



WebSphere Education



WebSphere Business Modeler overview

Unit 3

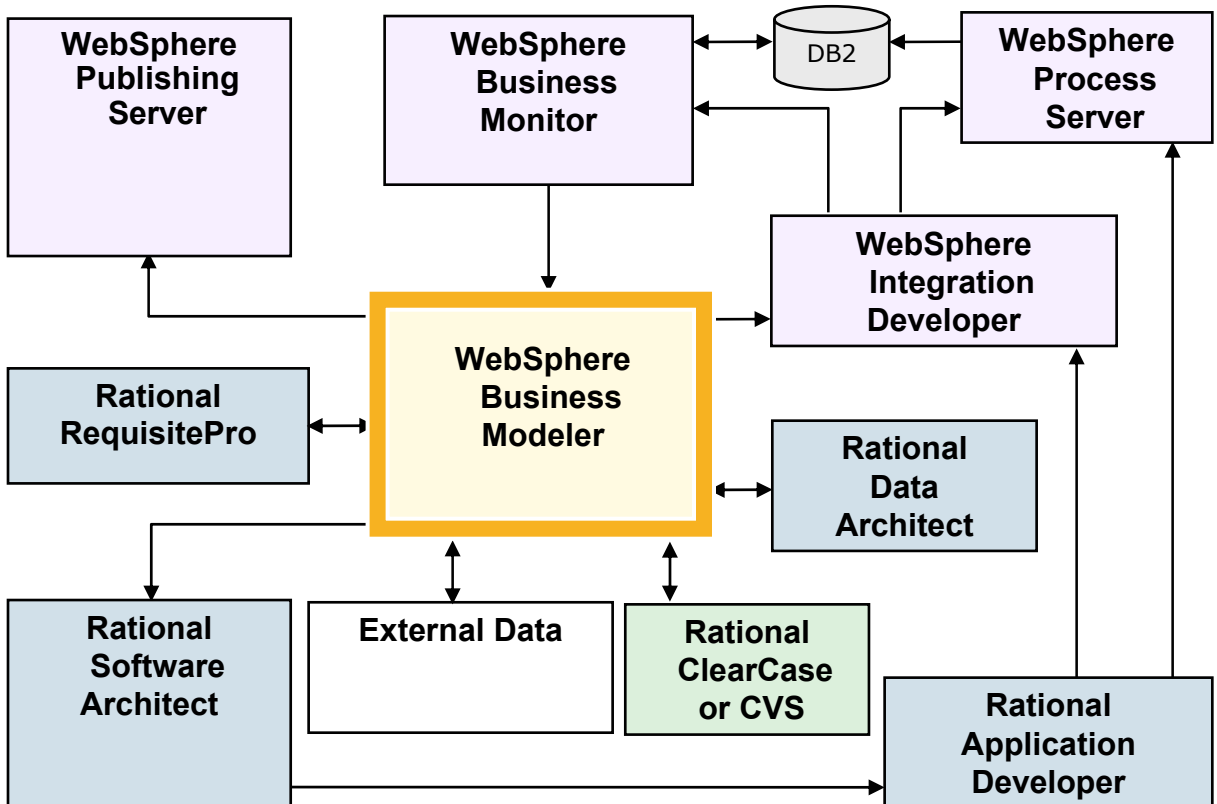


Unit objectives

After completing this unit, you should be able to:

- Explain the value of WebSphere Business Modeler
- Describe the features in WebSphere Business Modeler
- Describe the user interface
- Explain where to find help contents

Creating a model using WebSphere Business Modeler



WebSphere Business Modeler value

- Provides a common language for effective business and IT collaboration
- Allows people who know the business to model the business
- Business-focused users understand and transform their businesses through advanced business modeling, simulation, analysis, reporting, and collaboration capabilities
 - Understanding business models can increase return on investment
 - Add business measures to define key performance indicators (KPIs)
 - Add metrics that measure business process performance
 - Integrates with WebSphere Business Monitor to report on process performance
- IT-focused users export models to multiple development environments to jump-start application development

WebSphere Business Modeler supports a heuristic approach

- Heuristic approach
 - Used for problems that lack an optimal solution such as a process design
- Heuristic problem solving
 - Involves creating a set of rules or a procedure to solve problems
 - Uses experimental and trial-and-error methods
 - Based on requirements and constraints
- Potential process requirements and constraints
 - Time to complete
 - Cost to complete
 - Number of resources available
 - Schedule of resources
 - Number of paths or cases to follow
 - Frequency of process instances and starts

WebSphere Business Modeler: Documentation features

- Captures and models sequences of activities, complex logic, and business rules
- Specific modeling constructs to represent different types of work and flow logic
- Ability to represent the process in two different layouts, free-form and swimlane, and switch back and forth as needed
- Elements to represent different types of work
- Structures to represent the organization of the resource elements
- Storage of several different types of process-related information based on the level of analysis to be performed
- Ability to attach additional process documentation
- A set of catalogs to organize all model information

WebSphere Business Modeler: Simulation features

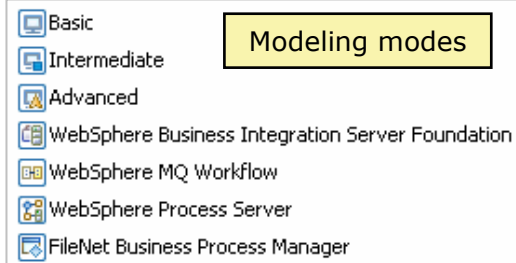
- Simulation allows you to assess process performance, generate statistics, and pinpoint potential areas of improvement
- Average or statistically-varying durations can be applied to work activities to analyze cycle time
- Resources assigned to activities are included when calculating process costs
- Flows can be animated during simulation, allowing visualization of real-time flow of process
- Simulation results are available for analysis and reference
- Simulation enables determination of the most efficient model prior to implementation by conducting “what-if” analysis

WebSphere Business Modeler: Analysis features

- Visual organization
 - Color-code the elements by role, classification, or organization units
 - Display labels above and below process model elements
- Static analysis
 - Displays activities by organization, location, classification
 - Displays role and resource cost and availability
 - Matrix analysis shows associations between model elements
- Simulation permits analysis of workloads and bottlenecks
 - Cycle time
 - Costs
 - Resource utilization
- Dynamic analysis
 - Validate current conditions
 - Evaluate the benefits of different alternatives
 - Build a business case for the future

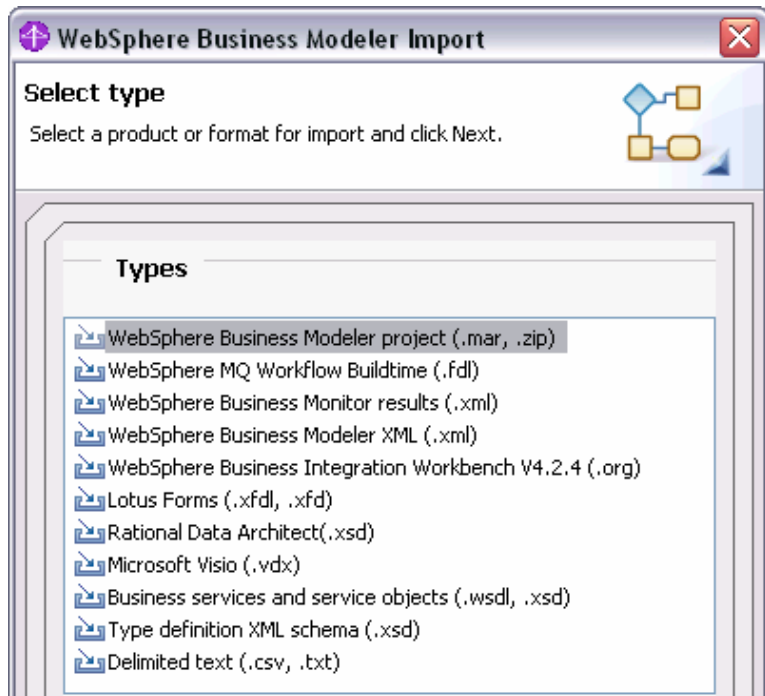
WebSphere Business Modeler: Support for other products and multiple-user environments

- Seven modes designed to support specific development efforts
 - Three for model development and analysis
 - Four for technology implementation
- Multi-user support (team support)
 - Use a repository to share Modeler files
 - Features such as share, update, commit, synchronize, get contents, compare versions, audit trail
 - View history of all changes to the models
 - CVS and ClearCase repository providers are supported
- Publishing support
 - Draft and released versions
 - Access control
 - Collaboration with those that do not have modeler
- Support for creation of business measures for monitoring



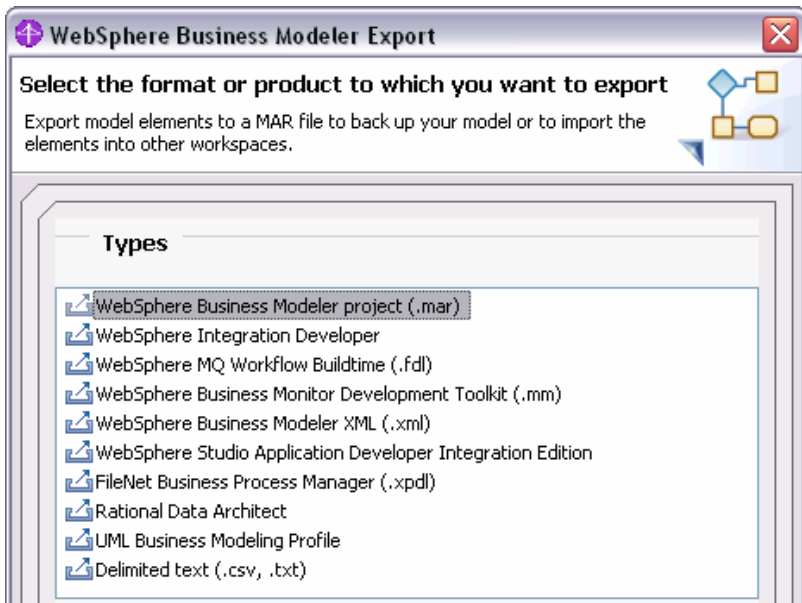
Importing

- Importing information from a variety of sources facilitates building business process models quickly



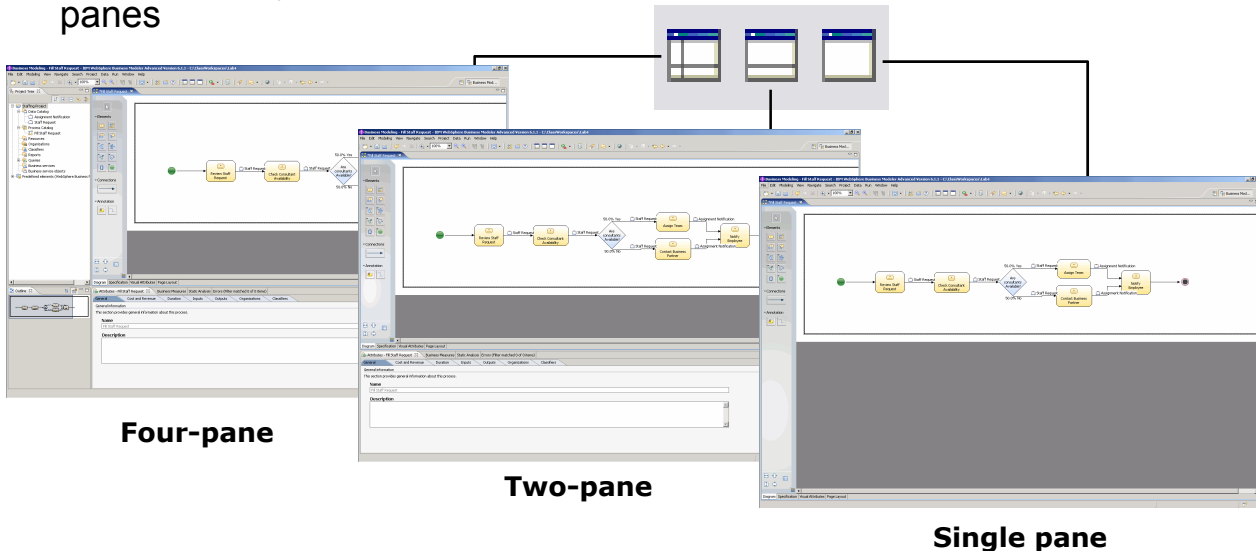
Exporting

- Exports information from Modeler to another application
- No deployment-related information is generated when you export files
 - This information will be generated when you import the files into Application Developer Integration Edition, WebSphere Integration Developer, or WebSphere MQ Workflow.



User interface: Eclipse

- WebSphere Business Modeler's user interface is built on Eclipse, an open source framework that controls multiple panes in one window
- The interface can be changed quickly by clicking a button for standard settings
 - Switch to four-pane, two-pane, or single-pane layout
- Customize layout: Add more than four panes, relocate panes, or resize panes



Four-pane layout

The screenshot displays the IBM WebSphere Business Modeler Advanced Version 6.1.1 interface. The top menu bar includes File, Edit, Modeling, View, Navigate, Search, Project, Data, Run, Window, and Help. The main workspace is divided into four panes:

- Project Tree view:** Displays all elements available to be used in model. The tree structure includes Staffing Project, Data Catalog, Assignment Notification, Staff Request, Process Catalog, Fill Staff Request, Resources, Organizations, Classifiers, Reports, Queries, Basic profile, Intermediate profile, Advanced profile, Business services, Business service objects, and Predefined elements (WebSphere Business Modeler).
- Editor view:** Displays editor for process diagram and other elements from Project Tree. The diagram shows a flow starting with a green circle, followed by 'Review Staff Request' (Staff Request), 'Check Consultant Availability' (Staff Request), a decision diamond 'Are consultants Available?' (50.0% Yes, 50.0% No), and two paths leading to 'Assign Team' and 'Contact Business Partner' (both Staff Request), which then lead to 'Assignment Notification'.
- Outline view:** Displays thumbnail view and index of elements in process model. It shows a small diagram of the process flow.
- Attributes view:** Details associated with selected element. The selected element is 'Fill Staff Request'. The view shows general information: Name (Fill Staff Request), Description, and a section for General information (Cost and Revenue, Duration, Inputs, Outputs, Organizations, Classifiers).




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Basic menu bar navigation



Import, export

 Import...
 Export...

Modeling functions

 New
 Mode
 Start Process Modeling...

Find elements

 Search... Ctrl+H
 File...
Text

Managing views



New Window
New Editor




Open Perspective
Show View


Customize Perspective...
Save Perspective As...
Reset Perspective
Close Perspective
Close All Perspectives

Business Modeling - IBM WebSphere Business Modeler Advanced Version 6.1.1
File Edit Modeling Navigate Search Project Data Run Window Help

Diagram edit

 Undo Ctrl+Z
 Redo Ctrl+Y

 Cut Ctrl+X
 Copy Ctrl+C
 Paste Ctrl+V

 Delete
Select All Ctrl+A

Editor view

Go Into
Go To

Open Resource... Ctrl+Shift+R
Show In Alt+Shift+W

Next Ctrl+,
Previous Ctrl+,

Last Edit Location Ctrl+Q

Back Alt+Left
Forward Alt+Right

Getting help

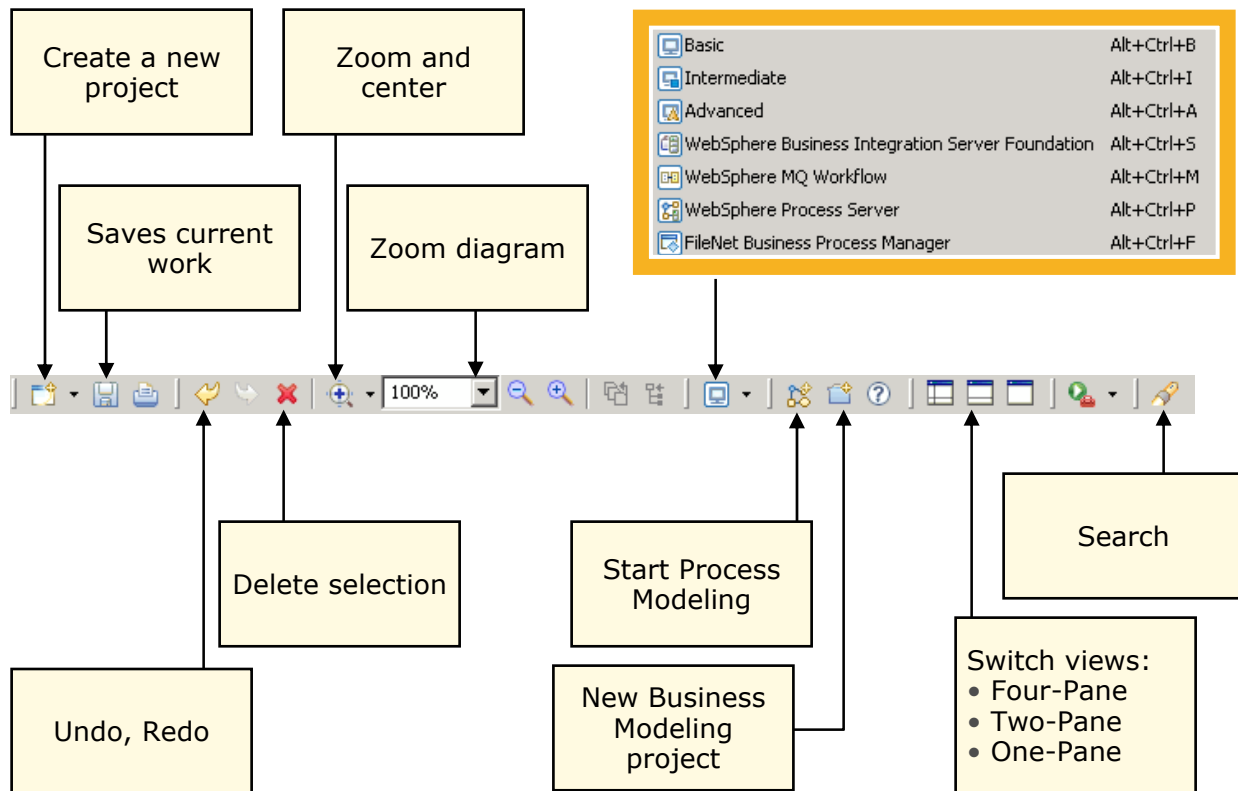
Welcome
Search
Dynamic Help

Start Process Modeling...
Modeler Help
Documentation Feedback
Web Resources
Tutorials Gallery
Samples Gallery

Software Updates
License Status

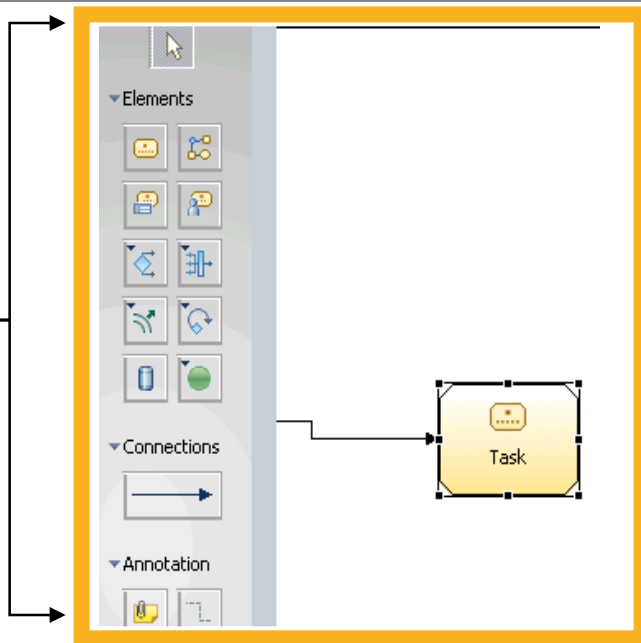
About IBM WebSphere Business Modeler Advanced Version 6.1.1

Basic tool bar navigation



Process editor navigation

Navigation for creating a model diagram



Free-form or swimlane layout

Process specification

Grid control

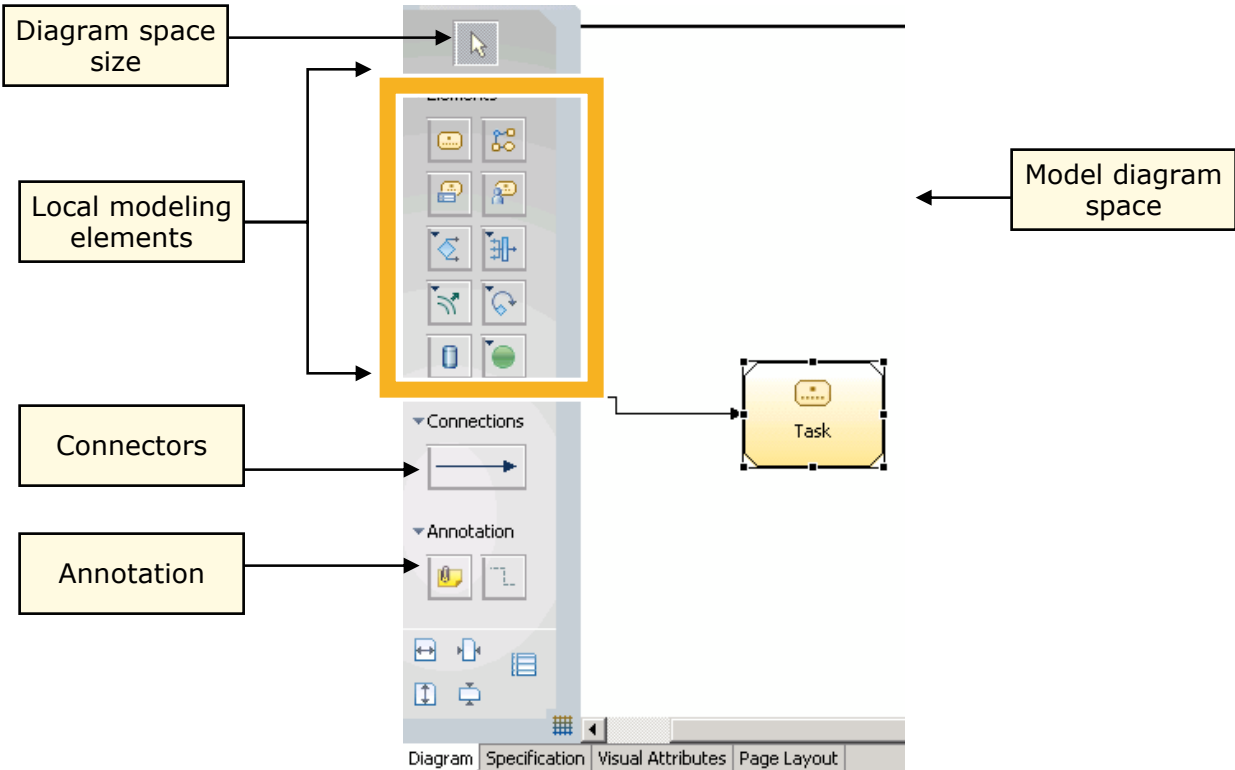
Visual attributes

Diagram editor

Diagram Specification Visual Attributes Page Layout

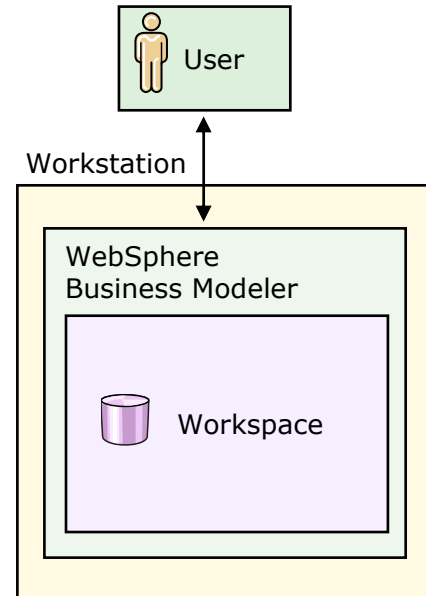
Page layout

Model diagram creation navigation



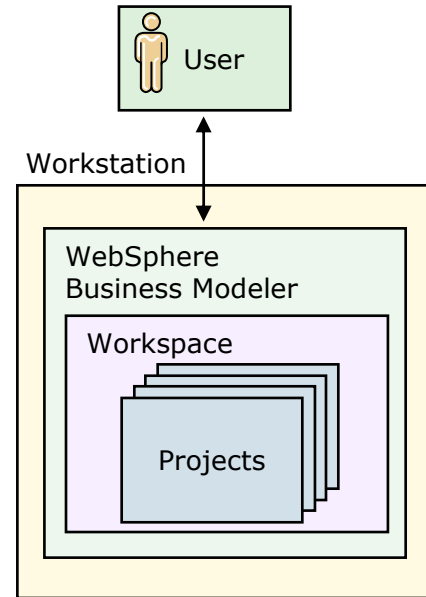
Workspace

- A folder in which WebSphere Business Modeler stores model information and user preferences on the hard drive
- Only one workspace can be open for each instance of WebSphere Business Modeler
- Each workspace can contain multiple projects
 - Elements across all projects in the same workspace cannot share the same name

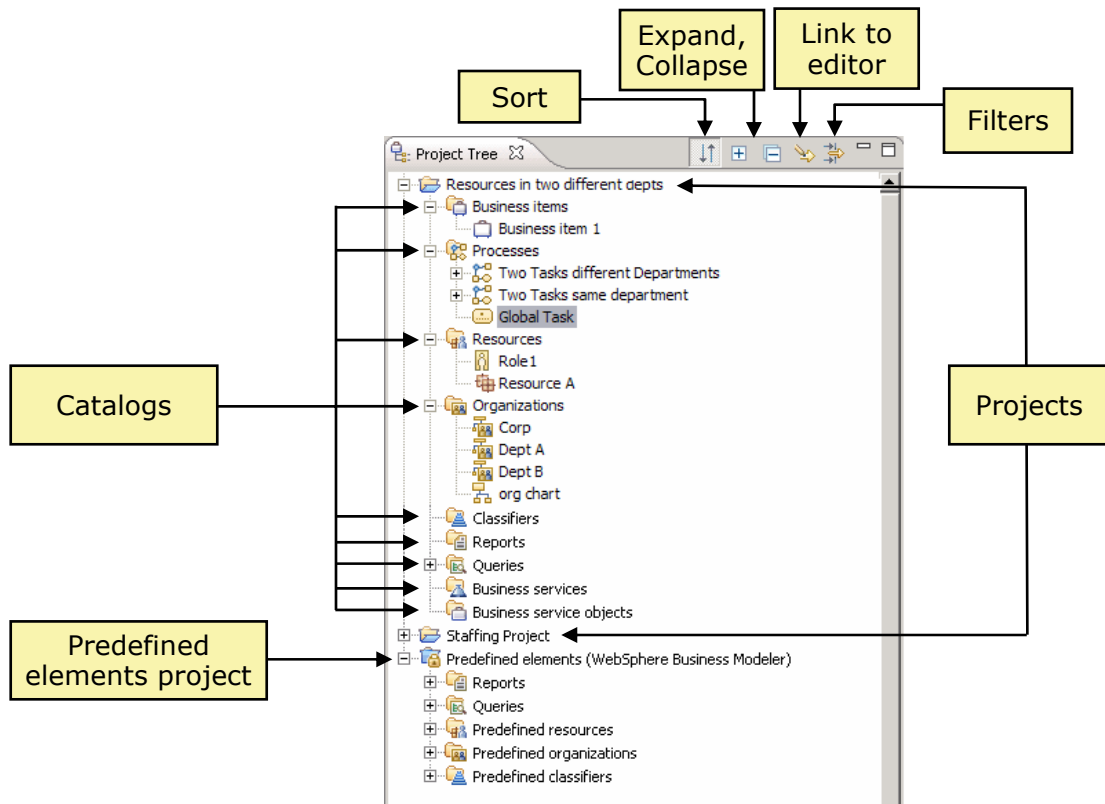


Project

- A grouping of models and other artifacts related to a single work effort
- Top-level container that holds all of the catalogs, processes, and modeling elements related to a particular work effort
 - A single project can hold all of the modeling elements for your company or organization, or
 - A separate project can be created for different business processes, functions, or work groups
 - Separate projects in the same workspace can share elements through use of references
 - Common project should be used for large modeling efforts
- Creating a project is the first step in modeling a new process



Project Tree view



Basic elements used in a process model



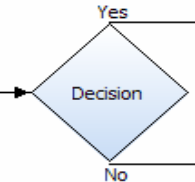
- Task
 - Basic building block representing an activity in a process model
 - Lowest level of work portrayed in a process



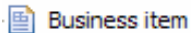
- Process
 - Sequence of activities that are linked by flows of control and data



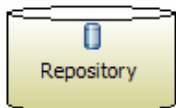
- Service
 - External process outside the organization that can be used within the organization's processes



- Decision
 - Flow control construct; different from activities like tasks or processes
 - Used to show alternate paths from a preceding activity



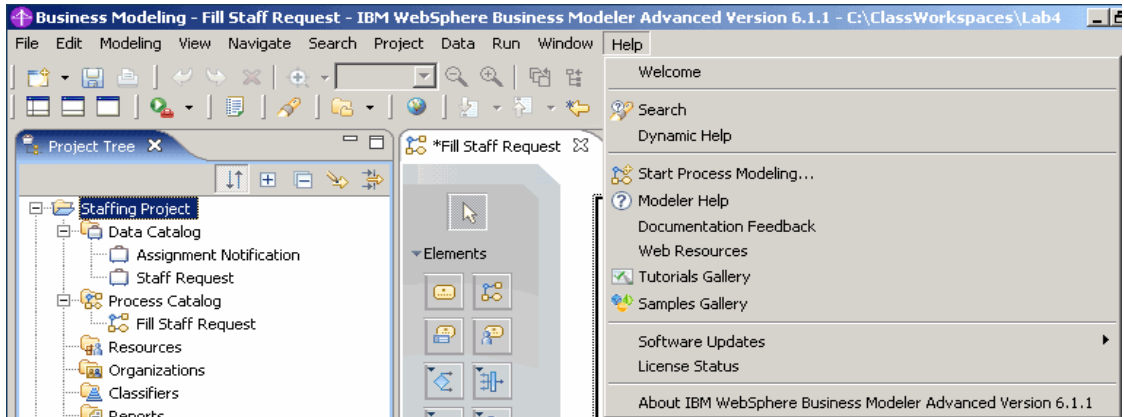
- Business item
 - Business document, work product, or commodity transformed in business operations and is passed from one activity to the next



- Repository
 - Storage area for information used in a business process

WebSphere Business Modeler Help menu

- Welcome
 - Complete set of support topics: what's new, tutorials, samples, hints and tips, product support, Web resources
- Start Process Modeling
 - Launches a wizard to create a new project quickly
- Modeler Help
 - Help database
- Software Updates
 - Retrieve the latest product updates



Modeler Help: Video tutorials

The screenshot displays the IBM WebSphere Business Modeler Advanced Version 6.1.1 Help window. The title bar reads "Help - IBM WebSphere Business Modeler Advanced Version 6.1.1". Below the title bar is a search bar with the text "Search:" and a "GO" button, followed by "Search scope: All topics".

The main content area is titled "WebSphere Business Modeler Advanced" and features a "Contents" pane on the left. The "Contents" pane lists the following topics:

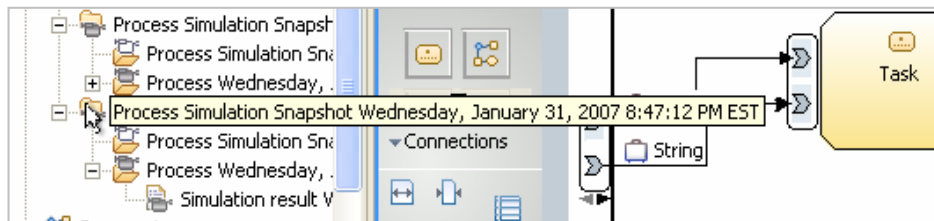
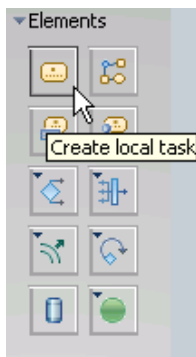
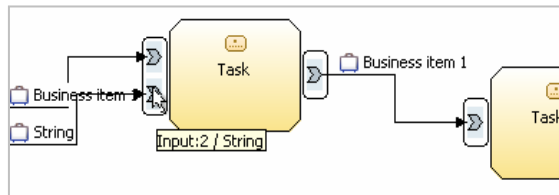
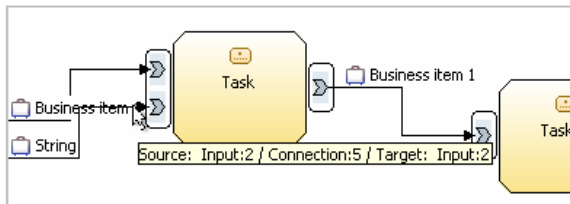
- WebSphere Business Modeler Advanced
 - Introduction to WebSphere Business Modeler
 - What's new
 - Product overview
 - Getting started
 - Tutorial: Quickstart
 - Learning objectives
 - Importing the Quickstart Finance sample
 - Tutorial Scenario
 - Module 1: Creating resources
 - Creating a project** (highlighted)
 - Creating a resource catalog
 - Creating a resource definition
 - Creating a resource
 - Creating a role
 - Adding costs
 - Creating a timetable
 - Module summary
 - Module 2: Creating business items
 - Module 3: Creating process diagrams
 - Module 4: Running simulations
 - Quickstart tutorial (PDF)
 - Release notes
 - About the information center
 - Language support and globalization
 - Accessibility
 - Terms of use
 - Notices
 - Samples and tutorials
 - Installing and migrating
 - Scenarios
 - Planning

The main content area displays the "Creating a project" tutorial. A yellow box highlights the "Show Me" button, which is a blue icon with a magnifying glass. An arrow points from this button to the "Project Tree" pane in the screenshot below. The "Project Tree" pane shows a tree structure with "Predefined elements (WebSphere)" selected. A blue box with a speech bubble icon contains the text: "The first step in building your business models is to create your own business modeling project. By default, a non-editable Predefined elements project is created for you."

Below the "Contents" pane, the text reads: "The top-level container in your Project Tree, and holds your various catalogs, resources, organizations, and other modeling elements."

Hover help

- Hovering cursor over an element displays associated information



Checkpoint: WebSphere Business Modeler overview

Your instructor will review these questions with you as a group. If time permits, the instructor may provide you time to answer the questions on your own before the group discussion.

1. What are the four panes in Modeler when using the Apply 4-pane layout?
2. What is the difference between a workspace and a project?
3. Name the types of analysis you can perform using Modeler.
4. Name some of the basic elements you use in your process model.

Checkpoint solutions: WebSphere Business Modeler overview

1. Project Tree, outline, editor, and attributes view
2. A workspace is a folder in which WebSphere Business Modeler stores model information and user preferences on the hard drive.
A project is the top-level container that holds all of the catalogs, processes, and modeling elements related to a particular work effort.
3. Visual analysis, static analysis, and dynamic analysis
4. Process, service, task, decision, business item, and repository

Unit summary

Having completed this unit, you should be able to:

- Explain the value of WebSphere Business Modeler
- Describe the features in WebSphere Business Modeler
- Describe the user interface
- Explain where to find help contents

Exercise overview

In this exercise, you will:

- Create a simple process called Fill Staff Request

Review activity: Using Help

1. List the static analysis that includes the names of the connectors on the path.
2. What are the definitions of stop and end?
3. What are the definitions of roles and resources?
4. How do you navigate the Project Tree using the keyboard?
5. You were not able to connect to CVSNT repository during the checkout. What is a possible cause?
6. You were examining the resources costs summary report. There is a column called Annual Per Time Unit Cost. How does Modeler derive this value?
7. Where do you find the new functions and features for the current release?
8. During the model validation, you got an error —
ZNO000409E — Incompatible input and output on connection.
How do you fix this error?

Solutions: Using Help

1. Paths unable to be followed analysis
2. A stop node marks the end of a process.
An end node is a visual marker within a process that identifies where a particular flow ends.
3. Roles add additional characteristics to resources.
Resources represent the people, equipment, or material used to perform a project or a task.
4. You can navigate the Project Tree using the keyboard instead of using a mouse.
To move from node to node in the Project Tree, use the up and down arrow keys.
To expand and contract nodes, use the left and right arrow keys, respectively
5. The cause may be due to an incompatibility between CVSNT and the Eclipse platform on which WebSphere Business Modeler is built. You need to configure CVSNT to fix the incompatibility.
6. The annualized cost comes from the cost per time unit values of the role, based on a 366-day (8784-hour) year.
7. In the "What's new" section
8. ZNO000409E:
Incompatible input and output on connection "connection name." The output of element "element name" does not produce the collection of unique data items required by the input of element "element name."
Action:
Either edit the output of the first element to produce the required date item collection or edit the second element to expect a different input.

References

- IBM Redbooks: www.redbooks.ibm.com
 - *Best Practices for Using WebSphere Business Modeler and Monitor* (REDP-4159)
 - *Business Process Management: Modeling through Monitoring Using WebSphere V6.0.2 Products* (SG24-7148)
 - Downloadable soft copies are free of charge
- developerWorks: www.ibm.com/developerworks
- Certification exam
 - Test 991: IBM WebSphere Business Modeler Advanced Business Analysis and Design