the **Skill Types** dialog box.
5.  Click **OK** or  press **Enter** when defining one entry. If you are defining multiple entries,  click **Add**, and then  click **Close** after the last entry has been defined.

2.27 Functions

 Functions can be accessed through the Organization Data sub-menu of the Repository menu when you are in the IBM FlowMark and IBM MQ Workflow Editing Modes. Otherwise, it appears in the Documentation Data sub-menu of the Repository menu. Thus, the information in this section is repeated in Chapter 4.

Workflow•BPR allows for the identification of various management functions performed in your organization. Examples of these Functions are marketing, production, sales, and so forth. Defining management functions provides the ability to represent and sort Tasks related to a certain function, and to analyze the roles of different functions in the Process.

The following information is required to define Functions for your organization:

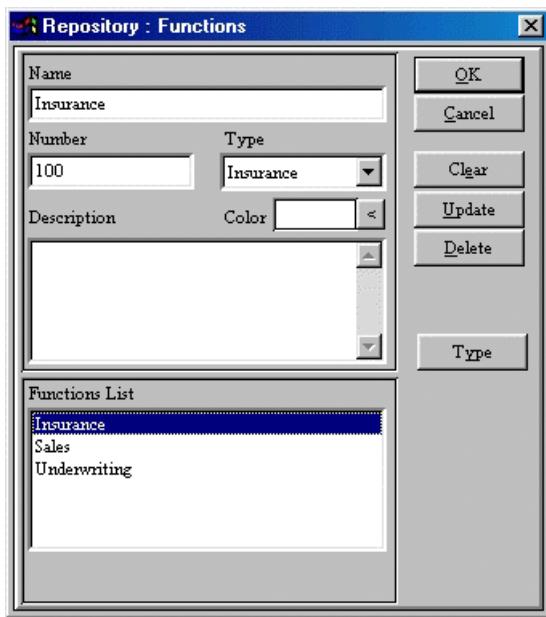
- A name for the Function.
- The Number of the Function. This number is part of the numbering scheme for Procedures in a Procedure Report (refer to Chapter 7 of the *Reporting Guide*).
- A Type classification for the Function. This is a Documentation Type Repository Item, which is used to classify Policies, Procedures, and Business Rules, in addition to Functions. There is a default Documentation Type named “Redesign.”
- A color to identify it in the diagram (optional).
- A text description of the Function.

Functions can be assigned to Tasks in the Repository (refer to section entitled “Tasks” in Chapter 3) and within Processes (refer to Chapter 3 of the *Modeling Guide*). Functions can be assigned to Processes (refer to Chapter 2 of the *Modeling Guide*) and to Process Objects within a Process (refer to Chapter 4 of the *Modeling Guide*).

A Function can be defined as a child of another Function. In addition, a Procedure can be defined as a child of a Function. This structure provides the method for organizing Procedures for the Procedure Report. Functions have a Number attribute and Procedures have a Number attribute. 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. This number will appear in the Procedure Report for Procedure 1 and can be used as part of a table of contents for a set of Procedure Reports (refer to Chapter 7 in the *Reporting Guide* for more information on the Procedure Report).

To create a Function Repository item:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Functions**. The **Functions** dialog box appears (see the figure below, from the Advanced Editing Mode)
 The Functions item appears in the Organization Data sub-menu of the Repository menu in the IBM FlowMark and IBM MQ Workflow Editing Modes only.



3. Type the name of the Function in the **Name** text box.
 - * You can also select a name from the **Functions List** box.
4. Type a number in the **Number** text box.
5. Select the Documentation Type from the **Type** selection box.
 - * If the Documentation Type you want is not included on the list, it needs to be created. Click the **Type** button to go to the **Documentation Types** dialog box (refer to the section entitled “Documentation Types” in Chapter 4). Upon returning to the **Functions** dialog box, the new item(s) will be included on the list.
6. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined 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.

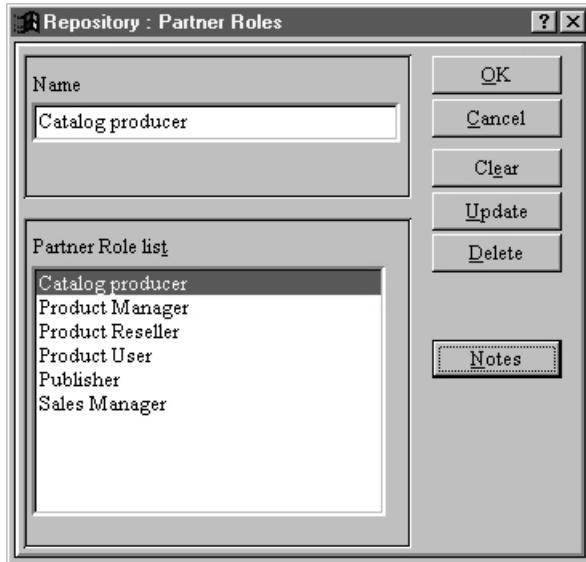
- * Click the cursor in the spectrum map until the shade changes to the one you want, then click **Add to Custom Colors**.
 - * Click **OK** to return to the **Functions** dialog box.
7. Enter a description of the Function in the **Description** text box.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.
 8. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

2.28 Partner Roles

 The Partner Roles dialog box is available only in the E-Commerce Editing Mode; it is not available in any other Editing Mode.

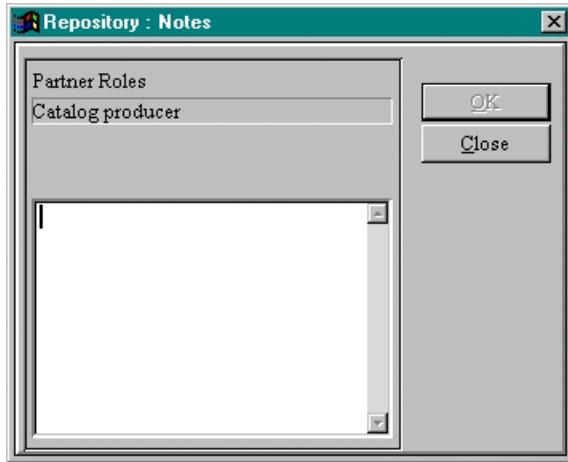
To edit Partner Roles:

1.  Choose Organization **Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Partner Roles**. The **Partner Roles** dialog box appears (see the figure below, from the E-Commerce Editing Mode).



3.  Type the name of the Function in the **Name** text box.
* You can also  select a name from the **Partner Role List** box.

4. If you want to add notes about the Partner Role,  click the **Notes** button. The **Notes** dialog box will appear (see the figure below).



- *  Type in the notes for the Partner Role in the text box.
 - * If you want to add a **Carriage Return** to the text of your Notes, then  type **Ctrl+Enter**.
 - *  Click **OK** or  press **Enter** to return to the **Partner Roles** dialog box.
5.  Click **OK** or  press **Enter** when defining one entry. If you are defining multiple entries,  click **Add**, and then  click **Close** after the last entry has been defined.

2.29 Updating Organization Data

To update Organization Data:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose the type of data that you want to update (e.g., Organization Units or Locations). The dialog box of that data type appears.
3. Select an item from the list of items for that data type.
4. Update the selected entry by making the desired changes (follow the previous procedure in the appropriate section for creating this entry).
5. Click **OK** or when updating one entry. Click **Update** if updating multiple entries, and then click **Close** after the last entry has been updated.

2.30 Deleting Organization Data

To delete Organization Data:

1. Choose **Organization Data** from the **Repository** menu. A sub-menu appears.
2. Choose the type of data that you want to update (e.g., Organization Units or Locations). The dialog box of that data type appears.
3. Select an item from the list of items for that data type.
4. Click **Delete** to delete a selected item.
 - * Workflow•BPR will search the Processes of the Organization File to determine if the item is being used in a Graphical Object.
 - If the selected item appears as an attribute for another Repository item or in a Drawing Object, then you will be informed as to where it is being used and you will not be able to delete the item. If the selected item appears as an attribute for more than one Repository item or Drawing Object, then you will be informed that the item is being used elsewhere and you will not be able to delete the item.
 - If the item is not being used elsewhere, you will be asked to confirm the deletion of the item.
5. Click **Close** when the deletion has been completed.

Chapter 3: Repository: Process Data

After completing your company's Organization Data, the next step in assembling the organization's Repository is to identify the organization's Process Data. Process Data defines the elements making up the actual work your organization performs in its Processes.

The following information is required to help define your company's Processes:

- The organization's activities - This includes the Tasks that ultimately form your organization's Processes. Depending upon organization objectives, defining Tasks can include Authorizations, Classifications, and Financial Information.
- Phis and Media - In Workflow•BPR, Phis are the inputs/outputs from one Task to another. Media is the way your organization transports Phis from one Task to another. Media information is directly associated with Connectors and completes the *flow* portion of your Process representation.
- External Processes affecting your organization.
- Reasons for a delay in performance or completion of the company Tasks.
- Decisions and options that affect the Tasks and the sequence of your Process.

There are 15 data categories in Process Data: Tasks, External Processes, Phis, Partner Interactions, Phi Types, Phi States, Media, Classifications, Delay Reasons, Groups, Authorizations, Data Fields, Data Structures, Decisions, and Choices. The menu items that are available will vary depending on the Editing Mode that is used for modeling processes. The Editing Modes feature was designed because Process Modeling can be performed for many purposes. Not all menu items are necessary for every modeling purpose. Therefore, the Editing Mode will affect the list of items that appear in the Organization Data sub-menu of the Repository menu. The following table shows the menu items and the Editing Modes that they appear.

Editing Mode: Menu Item	Basic	IBM Flow-Mark	IBM MQ Work-flow	FileNet Visual WorkFlo	Line of Visibility	E-Comm.	Adv.
Tasks	✓	✓	✓	✓	✓	✓	✓
External Processes	✓			✓	✓	✓	✓
Phis	✓	✓	✓	✓	✓	✓	✓
Partner Interactions						✓	
Phi Types	✓	✓	✓	✓	✓	✓	✓
Phi States	✓			✓	✓	✓	✓
Media	✓			✓	✓	✓	✓
Classifications	✓			✓	✓	✓	✓
Delay Reasons	✓			✓	✓	✓	✓
Groups					✓		✓
Authorizations					✓		✓
Data Fields	✓	✓	✓	✓	✓	✓	✓
Data Structures	✓	✓	✓	✓	✓	✓	✓
Decisions	✓	✓	✓	✓	✓	✓	✓
Choices	✓	✓	✓	✓	✓	✓	✓

The following sections describe the procedures for modifying and creating data items for each of the 15 categories.

3.1 Tasks

A Task is the lowest level of work in the Process representation of Workflow•BPR. If you **do not** opt to break down an activity into a lower level of detail, then represent that activity as a **Task** in an Activity Decision Flow Diagram. If you **do** opt to break down an activity into a lower level of detail, then represent that activity as a **Process Object**.

A Process Object in an Activity Decision Flow Diagram is a representation of another diagram that contains Tasks and allows for other Process Objects as well. By including Processes within other Processes, a hierarchical tree structure is developed. Thus, Processes can be seen as branches on the trees and related Tasks as leaves on each branch.

To define a Task it is first necessary to identify it by name. It can then be entered according to its associated Organization Unit, Role, Function, Classifications, and Durations. This information is separated into separate tabs in the dialog box used to define a Task. The four (4) tabs are:

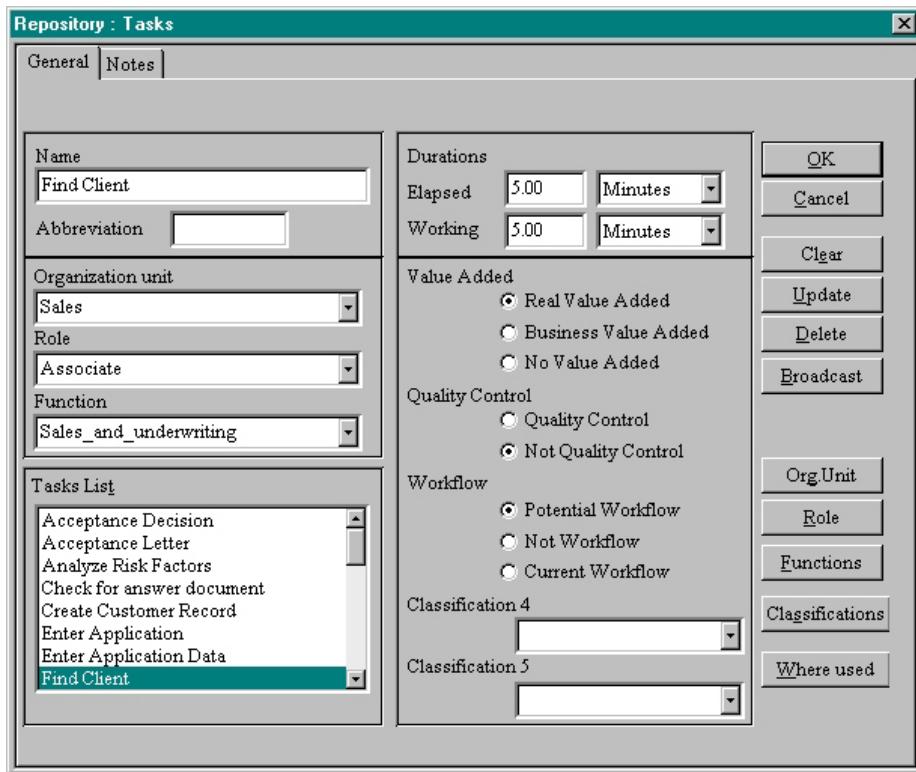
- **General:** After a name is assigned to a Task, there is other general information that can be specified:
 - * Name

- * Abbreviation of the name to be used as a caption for the graphics representing the Task (optional)
- * Organization Unit responsible for its performance (optional)
 - ☞ If this field is left blank, the same Task (without having to rename it) can be re-used for different Organization Units.**
 - * Role responsible for its performance (optional).
 - ☞ If you leave this field blank, you can re-use the same Task (without having to rename it) for different Resources.**
 - * Type of Function performed (optional).
 - * Up to five Classifications are allowed for each Task. The three pre-defined Classifications are Workflow, Quality Control, and Value-Added. The other two Classifications are user-defined.
 - * Elapsed Duration (time and unit).
 - * Working Duration (time and unit).
- **Skills:**
 - * You can specify a list of Skills. Each Skill can have an associated level.
- **Notes:**
 - * A page of Notes for description of the Task (optional).
 - * Word Processing (WP) document, if there is one connected to the Task. For example, you would use this feature if the Task had applicable documents related to it that required retrieval (optional).

3.1.1 General

To create a new Task Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Tasks**. The **Tasks** dialog box appears—open to the General tab (see the figure below—as seen in the Basic Editing Mode).



3. Type the name in the **Name** text box.
4. Type in the abbreviation for the name in the **Abbreviation** text box. One to eight characters can be used for this abbreviation.
5. Select a unit from the **Organization Unit** list to associate the Task with the Organization Unit.
 - * If the unit you want is not included on the list, it needs to be created. You have two (2) options:
 - Type the name of the Organization Unit in the **Organization Unit** combo box. The new Organization Unit will be created when the new Task is created. However, additional attributes for the new Organization Unit will have to be entered from the **Organization Units** dialog box.

- Click **Organization Unit** to go to the **Organization Units** dialog box (refer to the section entitled “Organization Units” in Chapter 2). Upon returning to the **Tasks** dialog box, the new item(s) will be included on the list.
6. Select a role from the **Role** list to identify the role responsible for the Task.
 - * If the role you want is not included on the list, it needs to be defined. You have two (2) options:
 - Type the name of the role in the Role combo box. The new role will be created when the new Task is created. However, additional attributes for the new role will have to be entered from the Roles dialog box.
 - Click **Roles** to go to the **Roles** dialog box (refer to the section entitled “Roles” in Chapter 2). Upon returning to the **Tasks** dialog box, the new item(s) will be included on the list.
 7. Select a function from the **Function** list to identify the function associated with the Task.
 - * If the function you want is not included on the list, it needs to be defined. You have two (2) options:
 - Type the name of the Function in the Function combo box. The new function will be created when the new Task is created. However, additional attributes for the new function will have to be entered from the Functions dialog box.
 - Click **Function** to go to the Functions dialog box (refer to the section entitled “Functions” in Chapter 4). Upon returning to the **Tasks** dialog box, the new item(s) will be included on the list.
 8. Select a time unit from the Elapsed Duration list to identify the Elapsed Duration of a Task, then type the appropriate value in the Elapsed Duration text box.
 9. Select a Time Unit from the Working Duration list to identify its Working Duration, then type the appropriate value in the Working Duration text box.
 10. Click on an item for the Value-Added Classification to identify the classifications of a Task, an item for the Quality Control Classification, and an item for the Workflow Classification.
 11. Select an item from the Classification 4 list to identify other classifications, and then select an item from the **Classification 5** list.
 - * If the classification item you want is not included on the list, it needs to be defined. Click **Classification** to get the **Classifications** dialog box (refer to the section entitled “Classifications” on page 3-25). Upon returning to the **Tasks** dialog box, the new item(s) will be included on the list.

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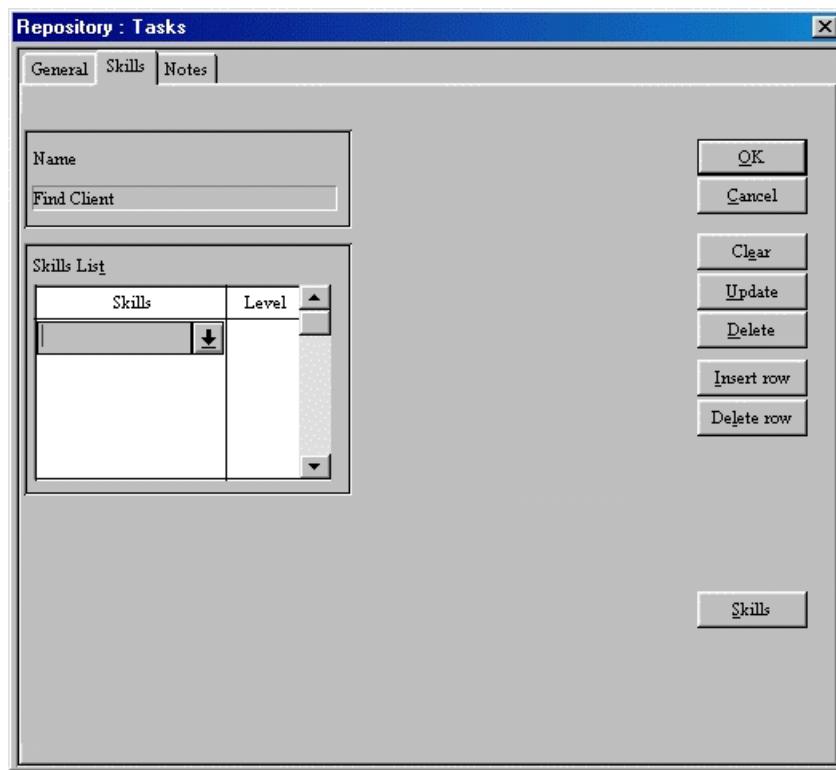
12. To see the Processes where the Task is being used, click the Where Used button. The Used in Processes dialog box will appear.
 - * Click Cancel to return to the Tasks dialog box.
13. Continue editing in one of the other tabs (refer to sections 3.1.2 and 3.1.3) or Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

3.1.2 Skills

 **The Skills tab is available only in the Line of Visibility and Advanced Editing Modes.**

To add Skills to a Task Repository item:

1.  Select the **Skills** tab (see the figure below, from the Advanced Editing Mode—the Skills tab is not available in the Basic Editing Mode).



2. In **Line 1** of the **Skills List** box,  click on the **Arrow** button that is on the right side of the Skills column. A list of **Skills** will appear.
 - *  Select the appropriate Skill.
 - * If the Skill you want is not included in the list, it needs to be created.  Click **Skills** to go to the **Skills** dialog box (refer to the section entitled “Skills” in Chapter 2). Upon returning to the **Tasks** dialog box, the new item(s) will be included in the list.
3.  Type a skill level in the Level column.

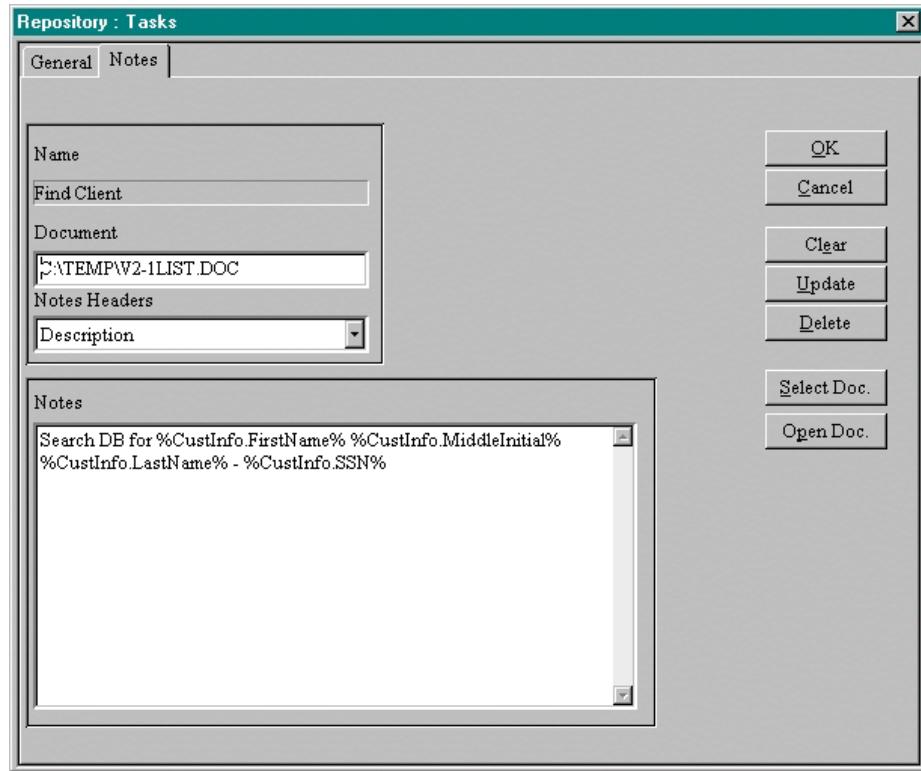
Chapter 3: Repository: Process Data

4. Repeat steps 3 through 5 to add other Data Fields or Data Structures to the list.
 - * Use the Insert Row button to create lines between entries.
 - * Use the Delete Row button to delete entries.
5. Continue editing in one of the other tabs (refer to sections 3.1.1 through 3.1.3) or Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

3.1.3 Notes

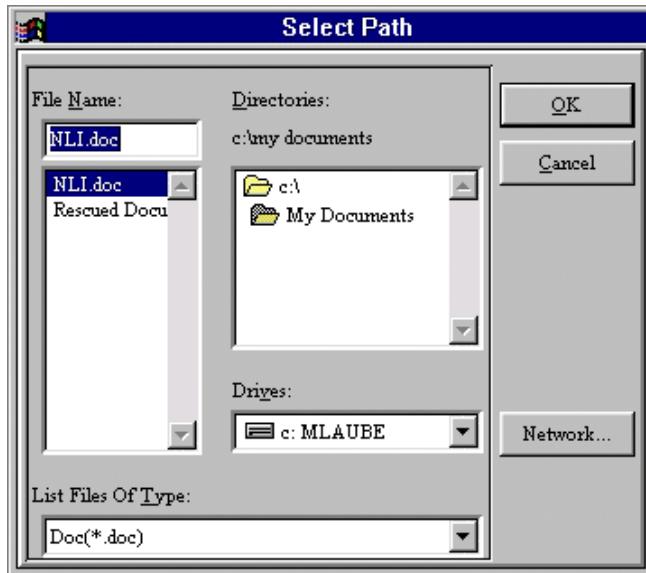
To add Notes to a Task Repository item:

1. Select the **Notes** tab (see the figure below—as seen in the Basic Editing Mode).



- * There are three (3) independent types of Notes available for a Task: Description (default), Documentation, and FlowMark Description.
2. To add or update Description Notes about the Task, type in the **Notes** text box.
 - * If you want to add a **Carriage Return** to the text of your notes, type **Ctrl+Enter**.
 3. To add or update Documentation Notes about the Task, select Documentation from the Notes Header selection box. Then type in the Notes text box.

4. To identify a Word Processing document that you want associated with the Task,  click the **Select Doc.** button. The **Select Path** dialog box is opened (see the figure below).



- *  Click **OK** after you locate the document. When you return to the **Task** dialog box, the selected filename will be placed in the **Document** text box.
5. Continue editing in one of the other tabs (refer to sections 3.1.1 and 3.1.2) or  Click **OK** when defining one entry.  Click **Add** if you are defining multiple entries, and then  click **Close** after the last entry has been added.

3.1.4 Broadcasting Task Data

To broadcast data to unlocked Process files:

1.  Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Tasks**. The **Tasks** dialog box appears.
3.  Select a **Task** from the **Task** list.
4.  Click **Broadcast** to broadcast a Task's attributes to all copies of that Task in unlocked Process files.
 - * Any unique attribute information in the Task Objects will be overwritten.
5.  Click **Close** after the last entry has been broadcasted.

3.2 External Processes

 **The External Processes dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

An External Process is an activity performed in your Process by an External Entity. Unlike External Entities, External Processes can both send and receive Phis in the same diagram. Although External Processes are outside the control of your organization, they are an essential part of the Process.

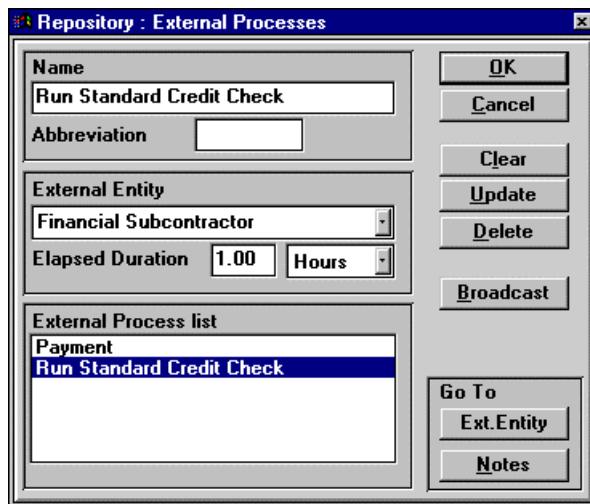
For example, a bank could be an External Entity for your organization. Any activity that the bank performs (like issuing credit or clearing a check) would be an External Process.

The following information is required to identify an External Process for your organization:

- Name
- Abbreviated name used as a caption for graphical representation of the External Process (optional)
- External Entity responsible for the activity implementation (optional)
- Elapsed Duration (time and unit)

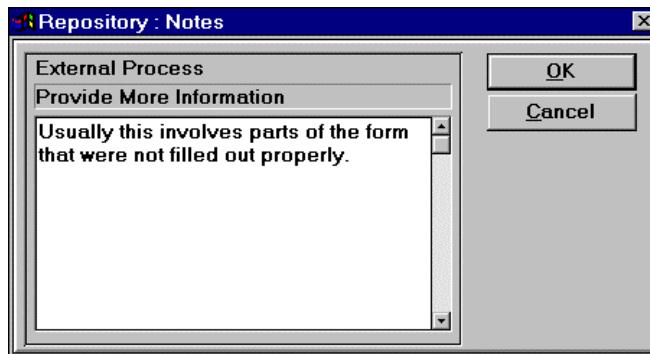
To create an External Process Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **External Processes**. The **External Processes** dialog box appears (see the figure below).



3. Type the name in the **Name** text box in the **External Process** dialog box.
4. Type in the abbreviation for that name in the **Abbreviation** text box. One to eight characters can be used for an abbreviation.
5. Select an entity from the **External Entity** list to identify the responsible **External Entity**.
 - * If the entity you want is not included on the list, it needs to be defined.
 Click **External Entity** to access the **External Entities** dialog box (refer to the section entitled “External Entities” in Chapter 2). Upon returning to the **External Processes** dialog box, the new item(s) will be included on the list.
6. Select a unit of time from the **Elapsed Duration** list, then type the appropriate value in the **Elapsed Duration** text box.

7. Click **Notes** to go to the **Notes** dialog box to record any additional information about this External Process (see the figure below).



- * Click the cursor inside the text box and then type in the additional information.
 - * If you want to add a Carriage Return to the text of your notes, then type Ctrl+Enter.
 - * Click OK to return to the **External Processes** dialog box.
8. Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

3.2.1 Broadcasting External Process Data

To broadcast data to unlocked Process files:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **External Processes**. The **External Processes** dialog box appears.
3. Select an **External Process** from the **External Process** list.
4. Click **Broadcast** to broadcast an External Process's attributes to all copies of that External Process in unlocked Process files.
 - * Any unique attribute information in the External Process Objects will be overwritten.
5. Click **Close** after the last entry has been broadcasted.

3.3 Phis

Because Tasks transforms Phis, the transformation of Phis can help define Process and Task boundaries

A Phi can exist in multiple copies and can therefore be classified as either single or multiple access. For example, a copy of a customer's bill is a single access Phi since there is only one copy available to one Task or user at any given time. Electronic mail and computer files are examples of multiple access Phis because many Tasks or users may have simultaneous access.

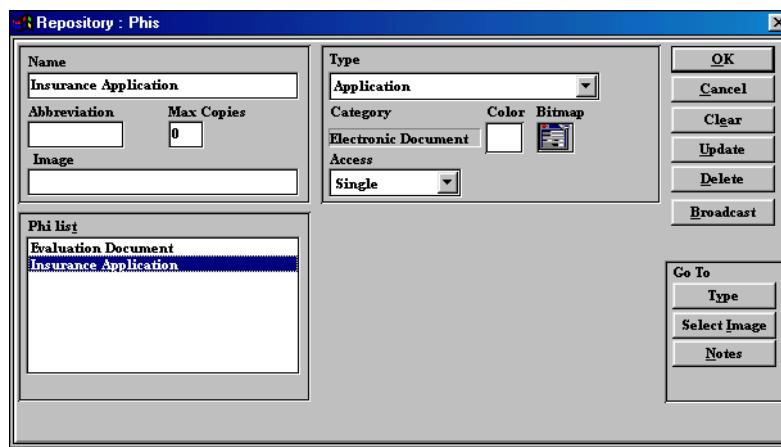
Phis have one mandatory Repository entry field: Phi Types. At least one Phi Type must be defined before a Phi entry can be completed.

The following information is required to identify a Phi for your organization:

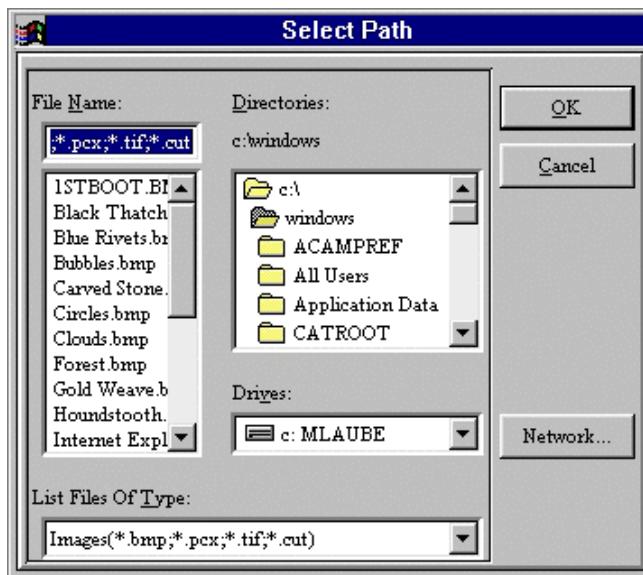
- Name
- Abbreviation of the name used as a caption for the objects representing the Phi (optional)
- Type of Phi
- Access Category (single or multiple). If not selected, Workflow•BPR assigns the default category (single)

To create a Phi Repository item:

1. Choose **Process Data** from the Repository menu. A sub-menu appears.
2. Choose **Phis**. The **Phis** dialog box appears (see the figure below).



3. Type the name of the Phi in the **Name** text box.
4. Type its abbreviation in the **Abbreviation** text box.
5. If the Phi has multiple copies, type in the maximum possible in the **Max. Copies** text box. Workflow•BPR updates the **Phis** dialog box to display a color box for each copy.
 - * Click on a color box and then click >>> to go to the **Color** dialog box to assign a different color for each copy.
 - Click once on the color to select a pre-defined 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 you want, then click Add To Custom Color.
 - Click OK to return to the Phi dialog box.
6. Click **Select Image** to associate a particular image with this **Phi**. The **Select Path** dialog box will appear (see the figure below).



- * Select the drive and/or directory where the file is located in the Select Path dialog box, then select the Organization File from the File Name list.
- * Click OK to return to the **Phis** dialog box. The image will be displayed.

7. Select a Phi Type from the Type list.

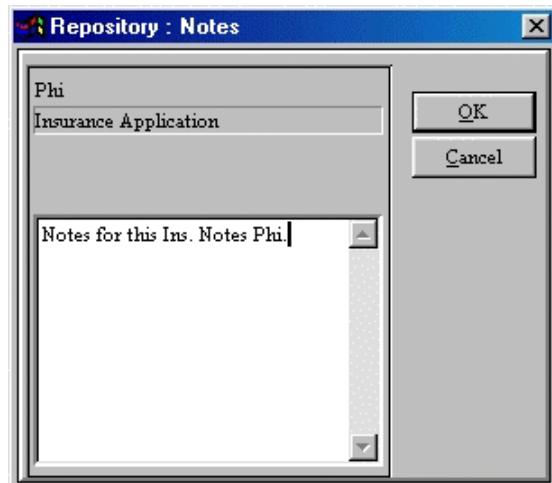
- * If the Phi Type you want is not included on the list, it needs to be created. You have two (2) options:
 - Type the name of the Phi Type in the Type combo box. The new Phi Type will be created when the new Phi is created. However, additional attributes for the new Phi Type (such as the bitmap) will have to be entered from the Phi Types dialog box.
 - Click Type to access the Phi Types dialog box (refer to the section entitled “Phi Types” on page 3-20). Upon returning to the **Phis** dialog box, the new item(s) will be included on the list.

When a Phi Type is selected, Workflow•BPR automatically assigns the Phi Type’s category to your Phi.

8. Select either Single or Multiple from the Access list to identify its access category (Single is the default).
9. In Line 1 of the Fields list box, click on the Arrow button that is on the right side of the **Data Field** column. A list of Data Fields and Structures will appear.

Not available in the Basic Editing Mode

- * Select the appropriate Data Field or Data Structure.
 - * If the Data Field you want is not included in the list, it needs to be created. Click **Fields** to go to the **Data Fields** dialog box (refer to the section entitled “Data Fields” on page 3-32). Upon returning to the **Phis** dialog box, the new item(s) will be included on the list.
10. Repeat Step 9 to add other Data Fields or Data Structures to the list.
 - * Use the **Delete Row** button to delete Data Field entries.
 11. Click **Notes** to go to the **Notes** dialog box to record any additional information about this sub-Process (see the figure below).



- * Click to position your cursor inside the text box and then type in the additional information.
 - * If you want to add a Carriage Return to the text of your notes, then type Ctrl+Enter.
 - * Click OK to return to the Phis dialog box.
12. Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

3.3.1 Broadcasting Phi Attributes

To broadcast data to unlocked Process files:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Phis**. The **Phis** dialog box appears.
3. Select a Phi from the **Phis** list.
4. Click **Broadcast** to broadcast the selected attributes of your Phi to the unlocked Process Diagrams that include this Choice.
5. Click **Close**.

3.4 Partner Interactions

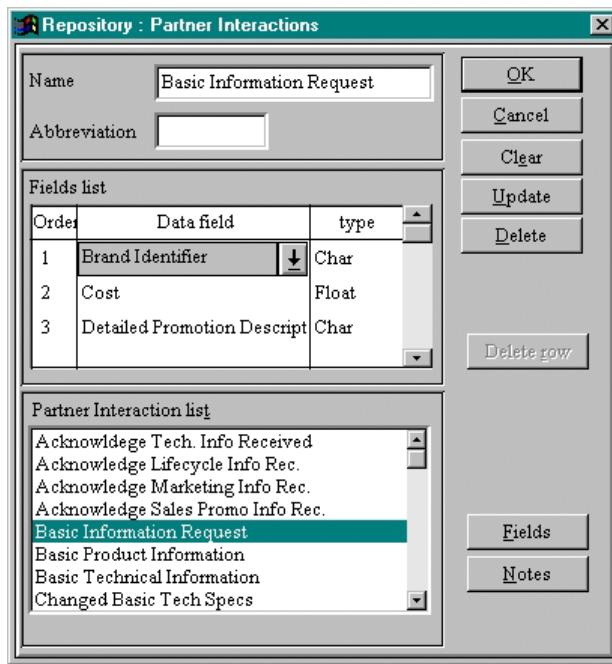
The Partner Interaction dialog box is available only in the E-Commerce Editing Mode; it is not available in any other Editing Mode.

Partner Interactions are very similar to Phis in that they represent the transfer of data from one activity to another. Partner Interactions, however, have a much more specific purpose. They are used to represent the transfer of electronic data for an Electronic Commerce business interaction between two companies. Their name derives from the interactions between two (2) business partners. The data is expected to be transferred via an internet service provider (ISP) or through the EDI Standards.

Within the Repository you can define Partner Interactions and give them an abbreviation and assign Data Fields (like you would for a Phi). There are additional data attributes that can be assigned to a Partner Interaction when it is placed as an object in a Process Model (refer to Chapter 6 of the Modeling Guide for more information).

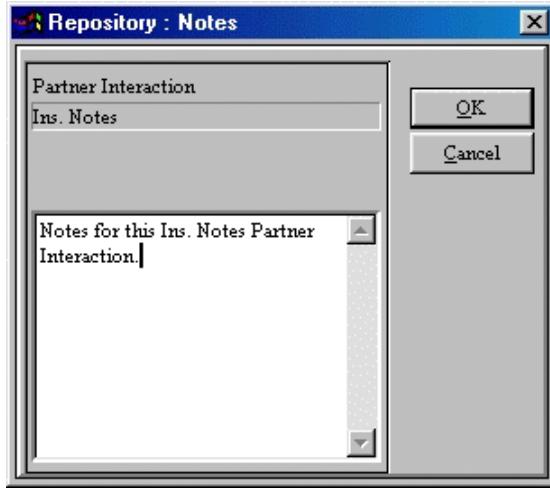
To create a Partner Interaction Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Partner Interactions**. The **Partner Interactions** dialog box appears (see the figure below, from the E-Commerce Editing Mode—the Partner Interaction dialog box is not available in the Basic Editing Mode).



3. Type the name of the Partner Interaction in the **Name** text box.
4. Type its abbreviation in the **Abbreviation** text box.
5. In Line 1 of the Fields list box, click on the Arrow button that is on the right side of the **Data Field** column. A list of Data Fields and Structures will appear.
 - * Select the appropriate Data Field or Data Structure.
 - * If the Data Field you want is not included in the list, it needs to be created. Click **Fields** to go to the **Data Fields** dialog box (refer to the section entitled “Data Fields” on page 3-32). Upon returning to the **Phis** dialog box, the new item(s) will be included on the list.
6. Repeat Step 5 to add other Data Fields or Data Structures to the list.
 - * Use the **Delete Row** button to delete Data Field entries.

7. Click **Notes** to go to the **Notes** dialog box to record any additional information about this sub-Process (see the figure below).



- * Click to position your cursor inside the text box and then type in the additional information.
 - * If you want to add a Carriage Return to the text of your notes, then type Ctrl+Enter.
 - * Click OK to return to the Partner Interaction dialog box.
8. Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and click **Close** after the last entry has been added.

3.5 Phi Types

This are the objects that define the inputs and outputs of Tasks. A **Phi Type** is a class or a group of Phis sharing a common factor. Since each Phi is associated with a Phi Type, Phi Types must be created before Phis can be defined. The important thing to keep in mind is that Phi Types are general categories into which Phis fit. For example, a Phi Type could be an internal form and a Phi of that type could be a Purchase Request Form.

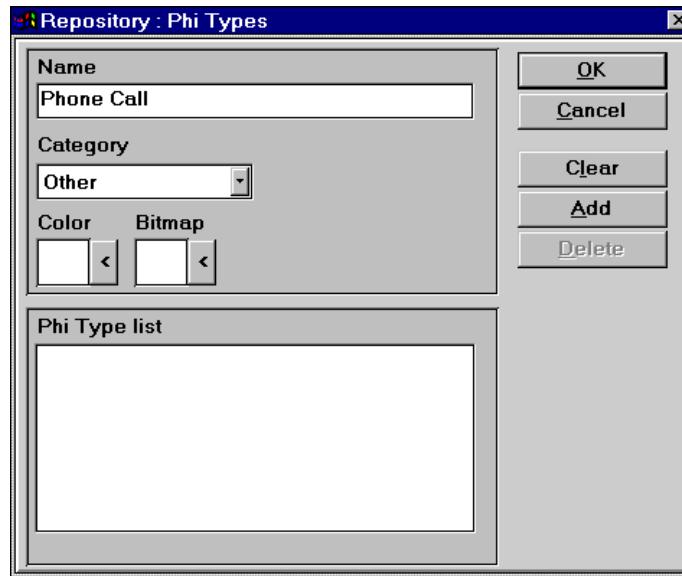
To create a Phi Type, a name and a category are required. There are four Phi Type categories: Paper Document, Electronic Document, Docket, and Other. Workflow•BPR allows for the selection of a color or a bitmap for each Phi Type so that it can be easily tracked on your diagram.

The following information is required to identify a Phi Type for your organization:

- Name
- Category of Phi Type
- A Color to identify the specific Phi Type in your diagram (optional)
- A Bitmap to identify the specific Phi Type in your diagram (optional)

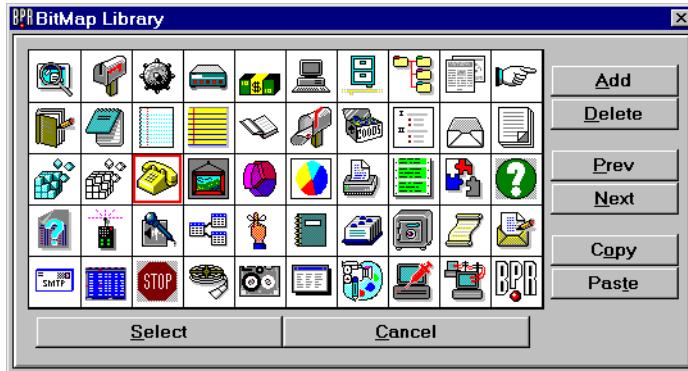
To create a Phi Type Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Phi Types**. The **Phi Types** dialog box appears (see the figure below).



3. Type the name in the **Name** text box.
4. Select from the **Category** list to identify the **Phi Type** category.
5. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined 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 you want, then click Add to Custom Colors.
 - * Click OK to return to the Phi Type dialog box.

6. To select a bitmap to represent your **Phi Type**,  click < next to the **Bitmap** box to display the **Bitmap Library** (see the figure below).



7.  Click Next and Previous to view other sets of bitmaps.
8. If the bitmap you want is not currently included in the Bitmap Library,  click **Add**. Workflow•BPR takes you to the **Add Icon File** dialog box.  Select the appropriate drive and/or directory, then  click to select the icon you want from the **File Name** list. If you wish to select multiple icons at once, hold down the **Shift** key as selections are made.  Click **OK** to add the selection to the Bitmap Library.
9.  Double-click on the bitmap you want (or  click on the bitmap you want and then  click **Select**) to return to the Phi Types dialog box.
10.  Click **OK** when defining one entry.  Click **Add** if you are defining multiple entries, and then  click **Close** after the last entry has been added.

3.6 Phi States

-  **The Phi States dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

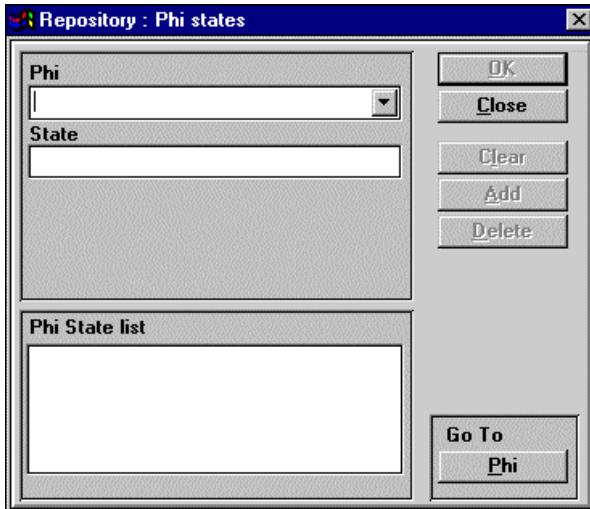
In Workflow•BPR, a Phi can be assigned different states. For example, you can define the status of a document to be Approved, Not Approved, or Pending. Defining Phi States aids in representing the status quo of the Phi and in analyzing its utilization.

The following information is required to define Phi States:

- Name of the Phi
- Definition of the State - Approved, Not Approved, or Pending

To create a Phi State Repository item:

1.  Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Phi States**. The **Phi States** dialog box appears (see the figure below).



3.  Select a Phi from the **Phi** list.
 - * If the Phi you want is not included in the list, it needs to be created.  Click **Phi** to go to the **Phis** dialog box (refer to the section entitled “” on page 3-14). Upon returning to the **Phi States** dialog box, the new item(s) will be included on the list.
4.  Type the Phi State in the State text box.
5.  Click **OK** when defining one entry.  Click **Add** if you are defining multiple entries, and then  click **Close** after you have added your last entry.

3.7 Media

- ☞ The Media dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.

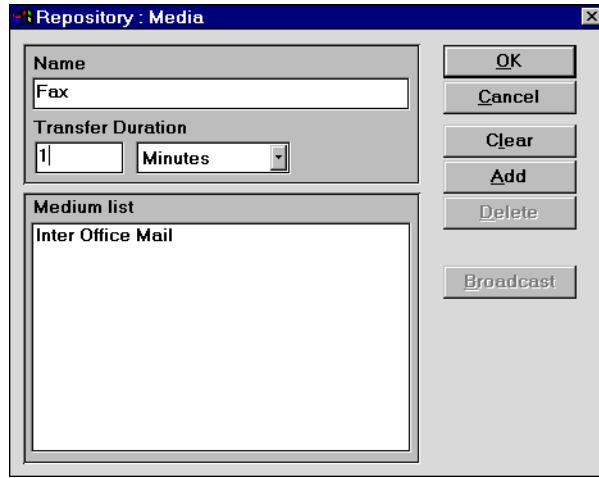
In Workflow•BPR, a Medium is an object that represents the method used to transport a Phi from one Task to the next. For example, you can send a document to another location by courier, mail, electronic mail, or by a facsimile machine. Each of these methods is an example of Media. Media and Phis make up the flow portion of your Activity Flow Diagram.

The following information is required to define a Medium for your organization:

- A name for the Medium

To create a Medium Repository item:

1. ⌘ Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. ⌘ Choose **Media**. The **Media** dialog box appears (see the figure below).



3. ☐ Type the name in the **Name** text box.
4. ⌘ Click **OK** when defining one entry. ⌘ Click **Add** if you are defining multiple entries, and then ⌘ click **Close** after the last entry has been added.

3.7.1 Broadcasting Media Data

To broadcast data to unlocked Process files:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Media**. The **Media** dialog box appears.
3. Select a Medium from the **Media** list.
4. Click **Broadcast** to broadcast a Medium's attributes to all copies of that Medium associated with Connectors in unlocked Process files.
 - * Any unique attribute information in the Connector Objects will be overwritten.
5. Click Close after the last entry has been broadcasted.

3.8 Classifications

The Classifications dialog box is available in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.

A Task can be classified into different categories for additional analysis or decision-making. For example, one might be interested in extracting Business Value-Added Tasks to evaluate their importance—or even their necessity. Workflow•BPR allows you to apply up to five kinds of Classifications simultaneously for each Task. Three categories of Classifications are pre-defined. Classification 1 is Value-Added with three Classification items: Value-Added, No Value-Added, and Real Value-Added. Classification 2 is Quality Control with two Classification items: Quality Control and Non-Quality Control. Classification 3 is Workflow with three Classification items: Current Workflow, Potential Workflow, and Not Workflow. You can only add and update items to Classifications 4 and 5. As many as 10 items can be assigned to Classifications 4 and 5.

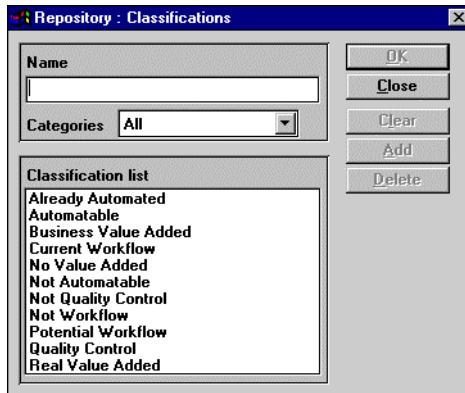
The following information is required to identify a Classification for your organization (*keep in mind this applies only to Classifications 4 and 5*):

- Name of the Classification item
- Classification Category (Classifications 4 and 5)

Chapter 3: Repository: Process Data

To create a Classification Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Classifications**. The **Classifications** dialog box appears (see the figure below).



3. Select a **Classification Category** from the **Category** list.
4. Type the name in the **Name** text box.
5. Click **OK** when defining one entry. Click **Add** if defining multiple entries, and then click **Close** after the last entry has been added.

3.9 Delay Reasons

- ☞ The Delay Reasons dialog box is available in all Editing Modes except the Basic, IBM FlowMark, and IBM MQ Workflow Editing Modes.

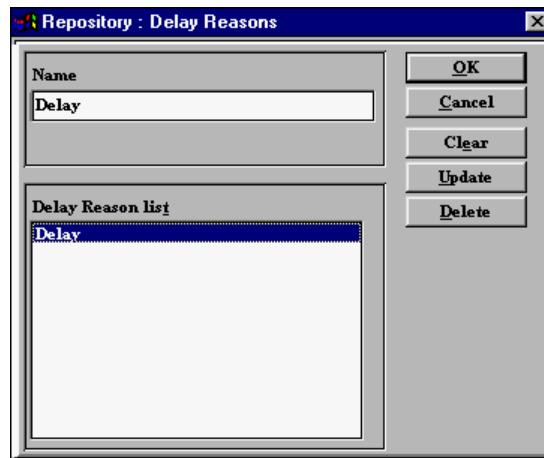
It is not unusual for a company to encounter work delays as a Task is being performed. Your company may even experience specific delays that occur consistently when a particular Task is performed. Workflow•BPR allows for adding those mitigating circumstances to your Repository.

The following information is required to identify a reason for the work delays within your organization:

- Name to identify the delay

To create a Delay Reason Repository item:

1. ⌘ Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. ⌘ Choose **Delay Reasons**. The **Delay Reasons** dialog box appears (see the figure below).



3. ☰ Type the name in the **Name** text box.
4. ⌘ Click **OK** when defining one entry. ⌘ Click **Add** if you are defining multiple entries, and then ⌘ click **Close** after the last entry has been added.

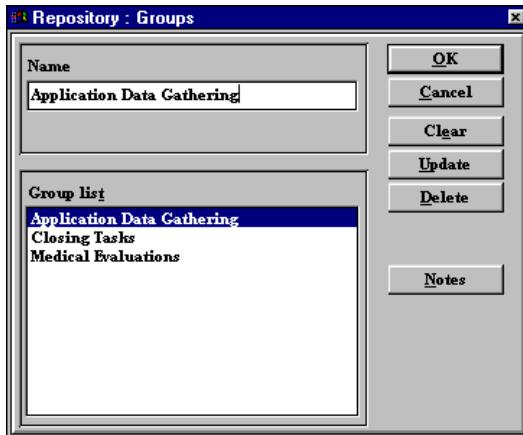
3.10 Groups

-  The Groups dialog box is available only in the Line of Visibility and Advanced Editing Modes.

A Group, or Activity Group, is a collection of Tasks and other objects that are related to each other. There is a specialized shape in an Activity Decision Flow Diagram for Groups. The Group shape is a rectangular box that can be on the drawing to surround a group of Tasks. It is fundamentally different from other ADF shapes in that it can span across many cells and overlap other shapes. The objects within the Group rectangle will be considered as part of the Group. The Group rectangle will be associated with a Repository Group item, but the name of the Group will not be displayed on the ADF (an Annotation object can be used to identify the Group).

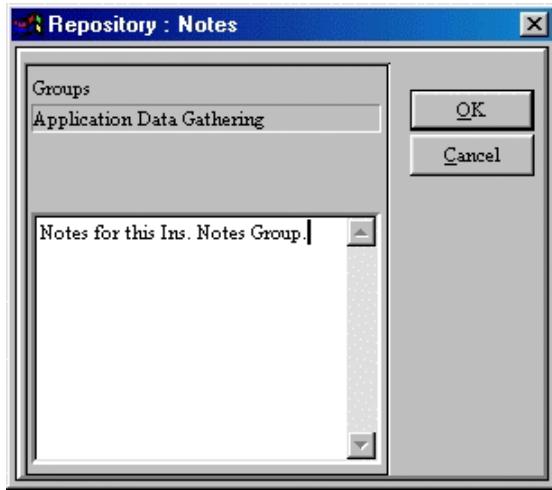
To create a Group Repository item:

1.  Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Groups**. The **Groups** dialog box appears (see the figure below, from the Line of Visibility Editing Mode—the Groups dialog box is not available in the Basic Editing Mode).



3.  Type the name in the **Name** text box.

4. If you want to add notes about the Group,  click the **Notes** button. The **Notes** dialog box will appear (see the figure below).



- *  Click to position your cursor inside the text box and then  type in the additional information.
 - * If you want to add a Carriage Return to the text of your notes, then  type Ctrl+Enter.
 - *  Click OK to return to the Groups dialog box.
5.  Click **OK** when defining one entry.  Click **Add** if defining multiple entries, and then  click **Close** after the last entry has been added.

3.11 Authorizations

-  The **Authorizations** dialog box is available only in the Line of Visibility and Advanced Editing Modes.

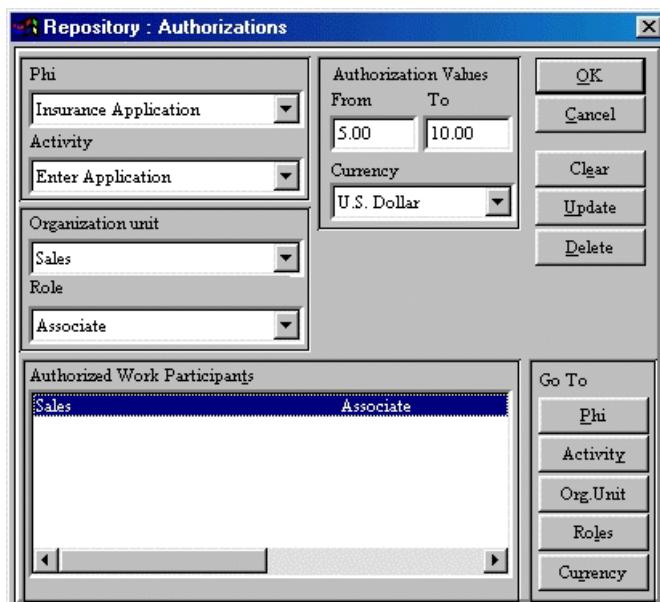
Workflow•BPR allows you to assign a work participant the authority to perform a particular action, depending upon the dollar amount associated with that action (for example, signature authority for a specific dollar amount). In Workflow•BPR, authorizations are assigned to a specific Task.

The following information is required to define a specific authorization for your organization:

- A Phi
- Task associated with the selected Phi
- Organization Unit
- Work participant authorized to perform the Task
- Authorization range - a financial value greater than one (1.00)
- Currency

To create an Authorization Repository item:

1.  Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2.  Choose **Authorizations**. The **Authorizations** dialog box appears (see the figure below, from the Advanced Editing Mode—the Authorizations dialog box is not available in the Basic Editing Mode).



3. Select a **Phi** from the **Phi** list.
 - * If the Phi you want is not included on the list, it needs to be created. Click **Phi** to go to the **Phis** dialog box (refer to the section entitled “” on page 3-14). Upon returning to the **Authorizations** dialog box, the new item(s) will be included on the list.
4. Select a **Task** from the **Task** list that identifies a Task that the work participant is authorized to conduct.
 - * If the Task you want is not included on the list, it needs to be created. Click **Task** to go to the **Tasks** dialog box (refer to the section entitled “Tasks” on page 3-2). Upon returning to the **Authorizations** dialog box, the new item(s) will be included on the list.
5. Select an **Organization Unit** from the **Organization Unit** list to identify an Organization Unit.
 - * If the one you want is not included on the list, it needs to be created. Click **Organization Unit** to go to the **Organization Units** dialog box (refer to the section entitled “Organization Units” in Chapter 2). Upon returning to the **Authorizations** dialog box, the new item(s) will be included on the list.
6. Select a role from the Role list to identify a work participant.
 - * If the one you want is not included on the list, it needs to be defined. Click **Roles** to go to the **Roles** dialog box (refer to the section entitled “Roles” in Chapter 2). Upon returning to the **Authorizations** dialog box, the new item(s) will be included on the list.
7. Type a financial value in the Authorization Value From and To text boxes to define an Authorization Range. The format for the Authorization Range is 0.00 and must be a financial value greater than or equal to one (1.00).
8. Select a currency from the Currency list to identify a currency.
 - * If the currency you want is not included on the list, it needs to be created. Click **Currency** to go to the **Currencies** dialog box (refer to the section entitled “Currencies” in Chapter 2).
9. Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

3.12 Data Fields

Data Fields are used to specify how data will flow through a Process during performance of that Process. The flow of data can be used for application development and workflow engines. For more information about how workflow engines utilize Data Fields, refer to the *Integration with Workflow Applications Guide*.

Data Fields can be assigned to five (5) types of Objects: Processes, Tasks, Applications, Phis, and other Data Fields (Structures). Data Fields can be an array of whatever size you define. Workflow•BPR supports the following types of Data Fields:

- Character
- Integer
- Time
- Date and Time
- Float
- Structure
- Boolean

Data Fields have also replaced the use of Variables that were in previous versions of Workflow•BPR. There are two types of variables in Workflow•BPR: Financial and Numeric.

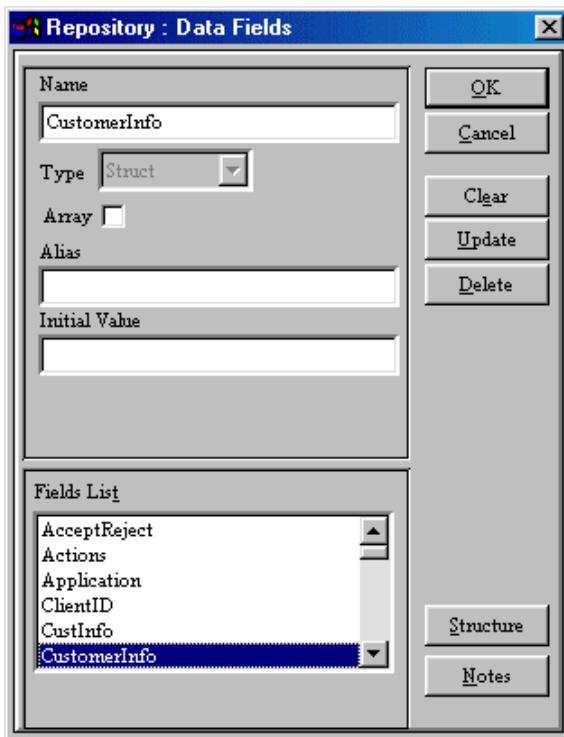
A *Financial* Variable is a Data Field of type *Float* that can have a user-defined currency value. These variables are required in order to calculate the financial amounts used in accounting entries. For example, Sales Orders and Cost of Goods are Financial Variables, as they can be monetarily quantified. When financial transaction allocations are created, Workflow•BPR associates those variables that have monetary value with specific financial transactions or accounts. In later program versions, these values will be used in cash flow analysis.

A *Numeric* Variable is a Data Field of type *Integer* that can have a user-defined value. These variables are used to determine the number of times a Task will be counted within a Process, or how many times a Process will be repeated. For example, you may have a Process for producing a magazine. The magazine will have a different number of articles each month. Different levels of the Process would be repeated for each article: the high-level Process represents the overall production of the magazine, and lower-level Processes (i.e., writing) would be repeated for each article in the magazine. This would allow you to analyze the effects of 10 articles versus 20 articles. Workflow•BPR allows you to include a Numeric Variable that defines the number of times a Task will occur. If the variable “Number of Articles” with a value of 10 is created and associated with the appropriate Task(s), then it would be equivalent to creating 10 copies of those Tasks. The Analysis could be

rerun with a value of 20, to see the effect of processing 20 articles. Refer to the section entitled “Defining a Task Object” in Chapter 3 of the *Modeling Guide* for more information about using Numeric Variables.

To create a Data Field Repository item:

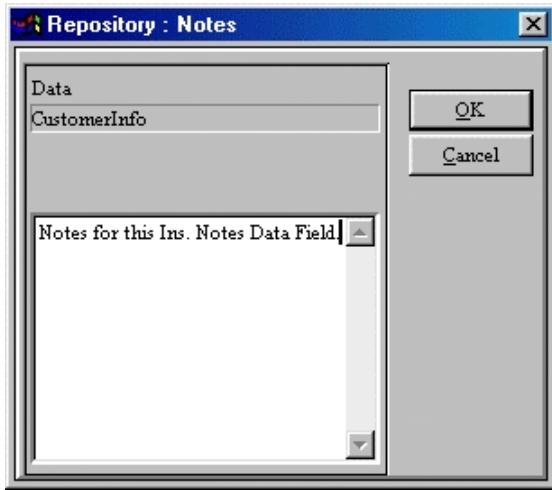
1. Select **Process Data** from the **Repository** menu. A sub-menu will appear.
2. Select **Data Fields** from the sub-menu. The **Data Fields** dialog box will appear (see the figure below).



3. Type the **Name** of the Data Field in the **Name** text box.
4. Select the **Type** of the Data Field (**Char** is default) from the **Type** text box.
 - * If the type is Char, a Length text box will appear.
 - * Type the length of the **Char Data Field** in the text box.
5. If you want the Data Field to be an array, select the **Array** check box. An **Array Of** text box will appear.
 - * Type the size of the array in the text box.
6. Enter the Alias of the data field (optional).
7. Enter the Initial Value of the data field (optional).

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8.  Click **Notes** to go to the **Notes** dialog box to record any additional information about this sub-Process (see the figure below).



- *  Click to position your cursor inside the text box and then  type in the additional information.
 - * If you want to add a Carriage Return to the text of your Notes, then  type Ctrl+Enter.
 - *  Click OK to return to the **Data Fields** dialog box.
9.  Click OK when defining one entry.  Click **Add** if you are defining multiple entries, and then  click **Close** after the last entry has been added.

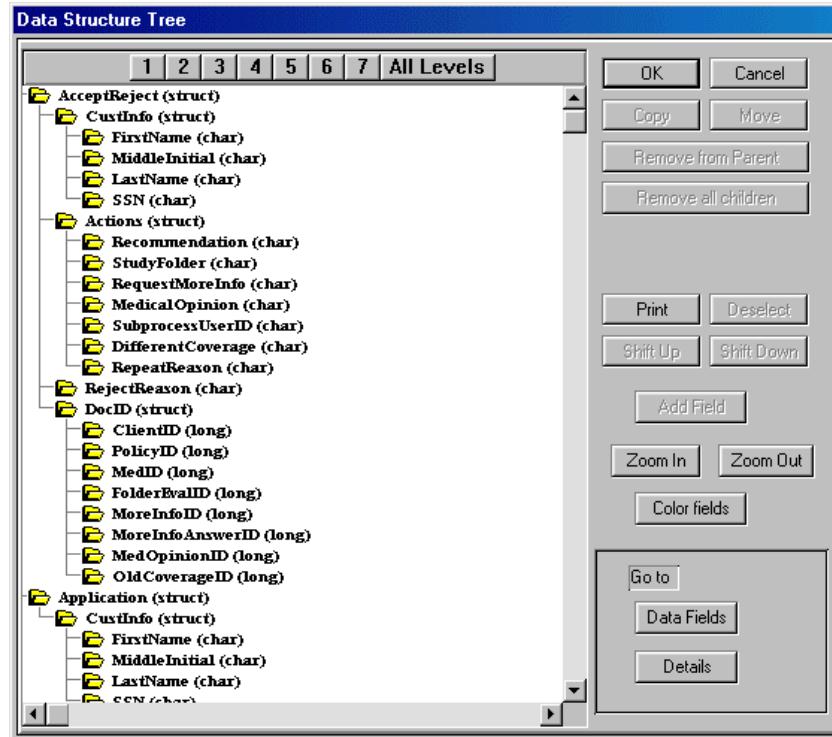
3.13 Data Structures

Structures are a collection of other Data Fields and can include other Structures. They are used for specifying the input and output parameters of Applications and the input and output data containers of activities.

3.13.1 Data Structure Tree

To edit a Data Structure from the **Data Structure Tree** dialog box:

1. Select **Process Data** from the **Repository** menu. A sub-menu will appear.
2. Select **Data Structures** from the sub-menu. The **Data Structure Tree** dialog box will appear (see the figure below).



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3. To determine the number of Data Structure levels to be displayed, click the number **1, 2, 3, 4, 5, 6, or 7**. The **Data Structure Tree** Diagram will display the specified number of levels. Click **All Levels** to display all your Process structure levels.
4. Click the **Zoom In** button to increase the size of the Data Structure Tree view.
5. Click the **Zoom Out** button to decrease the size of the Data Structure Tree view.
6. Click the **Print** button to open the **Print Preview** window.
7. Click the **Color Fields** button to display each level of the Data Structure Tree with a different color.
 - * Click the Color Fields button to display each level of the Data Structure Tree with a different color.

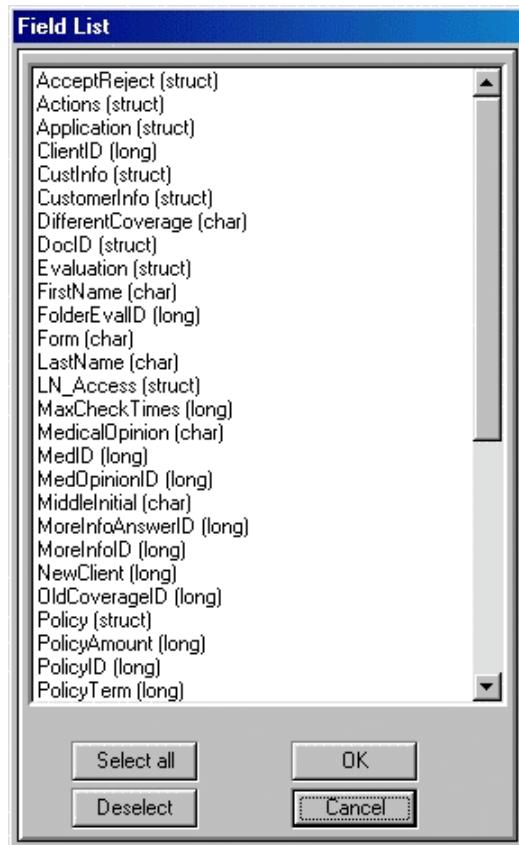
The following sections describe additional editing capabilities of the Data Structure Tree dialog box.

3.13.1.1 Adding Elements

-  You cannot add or delete Repository Data Field or Data Structure items in this dialog box. Use the Data Fields dialog box (refer to the section entitled “Data Fields” on page 3-32).

To add an Element to a Data Structure:

1.  Select a Data Structure (at any level).
2.  Click the **Add Field** button. The **Fields List** dialog box will appear (see the figure below).



- *  Click on any non-selected Data Field to select that field.
 - *  Click on any selected Data Field to de-select that field.
 - *  Click the **Select All** button to select all the Data Fields.
 - *  Click the **Deselect** button to de-select all the Data Fields.
-   Select the Data Fields in the order that the Application will use them.

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3.  Click **OK** when done. All the selected items will be added as children to the Data Structure and you will be returned to the **Data Structure Tree** dialog box.

3.13.1.2 Removing Elements

Only Data Fields can be removed from the Data Structure Tree dialog box. All Repository Data Structure items will always be displayed in the dialog box. A Data Structure item will either be at the top level in the dialog box or will be a child of another Data Structure.

There are two methods of deleting Data Structure elements. The first method removes a child element from its association with the parent:

1.  Select a Data Field of a Data Structure.
2.  Click the **Remove from Parent** button. The Data Field will be removed from the Data Structure.

The second method removes all the children from a Data Structure:

1.  Select a Data Structure (either a top-level or a lower-level Data Structure) that has one or more Data Fields as children.
2.  Click the **Remove all Children** button. All the child Data Fields of the Data Structure will be removed.
 - * Any Child Data Structure will be placed at the top level of the Data Structure Tree dialog box.

 **Data Fields removed from the Data Structure Tree dialog box are NOT removed from the Repository.**

3.13.1.3 Moving Elements

There are five (5) methods of moving Data Structure elements. The first method is as follows:

1.  Select an element of a Data Structure (either a Data Field or a lower-level Data Structure).
2.  Click the **Move** button. The mouse cursor will change to a document icon.
3.  Click on a Data Structure (at any level). The Element will be moved to the bottom position of the Data Structure.
 - * If you  click on an element that is not a Data Structure, a message will appear that says, "Cannot perform this operation."

 **Rearrange the Data Fields in the order that the program will use them.**

The second method is as follows:

1. Select an element of a Data Structure (either a Data Field or a lower-level Data Structure).
2. Drag the cursor from the selected element. The cursor will change to a document icon.
3. Release the click on a Data Structure (at any level). The Element will be pasted to the bottom position of the Data Structure.
 - * If you release the click on an element that is not a Data Structure, a message will appear that says, “Cannot perform this operation.”

The third method is as follows:

1. Select an element of a Data Structure (either a Data Field or a lower-level Data Structure).
2. Click the **Shift Up** button. The Data Structure element will move up one position.
 - * If the element is in the top position within the Data Structure, a message will appear that says, “Cannot perform this operation.”
3. Click the **Shift Down** button. The Data Structure element will move down one position.
 - * If the element is in the bottom position within the Data Structure, a message will appear that says, “Cannot perform this operation.”

The fourth method removes a child element from its association with the parent:

1. Select a lower-level Data Structure within the Data Structure Tree.
2. Click the **Remove from Parent** button. The Data Structure will be placed at the top level of the Data Structure Tree dialog box.

The fifth method removes all the children from the Data Structure Tree:

1. Select a Data Structure (either a top-level or a lower-level Policy) that has one or more Data Structure as children.
2. Click the **Remove all Children** button. All of the child Data Structures will be placed at the top level of the Data Structure Tree dialog box.
 - * Any Child Data Fields of the Data Structure will be removed from the Data Structure Tree dialog box.

3.13.1.4 Copying and Pasting Elements

There are two methods of copying and pasting Data Structure elements. The first method is as follows:

1.  Select an element of a Data Structure (either a Data Field or a lower-level Data Structure).
2.  Click the **Copy** button. The cursor will change to a document icon.
3.  Click on a Data Structure (at any level). The Element will be pasted to the bottom position of the Data Structure.
 - * If you  click on an element that is not a Data Structure, a message will appear that says, “Cannot perform this operation.”

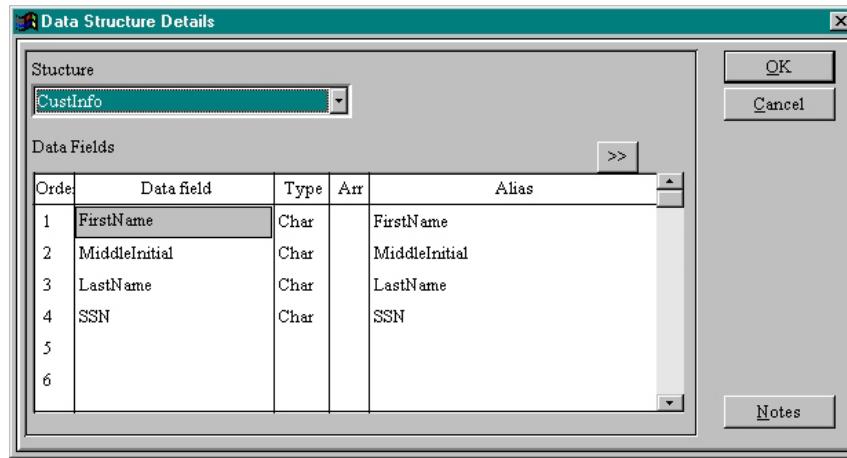
The second method is as follows:

1.  Ctrl+Select an element of a Data Structure (either a Data Field or a lower-level Data Structure).
2.  Drag the cursor from the selected element. The cursor will change to a document icon.
3.  Release the click on a Data Structure (at any level). The Element will be pasted to the bottom position of the Data Structure.
 - * If you  release the click on an element that is not a Data Structure, a message will appear that says, “Cannot perform this operation.”

3.13.2 Data Structure Details

To edit a Data Structure from the Data Structure Details dialog box:

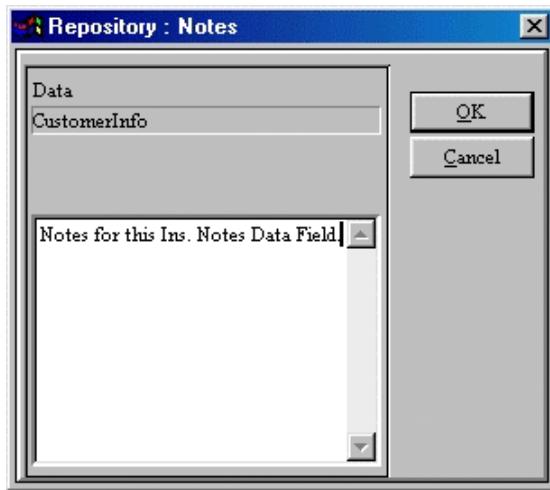
1. Select **Process Data** from the **Repository** menu. A sub-menu will appear.
2. Select **Data Structures** from the sub-menu. The **Data Structure Tree** dialog box will appear.
3. Click the **Details** Go To Button. The **Data Structure Details** dialog box will appear (see the figure below).



4. Select the Structure you want to edit from the **Structure** selection box.
 - * If the Structure you want is not included on the list, it needs to be created:
 - First, close the **Data Structure Details** dialog box and go to **Data Fields** dialog box (refer to the section entitled “Data Fields” on page 3-32). Create a new Data Structure item and close the **Data Fields** dialog box.
 - Next, open the **Data Structure Tree** dialog box and add the appropriate elements to the Data Structure (refer to the section entitled “Adding Elements” on page 3-38).
 - Click the **Details** button to return to the **Data Structure Details** dialog box. The new item(s) will be included on the list.

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5. If you want the element to exist as an array within the Data Structure, type the number of the size of the array in the **Arr column** of the **Data Fields** list box.
6. If you want the name of the Data Structure element to be different from the name that was used to define the element in the Repository, then type the name in the **Alias** column of the **Data Fields** list box.
 - * You can reset an Alias name by clicking on the <> button to the right of the **FlowMark** text box.
7. If you want to add notes for the Data Structure element, then click on the **Notes** button. The **Notes** dialog box will appear.



- * Type in the notes for the Data Structure element in the text box.
 - * If you want to add a Carriage Return to the text of your Notes, then type Ctrl+Enter.
 - * Click OK or press Enter to return to the Data Structure Details dialog box.
 - * Each Data Structure element can have separate Notes.
8. Repeat the selection for each line of the Data Fields list box until all Data Fields have been modified.
 9. Click **OK** when defining one entry. To edit another Data Structure, select it from the **Structure** selection box (The changes you have made to the previous Data Structure will be saved automatically).

3.14 Decisions

In Workflow•BPR, a Decision is defined as a situation with multiple Choices. During the Process, situations may be encountered which result in conditions that influence the routing of work. A selection must be made in these situations to define the subsequent Tasks (for example, the question, “*Is a review required?*” requires a Decision). If a review is required, review Tasks should be performed. Otherwise, no review Tasks should be considered.

For another example, if your company manufactures products, a Quality Control department that checks against pre-determined specifications usually exists. Whether or not the product passes the Quality Control inspection can have a direct impact on the Process. In this example, the question, “*Is the quality of the product approved?*” can be represented as a Decision.

In Workflow•BPR, there are two forms of a Decision: Binary and Multiple. *Binary Decisions* have two Choices: Yes and No. These two Choices cannot be modified. *Multiple Decisions* have no default Choice; therefore, Choices can be created and updated for the Decision. The Choices for these Decisions are exclusive. That is, during the performance of a Process, only one of the Choices can be selected at a time. Weighted Average Analysis and Simulation is based on this assumption.

However, you can now define Multiple Decisions as being of three types:

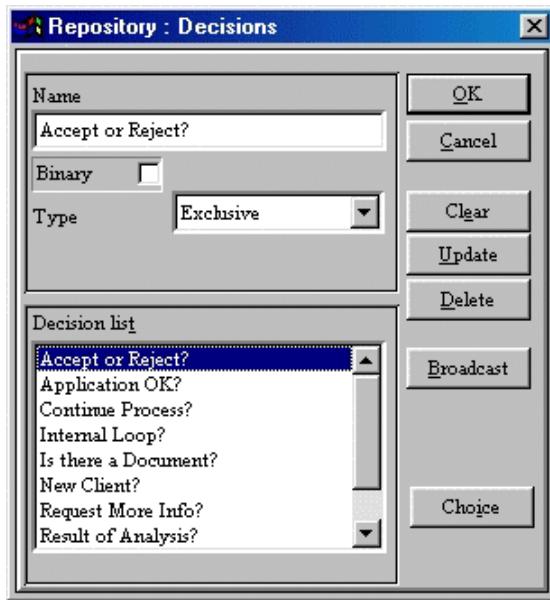
- Exclusive (default): Only one (1) Choice of an Exclusive Decision can be selected during the performance of the Process. This is how the Multiple Decision has traditionally behaved in Workflow•BPR. Weighted Average analysis and Simulation will still treat a Multiple Decision as Exclusive, even if they are defined as being Inclusive or Complex.
- Inclusive: This is equivalent to a string of Binary Decisions. Any of the Choices can be selected during the performance of the Process (from 0 to All). A specify Choice can be marked as being the “Choice” that occurs when all the other Choices do not occur.
- Complex: This type of Multiple Decision is designed to handle more complex behavior within a Process. Specifically, they can be used to define the DesignFlow constructs of Choice Box and Multi-Thread.
 - * Number: This attribute specifies the number of Choices that must be performed. The minimum number of Choices is two (2)—otherwise, it would be an Exclusive Decision.
 - * Start Option: There are two (2) Start Options: **Sequential** (default) and **Simultaneous**.
 - These are used to define the DesignFlow Choice Box. Sequential Complex Decisions require that the Choices that are selected must be done in sequence. All Tasks that follow the Choice must be completed until a Stop object is reached that points back to the Task that starts the Choice Box.

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- These are used to define the DesignFlow Multi-Thread. Simultaneous Complex Decisions require that the Choices that are selected will begin at the same time.

To create a Decision Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Decisions**. The **Decisions** dialog box appears (see the figure below).



3. Type the name in the **Name** text box.
4. Click on the Binary check box to create a Binary Decision, or leave the **Binary** check box unchecked to create a Multiple Decision.
5. If the Decision is Multiple, then select the Type from the **Type** selection box.
 - * There are three types of Multiple Decisions: **Exclusive** (default), **Inclusive**, and **Complex**.

Complex Multiple Decisions are used for defining the DesignFlow constructs of Multi-Thread and Choice Box (refer to the IBM DesignFlow™ Analysis Diagram Handbook for more information on the behavior of Multi-Threads and Choice Boxes).

6. Click **Choice** to open the Choices dialog box (refer to the section entitled “Choices” on page 3-45).
7. Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

3.14.1 Broadcasting Decision Attributes

To broadcast data to unlocked Process files:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Decisions**. The **Decisions** dialog box appears.
3. Select a **Decision** from the **Decision** list.
4. Click **Broadcast** to broadcast attributes (the percentages assigned to its Choices) of a Decision to all the unlocked Process Diagrams that include this Decision.
5. Click **OK** when updating one entry. Click **Update** if updating multiple entries, and then click **Close** after the last entry has been updated.

3.15 Choices

A Choice represents a specific value for a Decision. Workflow•BPR uses Choices as the criteria to select appropriate cases when it generates a particular case.

Using the question “*Is product quality approved?*” as an example, there are two possible scenarios when a product gets to Quality Control: the product can pass inspection or the product can fail inspection. Each one impacts your Process in a different way. In this example, the question is the Decision, and *Yes* and *No* are the Choices. A Choice answers the question a Decision poses.

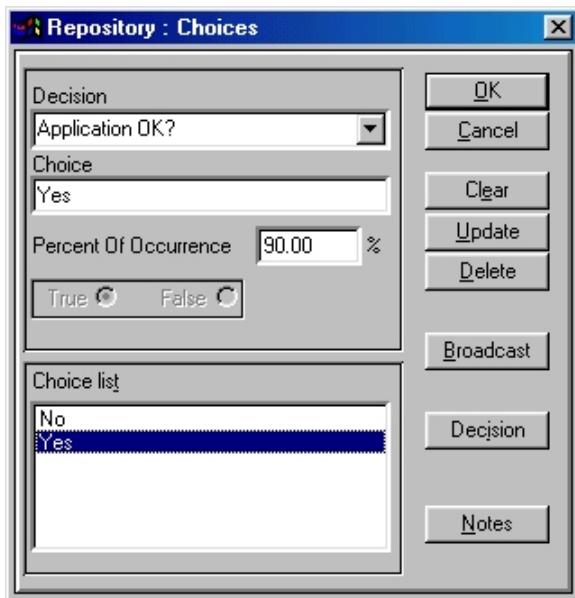
Workflow•BPR lets you assign a percentage of occurrences to every Choice. This feature allows you to determine the probability with which your organization performs a particular Process or business case.

The following information is required to define a Choice for your organization:

- Decision name
- Set of associated Choices
- Percentage of occurrence of each Choice (optional)

To create a Choice Repository item:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Choices**. The **Choices** dialog box appears (see the figure below).



3. Select the **Decision** from the **Decision** list.* If the Decision you want is not included on the list, it needs to be defined. Click **Decision** to go to the **Decision** dialog box (refer to the section entitled “Decisions” on page 3-43). Upon returning to the **Choices** dialog box, the new item(s) will be included on the list.
4. Type the Choice in the Choice text box (only if it is a Multiple Decision; Binary Decision Choices cannot be created).
5. Type the percent value in the Percent Of text box to designate the frequency with which this condition affects your Process.
6. For Binary Decisions, select the Choice (Yes or No) from the Choices list box to update the percentage of the Choice.
7. Click OK when defining one entry. Click Add if you are defining multiple entries, and then click Close after the last entry has been entered.

3.15.1 Broadcasting Choice Attributes

To broadcast data to unlocked Process files:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose **Choices**. The **Choices** dialog box appears.
3. Select the **Decision** from the **Decision** list.
4. Select a **Choice** from the **Choices** list.
5. Click **Broadcast** to broadcast the selected attributes (its percentage) of your Choice to the unlocked Process Diagrams that include this Choice.
6. Click **Close**.

3.16 Updating Process Data

To update Process Data:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose the type of data that you want to update (e.g., Tasks or Media). The dialog box of that data type appears.
3. Select an item from the list of items for that data type.
4. Update the selected entry by making the desired changes (follow the previous procedure in the appropriate section (Section 3.1 through Section 3.14) for creating this entry).
5. Click **OK** or press **Enter** when updating one entry. Click **Update** if updating multiple entries, and then click **Close** after the last entry has been updated.

3.17 Deleting Process Data

To delete Organization Data:

1. Choose **Process Data** from the **Repository** menu. A sub-menu appears.
2. Choose the type of data that you want to update (e.g., Tasks or Media).
The dialog box of that data type appears.
3. Select an item from the list of items for that data type.
4. Click **Delete** to delete a selected item.
 - * Workflow•BPR will search the Processes of the Organization File to determine if the item is being used in a graphical object.
 - If the selected item appears as a Drawing Object or as an attribute for a Drawing Object, then you will be informed as to where it is being used and you will not be able to delete the item. If the selected item appears as more than one Drawing Object or as an attribute for more than one Drawing Object, you will be informed that the item is being used elsewhere and you will not be able to delete the item.
 - If the item is not being used elsewhere, you will be asked to confirm the deletion of the item.
5. Click **Close** when the deletion has been completed.

Chapter 4: Repository: Documentation Data

-  **The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

4.1 Documentation Types

Documentation Types are used to help organize other Repository items that are used for documentation of Processes. Documentation Types can be used as categories for the following Repository items:

- Policies
- Business Rules
- Functions
- Procedures

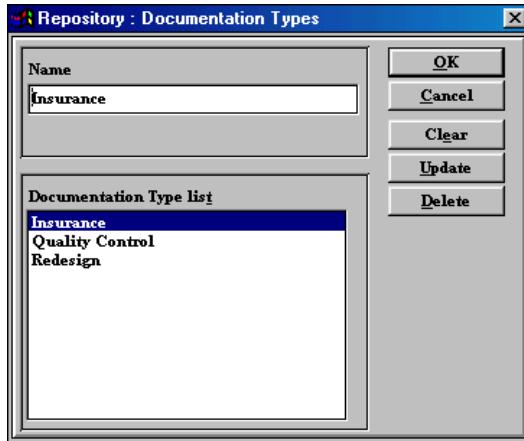
There is a default Documentation Type named “Redesign.” Policies that are classified as being the type “Redesign” and associated with a Process will automatically appear in the Process Redesign Report (refer to Chapter 6 of the *Reporting Guide* for more information about the Process Redesign Report).

To create Documentation Types Repository item:

1.  Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.

 **The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**

2. Choose **Documentation Types**. The **Documentation Types** dialog box appears (see the figure below).



3. Type the name of the Documentation Type in the **Name** text box.
4. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

4.2 Policies

Policies are directives of an organization that affect a Business Process by adding activities, restricting resources, etc. Policies are enforced for a number of reasons: security, quality control, legacy equipment, or because “That’s just the way that it’s done.”

Workflow•BPR allows you to create a documentation record of Policies and associate them with the Processes that are affected by them. Policies that are classified as being the type “Redesign” and associated with a Process will automatically appear in the Process Redesign Report (refer to Chapter 6 of the *Reporting Guide* for more information about the Process Redesign Report).

The following information is required to define Policies for your organization:

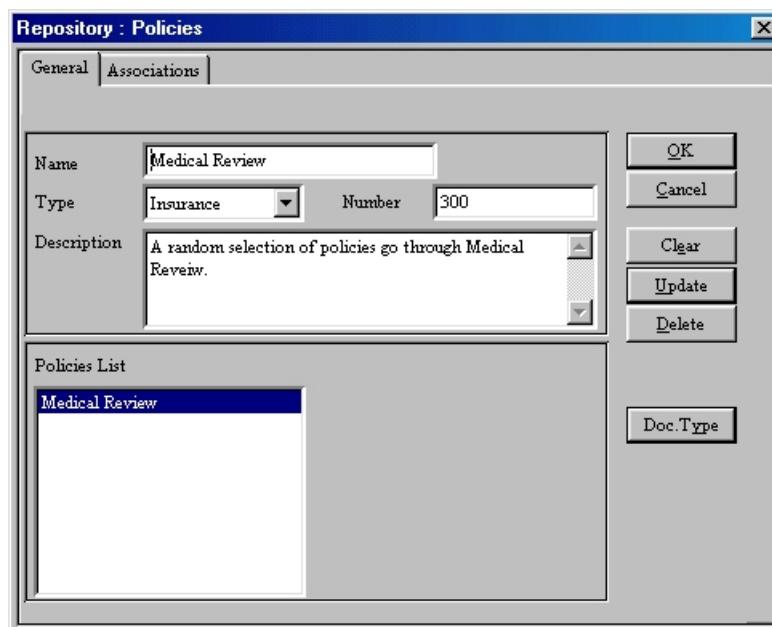
- A name for the Policy.
- A Type classification for the Policy. This is a Documentation Type Repository Item, which is used to classify Policies, Business Rules, and Procedures, in addition to Functions. There is a default Documentation Type named “Redesign.”
 - * Policies that are classified as being the type “Redesign” and associated with a Process will automatically appear in the Process Redesign Report (refer to Chapter 6 of the *Reporting Guide* for more information about the Process Redesign Report).

- The Number of the Policy. This number can be used for a hierarchical organization of Policies and Business Rules.
- A text description of the Policy.
- You can also associate the Policy with one or more Processes. You would do this if the Policy affects the way that a Process is performed. For example, if there is a Policy that specifies the type of Role that can work on a particular activity, then the Role assignment with the Process will be affected.
 - * Policies that are associated with a Process that is featured in the Process Redesign Report, will automatically appear in the Report (refer to Chapter 6 of the Reporting Guide for more information about the Process Redesign Report).

4.2.1 General Information

To create a Policy Repository Item:

1. Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.
The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.
2. Choose **Policies**. The **Policies** dialog box appears—open to the **General** tab (see the figure below).



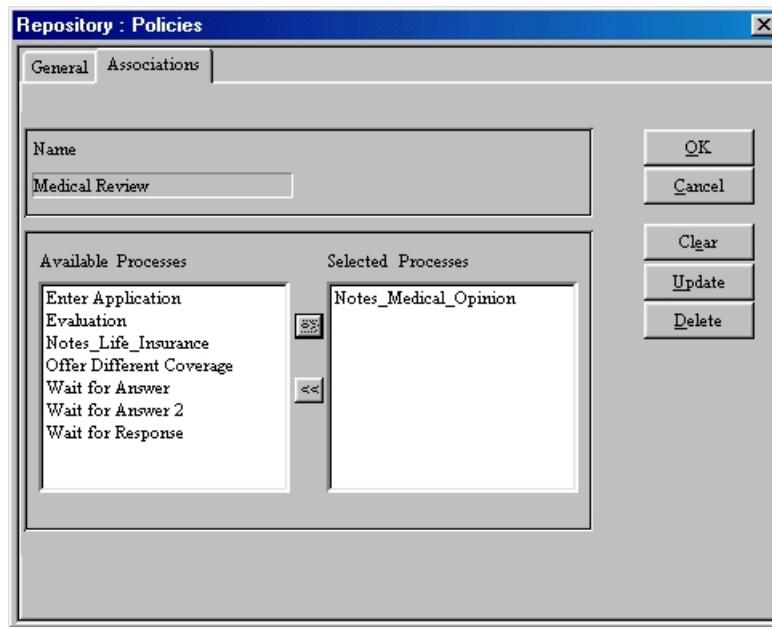
Chapter 4: Repository: Documentation Data

3. Type the name of the Policy in the **Name** text box.
4. Select the Documentation Type of Policy from the **Type** selection box.
 - * If the Documentation Type you want is not included on the list, it needs to be created. Click **Doc.Type** to go to the **Documentation Types** dialog box (refer to the section entitled “Documentation Types” on page 4-1). Upon returning to the **Policies** dialog box, the new item(s) will be included on the list.
5. Type a number in the **Number** text box
6. Enter a description of the Policy in the **Description** text box.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.
7. Continue editing in the other tab or Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

4.2.2 Associations

To define the Associations of the Policy:

1. Select the **Associations** tab in the Policy dialog box (see the figure below).



2. To associate the Policy with a Process:
 - * Select the Process from the **Available Processes** list box.
 - * Click on >> next to the **Selected Processes** text box to complete the selection.
 - * Repeat to add more Processes to the association.
3. To remove the association of the Policy with a Process:
 - * Select the Process from the **Selected Processes** list box.
 - * Click on << next to the **Selected Processes** text box to remove the association of the selection
 - * Repeat to remove more Processes from the association.
4. Continue editing in the other tab or Click **OK** when defining one entry.
 Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

4.3 Business Rules

Business Rules are very specific Policies that affect the Performance of a Task or the design of an Application. An example of a Business Rule might 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.

Workflow•BPR allows you to create a documentation record of Business Rules and associate these issues with the Processes, Applications, and Tasks that are affected by them.

The following information is required to define Business Rules for your organization:

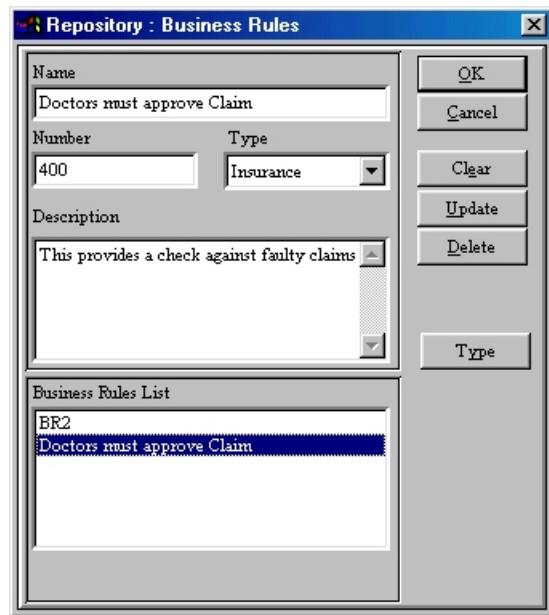
- A name for the Business Rule.
- The Number of the Business Rule. This number can be used for a hierarchical organization of Policies and Business Rules.
- A Type classification for the Business Rule. This is a Documentation Type Repository Item, which is used to classify Policies, Functions, and Procedures in addition to Business Rules. There is a default Documentation Type named “Redesign.”
- A text description of the Function.

Business Rules can be assigned to other objects in Workflow•BPR:

- Applications in the Repository (refer to section entitled “Applications” in Chapter 2)
- Procedures in the Repository (refer to section entitled “Procedures” on page 4-11)
- Tasks in a Process (refer to Chapter 3 of the *Modeling Guide*)
- Process Objects in a Process (refer to Chapter 4 of the *Modeling Guide*)

To create a **Business Rules** Repository Item:

1. Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.
- The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2. Choose **Business Rules**. The **Business Rules** dialog box appears (see the figure below).



3. Type the name of the **Business Rule** in the **Name** text box.
4. Select the Documentation Type from the **Type** selection box.
 - * If the Documentation Type you want is not included on the list, it needs to be created. Click the **Type** button to go to the **Documentation Types** dialog box (refer to the section entitled “Documentation Types” on page 4-1). Upon returning to the **Business Rules** dialog box, the new item(s) will be included on the list.
5. Type a number in the **Number** text box.
6. Enter a description of the Business Rule in the **Description** text box.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.
7. Click **Ok** when adding one entry. Click **Add** if you are adding multiple entries, then click **OK** after the last entry has been added.

4.4 Functions

 The can be accessed through the Organization Data sub-menu of the Repository menu when you are in the IBM FlowMark and IBM MQ Workflow Editing Modes. Otherwise, it appears in the Documentation Data sub-menu of the Repository menu. Thus, the information in this section is repeated in Chapter 2.

Workflow•BPR allows for the identification of various management functions performed in your organization. Examples of these Functions are marketing, production, sales, and so forth. Defining management functions provides the ability to represent and sort Tasks related to a certain function, and to analyze the roles of different functions in the Process.

The following information is required to define Functions for your organization:

- A name for the Function.
- The Number of the Function. This number is a part of the numbering scheme for Procedures in a Procedure Report (refer to Chapter 7 of the *Reporting Guide*).
- A Type classification for the Function. This is a Documentation Type Repository Item, which is used to classify Policies, Procedures, and Business Rules, in addition to Functions. There is a default Documentation Type named “Redesign.”
- A color to identify it in the diagram (optional)
- A text description of the Function.

Functions can be assigned to Tasks in the Repository (refer to section entitled “Tasks” in Chapter 3) and within Processes (refer to Chapter 3 of the *Modeling Guide*). Functions can be assigned to Processes (refer to Chapter 2 of the *Modeling Guide*) and to Process Objects within a Process (refer to Chapter 4 of the *Modeling Guide*).

A Function can be defined as being a child of another Function (refer to the section entitled “Function Tree” on page 4-30). In addition, a Procedure can be defined as being a child of a Function. This structure provides the method for organizing Procedures for the Procedure Report. Functions have a Number attribute and Procedures have a Number attribute. 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. This number will appear in the Procedure Report for Procedure 1 and can be used as part of a table of contents for a set of Procedure Reports (refer to Chapter 7 in the *Reporting Guide* for more information on the Procedure Report).

To create a Function Repository item:

1. Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.
- The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2. Choose **Functions**. The **Functions** dialog box appears (see the figure below).



3. Type the name of the Function in the **Name** text box.
4. Type a number in the **Number** text box.
5. Select the Documentation Type from the **Type** selection box.
 - * If the Documentation Type you want is not included on the list, it needs to be created. Click the **Type** button to go to the **Documentation Types** dialog box (refer to the section entitled “Documentation Types” on page 4-1). Upon returning to the **Functions** dialog box, the new item(s) will be included on the list.

6. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined 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 you want, then click **Add to Custom Colors**.
 - * Click **OK** to return to the **Functions** dialog box.
7. Enter a description of the Function in the **Description** text box.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.
8. Click **OK** or press **Enter** when defining one entry. If you are defining multiple entries, click **Add**, and then click **Close** after the last entry has been added.

4.5 Procedures

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 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 called on during the performance of the Process.

Workflow•BPR allows you to create a documentation record of Procedures and associate them with the Processes. The Tasks in a Process correspond to the Steps of a Procedure.

The following information is required to define Procedures for your organization:

- A name for the Procedure.
- The Number of the Procedure. This number is a part of the numbering scheme for Procedures in a Procedure Report (refer to Chapter 7 of the *Reporting Guide*).
- A Type classification for the Procedure. This is a Documentation Type Repository Item, which is used to classify Policies, Functions, and Business Rules, in addition to Procedures. There is a default Documentation Type named “Redesign.”
- A Version number to identify the current version of the Procedure as it is developed over time.
- A Date Created field to identify the date when the Procedure was created.
- A Date Revised field to identify the date when the Procedure was most recently modified.
- A color to identify it in the diagram.
- 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.
- A text description of the Procedure.
- A State of the Procedure can be defined. There are four possible States: Draft, Working, Recommended, and Published.
- An Employee who is responsible for the Procedure can be assigned.

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- The Process that defines the steps of the Procedure can be assigned. The Tasks, in the order that they are laid out within a Process diagram, are the Steps of a Procedure for a Procedure Report. Refer to Chapter 7 of the *Reporting Guide* for more details on the structure of a Procedure Report).
- A text definition of what is needed to know for the Procedure.
- A text definition of when the Procedure should be used.
- You can also associate one or more Business Rules with the Procedure. You would do this if the Policy affects the way that a Process is performed. For example, if there is a Policy that specifies the type of Role that can work on a particular activity, then the Role assignment with the Process will be affected.

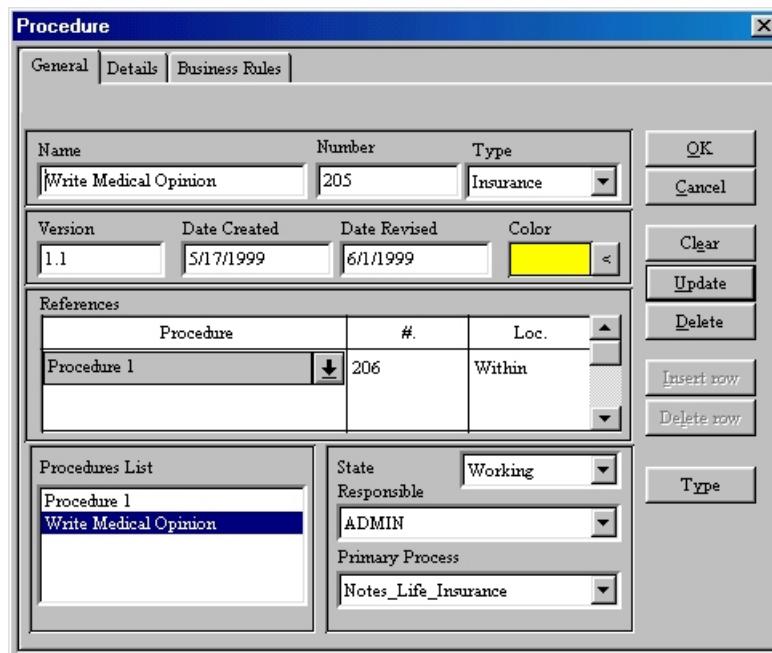
A Procedure can be assigned to a Process (refer to Chapter 2 of the *Modeling Guide*). However, if the Process has been set as being a Multi-Procedure Process, then a single Procedure cannot be assigned. A Multi-Procedure Process is usually a large Process that contains Tasks from more than one Procedure.

A Procedure can be defined as being a child of a Function (refer to the section entitled “Function Tree” on page 4-30). This structure provides the method for organizing Procedures for the Procedure Report. Functions have a Number attribute and Procedures have a Number attribute. 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. This number will appear in the Procedure Report for Procedure 1 and can be used as part of a table of contents for a set of Procedure Reports (refer to Chapter 7 in the *Reporting Guide* for more information on the Procedure Report).

4.5.1 General information

To create a **Procedure** Repository item:

1. Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.
- The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2. Choose **Procedures**. The **Procedure** dialog box appears—open to the **General** tab (see the figure below).



3. Type the name of the Procedure in the **Name** text box.
4. Type a number in the **Number** text box
5. Select the Documentation Type from the **Type** selection box.
 - * If the Documentation Type you want is not included on the list, it needs to be created. Click **Doc.Type** to go to the **Documentation Types** dialog box (refer to the section entitled “Documentation Types” on page 4-1). Upon returning to the **Procedures** dialog box, the new item(s) will be included on the list.
6. Type the version number in the **Version** text box.
7. Type the creation date of the Procedure in the **Date Created** text box.
8. Type the latest date of revision for the Procedure in the **Date Revised** text box.

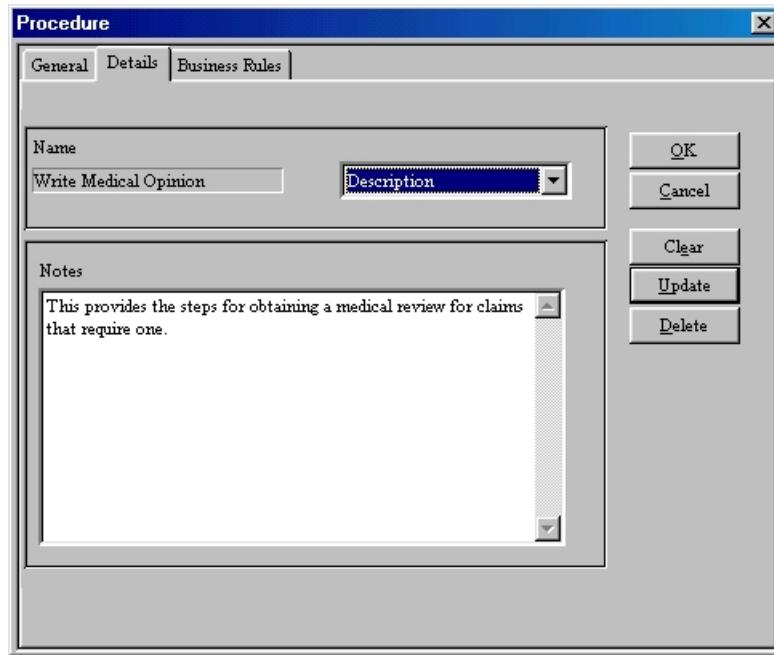
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9. Click < next to the **Color** box to display a palette of pre-defined colors.
 - * Click once on a basic color to select a pre-defined color. To select a customized color, first select a pre-defined color close to the shade you want. Notice that 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 you want, then click **Add to Custom Colors**.
 - * Click **OK** to return to the **Procedure** dialog box.
10. To select another Procedure as a reference for the current Procedure:
 - * In **Line 1** of the **References** list box, click on the **Arrow** button that is on the right side of the **Procedure** column. A list of **Procedures** will appear.
 - * Select the appropriate **Procedure**.
 - If the Procedure you want is not included on the list, it needs to be created. Follow the instructions within this section to create the Procedure.
 - * To specify how the reference Procedure relates to the current Procedure, click on the **Arrow** button that is on the right side of the **Loc.** column. A list will appear.
 - * Select either **Entry**, **Within**, or **Exit**.
 - * Repeat to add other **References**.
 - * Use the **Insert Row** button to create lines between entries.
 - * Use the **Delete Row** button to delete entries.
11. Select a state from the **State** selection box.
 - * You can select **Draft**, **Working**, **Recommend**, or **Published**.
12. Select the responsible Employee from the **Responsible** selection box.
13. Select the Process, where the official Procedure steps will be derived, from the **Primary Process** selection box.
14. Continue editing in the other tab or Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

4.5.2 Details

To add Details to a Procedure Repository item:

1. Click on the **Details** tab (see the figure below).

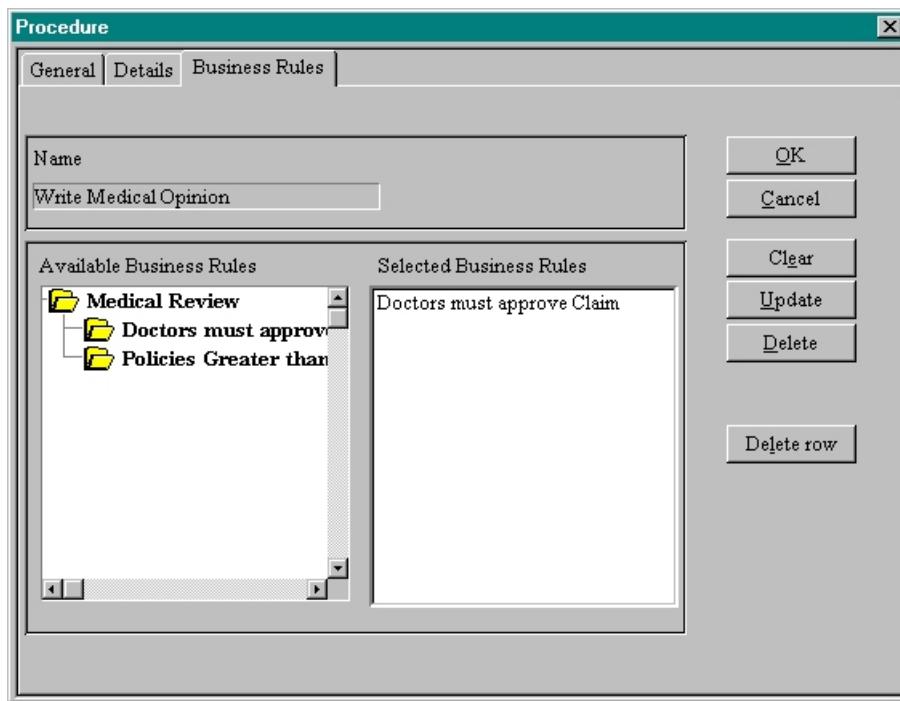


2. Select the type of **Notes** you want from the selection box.
 - * There are three choices for the type of notes:
 - Description.
 - When to Use
 - Need to Know
3. Click in the **Notes** text box and type your **Notes**.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.
4. Continue editing in the other tab or Click **OK** when defining one entry. Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

4.5.3 Associated Business Rules

To associate Business Rules to a Procedure Repository item:

1. Click on the **Business Rules** tab (see the figure below).



2. To associate the Policy with a Process:

- * Select the Business Rule from the tree structure in **Available Business Rules** list box. The Business Rule will appear in the **Selected Business Rules** list box.
 - If the Business Rule you want is not included in the tree, it needs to be created or added to the tree structure:
 - Click **OK** to close the **Procedures** dialog box.
 - Open the **Policy Tree** dialog box to add the Business Rule to the Policy Tree structure (refer to the section entitled "Policy Tree" on page 4-25).
 - Upon returning to the **Procedures** dialog box, the new item(s) will be included in the tree structure.
- * Select a Policy from the tree structure in **Available Business Rules** list box. All the Business Rules that are children to the Policy will appear in the **Selected Business Rules** list box.
- * Repeat to add more Business Rules to the association.

3. To remove the association of a Business Rule with the Procedure:
 - * Select the processes from the **Selected Business Rules** list box.
 - * Click the **Delete Row** to remove the Business Rule.
 - * Repeat to remove more Business Rules from the association.
4. Continue editing in the other tab or Click **OK** when defining one entry.
 Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

4.6 Goals

Goals are usually set to fix a problem or Issue that has been identified or to satisfy a business objective of the organization. A Process Issue might be quality complaints. Thus, a Goal might be set to reduce the number of errors. A business objective might be to capture more market share with a guarantee to provide a quicker turn-around than competitors. Thus, a Goal might be set to reduce cycle time of a Process.

Workflow•BPR allows you to create a documentation record of Goals and associate them with the Organization Units and Processes to which they are directed. Goals that are associated with a Process will automatically appear in the Process Redesign Report (refer to Chapter 6 of the *Reporting Guide* for more information about the Process Redesign Report).

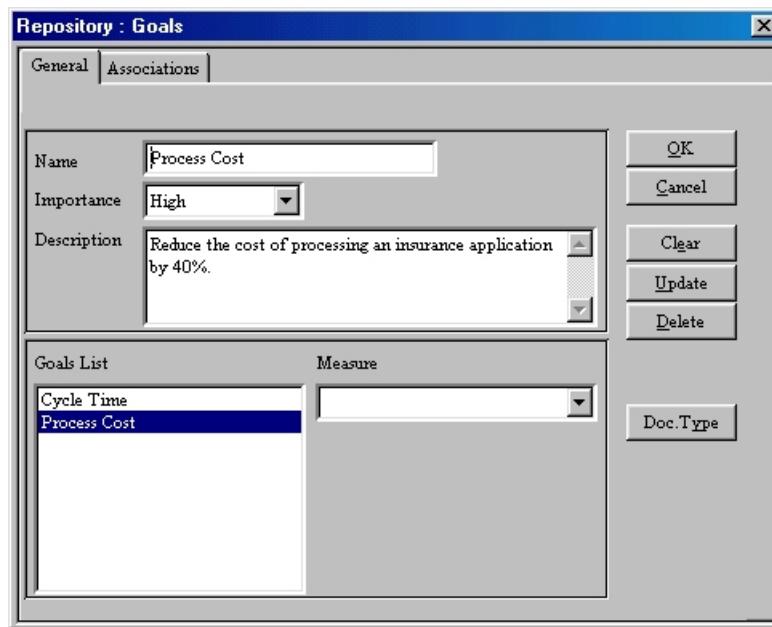
The following information is required to define Goals for your organization:

- A name for the Goal.
- The Importance of the Goal to the organization. There are three (3) levels of importance for a Goal: High, Medium, and Low.
- A text description of the Function.
- You can assign a Performance Measure to the Goal. A Performance Measure is the metric that will be used to determine whether or not the Goal has been satisfied. Refer to Chapter 5 for more information on Performance Measures.
- You can associate the Goal with one or more Organization Units. If the organization has a Goal for improving the performance of an Organization Unit, then the Goal can be associated with the Organization Unit. For example, there could be a Goal that specifies that the percentage of rework for a department will be less than 2%.
- You can associate the Goal with one or more Processes. If the organization has a Goal for improving the performance of a Process, then the Goal can be associated with the Process. For example, there could be a Goal that specifies that the cycle time of the Process should be cut in half.
 - * Goals that are associated with a Process that is featured in the Process Redesign Report, will automatically appear in the Report (refer to Chapter 6 of the Reporting Guide for more information about the Process Redesign Report).

4.6.1 General information

To create a Goal Repository item:

1. Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.
- The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2. Choose **Goals**. The **Goals** dialog box appears—open to the **General** tab (see the figure below).



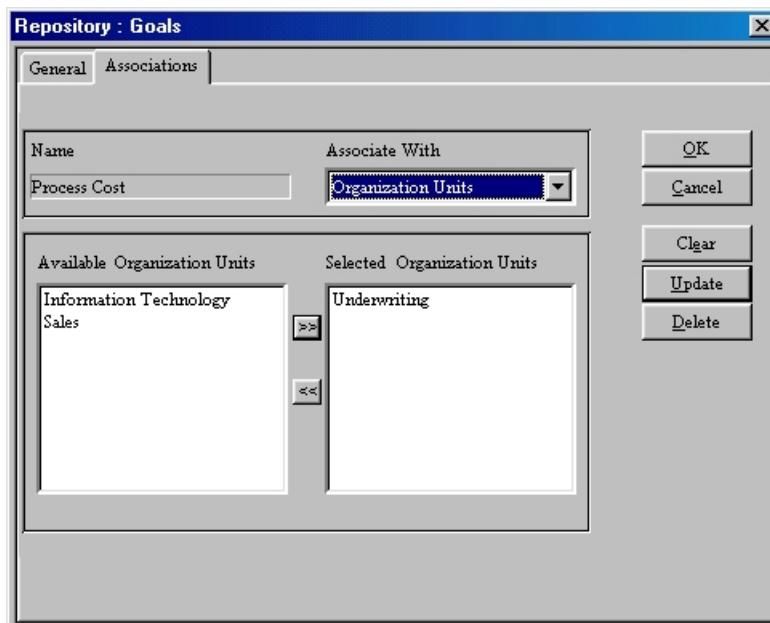
3. Type the name of the Goal in the **Name** text box.
4. Select the Importance level from the **Importance** selection box.
 - * There are three levels of Importance:
 - High
 - Medium
 - Low
5. Click in the **Description** text box and type a description of the Goal.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.

6. To link a Performance Measure with the Goal, select a Performance Measure from the **Measure** list box.
 - If the Business Rule you want is not included in the tree, it needs to be created or added to the tree structure:
 - Click **OK** to close the **Procedures** dialog box.
 - Open the **Policy Tree** dialog box to add the Business Rule to the Policy Tree structure (refer to the section entitled “Policy Tree” on page 4-25).
 - Upon returning to the **Procedures** dialog box, the new item(s) will be included in the tree structure.
7. Continue editing in the other tab or Click **OK** when defining one entry.
 Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

4.6.2 Associations

To define the Associations of the Goals:

1. Click on the **Associations** tab (see the figure below).



2. Select the Type of Relationship from the **Associate With** selection box.

- * There are 2 choices with the **Associate With** selection box:
 - Organization Units
 - Processes

If Organization Units is selected, a list of the Available Organization Units appears in the Available Organization Units text box.

 If Processes is selected, a list of the Available Processes appears in the Available Processes list box.

3. To associate the Goal with an Organization Unit:
 - *  Select **Organization Units** from the **Associate With** selection box.
 - *  Select the processes from the **Available Organization Units** list box.
 - *  Click on >> next to the **Selected Organization Units** text box to complete the selection.
 - * Repeat to add more Organization Units to the association.
4. To remove the association of the Goal with an Organization Unit:
 - *  Select the Organization Unit from the **Selected Organization Units** list box.
 - *  Click on << next to the **Selected Organization Units** text box to remove the association of the selection.
 - * Repeat to remove more Organization Units from the association.
5. To associate the Goal with a Process:
 - *  Select **Process** from the **Associate With** selection box.
 - *  Select the Process from the **Available Processes** list box.
 - *  Click on >> next to the **Selected Processes** text box to complete the selection
 - * Repeat to add more Processes to the association.
6. To remove the association of the Goal with a Process:
 - *  Select the Process from the **Selected Processes** list box.
 - *  Click on << next to the **Selected Processes** text box to remove the association of the selection.
 - * Repeat to remove more Processes from the association.
7. Continue editing in the other tab or  Click **OK** when defining one entry.
 Click **Add** if you are defining multiple entries, and then  click **Close** after the last entry has been added.

4.7 Issues

Issues are problems that have been identified with the performance of the daily work of an organization. Workflow•BPR allows you to create a documentation record of Issues and associate them with the Processes that cause them. Issues that are associated with a Process will automatically appear in the Process Redesign Report (refer to Chapter 6 of the *Reporting Guide* for more information about the Process Redesign Report).

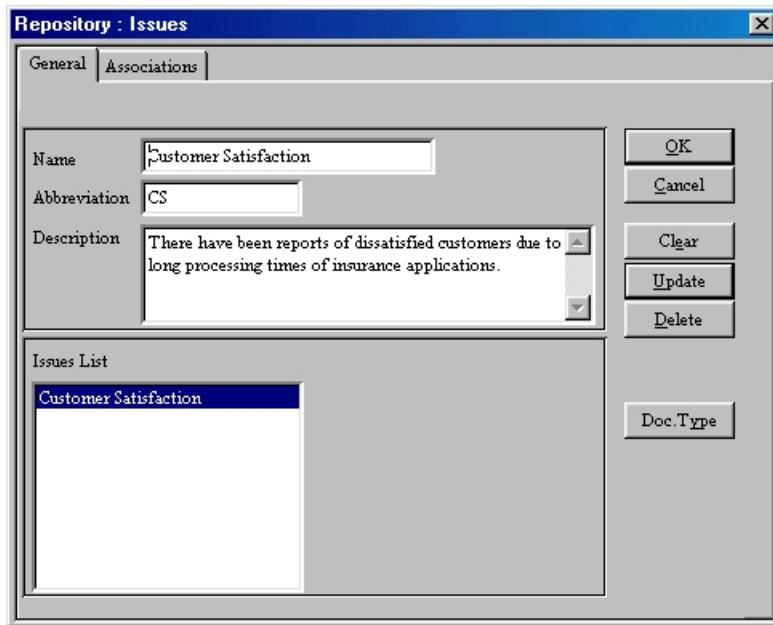
The following information is required to define Issues for your organization:

- A name for the Issue.
- An abbreviation of the name of the Issue.
- A text description of the Function.
- You can also associate the Issue with one or more Processes. You would do this if the Issue is caused by some factor during the performance of a Process. For example, if there are numerous customer complaints about a slow turn around time, you would assign an Issue to the Process that is the focus of those complaints.

4.7.1 General information

To create an Issue item in the Repository:

1. Choose **Documentation Data** from the **Repository** menu. A sub-menu appears.
- The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2. Choose **Issues**. The **Issues** dialog box appears—open to the **General** tab (see the figure below).

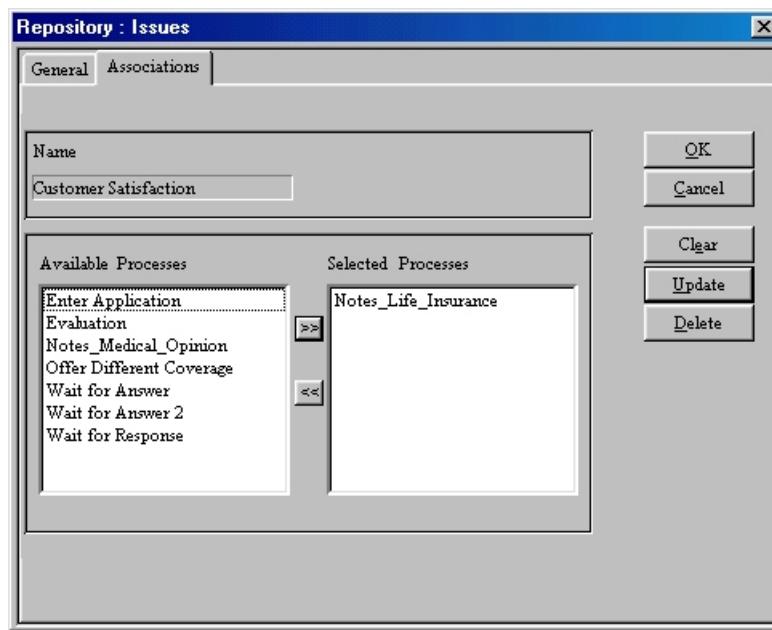


3. Type the name of the Issue in the **Name** text box.
4. Type an abbreviation for the Issue in the **Abbreviation** text box.
5. Click in the **Description** text box and type a description of the Issue.
 - * If you want to add a Carriage Return to the text of the Description, type **Ctrl+Enter**.
6. Click **Ok** when defining one entry. Click **Add** if you are defining multiple entries, then click **OK** after the last entry has been added.

4.7.2 Associations

To define the Associations of the Issues:

1. Select the **Associations** tab (see the figure below).



2. To associate the Goal with a Process:
 - * Select the Process from the **Available Processes** list box.
 - * Click on >> next to the Selected Processes text box to complete the selection.
 - * Repeat to add more Processes to the association.
3. To remove the association of the Goal with a Process:
 - * Select the Process from the **Selected Processes** list box.
 - * Click on << next to the **Selected Processes** text box to remove the association of the selection.
 - * Repeat to remove more Processes from the association.
4. Continue editing in the other tab or Click **OK** when defining one entry.
 Click **Add** if you are defining multiple entries, and then click **Close** after the last entry has been added.

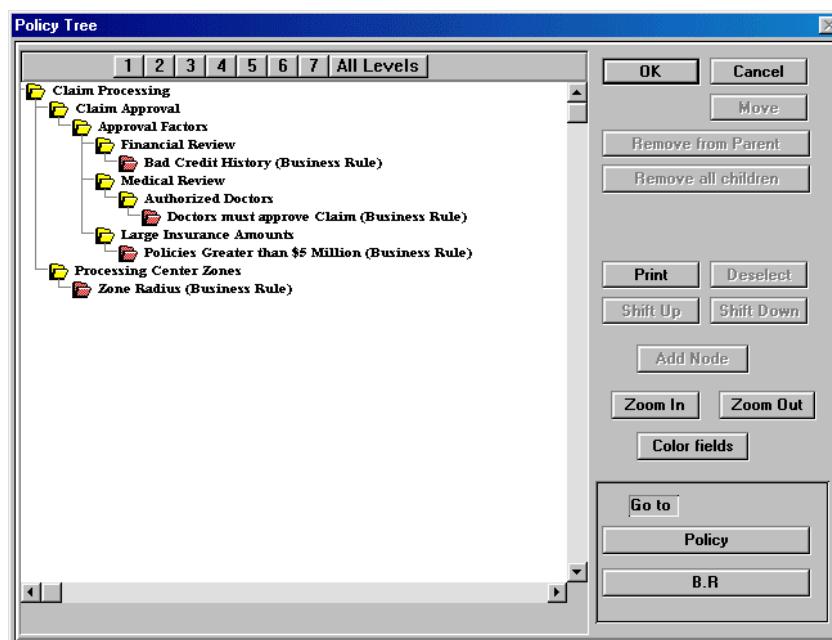
4.8 Policy Tree

The Policy Tree allows you to create a hierarchical structure of Policies (refer to the section entitled “Policies” on page 4-2 for more information about Policies). A Policy can be defined as being a child of another Policy. In addition, a Business Rule can be defined as being a child of a Policy.

- ☞ You cannot add or delete Policy Repository items in this dialog box. Use the Policies dialog box (refer to the section entitled “Policies” on page 4-2).**
- ☞ You cannot add or delete Business Rule Repository items in this dialog box. Use the Business Rules dialog box (refer to the section entitled “Business Rules” on page 4-6).**

To edit a Policy from the Policy Tree dialog box:

1. **☞ Select Documentation Data from the Repository menu. A sub-menu will appear.**
- ☞ The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2. **☞ Select Policy Tree from the sub-menu. The Policy Tree dialog box will appear (see the figure below).**



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3. To determine the number of Data Structure levels to be displayed, click the number 1, 2, 3, 4, 5, 6, or 7. The **Policy Tree** Diagram will display the specified number of levels. Click **All Levels** to display all your Process policy levels.
4. Click the **Zoom In** button to increase the size of the **Policy Tree** view.
5. Click the **Zoom Out** button to decrease the size of the **Policy Tree** view.
6. Click the **Print** button to open the **Print Preview** window.
7. Click the **Color Fields** button to display each level of the **Policy Tree** with a different color.
 - * Click the Color Fields button to display each level of the **Policy Tree** with a different color.

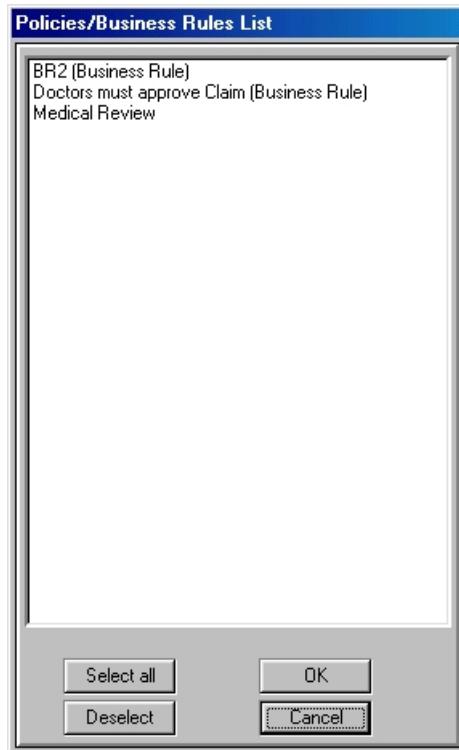
The following sections describe additional editing capabilities of the **Policy Tree** dialog box.

4.8.1 Adding Elements

- ☒ You cannot add or delete Policy Repository items in this dialog box. Use the Policies dialog box (refer to the section entitled “Policies” on page 4-2).
- ☒ You cannot add or delete Business Rule Repository items in this dialog box. Use the Policies dialog box (refer to the section entitled “Business Rules” on page 4-6).

To add an Element to a **Policy Tree**:

1. ⌘ Select a Policy (at any level).
2. ⌘ Click the **Add Node** button. The **Policies/Business Rules List** dialog box will appear (see the figure below).



- * ⌘ Click on any non-selected Policy or Business Rule to select that field.
 - * ⌘ Click on any selected Policy or Business Rule to de-select that field.
 - * ⌘ Click the **Select All** button to select all the elements.
 - * ⌘ Click the **Deselect** button to de-select all the elements.
3. ⌘ Click **OK** when done. All the selected items will be added as children for the Policy and you will be returned to the **Policy Tree** dialog box.

4.8.2 Moving Elements

There are five (5) methods of moving Policy Tree elements. The first method is as follows:

1.  Select an element of a Policy Tree (either a Business Rule or a lower-level Policy).
2.  Click the **Move** button. The mouse cursor will change to a document icon.
3.  Click on a Policy (at any level). The Element will be moved to the lowest child position for that Policy.

The second method is as follows:

1.  Select an element of a Policy Tree (either a Business Rule or a lower-level Policy).
2.  Drag the cursor from the selected element. The cursor will change to a document icon.
3.  Release the click on a Policy (at any level). The Element will be pasted to the lowest child position for that Policy.

The third method is as follows:

1.  Select an element of a Policy Tree (either a Business Rule or a lower-level Policy).
2.  Click the **Shift Up** button. The Policy Tree element will move up one position.
 - * If the element is in the top child position of a Policy, a message will appear that says, “Cannot perform this operation.”
3.  Click the **Shift Down** button. The Policy Tree element will move down one position.
 - * If the element is in the bottom child position of a Policy, a message will appear that says, “Cannot perform this operation.”

The fourth method removes a child element from its association with the parent:

1.  Select a lower-level Policy within the Policy Tree.
2.  Click the **Remove from Parent** button. The Policy will be placed at the top level of the Policy Tree dialog box.

The fifth method removes all the children from the Policy Tree:

1.  Select a Policy (either a top-level or a lower-level Policy) that has one or more Policies as children.
2.  Click the **Remove all Children** button. All of the child Policies will be placed at the top level of the Policy Tree dialog box.
 - * Any Child Business Rules of the Policy will be removed from the Function Tree dialog box.

4.8.3 Removing Elements

Only Business Rules can be removed from the Policy Tree dialog box. All Repository Policy items will always be displayed in the dialog box. A Policy item will either be at the top level in the dialog box or will be a child of another Policy.

There are two methods of removing Business Rules from the Policy Tree. The first method removes a child element from its association with the parent:

1.  Select a Business Rule within the Policy Tree.
2.  Click the **Remove from Parent** button. The Business Rule will be removed from the Policy Tree.

The second method removes all the children from the Policy Tree:

1.  Select a Policy (either a top-level or a lower-level Policy) that has one or more Business Rules as children.
2.  Click the **Remove all Children** button. All of the child Business Rules of the Policy will be removed.
 - * Any Child Policy will be placed at the top level of the Policy Tree dialog box.

 **Business Rules removed from the Policy Tree dialog box are NOT removed from the Repository.**

4.9 Function Tree

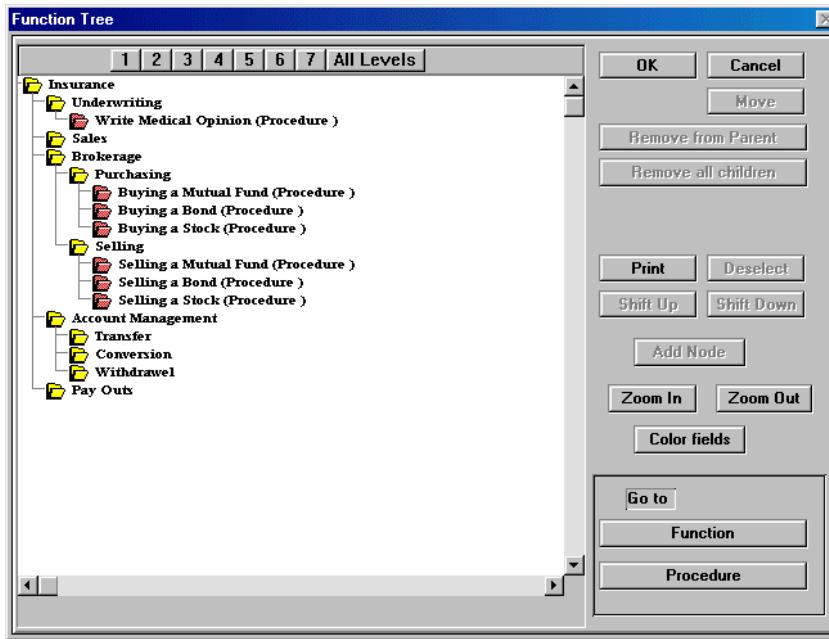
The Function Tree allows you to create a hierarchical structure of Functions (refer to the section entitled “Functions” on page 4-8 for more information about Functions). A Function can be defined as being a child of another Function. In addition, a Procedure can be defined as being a child of a Function. This structure provides the method for organizing Procedures for the Procedure Report. Functions have a Number attribute and Procedures have a number attribute. 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. This number will appear in the Procedure Report for Procedure 1 and can be used as part of a table of contents for a set of Procedure Reports (refer to Chapter 7 in the *Reporting Guide* for more information on the Procedure Report).

-  You cannot add or delete Function Repository items in this dialog box.
Use the Functions dialog box (refer to the section entitled “Functions” on page 4-8).**

-  You cannot add or delete Procedure Repository items in this dialog box.
Use the Procedures dialog box (refer to the section entitled “Procedures” on page 4-11).**

To edit a **Function** from the **Function Tree** dialog box:

1. Select **Documentation Data** from the **Repository** menu. A sub-menu will appear.
The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.
2. Select **Function Tree** from the sub-menu. The **Function Tree** dialog box will appear (see the figure below).



3. To determine the number of **Function Tree** levels to be displayed, click the number 1, 2, 3, 4, 5, 6, or 7. The **Function Tree** Diagram will display the specified number of levels. Click **All Levels** to display all your **Function Tree** levels.
4. Click the **Zoom In** button to increase the size of the **Function Tree** view.
5. Click the **Zoom Out** button to decrease the size of the **Function Tree** view.
6. Click the **Print** button to open the **Print Preview** window.
7. Click the **Color Fields** button to display each level of the **Function Tree** with a different color.
 * Click the **Color Fields** button to display each level of the **Function Tree** with a different color.

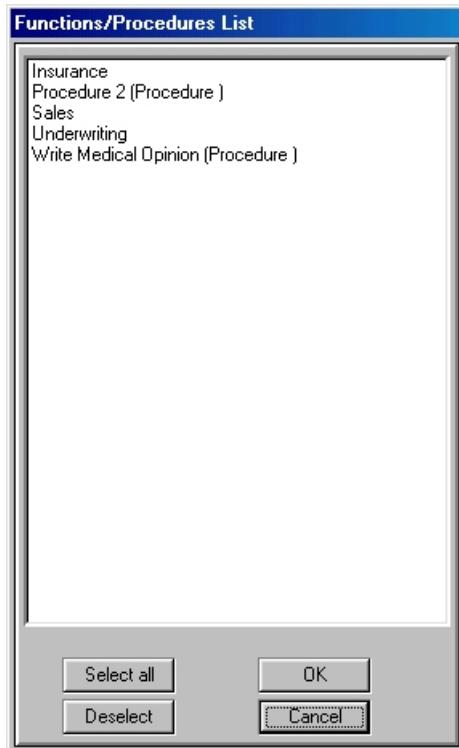
The following sections describe additional editing capabilities of the **Function Tree** dialog box.

4.9.1 Adding Elements

- ☞ You cannot add or delete Function Repository items in this dialog box.
Use the Policies dialog box (refer to the section entitled “Functions” on page 4-8).
- ☞ You cannot add or delete Procedure Repository items in this dialog box.
Use the Policies dialog box (refer to the section entitled “Procedures” on page 4-11).

To add an Element to a Function Tree:

1. Select a Function (at any level).
2. Click the **Add Node** button. The **Functions/Procedures List** dialog box will appear (see the figure below).



- * Click on any non-selected Function or Procedure to select that field.
 - * Click on any selected Function or Procedure to de-select that field.
 - * Click the **Select All** button to select all the elements.
 - * Click the **Deselect** button to de-select all the elements.
3. Click **OK** when done. All the selected items will be added as children for the Function and you will be returned to the **Function Tree** dialog box.

4.9.2 Moving Elements

There are five (5) methods of moving Function Tree elements. The first method is as follows:

1.  Select an element of a Function Tree (either a Procedure or a lower-level Function).
2.  Click the **Move** button. The mouse cursor will change to a document icon.
3.  Click on a Function (at any level). The Element will be moved to the lowest child position for that Function.

The second method is as follows:

1.  Select an element of a Function Tree (either a Procedure or a lower-level Function).
2.  Drag the cursor from the selected element. The cursor will change to a document icon.
3.  Release the click on a Function (at any level). The Element will be pasted to the lowest child position for that Function.

The third method is as follows:

1.  Select an element of a Function Tree (either a Procedure or a lower-level Function).
2.  Click the **Shift Up** button. The Function Tree element will move up one position.
 - * If the element is in the top child position of a Function, a message will appear that says, “Cannot perform this operation.”
3.  Click the **Shift Down** button. The Function Tree element will move down one position.
 - * If the element is in the bottom child position of a Function, a message will appear that says, “Cannot perform this operation.”

The fourth method removes a child element from its association with the parent:

1.  Select a lower-level Function within the Function Tree.
2.  Click the **Remove from Parent** button. The Function will be placed at the top level of the Function Tree dialog box.

The fifth method removes all the children from the Function Tree:

1.  Select a Function (either a top-level or a lower-level Function) that has one or more Functions as children.
2.  Click the **Remove all Children** button. All of the child Functions will be placed at the top level of the Function Tree dialog box.
 - * Any Child Procedures of the Function will be removed from the Function Tree dialog box.

4.9.3 Removing Elements

Only Procedures can be removed from the Function Tree dialog box. All Repository Function items will always be displayed in the dialog box. A Function item will either be at the top level in the dialog box or will be a child of another Function.

There are two methods of removing Procedures from the Function Tree. The first method removes a child element from its association with the parent:

3.  Select a Procedure within the Function Tree.
4.  Click the **Remove from Parent** button. The Procedure will be removed from the Function Tree.

The second method removes all the children from the Function Tree:

5.  Select a Function (either a top-level or a lower-level Function) that has one or more Procedures as children.
6.  Click the **Remove all Children** button. All of the child Procedures of the Function will be removed.
 - * Any Child Functions will be placed at the top level of the Function Tree dialog box.

 **Procedures removed from the Function Tree dialog box are NOT removed from the Repository.**

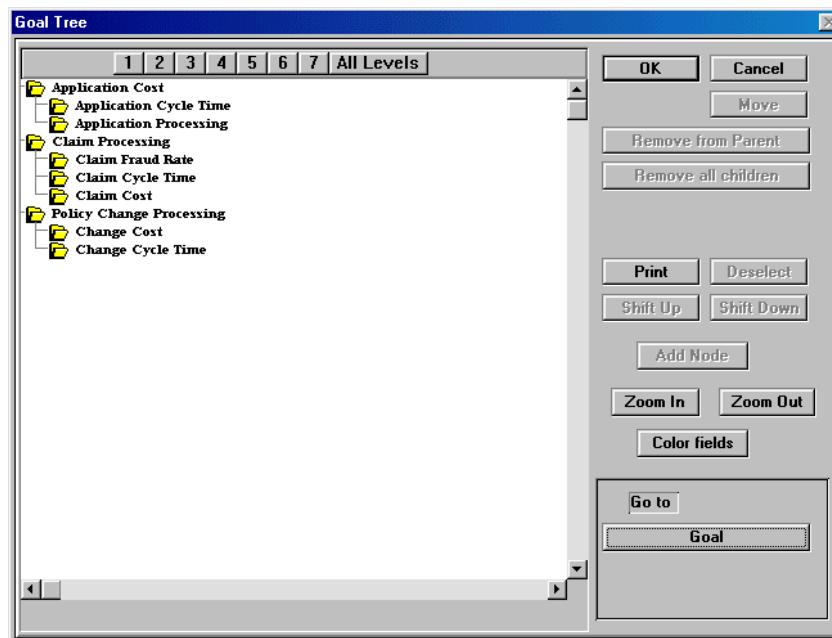
4.10 Goal Tree

The Goal Tree allows you to create a hierarchical structure of Goals (refer to the section entitled “Goals” on page 4-18 for information about Goals). A Goal can be defined as being a child of another Goal.

-  **You cannot add or delete Goal Repository items in this dialog box. Use the Goals dialog box (refer to the section entitled “Goals” on page 4-18).**

To edit a **Goal** from the **Goal Tree** dialog box:

1.  Select **Documentation Data** from the **Repository** menu. A sub-menu will appear.
-  **The Documentation Data item appears on the Repository menu in all Editing Modes except the IBM FlowMark and IBM MQ Workflow Editing Modes.**
2.  Select **Goal Tree** from the sub-menu. The **Goal Tree** dialog box will appear (see the figure below).



3. To determine the number of **Goal Tree** levels to be displayed, click the number 1, 2, 3, 4, 5, 6, or 7. The **Goal Tree** Diagram will display the specified number of levels. Click **All Levels** to display all your **Goal Tree** levels.
4. Click the **Zoom In** button to increase the size of the **Goal Tree** view.
5. Click the **Zoom Out** button to decrease the size of the **Goal Tree** view.
6. Click the **Print** button to open the **Print Preview** window.
7. Click the **Color Fields** button to display each level of the **Goal Tree** with a different color.
 - * Click the **Color Fields** button to display each level of the **Goal Tree** with a different color.

The following sections describe additional editing capabilities of the **Function Tree** dialog box.

4.10.1 Adding Elements

You cannot add or delete Goal Repository items in this dialog box. Use the Policies dialog box (refer to the section entitled “Goals” on page 4-18).

To add an Element to a Goal Tree:

1. Select a Goal (at any level).
2. Click the **Add Node** button. The **Goals List** dialog box will appear (see the figure below).



- * Click on any non-selected Goal to select that field.
 - * Click on any selected Goal to de-select that field.
 - * Click the **Select All** button to select all the Goals.
 - * Click the **Deselect** button to de-select all the Goals.
3. Click **OK** when done. All the selected items will be added as children for the Goal and you will be returned to the **Goal Tree** dialog box.

4.10.2 Moving Elements

Goal items cannot be removed from the Goal Tree dialog box. You must delete them from the Goals dialog box (refer to the section entitled “Goals” on page 4-18). However, you can move the Goals within the Goal Tree dialog box.

There are five (5) methods of moving Goal Tree elements. The first method is as follows:

1. Select an element of a Goal Tree (a lower-level Goal).
2. Click the **Move** button. The mouse cursor will change to a document icon.
3. Click on a Goal (at any level). The Element will be moved to the lowest child position for that Goal.

The second method is as follows:

1. Select an element of a Goal Tree (a lower-level Function).
2. Drag the cursor from the selected element. The cursor will change to a document icon.
3. Release the click on a Goal (at any level). The Element will be pasted to the lowest child position for that Goal.

The third method is as follows:

1. Select an element of a Goal Tree (a lower-level Goal).
2. Click the **Shift Up** button. The Goal Tree element will move up one position.
 - * If the element is in the top child position of a Goal, a message will appear that says, “Cannot perform this operation.”
3. Click the **Shift Down** button. The Goal Tree element will move down one position.
 - * If the element is in the bottom child position of a Goal, a message will appear that says, “Cannot perform this operation.”

Chapter 4: Repository: Documentation Data

The fourth method removes a child element from its association with the parent:

1.  Select a lower-level Goal within the Goal Tree.
2.  Click the **Remove from Parent** button. The Goal will be placed at the top level of the Goal Tree dialog box.

The fifth method removes all the children from the Goal Tree:

1.  Select a Goal (either a top-level or a lower-level Goal) that has one or more Goals as children.
2.  Click the **Remove all Children** button. All of the child Goals will be placed at the top level of the Goal Tree dialog box.

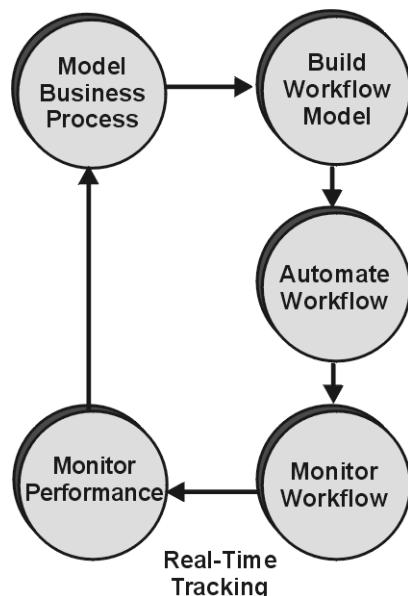
Chapter 5: Preparing for Monitoring a Process

The Workflow Monitor is a product developed by Holosofx, Inc. that utilizes Process Models developed in Workflow•BPR. Any Workflow•BPR Process Model that is tailored to be used by a Workflow Application and is, in fact, automated by that Workflow Application, can be monitored, in real-time, by the Workflow Monitor. It receives and displays real-time data from workflow engines while business processes are in progress and/or being executed. At this point in time, the Workflow Monitor works in conjunction with Version 2.3.4 of FlowMark by IBM. The Workflow Monitor and Workflow•BPR are components of a suite of products (the *e*•process suite) being developed by Holosofx that will enable organizations to realize Enterprise Process Management.

5.1 The Context for Monitoring: Enterprise Process Management

Enterprise Process Management (EPM) is a management discipline that tightly links work processes with their effect on the enterprise performance. This coupling makes it possible for a business manager to see how changes in process affect performance, which enables a higher level of awareness and strategic control. This capability is unprecedented in management practice today. For an EPM vision to be feasible, there needs to be a complete disciplined practice for modeling processes, defining performance measures, enacting workflow, and monitoring performance results.

The figure to the right displays the components that will enable an EPM system. The sections that follow will describe each of the five (5) components.



5.1.1 Modeling the Business Process

Business within an organization is carried out through the execution of business processes, whether the processes are documented or not. Often, these processes are convoluted due to reactionary changes to momentary circumstances that occur over time. Without a formal process documentation and management system, these processes can burden an organization with unnecessary costs and delays.

Although the documentation of business processes is beneficial in itself, a model of the business process can provide much greater value. A process model is much more valuable than a process map, in that the model contains information about how the process will be performed. Thus, a model can be tested and analyzed. In addition, the data in a process model can be extended to support many other aspects of the organization's business. This is accomplished by exporting the process information to other applications that rely on this information. For example, a process model can be exported for the following business uses:

- Workflow
- Policy and Procedure documentation
- Application development

By creating a process model that is more than a static drawing, the organization facilitates communication between the business functions as well as other cost-saving benefits. Also, by using a single tool to utilize process information for many purposes, you save on the duplication of effort required by using multiple, incompatible tools.

5.1.2 Building the Workflow Model

A Workflow Model is used by a Workflow Application to control the sequence of activities in an automated process and to determine who can perform the activities. Traditionally, the workflow model was created through a builder application related to the Workflow Application. The effort to create the model was usually done independent of any process modeling work that may have been performed. Thus, there was often a duplication of effort and a significant chance that the business models were out of sync with the workflow models.

Workflow•BPR provides the only opportunity to create and analyze a business model and then update the model to contain the entire set of information required by a Workflow Application. For example, a Business Model in Workflow•BPR can be supplemented so that the process information can be imported directly into an IBM FlowMark runtime server—without the need for using an intermediary application.

5.1.3 Performing the Process with a Workflow Application

Holosofx is working closely with major Workflow Application vendors, such as IBM (FlowMark) and FileNet (Visual Workflo) to provide seamless integration with this component of EPM. By developing the integration capabilities with the Workflow Application vendors, a Workflow•BPR process model becomes a common bridge between all the Workflow Applications and sets the stage for monitoring those processes automated by the Workflow Applications.

5.1.4 Monitoring the Workflow Process Information

Utilizing Workflow Applications is one step in creating efficient and reliable processes. The next step is to monitor and manage the process to ensure that the process is being performed the way it was intended. Process visibility in real-time is an increasingly required capability in fast response companies that have a build-to-order customer orientation.

Many events occur during the performance of an automated process, such as the start of an activity and the completion of an activity. All these events, and the information associated with the events, comprise the data that is captured during the Workflow Monitoring. The Holosofx Workflow Monitor contains a server application that receives each event through a pipeline from the Workflow Application—*as the event happens*. These events are then sent to the Process Viewing component of the Workflow Monitor.

What makes the Workflow Monitor work is that the Process Model is created in Workflow•BPR, then the model is exported to the Workflow Application *and* the Workflow Monitor at the same time. Thus, the Workflow Monitor knows exactly how the process is going to be performed and can specify where each workflow event fits within the process model. When the event arrives, the Workflow Monitor can immediately update the status of the process and the process administrator will know the status for every job that is being performed.

Workflow Monitor is designed to enable process visibility at a variety of levels. The Workflow Monitor allows the business user to monitor real-time data and also enables them to:

- View current jobs for any automated process, thus providing an in-process capability for continuous tracking and earliest correcting of problems as they happen.
- Adjust the Business Process Model to more faithfully represent the real process. This includes exporting actual performance durations back into the Process Model to replace the estimated values.
- Track and schedule jobs using project management techniques.

5.1.5 Monitoring the Performance of the Process

According to the February/March 1998 issue of the *Journal of Strategic Performance Measurement*, an organization's performance measurement system is nonproductive and inefficient due to reporting. "It could be that the information in the reports is too difficult to use, too voluminous or overwhelming to read, too detailed, untimely, incoherent or inappropriate for the management level receiving the information, unrealistic repetitive of other reports or not directed to factors that make a difference." Additionally, "activities and their measures should be integrated, extending across all departments and processes to observe the wider set of organizational objectives if productivity and profits are to increase together." This is the heart of EPM and part of the vision that Holosofx is fulfilling with the Business Monitor.

While the raw data of the events from the Workflow Application is useful for a process administrator who is trying to track down a problem, it is not as useful for those managing the business. Managers require summary data that shows how well the business is performing. Thus, the raw data from the Workflow Monitor needs to be categorized and summarized and presented to the manager in a form that is informative and understandable.

Workflow Monitor provides a higher monitoring layer – the Business Monitor – that applies data from Workflow Monitor to the predetermined performance measurement formulas. Thus, the Business Monitor generates real-time reports on a continuous basis. These reports can be viewed via the Internet. These features allow a business manager to track the performance of a business process easily with regard to cost, time, and profitability, and to simulate resource requirements and projected financial reports such as cash flow. These real time management-reporting capabilities solve many of the current management reporting problems and provide managers with the ability to find and correct performance problems at an early stage.

The Business Monitor has six measurement features:

- **Job Tracker:** shows all active jobs with statistics for time and cost, and shows a color code for the timeliness of each job.
- **Cost:** shows the cumulative average cost vs. expected cost of performing the Process.
- **Duration:** shows the average Working and Elapsed Duration of the Process vs. expected values of these durations.
- **Activity Tracker:** shows the average Task Elapsed Duration and Working Duration vs. the expected Elapsed Duration and Working Duration (as defined in the Process Model).

Managers will want a quick overview of the status of the process as it is being performed. The Job Tracker displays all the current jobs, their time duration, and a color-coded indication of their timeliness. The manager is immediately warned about potential problems by jobs that are coded Red (indicating a delay). The Job Tracker will also provide information about who to contact for delayed jobs.

The quality of the performance of the process is also a key concern of managers. Workflow•BPR allows the manager to specify strategic measurements about the quantity and quality of the performance of the process. These performance measurements can then be monitored in real time, rather than in batched reports that show up days or weeks later.

5.2 Preparing for the Workflow Monitor

There is no special preparation necessary for a Process Model to be monitored with the Workflow Monitor, beyond adding Workflow data to the Model. At this point, the Workflow Monitor only works with IBM FlowMark Version 2.3.4 or IBM MQ Workflow 3.1.2. Thus, the Process Model must be prepared for compatibility with FlowMark or MQ Workflow.

The basic steps for monitoring a Process Model are as follows:

- Develop the Business Model. Refer to the *Modeling Guide* for information on how to develop a Process Model.
 - * To get full use of the Workflow Monitor, you should enter the following types of data:
 - Elapsed Duration
 - Working Duration
 - Standard Cost of Resources (Roles and other Resources)
- Enhance the Business Model to include a Workflow Model that is consistent with FlowMark Version 2.3.4 or MQ Workflow 3.1.2. Refer to the *Integration with Workflow Applications Guide* for more information about developing the Workflow Model.
- Export the FlowMark FDL from Workflow•BPR. Refer to the *Integration with Workflow Applications Guide* for the steps to export the FDL file.
- Import the FlowMark FDL into the FlowMark database. Refer to the FlowMark documentation for the steps to import the FDL file.
- Open the Process Model Organization File with the Workflow Monitor Runtime Server. The Organization File is converted into a file that can be used by the Workflow Monitor. Refer to the Workflow Monitor *User's Guide* for the steps to convert an Organization File.
- Run the Process with FlowMark. Refer to the FlowMark documentation for information about running FlowMark Processes.
- Open the Workflow Monitor Client application and observe the events of the Process as they happen in FlowMark. Refer to the Workflow Monitor *User's Guide* for information about monitoring a Process.

5.3 Preparing for the Business Monitor

In anticipation of creating a workflow model and then monitoring the process from the business perspective, Performance Measures can be defined in the process model. These Performance Measures will address strategic concerns of the organization, such as response time, cost per transaction, error rates, etc. These Performance Measures will access data from the process that is being monitored and compare the data against a target value. The Performance Measure will consist of an equation that pulls out specific data elements from the process or a combination of data elements. The values of the Performance Measures can be displayed in the Business Monitor.

- ☛ **Currently, the display of any user-defined Performance Measure in the Business Monitor will be enabled by a customized Java Applet developed by Holosofx for each Customer.**

5.3.1 Using Sensors

By default, the Workflow Monitor will track, or sense, the events created by the Workflow Application. There are predefined “Sensors” to track the events and apply them to the Process Model. The Workflow Application events include the start and stop of activities. Performance Measures based on duration will utilize these events.

All Performance Measures will require Sensors first to capture the data and then apply the data to a Performance Measure. There are four basic types of Sensors:

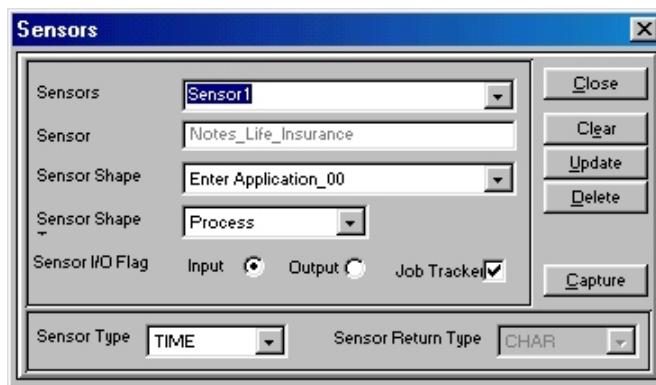
- Time
- Cost
- Count
- Field

- ☛ **Sensors are applied to a specific Process. Thus, a Sensor defined for one Process cannot be used for another Process.**

5.3.1.1 Defining a Sensor

To define a Sensor:

1. Choose **Performance Measures** from the **Process** menu. A sub-menu appears.
- The Performance Measures sub-menu is available in all Editing Modes except the Basic Editing Mode.**
2. Choose **Sensors** from the sub-menu. The **Sensors** dialog box (see the figure below, from the **Advanced** Editing Mode—the Sensors dialog box is not available in the **Basic** Editing Mode).



- * The Process for the Sensor is automatically filled into the **Sensor** text box. This text box cannot be edited.
- 3. Type the name of the Sensor in the **Sensors** combo box.
 - * You can select previously defined Sensors by clicking on the arrow at the right end of the **Sensors** combo box to bring up the list. Then select a Sensor from the list.
- 4. Select the type of object you want the Sensor attached to from the **Sensor Shape Type** list box.
 - * You can attach a Sensor to Connectors, Decisions, External Entities, External Processes, Go To Objects, Phis, Process Objects, Stops, and Tasks.
 - External Entities and External Processes are not valid objects for monitoring in FlowMark at this time.
- 5. Select the exact object you want the Sensor attached to from the **Sensor Shape** list box.
 - * After you select the Sensor Shape Type a list of those types of objects, specific to the active Process, will be in the Sensor Shape list.
- 6. Select the **Input** or **Output** radio button to specify the **Sensor I/O Flag**.
 - * **Input** is the default selection.

Chapter 5: Preparing for Monitoring a Process

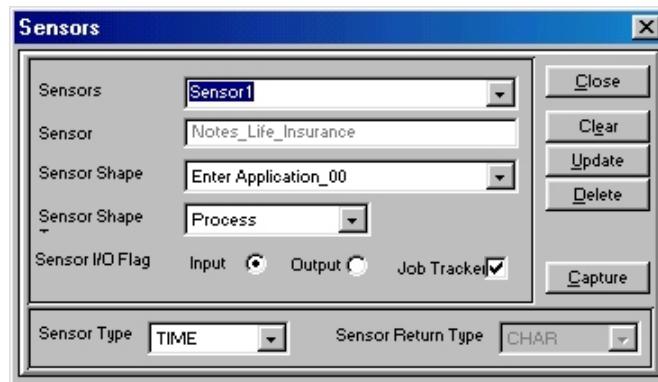
- * This setting only has an impact on Sensors that are attached to objects that have a time difference between input and output, such as Tasks and Process Objects. The time event for the input and output of the other objects will be the same.
7. Select the **Job Tracker** check box if you want the value of the Sensor to appear in the Job Tracker view of the Business Monitor. For example, you might want to view and search for an Invoice Number that is stored in a particular Data Field.
 8. Select the Sensor Type from the **Sensor Type** list box.
 - * There are four (4) Sensor types: Cost, Count, Time, and Field.
 - If you select Field as the Sensor Type, then a **Data Field Tree** and a **Field** text box will appear in the Sensors dialog box.
 - Select the appropriate Data Field from the **Data Field Tree**. The full path of the Data Field will be placed in the **Field** text box.
 - * The **Sensor Return Type** will automatically be filled based on the Sensor Type.
 - A Cost Sensor Type will have a Cost Sensor Return Type.
 - A Count Sensor Type will have an Integer Sensor Return Type.
 - A Field Sensor Type will have a Sensor Return Type that matches the selected Data Field type.
 - A Time Sensor Type will have a Time Sensor Return Type.
 9. Click **Add** or **Update** to apply your new settings immediately. When finished, click **Close**.

5.3.1.2 Capturing a Sensor

Capturing a sensor facilitates the assignment of a Sensor to a specific object in the Process. Instead of selecting the object from a list, you can select the object by clicking on that object in the Process window.

To capture a Sensor:

1. Choose **Performance Measures** from the **Process** menu. A sub-menu appears.
- The Performance Measures sub-menu is available in all Editing Modes except the Basic Editing Mode.**
2. Choose **Sensors** from the sub-menu. The **Sensors** dialog box appears (see the figure below, from the **Advanced** Editing Mode—the Sensors dialog box is not available in the **Basic** Editing Mode).



- * The Process for the Sensor is automatically filled into the **Sensor Process** text box. This text box cannot be edited.
- 3. Type the name of the Sensor in the **Sensors** combo box.
 - * You can select previously defined Sensors by clicking on the arrow at the right end of the **Sensors** combo box to bring up the list. Then select a Sensor from the list.
- 4. Click outside the **Sensors** dialog box on to an object in the active Activity Decision Flow Diagram. The **Sensors** dialog box will remain open.
 - * You may need to navigate through the Activity Decision Flow Diagram to find the appropriate object.
- 5. Click the **Capture** button in the **Sensors** dialog box. The Sensor Shape and Sensor Shape Type list boxes will automatically be filled.
- 6. Select the **Input** or **Output** radio button to specify the **Sensor I/O Flag**.
 - * **Input** is the default selection.

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- * This setting only has an impact on Sensors that are attached to objects that have a time difference between input and output, such as Tasks and Process Objects. The time event for the input and output of the other objects will be the same.
7. Select the **Job Tracker** check box if you want the value of the Sensor to appear in the Job Tracker view of the Business Monitor. For example, you might want to view and search for an Invoice Number that is stored in a particular Data Field.
 8. Select the Sensor Type from the **Sensor Type** list box.
 - * There are four (4) Sensor types: Cost, Count, Time, and Field.
 - If you select Field as the Sensor Type, then a **Data Field Tree** and a **Field** text box will appear in the Sensors dialog box.
 - Select the appropriate Data Field from the **Data Field Tree**. The full path of the Data Field will be placed in the **Field** text box.
 - * The **Sensor Return Type** will automatically be filled based on the Sensor Type.
 - A Cost Sensor Type will have a Cost Sensor Return Type.
 - A Count Sensor Type will have an Integer Sensor Return Type.
 - A Field Sensor Type will have a Sensor Return Type that matches the selected Data Field type.
 - A Time Sensor Type will have a Time Sensor Return Type.
 9. Click **Add** or **Update** to apply your new settings immediately. When finished, click **Close**.

5.3.2 Using Performance Measures

An example of a Performance Measure would be to track the number of orders that are greater than \$100. To do this, the user-defined Sensor, such as one called “Order Amount,” could be assigned to track the Data Field that is used to store the amount of the order. Then the Sensor could be used in an equation to determine if the amount is greater than \$100. Each job that comes in with a Data Field amount greater than \$100 is counted and reported in the Business Monitor.

You can also set Targets against which you want the Performance Measures to be compared. For example, to continue with the \$100 order Performance Measure, you could set a Target of 500 orders per month. The target is also displayed in the Business Monitor with a comparison of the actual numbers against the target. Both Yellow and Red Alarms can also be set for notification if the actual measure value passes an acceptable limit.

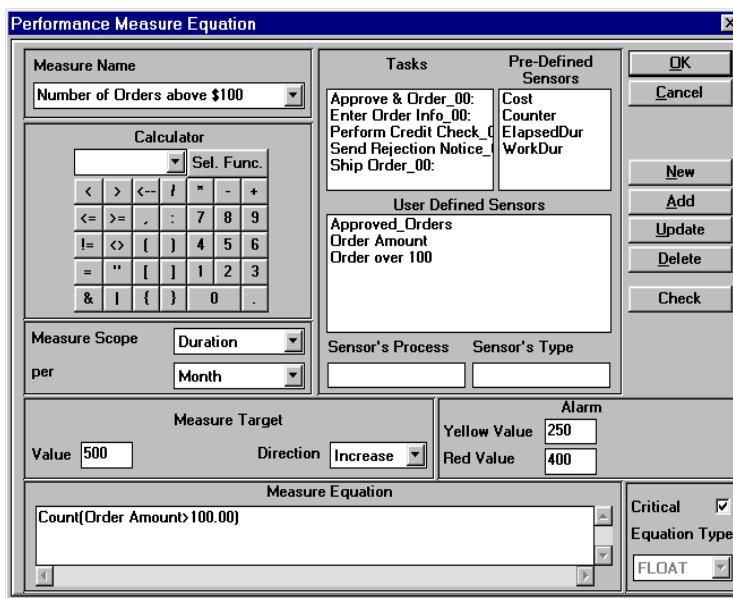
Examples of other Performance Measures that can be developed include:

- Number of Rejected Orders
- Ratio of Rejected vs. Accepted Orders

- Average Cycle Time per transaction
- Average Cost per transaction
- Total revenue generated

To define a Performance Measure:

1. Choose **Performance Measures** from the **Process** menu. A sub-menu appears.
- The Performance Measures sub-menu is available in all Editing Modes except the Basic Editing Mode.**
2. Choose **Equations** from the sub-menu. The **Performance Measure Equation** dialog box appears (see the figure below, from the **Advanced** Editing Mode—the Performance Measure Equation dialog box is not available in the **Basic** Editing Mode).



3. Type the name of the Performance Measure in the **Measure Name** combo box.
 - * You can select previously defined Performance Measures by clicking on the arrow at the right end of the **Measure Name** combo box to bring up the list. Then select a Performance Measure from the list.
4. Type the text of the Performance Measure Equation in the **Measure Equation** text box. You can also:
 - * Double-click on a Task that is listed in the **Tasks** list box to include it in the Expression.
 - * Double-click on a Sensor that is listed in the **Pre-Defined Sensors** list box to include it in the Expression.

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- The Process to which the Sensor is assigned will be displayed in the **Sensor's Process** text box.
 - The Type of the Sensor will be displayed in the **Sensor's Type** text box.
- * Double-click on a Sensor that is listed in the **User-Defined Sensors** list box to include it in the Expression.
 - * Select a Function from the Function selection box, then click the **Sel. Func.** button to include those items in the expression.
 - * Click on a number or symbol that is in the **Calculator** box to include it in the Expression.
5. To define the scope of the Performance Measure, select a scope value from the **Measure Scope** list box, then select the Scope Duration in the **Per** selection box.
 6. To set a Target for the Performance Measure:
 - * Type a Target value in the **Value** text box.
 - If the Equation is of type Duration, then select a unit from the **Value Unit** selection box.
 - * Define the direction of the Target by selecting **Increase** or **Decrease** from the **Direction** selection box.
 - * Type a first-level alarm in the Yellow Alarm text box.
 - If you select an Increasing Direction, then the Yellow Alarm value should be above the Target Value.
 - If you select an Decreasing Direction, then the Yellow Alarm value should be below the Target Value.
 - * Type a second-level alarm in the Red Alarm text box.
 - If you select an Increasing Direction, then the Red Alarm value should be above the Target Value and the Yellow Alarm value.
 - If you select a Decreasing Direction, then the Red Alarm value should be below the Target Value and the Yellow Alarm value.
 7. Validate the Equation by clicking the **Check** button.
 8. Click **Add** or **Update** to apply your new settings immediately. When finished, click **Close**.

Chapter 6: Customizing Workflow•BPR, Printing Outputs, Exporting, and Importing

Workflow•BPR enables you to personalize the way your organization's information is displayed by creating customized settings. By tailoring the format of the diagrams and tables, your data can be presented in a way that better meets the objectives of the organization.

In Workflow•BPR, the way you display your organization's information can be changed by defining alternate format settings and saving them under separate headings. Saving each setting separately lets you change your display from one setting to another quickly and easily. In addition, you can apply the same saved format to multiple diagrams and documents. Specific format preferences are defined by using the commands from the **Format** and **File** menu listings.

Once tables have been created, the Export feature allows you to export any of your tables directly to a spreadsheet or text processing application without losing the formatting attributes previously defined. By using the Import feature, you can import information directly into your organization's Repository.

6.1 Editing Modes

You can use the process modeling capabilities of Workflow•BPR for many purposes, such as documenting policies and procedures, developing applications, and integrating with Workflow Applications. The level of detail and data elements required may differ per each purpose for developing the Models. For example, the data required for modeling in preparation for integration with one Workflow Application can be different than the data required for another Workflow Application. A Process Model in Workflow•BPR contains all the data for all purposes of modeling. To avoid confusion about what data is applied for what purpose, Workflow•BPR will configure the Activity Decision Flow Diagram dialog boxes and menus so that the data will be applied towards one purpose, and all data not relevant for the desired purpose will be hidden from view.

There are seven (7) Editing Modes:

- **Basic:** This Editing Mode will display a simplified version of the menus.
 **The Alt+1 key will select this Editing Mode (if there are no dialog boxes open).**
- **IBM FlowMark:** This Editing Mode is tailored for integration with the FlowMark Workflow Application. To see the results of selecting this Editing Mode, refer to Chapter 2 of the *Integration with Workflow Applications Guide*.
 **The Alt+2 key will select this Editing Mode (if there are no dialog boxes open).**
- **IBM MQ Workflow:** This Editing Mode is tailored for integration with the MQ Workflow Application. To see the results of selecting this Editing Mode, refer to Chapter 3 of the *Integration with Workflow Applications Guide*.
 **The Alt+3 key will select this Editing Mode (if there are no dialog boxes open).**
- **FileNet Visual WorkFlo:** This Editing Mode is tailored for integration with the Visual WorkFlo Workflow Application. To see the results of selecting this Editing Mode, refer to Chapter 4 of the *Integration with Workflow Applications Guide*.
 **The Alt+4 key will select this Editing Mode (if there are no dialog boxes open).**
- **Line of Visibility:** This Editing Mode is tailored for developing models with a Line of Visibility methodology. Specialized Line of Visibility ADFs are available in this Editing Mode. Users of the DesignFlow Methodology will use the Line of Visibility Editing Mode.

- ☒ **The Alt+5 key will select this Editing Mode (if there are no dialog boxes open).**
- **E-Commerce:** This Editing Mode is tailored for developing models for the purpose of creating Process Models for E-Commerce activities. Specialized Line of Visibility ADFs are also available in this Editing Mode.
- ☒ **The Alt+6 key will select this Editing Mode (if there are no dialog boxes open).**
- **Advanced:** This Editing Mode will display most of the data elements and menu items found in the other Editing Modes.
- ☒ **The Alt+7 key will select this Editing Mode (if there are no dialog boxes open).**
- ☒ **The current Editing Mode will be displayed in the status bar at the bottom of the Workflow•BPR application.**

6.1.1 Selecting an Editing Mode

There are two ways to select an Editing Mode. The first method is as follows:

1. Choose **Editing Mode** from the **Format** menu. The **Editing Mode** dialog box will appear (see the figure below).



2. Select the appropriate radio button: Basic Mode, IBM FlowMark Mode, IBM MQ Workflow, FileNet Visual WorkFlo Mode, Line of Visibility Mode, E-Commerce Mode, or Advanced Mode.
3. Click **OK** or press **Enter**. The Activity Decision Flow Diagram object dialog boxes will be configured to support process modeling for the selected Editing Mode.

The second method for selecting an Editing Mode uses a set of Alt+numeric key combinations. To select an Editing Mode, hold down the Alt key, then press the number corresponding to the desired Editing Mode:

- **Alt+”1” – Basic**
- **Alt+”2” – IBM FlowMark**
- **Alt+”3” – IBM MQ Workflow**
- **Alt+”4” – FileNet Visual WorkFlo**
- **Alt+”5” – Line of Visibility**
- **Alt+”6” – E-Commerce**
- **Alt+”7” – Advanced**

6.2 Customizing Workflow•BPR Using Preferences

In Workflow•BPR, you customize the way your tables and charts (excluding Gantt charts) appear by creating new preferences. This is accomplished by using the **Preferences** command from The File menu. The default Preference setting is utilized as a template to create customized settings, which are then saved under their own headings. Because Workflow•BPR uses the default Preference setting for standard table views, it cannot be deleted. However, you can change its characteristics.

6.2.1 Preference Items

The following are the elements in a Preference setting that can be customized. You use these elements to indicate:

- **Date Order:** The order in which Workflow•BPR lists the day, month, and year in a date.
- **Date Format:** The way in which Workflow•BPR displays the day, month, and year in a date.
- **Date Separator:** The assigned symbol Workflow•BPR uses to separate the day, month, and year in a date.
- **Time Option:** Whether or not Workflow•BPR displays the time.
- **Time Format:** Whether Workflow•BPR uses a 12-hour or 24-hour format when displaying time.
- **Time Separator:** The assigned symbol Workflow•BPR uses to separate hours and minutes when displaying time.
- **Currency Sign:** Whether Workflow•BPR displays the currency symbol before or after the currency amount.
- **Duration Unit:** Which time unit Workflow•BPR uses as the default duration.
- **Units of Output:** Whether Workflow•BPR uses a standard unit for all measurements (unify) or uses whatever measurement unit was entered (as inputs).
- **Thousand Sign:** The symbol Workflow•BPR uses when displaying numbers larger than 999.
- **Decimal Sign:** The assigned symbol Workflow•BPR uses when displaying decimals.
- **Precision:** The assigned number of spaces Workflow•BPR uses when displaying decimals.
- **Main Account:** The assigned number of spaces Workflow•BPR uses for main account numbers in the Chart of Accounts.

- **Sub-Account:** The assigned number of spaces Workflow•BPR uses for sub-account numbers in the Chart of Accounts.
- **Help Bar:** Whether or not Workflow•BPR displays the Help bar.
- **Filter:** Whether Workflow•BPR uses single or multiple filtering.
- **Autosave(mm):** The amount of time between an automatic saving of the open Processes.
- **Startup Editing:** The Editing Mode that will be set when you open Workflow•BPR.

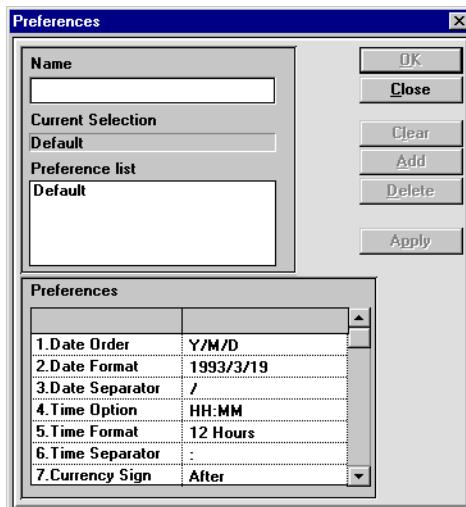
6.2.2 Editing Preferences

The following two (2) sections describe how to create/modify and delete a preference setting.

6.2.2.1 *Modifying a Preference Setting*

To create or modify a Preference setting:

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



2. Select the Preference from the **Preference list**, OR type the name of your new setting in the **Name** text box.
3. Select the item designated for change from the **Preferences** list. Double-click on its value information (the **Value** column of the **Preferences** list box) to display a dialog box for the selected item. Click the appropriate radio button, then select from a selection box to choose a value, or type in the appropriate information as needed. This procedure is necessary for every item you want to define.
4. When defining one setting, click **OK**. If defining multiple settings, click **Add** or **Update**.
5. Click **Apply** to apply your new settings immediately. When finished, click **Close**.

6.2.2.2 **Deleting a Preference Setting**

To delete a Preference setting:

1. Choose **Preferences** from the **File** menu. The **Preferences** dialog box appears.
2. In the **Preferences** dialog box, select a setting from the **Preference List** box.
3. To delete the Preference setting (*except for the default*), click **Delete**.
4. Click **OK**.

6.3 Customizing Activity Diagrams Using Drawing Options

The **Drawing** command from the Format menu opens the Drawing Options dialog box. In Workflow•BPR, Drawing Options are used to change the way certain elements in your diagrams and their Activity Objects appear. Each Drawing Options dialog box contains a representative sample for an Activity Diagram, which shows Activity Objects, Lines, and Bars. When an object is clicked, the options related to the selected object are displayed in the dialog box. You can then select the options displayed in black and observe their result in the diagram. The Drawing Objects include External Entity, Phi, Task, Process, Decision, Choice, External Process, and Go To. Lines include Marked lines, Unmarked lines, Arrowheads, and Grid lines. Bars include toolbars and status bars. Workflow•BPR comes with a default Drawing Option setting already defined, which you can use as a template to create customized settings. *Once again*, you can change the attributes of the default Drawing Option, but you cannot delete the option itself.

6.3.1 Diagram Drawing Option Elements

The following are the different Drawing Option elements that can be customized for diagrams. You use these elements to indicate:

- **Marked Line:** The style, width, and color of the line connecting critical work elements.
- **Unmarked Line:** The style, width, and color of any line that passes through a non-critical work element.
- **Arrowhead:** Whether or not Workflow•BPR displays an Arrowhead as part of the Connector Object.
- **Grid Line:** The style, width, and color of the format grid lines.
- **Toolbar Position:** Whether your toolbar position is vertical, horizontal, or inside its own pop-up window.
- **Status Bar:** Whether your status bar is on or off.

6.3.2 Drawing Option Elements Of Diagram Objects

The following are the different Drawing Option elements that you can customize for Processes. You use these elements to indicate:

- **Default Color:** A default color for the selected object type.
- **Default Pattern:** A default pattern for the selected object type.

- **Color Mode:** Whether or not Workflow•BPR displays the object type default color or other colors, depending on the Object:
 - * Entity/Process External - Entity color
 - * Phi - Display Phi with the Phi Type color or Phi Type Bitmap
 - * Task - Organization Unit color or Function color
 - * Process Object - Organization Unit color or Function color
- **Upper Field Label Type:** A choice of what information is displayed above the Object, depending on the Object:
 - * **External Entity** - None, or Entity Name
 - * **External Process** - None, Entity Name, Process Name, Abbreviation, or Elapsed Duration
 - * **Phi** - None, Name, Phi Type, Abbreviation, or Phi State
 - * **Task** - None, Name, Resource, Function, Organization Unit, Abbreviation, or Both Durations (Elapsed and Working)
 - * **Process Object** - None, Name, Resource, Function, Organization Unit, Abbreviation, or Elapsed Duration
 - * **Decision** - None, Name, Choices (for Binary Decisions), Follows RN
 - * **Choice** - None, Name, Percent
 - * **Go To** - None, Label, Description
- **Upper Field Label Font:** The font type, style, color, and size of the information appearing above the selected object type.
- **Lower Field Label Type:** A choice of what information is displayed below the object, depending on the object (the same list as appears for **Upper Field Label Type**).
- **Lower Field Label Font:** The font type, style, color, and size of the information appearing below the selected object type.
- **First Status Bar Field:** A choice of what information is displayed in the first field of the status bar of the object, depending on the object (the same list as appears for **Upper Field Label Type**).
- **Second Status Bar Field:** A choice of what information is displayed in the second field of the Status Bar of the Object, depending on the object (the same list as appears for **Upper Field Label Type**).
- **Third Status Bar Field:** A choice of what information is displayed in the third field of the Status Bar of the Object, depending on the object (the same list as appears for **Upper Field Label Type**).
- **Fourth Status Bar Field:** A choice of what information is displayed in the fourth field of the Status Bar of the Object, depending on the object (the same list as appears for **Upper Field Label Type**).
- **Display: For Annotation Objects.** Either the Text or None is displayed.

- **Annotation: For Annotation Objects.** Allows you to select the font of the Text.

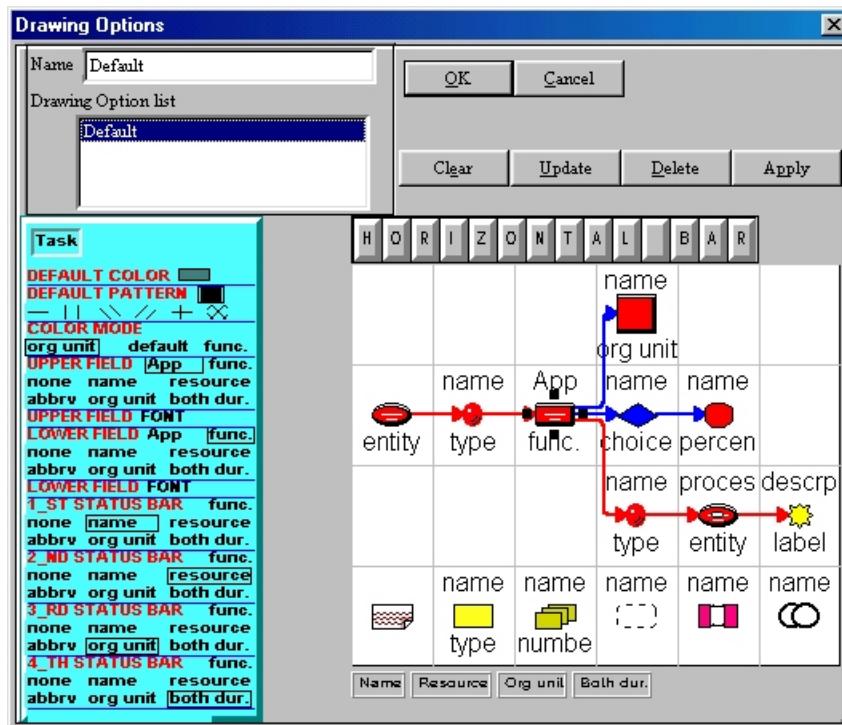
6.3.3 Editing Drawing Options

The following sections describe how to create, update, and delete a Drawing Option setting:

6.3.3.1 Creating a Drawing Option Setting

To create a Drawing Option setting:

1. Choose **Drawing** from the **Format** menu, or double-click on the **ADF Toolbar**. The **Drawing Options** dialog box appears (see the figure below).



2. Type the name of your new setting in the **Name** text box.
3. Click on one of the graphical Objects in the lower right of the dialog box (such as Task) to get the list of options for that object in the lower left of the dialog box.
4. Select the item you want to change from the **Items** list. Click the appropriate value for the options as needed. Do this for every object whose items and values you want to change.
5. When defining one setting, click **OK**. If defining multiple settings, click **Add**.
6. Click **Apply** to apply your new settings immediately.
7. When finished, click **Close**.

6.3.3.2 *Updating a Drawing Option Setting*

To update a Drawing Option setting:

1. Choose Drawing from the **Format** menu, or double-click on the **ADF Toolbar**. The **Drawing Options** dialog box appears.
2. In the **Drawing Options** dialog box, select **Default** from the **Drawing Option List** box (or any other saved set).
3. Click on one of the graphical Objects in the lower right of the dialog box (such as Task) to get the list of options for that object in the lower left of the dialog box.
4. Select the item you want to change from the **Items** list. Click the appropriate value for the options as needed. Do this for every Activity object whose items and values you want to change.
5. Click **Update** to complete your Drawing Option setting changes.
6. Click **Apply** to apply your new settings immediately.
7. When finished, click **Close**.

6.3.3.3 *Deleting a Drawing Option Setting*

To delete a Drawing Option setting:

1. Choose Drawing from the **Format** menu, or double-click on the **ADF Toolbar**. The **Drawing Options** dialog box appears.
2. In the **Drawing Options** dialog box, select any saved set except **Default** from the **Drawing Option List** box.
3. To delete the Drawing Option setting entirely (except for the default), click **Delete**.
4. Click **Close**.

6.4 Time Scale Options

Time Scale options are divided into three main categories: **scale**, **major**, and **minor**. Scale determines the start and end measurement dates in terms of years, and also defines some table or chart format features. The Major Time Scale unit is the largest selected arbitrary time measurement. It is made up of, or measured in, Minor Time Scale units. For example, if you defined your Major Time Scale unit as being a yearly quarter, and your Minor Time Scale unit as being a month, the Major Time Scale unit (quarter) would consist of three Minor Time Scale units (months). In terms of a Gantt chart, the table heading is comprised of the Major Time Scale, and the table sub-heading is comprised of the Minor Time Scale.

6.4.1 Time Scale Values

6.4.1.1 Scale Values

The following are the different **Scale** values that can be customized. You use these elements to indicate:

- **Start Year:** The year Workflow•BPR uses to begin your Time Scale.
- **End Year:** The year Workflow•BPR uses to end your Time Scale.
- **Minor Width:** The field space Workflow•BPR allows for Minor Time Scale information.
- **Horizontal Line:** The line color Workflow•BPR uses to display Time Scale information.
- **Horizontal Separator:** Whether or not Workflow•BPR displays horizontal separators.

6.4.1.2 Major Time Scale Unit Values

The following are the different **Major Time Scale Unit** values that can be customized. You use these elements to indicate:

- **Unit:** Hours, days, weeks, months, quarters, and years for the Major Time Scale unit.
- **Label:** Time unit label information.
- **Align:** Left, right, or center alignment for Time Scale and Label information.
- **Line:** The line color Workflow•BPR uses to display Major Time Scale information.
- **Font:** Which font Workflow•BPR uses to display Major Time Scale information.

- **Major Separator:** Whether or not Workflow•BPR displays a line separating Major Time Scale units.

6.4.1.3 Minor Time Scale Unit Values

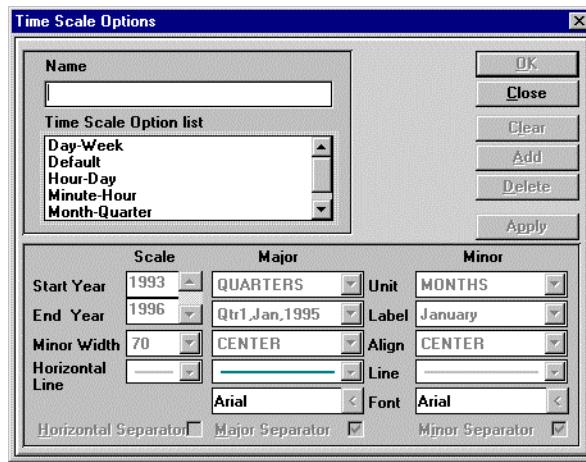
The following are the different **Minor Time Scale Unit** values that can be customized. You use these elements to indicate:

- **Unit:** Hours, days, weeks, months, quarters, and years for the Minor Time Scale unit.
- **Label:** Time unit label information.
- **Align:** Left, right, or center alignment for Time Scale and Label information.
- **Line:** The color line Workflow•BPR uses to display Minor Time Scale information.
- **Font:** Which font Workflow•BPR uses to display Minor Time Scale information.
- **Minor Separator:** Whether or not Workflow•BPR displays a line separating Minor Time Scale units.

6.4.1.4 Creating a Time Scale Options Setting

To create a Time Scale Options setting:

1.  Choose **Time Scale** from the **Format** menu. The **Time Scale Options** dialog box appears (see the figure below).



2. Type the name of your new setting in the **Name** text box.
3. To edit the **Start Year** or **End Year**, click *inside* the appropriate text box, then click the up and down arrows to choose the year preferred. Each mouse click changes the date by one year.
4. To edit the **Major** or **Minor Font**, click the arrow button next to the listed font to bring up the **Font** dialog box. Select a font and its attributes, then click **OK** to return to the **Time Scale Options** dialog box.
5. Click to select or deselect the check boxes for the **Horizontal**, **Major**, or **Minor Separators**.
6. To edit the other fields in the dialog box, click to display the list of values for the field, then click to select a value.
7. When defining one setting, click **OK**. If defining multiple settings, click **Add**.
8. Click **Apply** to apply your new setting immediately.
9. When finished, click **OK**.

6.4.1.5 Updating a Time Scale Options setting

To update a Time Scale Options setting:

1. Choose **Time Scale** from the **Format** menu. The **Time Scale Options** dialog box appears.
2. In the **Time Scale Options** dialog box, select a setting from the **Time Scale Option List** box.
3. From the **Time Scale Option** area, select an item from the **Scale**, **Major**, or **Minor** section to update (refer to the instructions from the previous section-3.2.1).
4. Click **Update**.
5. Click **Apply** to apply your new setting immediately.
6. Click **Close**.

6.4.1.6 Deleting a Time Scale Options Setting

To delete a Time Scale Options setting:

1. Choose **Time Scale** from the **Format** menu. The **Time Scale Options** dialog box appears.
2. In the **Time Scale Options** dialog box, select a setting from the **Time Scale Option List** box.
3. To delete a setting (except for the default setting), click **Delete**.
4. Click **Close**.

6.5 Customizing Gantt Charts

A Gantt chart is a specialized view of your organization's work combining both a table and a bar graph. Together, these two elements display activity and scheduling information for a selected diagram. The right portion of the chart graphically displays scheduling information as horizontal bars on a timeline for an active diagram. The left portion of the chart displays associated activity information. The **Time Scale** command from the Format menu is used to define or change the way the Time Scale elements appear in your Gantt charts (refer to the section entitled “” on page 6-13 of this chapter). The **Gantt Chart** command from the Format menu is utilized to define or change the way the bars and any associated information representing scheduling options for selected work elements appear.

Each Gantt chart in Workflow•BPR also includes a table. You format the table portion of your Gantt chart using **Define Layout** from The Table menu.

Workflow•BPR comes with a default Gantt chart setting already defined. Just like the other Format menu selections, you cannot delete the default setting, but you can change its characteristics. The default Gantt chart setting is used as a template from which to create customized settings.

6.5.1 Gantt Chart Setting Options

6.5.1.1 “Bars For” List Options

In the **Gantt Chart Options** dialog box, you use options from the **Bars For** list. This element is utilized to select the bars representing scheduling options for work elements. The following four options can be selected from the scheduling list to indicate elements that can be:

- **Early and Float:** Started early and can float
- **Late and Float:** Started late and can float
- **Early and No Float:** Started early but cannot float
- **Late and No Float:** Started late but cannot float

6.5.1.2 “Bars For” Attributes

Below the **Bars For** lists are the **Item** and **Value** lists from which the specific attributes you want to change are selected. The following are the different attributes that can be customized by selecting:

- **Color:** The color for the selected scheduling bar.
- **Style:** The pattern for the selected scheduling bar.
- **Height:** The point size for the height of the selected scheduling bar.
- **Left Text Field:** Whether the description, the abbreviation, the duration, the organization unit, or no information appears to the left of the selected scheduling bar.
- **Left Text Font:** The font, font style, size, and color of the information appearing to the left of the selected scheduling bar.
- **Top Text Field:** Whether the description, the abbreviation, the duration, the organization unit, or no information appears at the top of the selected scheduling bar.
- **Top Text Font:** The font, font style, size, and color of the information appearing at the top of the selected scheduling bar.
- **Right Text Field:** Whether the description, the abbreviation, the duration, the organization unit, or no information appears to the right of the selected scheduling bar.
- **Right Text Font:** The font, font style, size, and color of the information appearing to the right of the selected scheduling bar.
- **Bottom Text Field:** Whether the description, the abbreviation, the duration, the organization unit, or no information appears at the bottom of the selected scheduling bar.
- **Bottom Text Font:** The font, font style, size, and color of the information appearing at the bottom of the selected scheduling bar.
- **Inside Text Field:** Whether the description, the abbreviation, the duration, the organization unit, or no information appears on the inside of the selected scheduling bar.
- **Inside Text Font:** The font, font style, size, and color of the information appearing on the inside of the selected scheduling bar.

6.5.1.3 *Activity Related Options*

There are three different work activities, each with three options that you can customize from the Diagram Options list: Task, Process, and environment (representing External Processes/Entities). The options to be selected are:

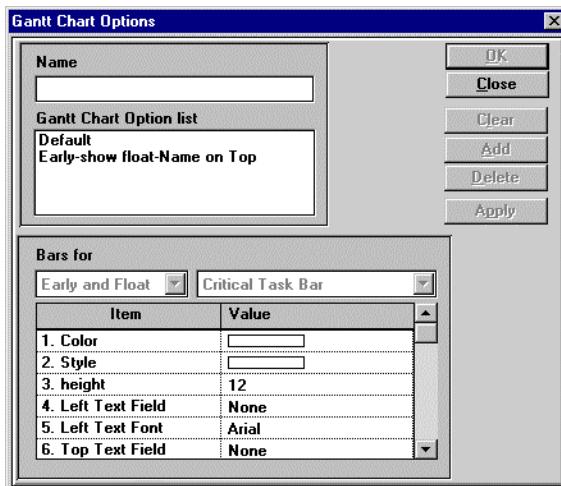
- **Critical Task Bar:** The bar representing critical Tasks.
- **Non-Critical Task Bar:** The bar representing non-critical Tasks.
- **Float Task Bar:** The bar representing Tasks that can float without affecting the schedule.
- **Critical Sub-Process Bar:** The bar representing critical sub-Processes.
- **Non-Critical Sub-Process Bar:** The bar representing non-critical sub-Processes.
- **Float Sub-Process Bar:** The bar representing sub-Processes that can float without affecting the schedule.
- **Critical External Process Bar:** The bar representing critical external Processes/external entities.
- **Non-Critical External Process Bar:** The bar representing non-critical external Processes/external entities.
- **Float External Process Bar:** The bar representing external Processes/external entities that can float without affecting the schedule.

6.5.2 Editing Gantt Chart Options Settings

6.5.2.1 Creating a Gantt Chart Options Setting

To create a Gantt chart Options setting:

1. Choose **Gantt Chart** from the **Format** menu. The **Gantt Chart Options** dialog box appears (see the figure below).



2. In the **Gantt Chart Options** dialog box, type the name of your new setting in the **Name** text box.
3. Select a **Scheduling Option** (e.g., Early and Float) for the bar you want to edit.
4. Choose an **Activity Decision Flow Diagram** object for the bar you want to edit (e.g., Critical Task Bar).
5. To edit an item for the selected bar, double-click on its value information to display a dialog box for the selected value. Click the appropriate radio button to choose a value, or type in the appropriate information as needed.
6. When defining one setting, click **OK**. If defining multiple settings, click **Add**.
7. Click **Apply** to apply your new settings immediately.
8. When finished, click **Close**.

6.5.2.2 *Updating a Gantt Chart Options Setting*

To update a Gantt chart Options setting:

1. Choose **Gantt Chart** from the **Format** menu. The **Gantt Chart Options** dialog box appears.
2. In the **Gantt Chart Options** dialog box, select a setting from the **Gantt Chart Option List** box.
3. From the **Bars For** area, select a Scheduling and Diagram Object option from the appropriate lists to update (refer to the instructions from the previous section).
4. Click **Update**.
5. Click **Apply** to apply your new settings immediately.
6. Click **Close**.

6.5.2.3 *Deleting a Gantt Chart Options Setting*

To delete a Gantt chart Options setting:

1. Choose **Gantt Chart** from the **Format** menu. The **Gantt Chart Options** dialog box appears.
2. In the **Gantt Chart Options** dialog box, select a setting from the **Gantt Chart Option List** box.
3. To delete the entire setting (except for the default setting), click **Delete**.
4. Click **Update**.
5. Click **Apply** to apply your new settings immediately.
6. Click **Close**.

6.6 Exporting and Importing Files

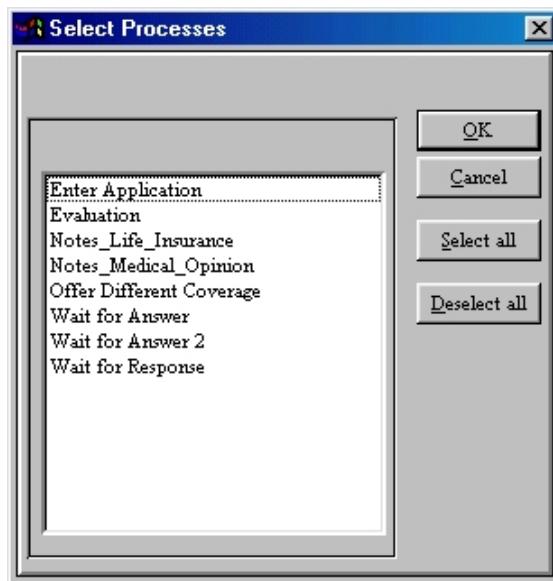
6.6.1 Exporting Processes

The Export Processes feature was designed to help organizations develop Processes collaboratively. The development of large Processes can be distributed among many people in an organization. Then, at some point, the work will need to be consolidated. The Export Processes and Import Processes features assist organizations in consolidating large Processes. The Export Processes feature will create a new Organization File that contains only the Processes that you wish to incorporate into another Organization File. The Import Processes feature allows you to import any set of Processes into an Organization File (refer to the section Importing Processes on page 6-26 for more information about the Import Processes feature).

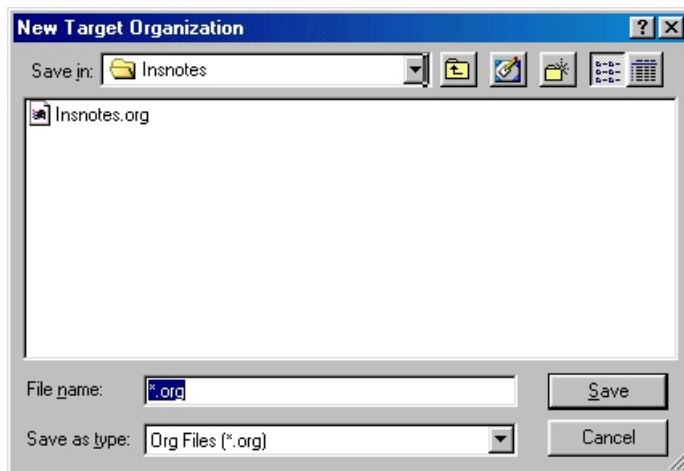
To use the Export Processes feature:

1. Close all open Process files.
2.  Choose **Import/Export** from the **File** menu. A sub-menu appears.
3.  Choose **Export Processes** from the sub-menu. The **Select Processes** dialog box appears (see the figure below).

 You can access this command by  typing Ctrl+K.



4. Select the Processes that you want to export by clicking on the name of the Processes in the list box.
 - * Click the **Select all** button to select all the Processes in the list.
 - * Click the **Deselect all** button to deselect all the Processes in the list.
 - * If a Process you want to import contains nested Processes, then all of those nested Processes will automatically be exported.
5. Click **OK** or press **Enter**. The **New Target Organization** dialog box will appear (see the figure below).



6. Select the appropriate drive and/or directory where you want to save your Organization File.
 - * Double-click a folder in the large box to go down the tree.
 - * Click the **Up One Level** button to go up the tree.
7. Type the name of the new Organization File in the **File Name** text box.
 - * If you do not include the .org extension, Workflow•BPR will add it for you.
8. Click **OK** or press **Enter**. Workflow•BPR creates an Organization File and an Organization Directory in which to place the new Organization File. The Processes that you selected and the Repository will be included in the new Organization File.

6.6.2 Exporting Tables

The Export feature allows for directly exporting any one of your tables to a database, spreadsheet, or text Processing application without losing the formatting attributes previously defined.

To export a table:

1. From the **Table** menu, open the table from which data is to be exported.
2.  Choose **Import/Export** from the **File** menu. A sub-menu appears.
3.  Choose **Export** from the sub-menu. The **Export (Select Table Type)** dialog box appears (see the figure below).



 You can access this command by  typing Ctrl+E.

4. From the **Export (Select Table Type)** dialog box,  select the appropriate table type from the **Data Base Table Types** list.
5.  Click **Text** to export your table data strictly as text.  Click **Normal** to export your data as both text and numeric fields.

6. Click the **Next** button. The **Export (Select Table)** dialog box appears (see the figure below).



7. Select the drive and/or directory where you want to save your exported file, then type the name of your file in the **Table Name** text box.
8. When exporting Delimited Text files, click **Options**. Workflow•BPR expands the **Export (Select Table)** dialog box to define the text file format.
 - * To specify if the first record contains field names, click the **First Record Contains Field Names** check box.
 - * To define the text qualifier, select the appropriate one from the **Text Qualifier List** box.
9. Click **Finish**.

6.6.3 Exporting Pictures of Diagrams

To export a picture of an Activity Decision Flow Diagram:

1. Open a Process or a Generated Case.
2. Draw a marquee box surrounding the Objects you wish to export.
3. ⌘ Choose **Copy** from the **Edit** menu.
4. Switch to the destination application (e.g., Microsoft Word).
5. ⌘ Choose **Paste** from the **Edit** menu of the destination application. A bitmap of the selected area of the Activity Decision Flow Diagram will be pasted in the destination file.

 **The zoom level of the diagram will affect how the text of the diagram will appear when pasted. Generally, zooming in to show large objects on the screen will provide better images when pasted. You will probably have to test different zoom levels to get the image quality you would like.**

6.6.4 Importing Processes

Workflow•BPR is a single-user application, however, it has a special feature that allows users to work in parallel and to merge their work so that they can collaborate in Process Modeling. This feature allows for importing Processes from one Organization Directory to another. When importing a Process Model, you also import all the data that is in the Repository of the source Organization File.

To import Process data from one organization file to another:

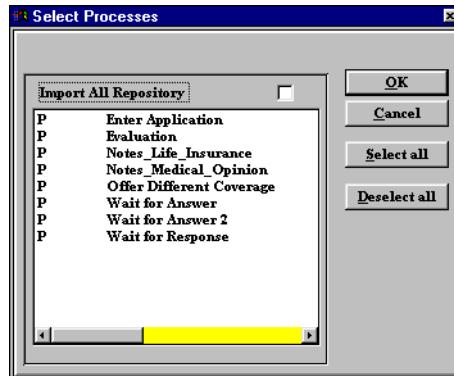
1. Close all open Process files.
2. Choose **Import/Export** from the **File** menu. A sub-menu appears.
3. Choose **Import Processes** from the sub-menu. The **Select Source Organization** dialog box appears (see the figure below).

You can access this command by typing **Ctrl+I**.



4. Select the organization file you want from the large box.
 - * 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. Click **Open** or press **Enter**. The **Select Process** dialog box appears (see the figure below).



6. If you select the **Import All Repository** check box, then the entire Repository will be imported. Otherwise, only the items that exist in the imported Processes will be imported into the Repository—except that all Organization Data will be imported.
7. Select the Process you want from the list box.
 - * Click the **Select all** button to select all the Processes in the list.
 - * Click the **Deselect all** button to deselect all the Processes in the list.
8. Click **OK**. The Process(es) you have selected and the entire Repository of the other organization file will be imported into your organization file.

6.6.5 Importing Data

The Import Data feature allows for the importing of an information-created database, a spreadsheet, or text processing applications directly into your organization's Repository. Information is imported into the Repository by category. As a result, Workflow•BPR will allow you to import only information that is unique to the selected data category. To be successfully imported and incorporated into the Repository, your source data must be formatted to conform to the existing data fields specific to each category. If the data category is divided into types (e.g. "employee" as a type of Resource), you can import only one type at a time for each category. In addition, the data category must contain at least one previous data entry.

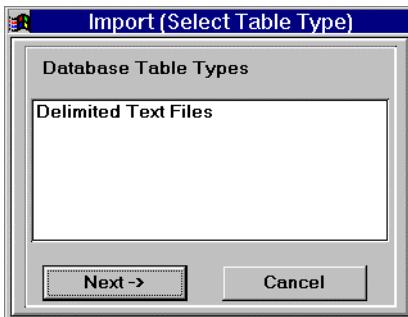
Workflow•BPR requires that your source data be formatted to include the following fields per specific category:

- **Independent Items:** These items can be imported at any time:
 - * **Chart of Accounts:** Account Code, Type, Cash, and Name
 - * **Delay Reasons:** Name
 - * **Locations:** Address, City, Country, Name, Post Box, State, and Zip Code
 - * **Media:** Name, Transfer Duration
 - Transfer Duration can be specified by time and unit. The format is time number followed by the first letter of the unit (e.g., 1d for 1 day, 30m for 30 minutes, etc.). The units are second (s), minute (m), hour (h), day (d), and week (w). There can be no spaces between the time and the unit. All durations in the file must be specified—blank items will cause an error.
 - * **External Entity:** Name
 - * **Phi Type:** Name, Category
 - * **Currency:** Currency, Exchange Rate, and Symbol
 - * **Classification 4:** Class. 4 Name
 - * **Classification 5:** Class. 5 Name
 - * **Function:** Name
 - * **Data Field:** Name, Alias, Array, and Type
 - * **Decision:** Name, Type
 - * **Variables:** Name, Financial
 - * **Applications:** Name, Entry Point, Foreground, Inheritance, No Automatic Close, Path Description, Platform, Type, Visibility, and X Window Application
- **Dependent Items:** These items are best imported after other items:

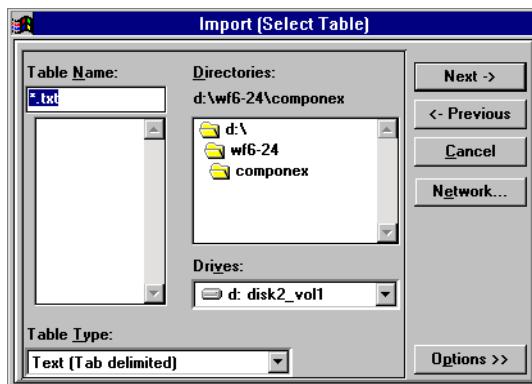
- * **External Processes:** Abbreviation, External Entity, Elapsed Duration, and Name
 - Dependent on External Entities
 - Elapsed Duration can be specified by time and unit. The format is time number followed by the first letter of the unit (e.g., 1d for 1 day, 30m for 30 minutes, etc.). The units are second (s), minute (m), hour (h), day (d), and week (w). There can be no spaces between the time and the unit. All durations in the file must be specified—blank items will cause an error.
- * **Organization Units:** Name, Head Unit, Location, and Manager
 - Dependent on Location, Role
- * **Phis:** Abbreviation, Max. Number of Copies, Name, and Single Access
 - Phis are imported separately by Phi Type
 - Dependent on Phi Type
- * **Resources:** Name, Overtime Cost, Per Unit Cost, and Standard Cost
 - Standard and Overtime Cost must be converted to a per week value
 - Resources are imported by Resource Type separately
 - Dependent on Currency
- * **Employees:** First Name, Middle Name, Last Name, User ID, Person ID, E-mail, Job Title, and Organization Unit
 - Dependent on Roles, Organization Units
- * **Task:** Name, Abbreviation, Classification 4, Classification 5, Function, Organization Unit, Resource, Quality Control, Value-Added, Workflow, Elapsed Duration, and Working Duration
 - Dependent on Organization Unit, Resource, Function, Classification 4, and Classification 5
 - Elapsed Duration and Working Duration can be specified by time and unit. The format is time number followed by the first letter of the unit (e.g., 1d for 1 day, 30m for 30 minutes, etc.). The units are second (s), minute (m), hour (h), day (d), and week (w). There can be no spaces between the time and the unit. All durations in the file must be specified—blank items will cause an error.
- * **Choice:** Choice Name, Decision Name, Percent, and Type
 - Dependent on Decision

To import data from another application into your Repository:

1. Choose **Import/Export** from the **File** menu. A sub-menu appears.
 2. Choose **Import Data** from the sub-menu. The **Import (Select Table Type)** dialog box appears (see the figure below).
- You can access this command by typing **Ctrl+M**.

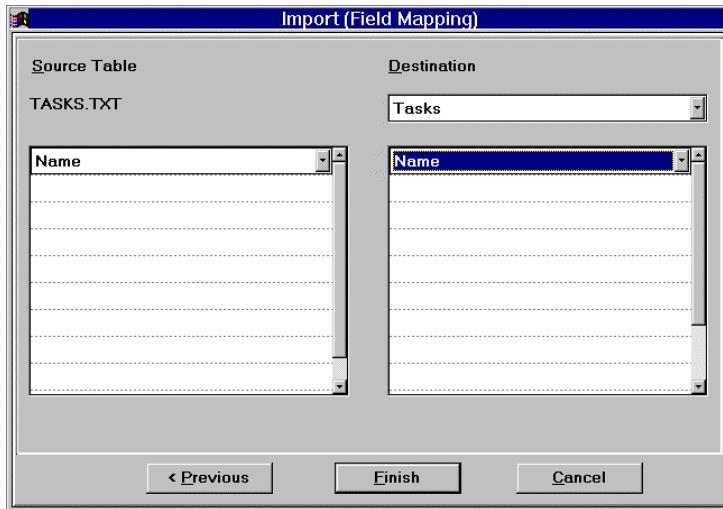


3. Select “Delimited Text Files” from the **Data Base Table Types** list. Click the **Next** button. The **Import (Select Table)** dialog box appears (see the figure below).



4. Select the drive and/or directory to display a list of importable files, then select the file you want from the **Table Name** list.
5. If importing Delimited Text files, click **Options**. Workflow•BPR expands the **Import (Select Table)** dialog box to define the text file format.
 - * To specify if the first record contains field names, click **First Record Contains Field Names** check box.
 - * To define the text qualifier, select the appropriate one from the **Text Qualifier List** box.

6. Click **Next**. The **Import (Field Mapping)** dialog box appears (see the figure below).



- * The **Import (Field Mapping)** dialog box is divided into two sections: **Source Table** and **Destination**.
 - The **Source Table** section lists the path and file name of the source document and the **Destination** section lists the available Repository categories.
 - Below **Source Table** and **Destination** are two interconnected combo boxes. You select specific data fields from the source document in the left combo box and specific data fields of the destination object in the Repository in the right combo box.
 - To add additional source and destination fields, click directly below the first data field entry and make the appropriate selections.
- 7. Click **Finish**. Workflow•BPR imports the selected data fields from the source document into the Repository.

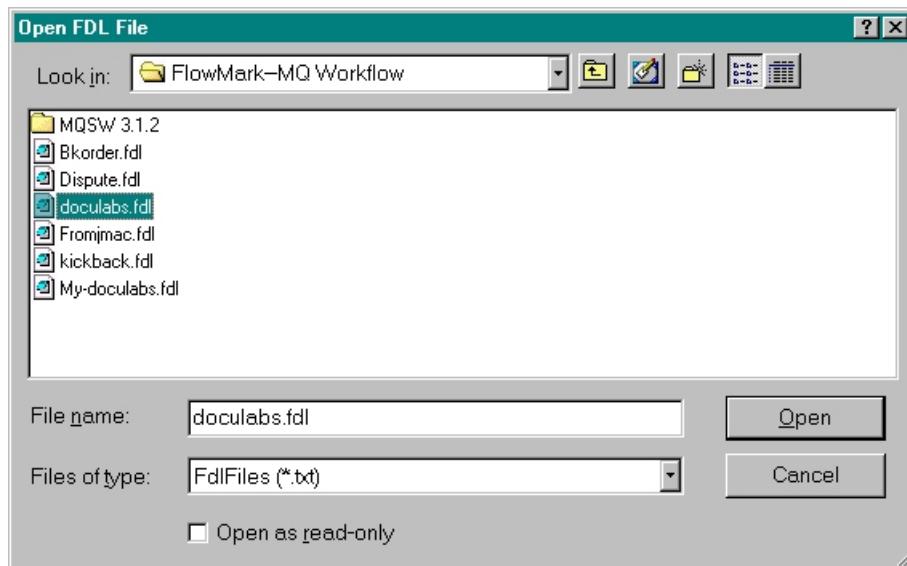
6.6.6 Importing IBM FlowMark FDLs

Workflow•BPR serves as a Workflow Model builder to the IBM workflow products FlowMark and MQ Workflow. The FDL files created by those products can also be imported into Workflow•BPR. Usually, this is a one-time activity to take legacy workflow models and bring them into Workflow•BPR so that further modeling and analysis can be performed on the models. In addition, the Workflow Monitor cannot monitor FlowMark or MQ Workflow Processes unless the workflow model was created in Workflow•BPR.

This feature is not intended so that a workflow model can be imported back-and-forth between Workflow•BPR and an IBM workflow builder. When an FDL is created by Workflow•BPR, all the additional information included in the model, such as cost and time estimates, is not included in the FDL. Thus, when an FDL is imported into a new Organization File, there will be no Business Model information included. The information will have to be re-entered.

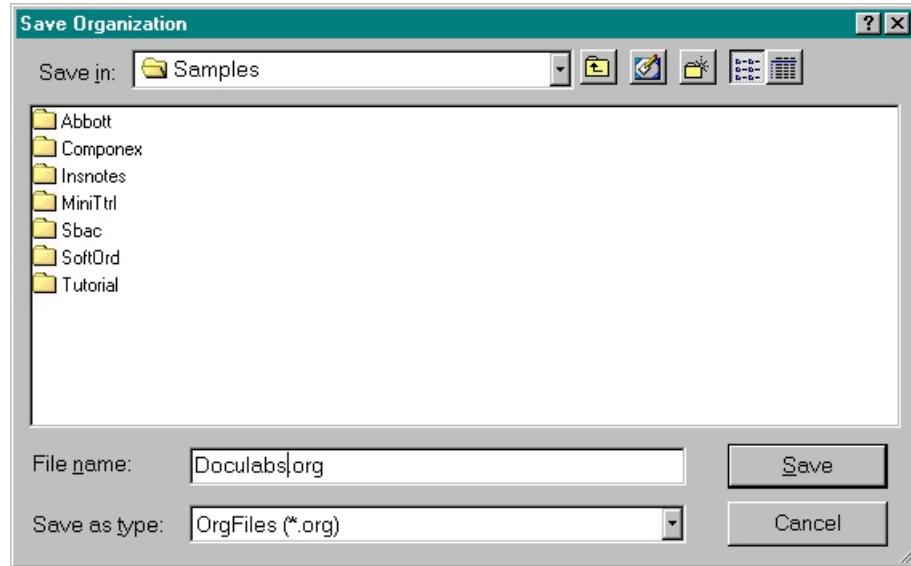
To import FDL data into a new organization:

1. Choose **Import/Export** from the **File** menu. A sub-menu appears.
2. Choose **Import FDL** from the sub-menu. The **Open FDL File** dialog box appears (see the figure below).



3. Select the FDL file you want from the large box.
 - * 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. Click **Open** or press **Enter**. The **Save Organization** dialog box appears (see the figure below).



5. Select the appropriate drive and/or directory where a new Organization File, which will be created to hold the data from the FDL, 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.
6. Type the name of your Organization File in the **File Name** text box.
- * If you do not include the .org extension, Workflow•BPR will automatically add it.
7. Click **Save** or press **Enter**. Workflow•BPR creates an Organization File and an Organization Directory in which to place the Organization File that will contain the FDL information.
- The Organization File you had opened previously will remain open. Open the newly created Organization File to view the data imported from the FDL (refer to the section entitled “Opening an Organization File” in Chapter 1).**

6.6.7 Importing Workflow Monitor Data

One of the benefits of using the Workflow Monitor is that you have the ability to capture the actual durations of the Process Tasks, both Elapsed Duration and Working Duration. The original model development is usually based on estimates from experts of the Process. Sometimes, time-and-motion studies are performed, but these are usually costly and time-consuming. The Workflow Monitor provides actual Task times based on the performance of the Process over a period of time. This data

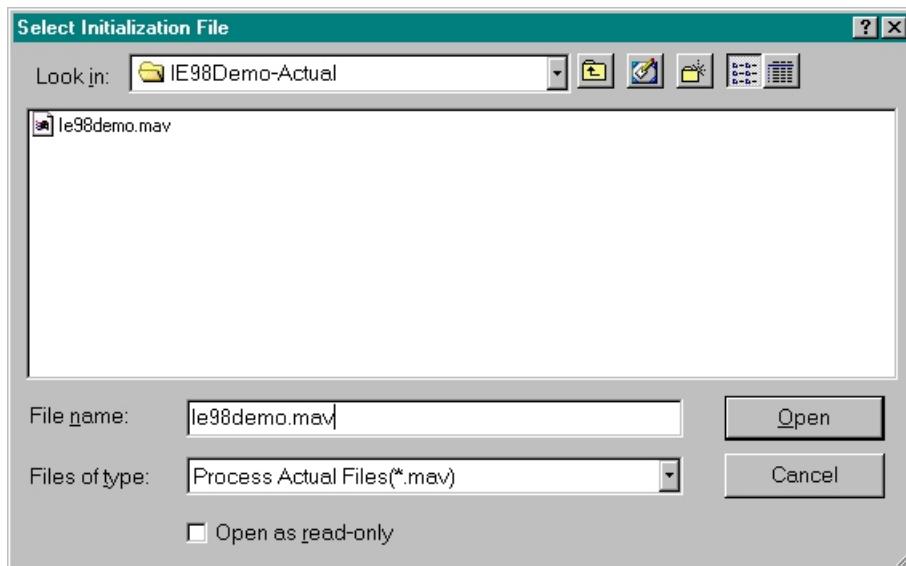
can be exported from the Workflow Monitor (refer to the *User's Guide* of the *Workflow Monitor* for more information).

Workflow•BPR provides a utility for importing the Task times, as captured by the Workflow Monitor, back into Workflow•BPR. This enables you to perform more accurate analysis of the Process, because the times are based on actual values. A copy of the Process is created so that you maintain the original estimated times for comparison with the actual times.

- ☒ Currently, only Task times are available from the Workflow Monitor.
In later versions of Workflow•BPR, the probabilities from Decisions will also be available.

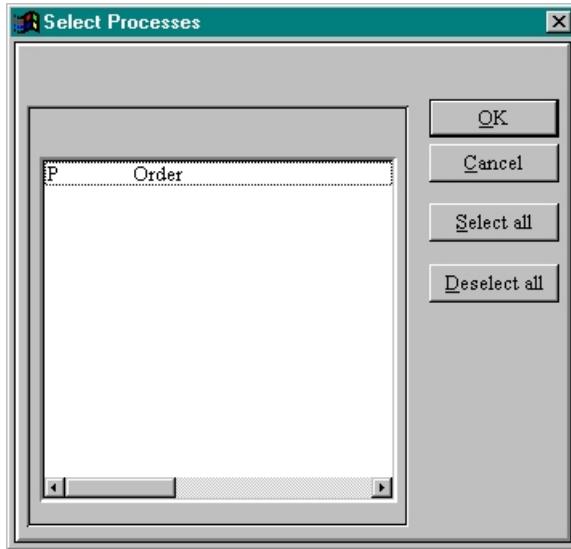
To import Workflow Monitor data into a Process:

1. ⌘ Choose **Import/Export** from the **File** menu. A sub-menu appears.
2. ⌘ Choose **Import Monitor Data** from the sub-menu. The **Select Initialization File** dialog box appears (see the figure below).



3. ⌘ Select the drive and/or directory where your Monitor Data File is located.
 - * ⌘ Double-click a folder in the large box to go down the tree.
 - * ⌘ Click the **Up One Level** button [Up arrow icon] to go up the tree.
4. ⌘ Select the Workflow Monitor Data File from the **File Name** list, or ⌘ type the name of the Workflow Monitor Data File in the **File Name** text box.

5. Click **Open** or press **Enter**. The **Select Process** dialog box appears (see the figure below).



6. Select the Process you want from the list box.
7. Click **OK**. The Process you have selected will be copied into a new Process and the Elapsed Duration and Working Duration of the Tasks in the Process will be changed to the values that were captured and exported from the Workflow Monitor.
 - * The name of the Process will be appended with the text “-Act 0.” For example, if the original Process is named “Order” then new Process with the Workflow Monitor Data will be named “Order-Act 0.”

6.7 Printing Outputs

6.7.1 Page Setup

In Workflow•BPR, Page Setup is used to define the way your diagrams and tables will appear when they are printed. Workflow•BPR allows for defining a separate page setup for every view, table, chart, or diagram that the system will allow you to print. Since many of these items are larger than a standard size page, Workflow•BPR provides options for deciding the order in which you want your document to print; e.g., **Down, Then Over or Across, Then Down**.

6.7.1.1 ***Page Setup Selections***

The Page Setup selection provides the ability to:

- **Center Horizontally:** Center your chart, table, or diagram horizontally across the page.
- **Center Vertically:** Center your chart, table, or diagram vertically down the page.
- **Horizontal Lines:** Include horizontal table row lines in your document.
- **Vertical Lines:** Include vertical table column lines in your document.
- **Total Lines:** Include lines between total fields when printing table information using Print Special.
- **Border:** Print a page border and enclose header and footer information.
- **Header:** Print a header with up to three lines of information.
- **Legend:** Print a legend with up to three lines of information in the lower right corner of the page.
- **Footer:** Print a footer with one line of information.
- **Portrait:** Print vertically.
- **Landscape:** Print horizontally.

Headers, Legends, And Footers

Header, Legend, and Footer information is defined from Page Setup. Workflow•BPR allows for assigning and formatting three separate lines of information for both Headers and Legends, and one line of information for Footers.

To position Header, Legend, or Footer information, it is necessary to add special formatting commands before the text. These commands are case- and space-sensitive; if you use the wrong case or add an extra space between characters and the command, Workflow•BPR prints the characters instead of executing the command.

The special formatting commands are:

- **Left-Justified - &L**
- **Right-Justified - &R**
- **Centered - &C**
- **Page Number - &P**
- **Definition Name - &D**
- **View Name - &V**
- **Table Name - &T**

Multiple formatting commands can be used per line as long as you remember to put the command *before* the text. For example, if you wanted your header to look like this:

Version 1 Supply Order Process Page 1

You would  type:

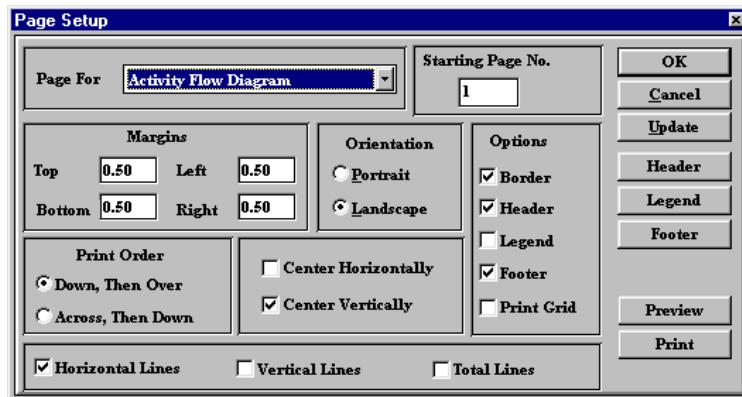
&LVersion1&CSupply Order Process&RPage &p

To facilitate using special formatting commands, Header, Legend, and Footer dialog boxes, include buttons for Left, Center, Right, Organization, View, Case, Table, Page No., Date, and Time. If you  click one of these buttons, the corresponding formatting command appears in the text box.

6.7.1.2 *Changing Your Page Setup Selections*

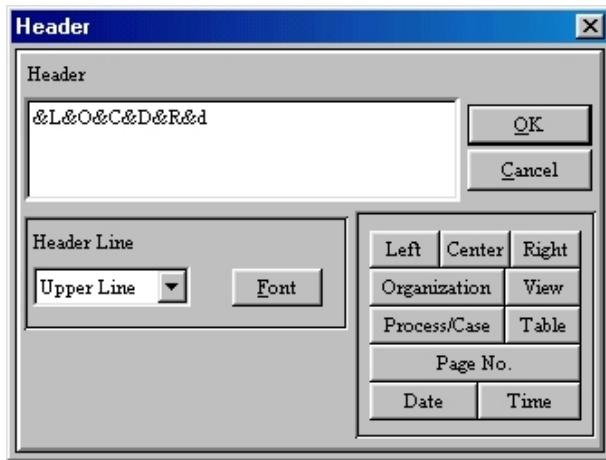
To modify the Page Setup options:

1.  Choose **Page Setup** from the **File** menu. The **Page Setup** dialog box appears (see the figure below).



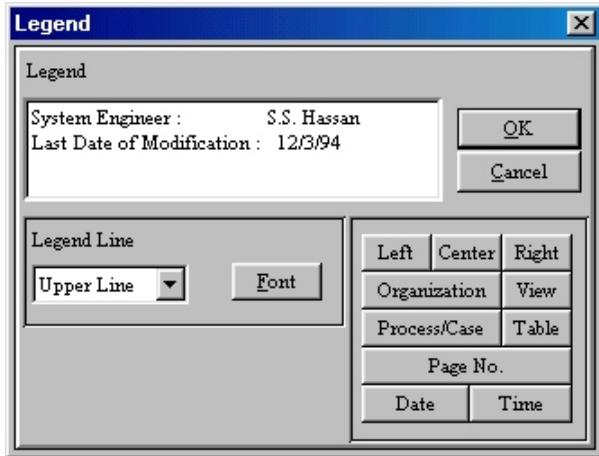
2. If you wish to change the type of document that you are setting up,  select the document type from the **Page For** selection box.
3. If you wish to change the starting page number,  type a new number in the **Starting Page No.** text box.

4. To define your top, bottom, left, or right margins, type a value inside the appropriate **Margins** text box.
5. Either click the **Portrait** or the **Landscape** radio button in the **Orientation** box.
6. To choose the order in which Workflow•BPR prints your document, select **Down, Then Over** or **Across, Then Down** from the **Print Order** box.
7. There are other check boxes you can select to modify printing characteristics:
 - * Click the **Center Horizontally** or **Center Vertically** check boxes to set the position of the page to be printed.
 - * Click the **Border**, **Header**, **Footer**, or **Legend** check boxes to display these items.
 - * Click the **Print Grid** check boxes to display the grid lines.
 - * Click the **Horizontal Lines**, **Vertical Lines**, or **Total Lines** check boxes if you want these lines displayed. These options only apply for tables.
8. To update the header, click **Header**. Workflow•BPR displays the **Header** dialog box (see the figure below).

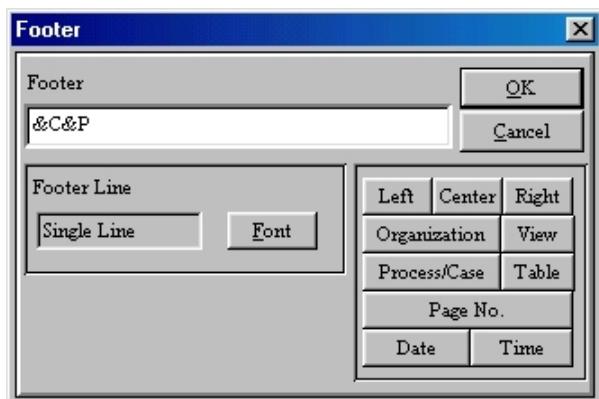


- * Select the Upper Line, Middle Line, or Lower Line from the Header Line selection box.
- * Click the appropriate buttons in the lower right of the dialog box to add the special formatting commands in the Header text box. These commands will enable the information displayed on the button label to be printed or shown in the Print Preview window.
 - You can also type the special commands directly in the **Header** text box.
- * Type any additional text in the **Header** text box.
- * To add a carriage return to the selected line, type **Ctrl+Enter**.

- * Click the **Font** button to change the font of the Header text. The **Font** dialog box appears.
 - Select the font, font style, and point size you want. Click **OK** to go back to the **Header** dialog box. Click **OK** to return to the **Page Setup** dialog box.
 - * Click **OK** or press **Enter** to return to the **Page Setup** dialog box.
9. To update the legend, click **Legend**. Workflow•BPR displays the **Legend** dialog box (see the figure below).



- * Follow the same directions that are listed for updating the **Header** (Step 8).
10. To update the footer, click **Footer**. Workflow•BPR displays the **Footer** dialog box (see the figure below).



- * Follow the same directions that are listed for updating the **Header** (Step 8).
11. Click the **Preview** button to view before printing.
12. Click **OK** or press **Enter**.

6.7.2 Print Preview

You can use the **Print Preview** command from the File menu to view your diagrams, charts, and tables before printing. Print Preview displays exactly the way your document will look after it is printed.

The procedure for previewing a diagram, chart, or table before printing follows:

1.  Choose **Print Preview** from the **File** menu. A preview of the printed ADF will be displayed with the following toolbar.



2. To see a close-up view of your document,  click **Maximize**.  Click **Minimize** (the same button) to get back to the original document view.
3.  Click << to move to the previous page, >> to move to the next page, **Up** to move up one page, and **Down** to move down one page.
4. If you want to change your document's page setup,  click **Setup**. The **Page Setup** dialog box appears (refer to the previous section).
5. To adjust the size of the printed diagram, exit the **Print Preview** window and adjust the size of the diagram with the **Zoom In** and **Zoom Out** tools of the Activity Decision Flow Diagram. Then return to the **Print Preview** window.
6. To print,  click **Print**. Workflow-BPR takes you to the **Print** dialog box (refer to the next section). To close the **Print Preview** window without printing,  click **Close**.

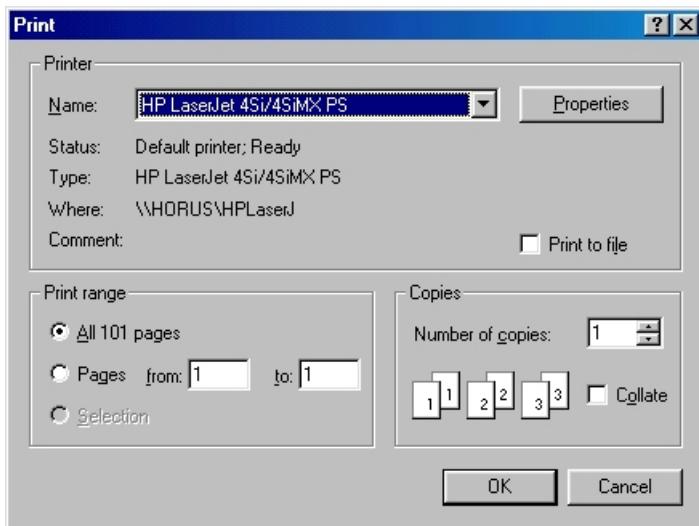
6.7.3 Print

There are two different kinds of print features in Workflow•BPR: Print and Print Special. **Print** is used to print any document in Workflow•BPR. **Print Special** is used to generate a special, totals-only table using table information.

To print a diagram, chart, or table:

7. Choose **Print** from the **File** menu. The (Windows) **Print** dialog box appears (see the figure below).

You can access this command by typing Ctrl+P.



8. To send the output to a file instead of the printer, click the **Print to File** check box.
9. To print the entire document, click the **All** radio button (the default). To print a portion of your document, click the **Pages** radio button, then type the beginning and ending page numbers in the **From** and **To** text boxes.
10. Type in the number of copies you want in the **Copies** text box.
11. To collate copies, click the **Collate** check box.
12. To change other printer properties, click the **Properties** button. The (Windows) **Printer Properties** dialog box appears.
- The format and attributes of the Printer Properties dialog box will depend on the selected printer.**
13. Click **OK** or press **Enter**.

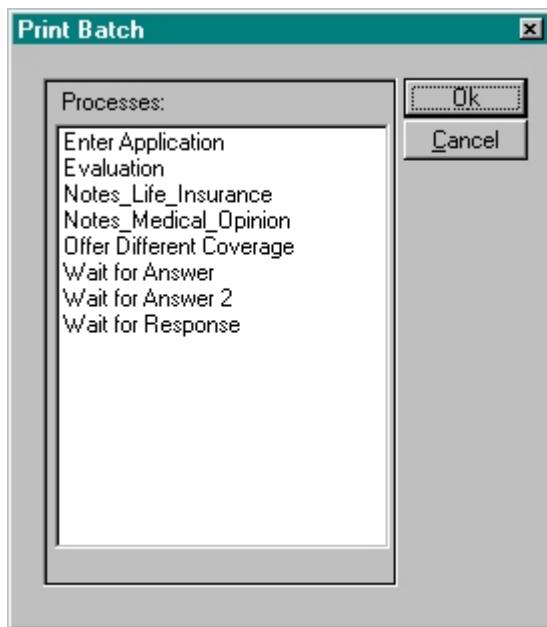
6.7.4 Multiple Print

Multiple Print allows you to select more than one ADF for print in one batch.

To print a batch of diagrams:

1. Choose **Multiple Print** from the **File** menu. The **Print Batch** dialog box appears (see the figure below).

You can access this command by typing **Ctrl+U**.



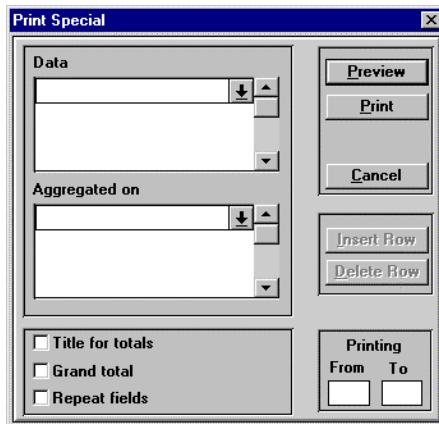
2. Select the diagrams that you want to print.
 - * Click on a Process name will select that Process.
 - * Ctrl+Click on a Process name will add/subtract that Process to the list of selected Processes.
 - * Shift+Click on a Process name will add that Process, plus all Processes in between that Process and the previously selected Process, to the list of selected Processes.
3. Click **OK** or press **Enter**. All the selected diagrams will be printed in their current state (i.e., zoom level).

6.7.5 Print Special

Print Special is utilized to generate and print a special summary table providing totals for any numeric field information in an open table. Workflow•BPR displays subtotals, grand totals, and titles for your selected numeric data.

To generate and print a summary table:

1. Open a table from the **Table** menu.
2. Choose **Print Special** from the **Table** menu. The **Print Special** dialog box appears (see the figure below).



3. Click on the first row of the **Data** box area to display the available data fields, then click on one of the items.
 - * To add additional fields, click on the row below your last data field entry to display the available data fields, then click to select one of the data items.
 - * If you want to change the order in which the information appears, you can add or delete rows by clicking **Insert Rows** or **Delete Rows**.
4. Click on the first row of the **Aggregated On** box to display the list of available source data (not all tables have data that can be aggregated on). You can only select one type of source data. Click on an item to select it.
5. Click to select Title For Totals, Grand Total or Repeat Fields.
6. To select which summary table pages to print, type in the **To** and **From** page numbers in the appropriate area.
7. Click **Preview** to see the way your document will look when printed.
8. Click **Print**.

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Glossary

A-Blocked Duration (Activity Blocked)

Simulation Output for Jobs: The total amount of time that Tasks are waiting to begin for all paths of the Job. The Job status is *Job In Queue* (green). The circumstances that create this status are: (a) Resource Shortage due to a concurrency setting, (b) Task start option, and (c) differences between the Task Calendar Non-Working Time and the Simulation Calendar Non-Working Time. This does not include Job Non-Working Duration.

Simulation Output for Activities: The total amount of time that an activity is waiting to begin. The Job Status is *Job In Queue* (green). The circumstances that create this status are: (a) Resource Shortage due to a concurrency setting, (b) Task Start Option, and (c) differences between the Task Calendar Non-Working Time and the Simulation Calendar Non-Working Time. This does not include Job Non-Working Duration. This is the Average Time for the Number Completed for the activity.

Activity Decision Flow Diagram

A diagram that represents the flow of work for a Process. The objects within an Activity Decision Flow Diagram are Tasks, Process Objects, Decisions, Decision Choices, Phis, External Entity/Process, Go To Objects, Stops, and Connectors.

Activity

A generic term that represents the work performed in a Business Process. Processes and Tasks are activities performed within the Organization. External Processes are activities performed outside the Organization.

Average Queue

Simulation Output for Queues: The average number of Queue Items in the Queue for a Task.

Average Queue Duration

Simulation Output for Queues: This is calculated by determining the amount of time that items are in the Queue between each event that changes the Queue (i.e., when an item enters the Queue) for each Task, and then dividing the total amount of time in the Queue by the number of events. Events in which the Queue was emptied are not counted.

Binary Decision

A Decision that has two pre-defined Choices: Yes and No. These Choices are built-in to the Connectors that exit the Decision. The Yes Choice Connector exits from the right point of the Decision Object (Diamond). The No Choice Connector exits from the bottom point of the Decision Object (Diamond).

Burden Percentage

Choice

Burden Percentage

Applied to distributed costs to determine the financial responsibility that a Business Process should bear for its use of items which generate indirect costs (such as maintenance). That is, what percentage of time does the Process in question consume of the available working hours for the Organization? The number of Resources involved in a Process multiplied by the number of hours that the Resources work each year (about 2,000 hours) is the available working hours for that Process. The Weighted Average for Labor Hours is multiplied by the Number of Processes Per Year, and is then divided by the Total Available Hours to generate the Burden Percentage. The formula is:

$$BP = (LH * NP) / (R * HPY)$$

where:

BP = Burden Percentage

LH = Weighted Average Labor Hours

NP = The number of Processes that will be performed (per year)

R = The number of unique Labor Resources (employees) involved in the Process

HPY = The number of Hours Per Year for each Labor Resource

Business Condition

Any condition that affects the way an Organization performs its Processes. Business Conditions are explicitly modeled by the Choices that exist for Decisions.

Business Process

A potential set of activities that represent all the alternative methods of performing the work needed to achieve a business objective. It is represented in Workflow•BPR as a Process that contains Tasks, other Processes, Flows, and Decisions.

Business Process Representation

A method of portraying an Organization's Business Process from different perspectives (e.g., Activity Decision Flow Diagrams, Communication Diagrams, Gantt Charts, Tables, and Charts) using Workflow•BPR.

Business Process Specialist

The person who is designated by an Organization to map Business Processes using Workflow•BPR.

Business Value-Added (BVA) Activity

An activity that is not Real Value-Added but does contribute to the business function of the Organization. Technically, these activities can be removed and will not affect the output to the customer. However, these activities may be required for government or security purposes, etc. There are usually policies that are defined by the Organization that create the Business Value-Added activities.

Busy Duration

Simulation Output for Resources: The total time that the Resource was working on Tasks for all paths of all Jobs. This is a summation for all the Resources used (Max. Number Used).

Case (Process Case)

An alternative method of performing a Business Process—these are called Cases. In a Case, there is no branching of the Process due to Decision Choices. Each Case is specific to a business condition or a combination of business conditions.

Choice

An alternative value of a Decision. They are the answers to the questions that a Decision asks. For a “What type of order?” question, the answers (or conditions) could be “Product A” or “Product B.” Each Decision Choice creates a new alternative path through the Process—a new Case. Also, Choices have a probability of occurrence in the context of the other Choices of that Decision. Thus, the total percentage of all the Choices of a Decision must be 100%.

Classification

A method of categorizing a Task for analysis purposes. Workflow•BPR allows you to apply up to five different classifications to each Task. The first three Classifications are allocated to specific analysis: Value-Added, Quality Control, and Workflow. Classifications 4 and 5 can have up to 10 user-defined items. For each classification analysis, you can divide the time and cost of a Process into the classification items.

Communication Diagram

An alternative method of representing an Activity Decision Flow Diagram.

Communication Diagrams show Activity Decision Flow Diagrams from the perspective of a specified entity and its interdependencies with other entities. These interdependencies are defined by the Phis that flow between the entities. You open this diagram from the View menu with the Communication Diagram command.

Completion Date

Date and time for completing all activities in a Case.

Concurrency

A specification of the number of instances where one Task can be performed simultaneously for different Jobs. For example, if your Organization Unit has 10 clerks, the Concurrency value will specify how many of the clerks (e.g., 2) can work on a Task simultaneously. It is a method of restricting the number of Resources that can work on a specific Task.

Concurrency Index

Weighted Averages Output: An indication of the amount of time in which the Process has activities that are performed concurrently. The higher the index value, the more concurrency the Process has. The formula for the Concurrency Index is:

$$CI = 1 - (AT / TWD)$$

where:

CI = Concurrency Index
AT = The amount of Activity Time
TWD = The amount of Total Working Duration

Connector

The chronological connection between two Activity Decision Flow Diagram objects. By default, it represents the flow of control in an Activity Decision Flow Diagram. However, a Connector can be defined as a Data Flow Only in conjunction with a Phi. A Medium with a Transfer Duration can be associated with the Connector.

Control Flow

One of two (2) types of Process Flow—the other being Data Flow. Control Flow specifies the chronological sequences of activities in a Process. A Connector drawn with a solid line between activities represents Control Flow in an Activity Decision Flow Diagram. If one or more Phis is inserted between the activities, then the Control Flow is accompanied by Data Flow.

Control Flow Only

A situation where the flow of control between activities is not accompanied by the flow of Data. A Connector drawn with a solid line with no Phi between activities represents Control Flow Only.

Critical Activity

An activity that is in the Critical Path of a Case. For a critical activity, the early start and late start are the same, and the early finish and late finish are the same.

Critical Path

Critical Path

The series of activities that must occur as scheduled for the completion date of a Case to be met. The Critical Path is the path among parallel paths (in the same Case) with the longest duration.

Current Workflow

A predefined item for Classification 3. This item is assigned to a Task that is currently automated through workflow.

Cycle Duration

Simulation Output for Jobs: The length of the Job during a Simulation. This is the (Job) End Date minus the (Job) Start Date.

Cycle Time

Weighted Averages Output: An estimate of the average length of time that a Case will take if started at a specific time and on a specific date. It is determined through an analysis of the activities in the Critical Path. The activities are scheduled with respect to a calendar, given the Elapsed Durations of the activities and the Transfer Times between the activities. The calendar contains the working hours (e.g., 9:00 a.m. to 5:00 p.m.) and non-working hours (e.g., weekends and holidays). The activities are scheduled during the working hours of the Organization. The Cycle Time is the difference between the start time of the Process (a specific time and date) and the end time of the Process (a specific time and date).

Data Flow

One of two (2) types of Process Flow—the other being Control Flow. Data Flow is a representation of the data or objects that are produced and transferred between activities. The Phis that are inserted between activities are the graphical representation of Data Flow within an Activity Decision Flow Diagram.

Dedicated One-Time Costs

Data Flow Only

A situation where the flow of data between activities is not accompanied by the flow of control. A Connector drawn with a dotted line with a Phi between activities represents Data Flow Only. A Phi is required for Data Flow Only.

Decision

An internal or external environmental condition (e.g., an event, a specification, or a standard) that affects a Business Process. A Decision is the question that is asked to determine the exact set of activities during the execution of a Process. For example, a question might be “What type of order?” or “How will the order be shipped?” A Decision is represented by a Decision Object in an Activity Decision Flow Diagram. There are two types of Decision Objects: Binary and Multiple.

Dedicated Indirect Costs

Those indirect costs that are scheduled and apply only to the specific Business Process in question. For example, if a specialized piece of equipment is being rented for the sole purpose of supporting the Process, then the rental costs would be continuous and dedicated.

Dedicated One-Time Costs

Those one-time items that are tailored specifically to the Reengineering of a single Business Process. Therefore, the cost of these items will be fully burdened to the Process for the purposes of cost justification of the Reengineering.

Distributed Indirect Costs

Those Indirect Costs that are scheduled and apply to more than the specific Business Process in question. For example, computers are used in the performance of many different Processes. Therefore, the maintenance costs for those computers should not be fully burdened to the Business Process in question. 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. The Burden Percentage is multiplied by the total value of the Indirect Costs to get the Cost that is burdened to the Process (per year). This number is then divided by the number of Processes that are performed in a year to get the value of the Distributed, One-Time Costs that can be charged to each performance of the Process. The formula for determining the Distributed Indirect Costs is:

$$DIC = (TDIC * BP) / NP$$

where:

DIC = Distributed Indirect Costs (per Business Process)

TDIC = Total Distributed Indirect Costs (unweighted)

BP = Burden Percentage

NP = The number of Processes that will be performed (per year)

Distributed One-Time Costs

Those one-time items that are used by more than one Business Process. For example, the personal computers that will be purchased 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. The Burden Percentage is multiplied by the total value of the Indirect Costs to get the Cost that is burdened to the Process (per year). This number is then divided by the number of Processes that are performed in a year to get the value of the Distributed One-Time Costs that can be charged to each performance of the Process.

Elapsed Duration

An estimate of the average amount of time it takes to complete an activity. As an example, an activity would start when a document is placed in an “In Basket” and the activity would end when the document is taken from the “Out Basket.”

Electronic Document Index

An indication of the extent to which the activities in the Process utilize Electronic Documents rather than Paper Documents. The more activities that are applied to an Electronic Document (or a Paper Document), the more it is being utilized. Electronic Documents are transported throughout, and stored within, the Process more efficiently than Paper Documents. Thus, the more Electronic Documents are used, the more efficient and cost-effective the Process is in general. There are certainly other factors to consider, but the Electronic Document Index is one measure that can be taken to understand the potential Reengineering of a Business Process. The formula for the Electronic Document Index is:

$$EDI = ED / (ED + PD)$$

where:

EDI = Electronic Document Index

ED = The number of Tasks that are applied to Electronic Documents

PD = The number of Tasks that are applied to Paper Documents

End Date

The time and date of the end of the Simulation, Job, or Task, or, during Simulation, the current time of the table update.

External Duration

Simulation Output for Jobs: The total amount of time spent on External Processes. Non-working time is not included.

External Entity

Indirect Costs

External Entity

Either an individual or a company outside an Organization that affects the Organization's Process. In an Activity Decision Flow Diagram, the flow between an External Entity and the Organization goes in one direction—meaning that External Entities can provide either input to, or receive output Phi(s) from, an Activity Decision Flow Diagram, but not both.

External Process

An activity included in an Organization's Process that is performed by an External Entity. In an Activity Decision Flow Diagram, the flow between an external Process and the Organization must include input Phis to the Organization and output Phi(s) from the Organization.

External Time

Weighted Averages Output: Provides an estimate of the number of working hours that are spent on activities that are performed by entities external to the Organization. These activities can be considered out-sourced; the activities are part of the Process, but the Organization does not perform them with their own Resources.

Financial Transaction

The association of financial transaction information that includes accounting entries and their attributes for particular Tasks.

Financial Variable

A Data Field of type *Float* that can have a user-defined currency value. It is a monetarily quantifiable variable involved in a financial transaction. For example, Sales Order Amount and Cost of Goods could be Financial Variables, as they can be monetarily quantified.

Flow

The representation of interdependencies between activities in a structured format. In Workflow•BPR, the flow always moves forward in time. A complete flow representation includes Connectors, Media, and Phis.

Function

An Organization data item that represents general functions that an Organization performs (e.g., accounting). These functions can be assigned to Tasks and, therefore, time and cost analysis can be performed based on the defined functions.

Gantt Chart

A graphic view that displays the schedule and activity information for a Case. The Gantt Chart view is divided into a Gantt table and a Gantt bar chart that are separated by an adjustable divider bar.

Head Unit

The Organization Unit to which another Organization Unit reports.

Idle Duration

Simulation Output for Resources: The total time that that Resource was not working on any Tasks (for each available Resource that was used) for all paths of all Jobs. This is [Resource Process Duration multiplied by Max. Number Used] minus Working Time.

Indirect Costs

Continuous costs which are scheduled throughout the year and, therefore, are not those that occur with each performance of the Process. Indirect Costs are intended to measure how much of the Indirect Costs should burden the Business Process. These scheduled costs include maintenance payments, rental services, etc. The reason that we consider these types of costs is that they will probably be changed by an improved design of the Process. Therefore, to fully understand the impact of the Reengineering, we must consider all cost impacts. There are two types of Indirect Costs: Dedicated and Distributed. The sum of these two comprise the Indirect Costs.

Info Dialog Box

A dialog box that displays schedule and statistical information about an Activity Decision Flow Diagram. You can  select either Elapsed or Working Durations as a basis for scheduling. You open the Information dialog box by selecting the Info command from the Process menu, or by selecting the Measure tool. The Info dialog box can be accessed for Process Objects by  double-clicking on them. The tabs in the Info dialog box for Process Objects are different than the tabs in the Info dialog box for an Activity Decision Flow Diagram.

Job Non-Working Duration

The total amount of time that the company is closed and not working on a Job between the (Job) Start Date and (Job) End Date. This is based on the Standard Calendar.

Labor Costs

The sum of the employee costs associated with all of the Tasks of a Business Process.

Labor Time

Weighted Averages Output: An estimate of the number of hours of employee time that are required for a single execution of the Business Process. Labor hours are calculated by totaling the Working Duration for the Employee Resource Types as they were allocated to a Task.

Max. Number Used

Simulation Output for Resources: The number of Resources (per Job) that were actually used during the Simulation (of the available Resources).

Max. Queue

Simulation Output for Queues: The maximum number of Queue Items in the Queue for a Task.

Media

The method used to transport a Phi from one activity to the next. For example, you can send a document to another location by courier, mail, electronic mail, or facsimile machine. You can assign a Transfer Duration for a Medium within a Connector.

Minimum Cycle Time

Weighted Averages Output: An estimate of the minimum length of time that a Process will take if started at a specific time and on a specific date. It is determined in the same way as the Cycle Time, except that it uses the Working Durations of the activities instead of the Elapsed Durations.

Multiple Decision

A Decision that has two or more user-defined Choices. The Choices are represented by Choice Objects that are connected from the Decision Object. All Connectors that connect to Choice Objects exit from the right point of the Decision Object (Diamond).

No Value-Added (NVA)

A predefined item for Classification 1. This item is assigned to a Task that is not RVA and does not contribute to the business functions of the Organization. Such Tasks are probably left-over activities that served some real or business value at one time, or they may have been added because the entire Process was not understood or there was some miscommunication of requirements. These activities can be removed without jeopardizing the Process requirements or business policies.

Non-Critical Activity

An activity that is not on a Critical Path. Non-critical activities have Float Time.

Non-Critical Path

A series of activities that can have Float Time and not affect the schedule of critical activities.

Non-Working Time

Weighted Average Output: The number of hours that an Organization is not “open” for work on a Business Process. These hours include evenings, weekends, and holidays.

Not Quality Control

A predefined item for Classification 2. This item is assigned to a Task that is not quality control; i.e., a Task that is within the normal sequence of the production of the product. This does not mean that quality is not an important aspect of the activity, it only means that it is not an extra step check or recheck of the product to ensure its quality.

Not Workflow

A predefined item for Classification 3. This item is assigned to a Task currently performed manually and can not be converted to a workflow activity, given current technology.

Numeric Variable

A Data Field of type *Integer* that can have a user-defined value. These variables are used to define the number of repetitions of a Task.

One-Time Costs

A cost that is charged once to the Organization, such as the cost of purchasing equipment, software, or reengineering services. There are two types of one-time costs: Dedicated and Distributed. The sum of these two comprise the one-time costs.

Organization

An entity where people cooperate to accomplish specified objectives. An Organization can be an enterprise, a company, or a factory, to name just a few examples.

Organization Data

Data items that pertain to the attributes of an Organization; this data makes up one-half of an Organization's Data Catalog. You create, modify, or access Organization Data by using commands from the Organization Data menu. The Organization Data menu is a sub-menu of the Repository menu. The Organization Data items are: Organization Info, Calendars, Time Zones, Locations, Currencies, Resources, Organization Units, Resource Allocation, Chart of Accounts, and External Entities.

Organization Units

The subdivisions in an Organization. Organization Units can represent departments, divisions, or sections.

Percent (%) Utilization

Simulation Output for Resources: This is Busy Time divided by [Busy Time + Idle Time].

Phi

An Activity Decision Flow Diagram object that is an output from one activity and/or an input to the next activity. This object represents the data or product that is manipulated or produced during the performance of a Process. The name "Phi" is derived from the Greek letter phi (Φ) because it is made up of the letter I (for input) superimposed over an O (for output).

Phi Bitmap

An image used to represent a Phi type in an Activity Decision Flow Diagram.

Phi Category

A method of distinguishing a Phi in the context of workflow. There are three categories of Phis: Electronic Document, Paper Document, and Other.

Phi Type

A group of Phis sharing common characteristics. You can assign a bitmap to represent a Phi type in your Activity Decision Flow Diagram.

Potential Workflow

A predefined item for Classification 3. This item is assigned to a Task currently performed manually, but could be converted to a Workflow Activity.

Process Breakdown Structure

Workflow•BPR's taxonomy of Process Objects. For a given Process, activities include Tasks and other Processes. The other Processes can include Processes as well. Therefore, you have an unlimited number of Process levels. The breakdown structure of the Processes of an Organization File can be viewed in the Process Tree window.

Process Case Analysis

The weighted averages that are calculated by averaging the measurements taken from each Case for a Business Process. The percentage of occurrence for each Case is multiplied by the measurements (e.g., Cycle Time) to produce weighted values. The weighted values for each Case are totaled to produce weighted averages of the measurements. These measurements can be accessed through the Reports feature.

Process Catalog

The collection of all Processes in an Organization File.

Process Costs

The sum of the Resource Costs and the Indirect Costs.

Process Data

Data items that pertain to the attributes of Business Processes; this data makes up one-half of an Organization's Data Catalog. You create, modify, or access Process Data by using commands from the Process Data menu. The Process Data menu is a sub-menu of the Repository menu. The Process data items are: Activities, External Processes, Phi Types, Phis, Phi States, Media, Classifications, Delay Reasons, Variables, Authorizations, Decisions, Choices.

Process Duration

Simulation Output for Jobs: The amount of company working time spent on the Process during a Job within a Simulation. This is Cycle Duration minus Job Non-Working Duration—based on the Standard Calendar selected for the Simulation.

Process Flow

The connections between Activity Decision Flow Diagram objects represents three (2) states of Process Flow: Control Flow Only, Control Flow and Data Flow, and Data Flow Only.

Process Time

Weighted Averages Output: An estimate of the number of working hours that are required for a single execution of the Business Process. Process Time is calculated from the activities in the Critical Path, but does not include the non-working time of the schedule. The Elapsed Duration of the activities, the Elapsed Duration of the External Processes, and the Transfer Times are summed to generate the Process Time (if they are on the Critical Path).

Quality Control

A predefined item for Classification 2. This item is assigned to a Task that is added for the purpose of ensuring quality in a product. Such Tasks include inspections, checks, and rechecks.

Quality Control Analysis

A technique for analyzing the status of a Process in terms of quality control. Classification 2 has two predefined items for use in this analysis: Quality Control and Not Quality Control.

Queue Duration

Related to the Simulation Output for Jobs: The total amount of time that Queue Items wait in Queues for all paths of the Job. The Job Status is *Job In Queue* (green). This does not include Job Non-Working Duration.

Related to the Simulation Output for Activities: The amount of time a Queue Item spends in the Queue before it is pulled out. When this ends, the Task starts.

Queue End

When the Queue Item is complete and is pulled out by a Resource. This is related to the Concurrency of the Task.

Queue Item

Inputs into a Task or workstation of a Role that processes a Task. If a Phi is attached to the Connector, then the Phi is the Queue Item. If there is no Phi, then a Job Control Item is the Queue Item. The Queue Items cannot be pulled out until all input Phis or Job Control Items have arrived in the Queue (for a Job).

Queue Order

First In-First Out (FIFO)

Queue Start

When all the input Phis have arrived in the Queue.

R-Blocked Duration (Resource Blocked)

Simulation Output for Jobs: The total amount of time waiting for Resources after a Task has begun for all paths of the Job. The Job Status is *Job Waiting for Resource* (red). The circumstances that create this status are: (a) Resource shortage due to an organization allocation setting, and (b) Resource unavailability due to differences between the Task Calendar, the Resource Calendar, and/or the Simulation Calendar.

Simulation Output for Activities: The amount of time that a Task is pending due to the Resource not being available. The Job Status is *Waiting for Resource* (Red). The circumstances that create this status are: (a) Resource shortage due to an organization allocation setting, and (b) Resource unavailability due to differences between the Task Calendar, the Resource Calendar, and/or the Simulation Calendar. This is the Average Time for the Number Completed for the activity.

Real Value-Added (RVA)

A predefined item for Classification 1. This item is assigned to a Task that is necessary to produce an output of the Process and contributes to the customer requirements. These activities are essential for the purpose of the Business Process.

Real Value Index

Weighted Averages Output: An indication of the extent to which the Organization spends money on activities that deal with the requirements of the Process. The idea is to reduce the BVA and NVA activities so that the focus of the Process is more in tune with the Process Requirements. Consequently, the Process will be faster and more cost-effective. The higher the Real Value Index, the more cost-effective the Business Process. The formula for the Real Value Index is:

$$RVI = RVA / (RVA + BVA + NVA)$$

where:

- RVI = Real Value Index
- RVA = The total Resource Cost for Tasks classified as Real Value-Added
- BVA = The total Resource Cost for Tasks classified as Business Value-Added
- NVA = The total Resource Cost for Tasks classified as No Value-Added

Reporting Flag

An identification of a financial transaction reporting type. A Reporting Flag can be either internal or external/internal.

Reports

Formatted tables that present portions of a Process Case Analysis (e.g., time measurements). There are five types of reports that are accessed through the Report menu: Time, Costs, Classification, Indices, and General. Reports will show the Weighted Averages of the selected measurement, or will show the measurement values for each Case, with the Weighted Average at the bottom of the Report.

Repository

A database containing Organization and Process data that can be used in, and shared by, multiple Activity Decision Flow Diagrams. The Repository is part of the Organization File.

Resource

An identifiable entity or mechanism that is responsible for, performs, or has an impact on an activity. There are basically two categories of Resources: Work Participants and Work aids. Each Resource is identified as a particular type and has assigned costs associated with it. Roles and Applications are considered Resources, but are separated from the Work Aids in the Repository and in any Activity Decision Flow Diagram usage.

Resource Allocation

A specification of the Resources that are allocated to an Organization Unit. The number of Resources allocated to an Organization Unit determines their availability, which is determined in the Resource Requirements Chart and during Simulation of the Process. The total number of available Resources that are allocated to all Organization Units for a given Resource is also reported in the BP Resources report. Roles, Applications, and all other Resources can have allocations.

Resource Category

A way of distinguishing Resource types. There are two Resource categories: Work Participants and Work Aids. Work Participants are Roles and Applications. Work Aids are Equipment, Consumables, Facilities, Machines, Tools, General Services, and Communication Services.

Resource Costs

The sum of the costs associated with all of the Tasks of a Business Process. Each Resource has a cost rate attached to it and, therefore, the length of time that a Resource is allocated to a Task will determine the cost that the Resource contributes to that Task. More than one Resource can be allocated to a Task. The sum of the costs of all the Resources allocated to the Task will be the cost of that Task. The sum of the costs of all the Tasks in the Process will be the cost of that Process.

Resource Process Duration

Related to the Simulation Output for Resources: The amount of company working time that a Resource can possibly spend working on a Process. This is Simulation Duration minus Job Non-Working Duration—based on the Calendar selected for the Resource.

Resource Requirements

The Resource specification for a Task. All Roles, Applications, and all other Resources assigned to a Task must be available for the work of a Task to begin during Simulation.

Resource Shortage Time (RST)

Simulation Output for Resources: The total amount of time that Tasks were pending for this Resource (for each available Resource that was used) for all paths of all Jobs. The circumstances that create this status are: (a) Resource shortage due to an organization allocation setting, and (b) Resource unavailability due to differences between the Task Calendar, the Resource Calendar, and/or the Simulation Calendar.

Resource Type

A kind of Resource. In Workflow•BPR, there are seven Resource types under two Resource categories. There are two (2) types of work participants: Roles and Applications. There are six (6) types of work aids: Equipment, Facilities, Machines, Tools, General Services, and Communication Services.

Response Entity

A generic name that Workflow•BPR uses to represent either the Organization, Organization Units, or External Entities.

RN

Reference Number. An RN is a number associated with a Task, a Process, an External Process, a Decision, or a Phi to distinguish between different objects with the same name.

Simulation	Total Duration
Simulation	
A faster-than-real-time “performance” of a Process under a set of conditions which include the Number of Jobs and the interval between Jobs. As a particular Job in the Simulation progresses, Phis are transported from one activity to the next; Tasks are started when a Phi arrives and all the allocated Resources are available; and Task Durations are calculated from when a Phi arrives and to when the Resources complete the Working Duration assigned to the Task. When Decisions appear in the flow, a Choice is randomly selected based on the probabilities of all the Choices of that Decision, and the Job continues until there is a stop in the path that has been chosen. During Simulation, Queues are built-up as Phis arrive to Tasks that cannot begin because the Resources are not available (they may be engaged in another activity).	Task End When the Task has completed its Working Duration.
Simulation Analysis	Task Repetitions A Task can be assigned a numeric variable that specifies how many times the Working Duration of the Task will be repeated. This is useful if the Task receives a batch of items in which each of the items must be processed separately; thus, the Task would be repeated for each of the items.
The measurements that are generated as a result of a Simulation of a Process. These measurements are displayed in the Simulation Window.	Task Start <i>For Weighted Average Analysis:</i> When the Transfer Durations of all the Connectors that lead into the Task have been completed; i.e., when all input Phis arrive. <i>During Simulation:</i> When a Resource pulls a Queue Item out of the Queue. There has to be an Item in the Queue, the Simulation Calendar has to specify that the current Simulation Time is during working hours, the Resource Calendar has to specify that the Resource is working at the current Simulation Time, and there has to be an allocated Resource available (not busy elsewhere). If more than one Task is requesting the same Resource, then a Task is chosen at random.
Simulation Non-Working Duration	Total Cost <i>Simulation Output for Jobs:</i> The total cost of the Job. <i>Simulation Output for Resources:</i> The total cost attributed to that Resource (for each available Resource that was used) for all Jobs. This is a summation for all the Resources used (Max. Number Used).
Situation	 <i>Simulation Output for Activities:</i> The total costs associated with the activity. Processes are the summation of the costs of all its activities.
A unique combination of conditions that represent a particular business situation. The Processes that reflect situations are represented in Workflow•BPR by Cases—a unique combination of Decisions and Choices.	
Start Date	Total Duration <i>Simulation Output for Activities:</i> From the time that the activity starts to the time it ends. This includes Working Duration, Idle Duration, and Non-Working Duration. This does not include Queue Duration. This is the Average Time for the Number Completed for the activity.
Task	
An activity in a Business Process that is the responsibility of a specified Resource. Visually, Tasks represent the lowest level of work you can portray in a Process.	

Total Elapsed Duration

Wait Time

Total Elapsed Duration

Weighted Averages Output: An estimate of the total amount of time that Tasks will contribute to a Business Process. The Elapsed Durations of the activities are used in this calculation. The activities do not have to be on the Critical Path.

Total External Duration

Weighted Averages Output: An estimate of the total amount of time that External Processes will contribute to a Business Process. The External Processes do not have to be on the Critical Path.

Total Transfer Time

Weighted Averages Output: An estimate of the total amount of time that the transfer of Phis from one Task to another will contribute to a Business Process. The Transfer Durations in the Connectors are used in this calculation. The Connectors do not have to be on the Critical Path.

Total Wait Time

Weighted Averages Output: An estimate of the total amount of time that the Wait Time will contribute to a Business Process. The Total Wait Time is determined by subtracting the Total Working Duration from the Total Elapsed Duration.

Total Working Duration

Weighted Averages Output: An estimate of the total amount of time that the actual performance of Tasks will contribute to a Business Process. The Working Durations of the Tasks are used in this calculation. The Tasks do not have to be on the Critical Path.

Transfer Duration

A definition of the amount of time that is taken between the end of one activity and the start of another activity. This time is taken due to the transfer of a product of the Process (i.e., a document) as it is transported from one location to another. Transfer Durations are recorded in the Connectors that link activities in an Activity Flow Diagram because they do not involve Resources that would add cost to the Business Process being modeled; otherwise, the time would be modeled as a Task with Elapsed and Working Durations.

Simulation Output for Jobs: The total amount of time spent on transferring Phis with Media for all paths of the Job. Non-Working Time is not included.

Variable

A Data Field that can have a user-defined value. There are two types of variables: Financial (Float) and Numeric (Integer).

Value Added Analysis

A technique for analyzing the status of a Process in terms of Task Value-Addedness. Classification 1 has three predefined items for use in this analysis: Real Value-Added, Business Value-Added , and No Value-Added.

Wait Time

An estimate of the number of working hours that are spent not working on the Process activities during a single execution of the Business Process. That is, the Process has been started, but the employees are busy doing other things and are not working on the Process. Wait Time is calculated by first subtracting the Working Duration from the Elapsed Duration of activities; then the Wait Times for each activity on the Critical Path are summed to generate a Wait Time for the Process.

Wait Time Index

Working Duration

Wait Time Index

Indicates the extent to which the Process has Wait Time; i.e., time that is not being spent on performance of the activities of the Process. The higher the index value, the better the Process is at utilizing time for Process activities—there is less Wait Time relative to Activity Time. The formula for the Wait Time Index is:

$$WTI = 1 - (WT / (WT + AT))$$

where:

WTI = Wait Time Index
WT = The amount of Wait Time
AT = The amount of Activity Time

Weighted Average

The Weighted Averages are calculated by averaging the measurements taken from each Case for a Business Process. The percentage of occurrence for each Case is multiplied by the measurements (e.g., Cycle Time) to produce Weighted Values. The Weighted Values for each Case are totaled to produce Weighted Averages of the measurements.

Work Start

For Weighted Average Analysis: Immediately after the Task starts.

During Simulation: When the Task has started or when a Resource returns from leaving the Task due to company or resource non-working hours.

Workflow Analysis

A technique for analyzing the status of a Process in terms of workflow. Classification 3 has three pre-defined items for use in this analysis: Current Workflow, Potential Workflow, and Not Workflow.

Workflow Index

Weighted Averages Output: An indication of the extent to which the Process spends money on activities that can be automated through workflow. If the value of the index is 100%, then it means that the Process cannot be improved at this time; the Process is utilizing Workflow to the fullest extent. The formula for the Workflow Index is:

$$WI = 1 - (PW / (PW + NW + CW))$$

where:

WI = Workflow Index
PW = The total Resource Cost for Tasks classified as Potential Workflow
NW = The total Resource Cost for Tasks classified as Not Workflow
CW = The total Resource Cost for Tasks classified as Current Workflow.

Working Duration

The average amount of time that was spent in processing a document that is placed in an “In Basket” (the actual time spent on Task). Working Durations will always be equal to or less than Elapsed Durations.

Simulation Output for Jobs: The total amount of time that the company spends working on the Tasks for this Job. This is the sum of all the Task Working Durations for all paths of the Job. The Task Status is *Task Busy* (blue).

Simulation Output for Activities: The amount of time that an activity is processing a Job. The Task Status is *Task Busy* (blue). This is the Average Time for the Number Completed for the activity.

Working Time

Weighted Average Output: An estimate of the number of working hours that are actually spent on the Process activities during a single execution of the Business Process. The Working Time is what is left over when the Transfer, External, and Wait Times are removed from the Process Time. The Working Time is the actual amount of time spent on activities that are in the Critical Path. The Working Time plus the External, Transfer, and Wait Times will add up to the Process Time.

Working Time

Working Time

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