WebSphere Business Modeler V6.2

The basics: projects, catalogs and wizards

@business on demand.

This presentation will familiarize you with the basic structuring concepts that are part of WebSphere® Business Modeler.

Goal

- To introduce you to the basic organizing constructs available with WebSphere Business Modeler

2

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Before you can start to create business models, it is good to know what you have to work with. This presentation will give you a quick tour of the elements that are available in WebSphere Business Modeler.
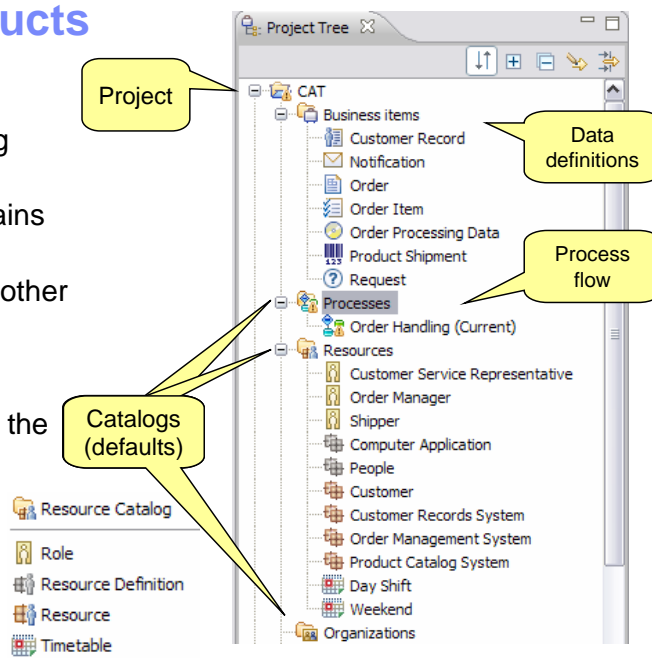
Agenda

- Overview of process modeling and the editor

- Projects, catalogs and wizards

- Modeling elements and flows

- The process editor

The basics: projects, catalogs and wizards

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3
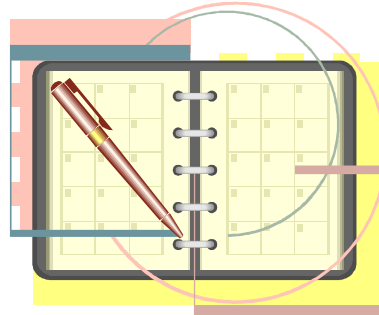
This presentation will cover the second topic on the agenda. The subsequent topics will be covered in follow-on presentations.

The basics: projects, catalogs and wizards

The project is the packaging element that holds all the other parts. Within the project there are catalogs containing the modeling elements and other nested catalogs if you need. Catalogs are helpful when you need to organize a large project. Shown here are some of the catalogs that are created when you create a new project and accept the defaults.

Projects can reference other projects and thus use or reuse the models and model elements in other projects. To avoid name conflicts the modeling artifacts should be placed in user specified catalogs. For example, instead of the default Business Items catalog, create a data catalog called Order Management Business Items.

To get started you will need Business Items, Processes and Resources. The business items are the data elements that are passed between the tasks and the business processes. The process catalog holds the business process flow diagrams and the Resources folder is where you defined the resources used or consumed by your business process. The resources shown here include, roles, resource definitions, resource instances and timetables.

The other catalogs will become important as your model evolves and matures.

Sharing model elements across projects

- Allows global model elements, such as processes, roles and business items to be used across projects

- Organizations can define a standard set of artifacts for reuse by individual modelers.

- Customers do not need to manage multiple copies of the same element in different projects

5

Specifying a complete business model requires defining details for many elements like business items, resources, organizational structure, roles and the process flows. It is very common for these elements to be used with different business processes and for the business processes to be organized into several different modeling projects.

Copying common elements from one project to another leads to a couple of problems.

First, once the element has been copied it can be altered, resulting in different definitions of the same entity.

Second, having multiple copies increases the size of the workspace.

By enabling elements from one project to be referenced by another project, organizations can now define a set of standard artifacts that can be reused by all the business processes and projects that need them. This will reduce the size of the projects and maintain data integrity.

Predefined elements

- WebSphere Business Modeler provides a set of predefined elements
  - ‣ Accessible by all projects
  - ‣ Elements commonly used by all projects
  - ‣ Aid in getting started with…
    - Reports
    - Queries
    - Resource definitions
    - Organization definitions
    - Classifiers

The basics: projects, catalogs and wizards

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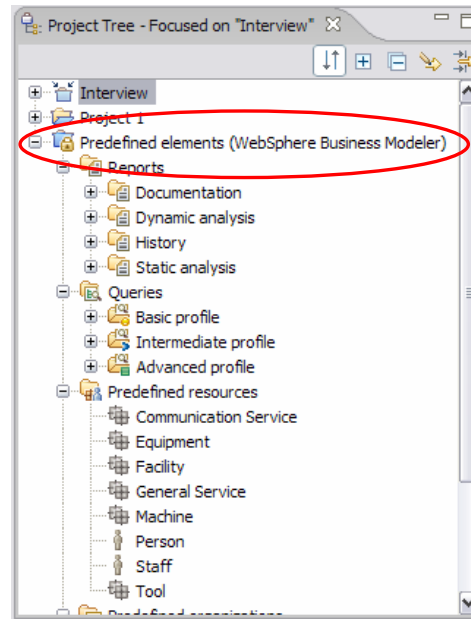
WebSphere Business Modeler provides some predefined elements to get you started with process modeling. These predefined elements include reports and queries, resource definitions, organization definitions, business measures templates, and classifiers.

All new projects will automatically have a dependency relationship established so all you need to do is reference them in your project when you need them.

Notice the little lock icon. This indicates that you cannot delete or change any of the elements or add new elements to the project.

Reference groups and project focus

- A concept called the *reference group* is available to help manage projects that are related to each other.

- Each project can have a reference group

- The project focus is a filtering mechanism to filter out all the projects that are not part of the reference group

The basics: projects, catalogs and wizards

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7
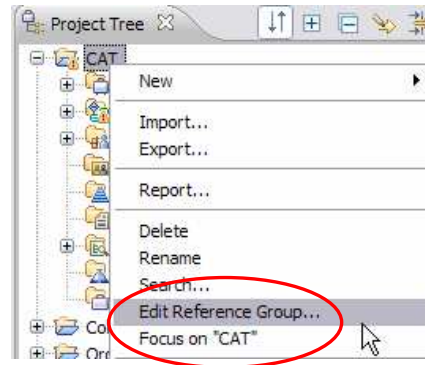
To establish the dependencies between the projects, a new concept called the 'reference group' has been introduced. The reference group is a list of all the projects that the selected project references. Each project has a reference group and the group is initially empty.

As you can imagine, once you begin to use this new feature it can become difficult to keep track of the relationships. The 'project focus' function is provided to help you filter out all the projects in your workspace that are not part of the reference group you are currently working on.

The next couple of slides will show you how to use these new features.

Working with reference groups
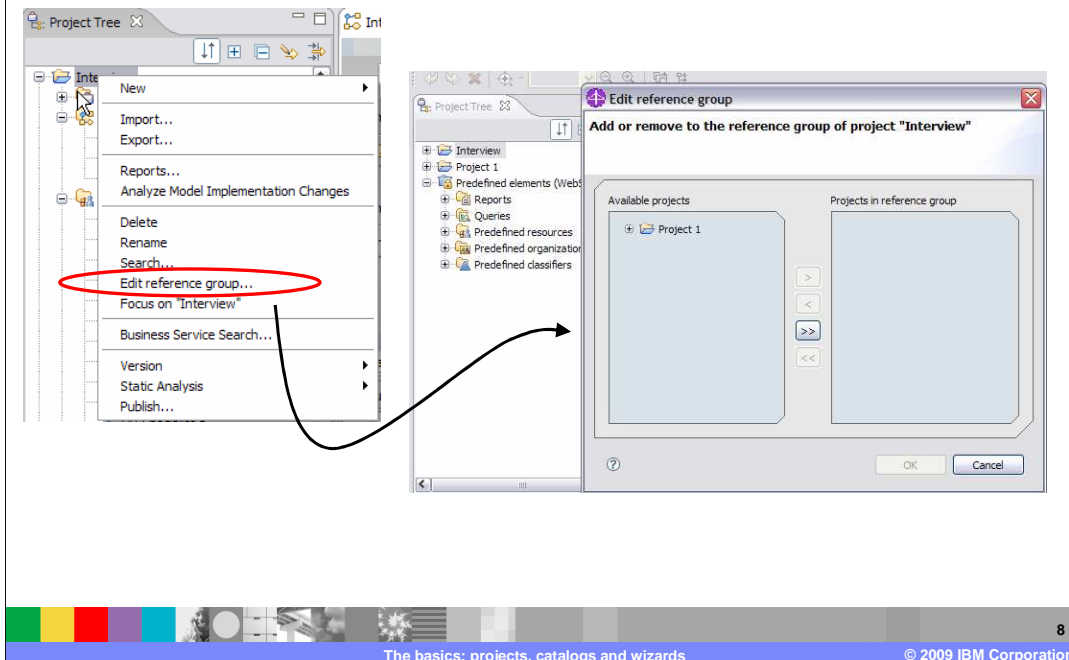
If you right-mouse-click your project in the project tree you will see there are a couple of new menu items, 'edit reference group…' and 'focus on…'.

Selecting the "edit reference group", option will invoke the dialog shown on the right.

On the left of the dialog you will see all the projects in your workspace that are not currently part of the reference group for the selected project. On the right you will see a list of all the projects already in the reference group. In this case there are none.

The plus sign next to Project1 in the 'available projects' list, indicates that Project1 has some projects in its reference group. If you move Project1 over to the 'projects in reference group' side, then the projects already referenced by Project1 become part of the reference group for the Interview project as well.

To see projects already referenced by Project1, expand the plus sign.

To move a project from one list to the other, select the appropriate button between the two lists.

Working with the project focus

Interview has Project1 in it's reference group

Project1 reference group is empty
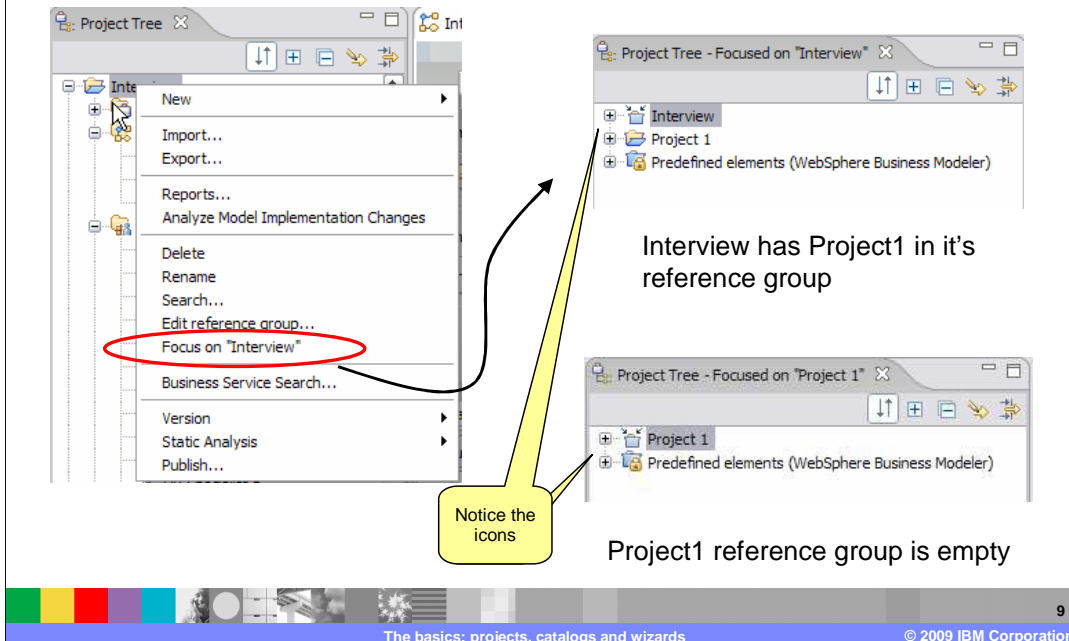
Once you have started using reference groups and begin working on your project, you will want to focus only on your project and those that it has a dependency on.

To do this, right-mouse-click your project and select the 'focus on...' menu option. This will hide all the projects that are not part of the reference group for the selected project.

Once the focus has been set, there is another menu option available called, 'show all projects'.

Show all projects can be used to bring back into view all the projects in the modeling workspace.

Do not forget to notice the little arrows pointing to the project that currently has the focus.

Things to consider

- Unique qualified names required for all models, across the entire workspace..
  - Project A
    - Processes
      - My Process 1
  - Project B
    - Processes
      - My Process 1
- The same model should only exist within a single project in the workspace.
  - Cannot import a given process multiple times, into different projects.
- A few words on names
  - the project name is not part of the fully qualified name
  - the catalog name is part of the fully qualified name
  - when exporting, there is an object ID that is maintained upon import. This can cause unexpected conflicts
  - but when using copy/paste, a new ID is created
  - bringing in an object using CVS (team support) is like import, the ID is preserved

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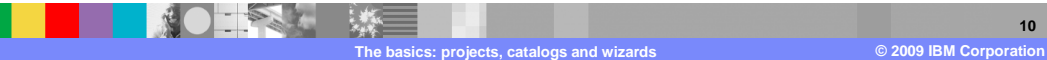
All the elements in the projects can be shared, their uniqueness must be managed across the entire workspace.

This will impact you when you migrate or import projects from versions before V6.1.

You will likely see errors associated with duplicate names. These errors will have to be resolved manually, post migration or after the import.

The last section on this slide provides some guidelines that will help you understand how to create unique names with your workspace.

The first thing to remember is that the project is not part of a fully qualified name, but the catalog is. This means that if you need to have elements with the same name you can achieve this by putting them into separate catalogs.

Next, keep in mind that there is a distinction between an element that is copied and an element that is imported or added to the workspace from a team repository. When you do a copy you are actually creating a new element and thus a unique identifier is generated for it.

With the import and export operations the element identifier is preserved. Operations with the team repository are merely variations of the import/export operations.

The export wizard
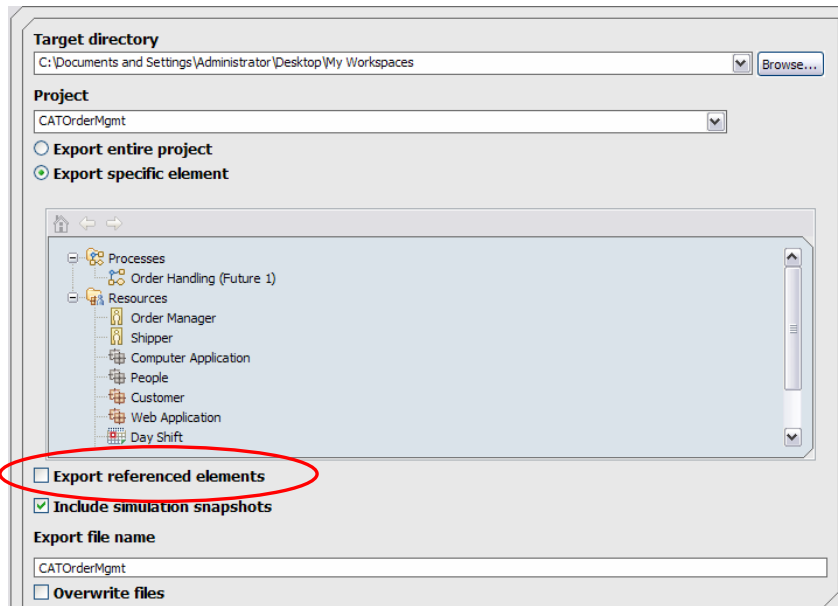
When using project referencing you can export and import you projects and all the projects it references in a single operation.

Shown here is the main panel when exporting a project as a modeler archive.

Notice the radio buttons that allow you to export the entire project or to select specific elements. How and what is exported will effect the behavior on the import.

Also take note of the check box below the element list. This is used to specify whether you want to export the referenced elements or not.

Project import and export

- **Project-level export**: Can export a project and the projects in its reference group.
    - ▸ Effect: Multiple projects into a single .mar file.
    - ▸ The project structure that existed at export time is re-created upon import. New projects are created where necessary.

- **Element-level export**: Can export a single element plus anything it references, regardless of which projects they reside in.
    - ▸ Effect: Multiple elements into a single .mar file.
    - ▸ The project structure that existed at export time is <u>not</u> re-created upon import. All models in that .mar file are imported into a single target project.

Since there is now a way to create a group of related projects you would expect to be able to import and export them as a group, and yes you can. When multiple projects are exported to a modeler archive the project structure that existed at the time of the export is preserved.

The project-level export and import provides a convenient way to save and restore a project and all of its related projects as a single unit.

The element-level export and import can be used to gather up and export one or more elements and their referenced elements into a single project.

When importing a V6.1 modeler archive file with one or more projects, the structure is established and the projects are created or replaced as needed.

In previous versions of WebSphere Business Modeler the project had to exist before the elements can be be imported.

The import wizard can tell if the modeler archive being imported is from V6.1 or a previous version.

If it is from a previous version an entry field for the target project is displayed.

If the archive being imported is a V6.1 archive file then a target project field is not available and the projects are created or replaced.

Other features also take advantage of the cross project referencing feature.

As shown here, simulations, reports and queries can also reach across the project boundaries to fulfill their functions.
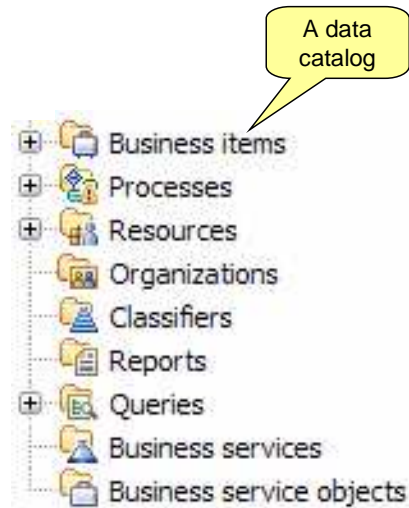
Reports and queries are run against a single project but the dependency chain is traversed and used if referenced.

When running a query, there is a check box that can be used to set the scope of a query.

The copy and paste, move, and the drag-n drop features can all be used across the project boundaries too. When using these features across the projects, keep in mind the earlier discussion about the unique identifier associated with the modeling elements.

Catalogs are a way to organize the elements within a project. Each catalog contains specific kinds of elements. For example, the Business Items catalog, which is really a data catalog, holds all the definitions for the data elements that are passed between the tasks and business processes. The Processes catalog holds all the processes and the global elements used by the business processes. There is more on this in the next few slides.

The important things to note about catalogs at this point is that new ones can be created by users as necessary and that they can be nested.

That is to say, catalogs can contain other catalogs. Therefore you, as the business user, can arrange your projects as you need to.
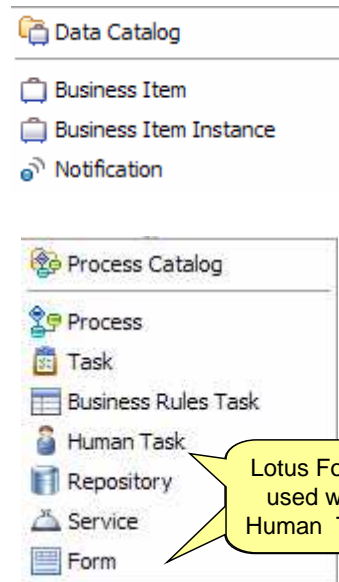
Data and process catalogs

- Data catalog
  - ▶ Business item is the definition of a data element
  - ▶ Business item instance is a data element with values
    - Used with simulations
  - ▶ Notification
    - A special business item used with the broadcast senders and receivers
- Process Catalog
  - ▶ All the elements used to construct a business process flow

Data Catalog
- Business Item
- Business Item Instance
- Notification

Process Catalog
- Process
- Task
- Business Rules Task
- Human Task
- Repository
- Service
- Form

Lotus Forms used with Human Task

15

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The business item catalog contains the business items and business item instances. A business item can be a simple data type or a complex data structure. When creating business items or business item instances you have a full featured editor that lets you create complex data structures, define the cardinality of the attributes, set as read-only and define default values.

Business items can be derived from previously defined business items allowing you to create a hierarchy of business items.

You can also create rules associated with each attribute, fully document the business item and each attribute and define the set of possible states for the business item.

The process catalog contains global elements that can be used in a business process flow. The Task is the fundamental unit of work. The Business Rules Task and the Human Task are both special cases of the generic Task.

A business rule encapsulates logic that changes frequently, which you'd like to be able to change without redeploying the application.

The Human Task is a task that requires some human intervention, it cannot be fully automated. A Human Task requires that a person receive information from the system, and then reply back to the system when the work is done. This kind of interaction requires input and output forms. Therefore you also have the Form element which is a Lotus Forms form that can be associated with the inputs and outputs of a Human Task.

Default Lotus forms are created automatically based on the structure of the input and output business items being used with the Human Task. The Lotus Forms Designer can be used to customize the forms which can then be imported into the model and associated with a Human Task.

A Service is an external task that has already been implemented. The Service element provides a way to know the interface and the endpoint information.

The Repository is an element you variable. It is used to hold data for long conditions and to

Resource catalog

- **Resource catalog**
  - ▶ Roles
    - A group of users
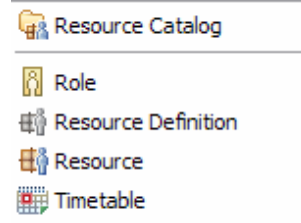 - ▶ Resources
    - Instance
    - Individual
    - Bulk
      - Consumable and non-consumable
  - ▶ Resource Definition
    - Abstraction
  - ▶ Timetable
    - The time at which a resource is available

🗂	Resource Catalog
🧍	Role
👥	Resource Definition
👥	Resource
📅	Timetable

16

Resources represent the people, equipment, or material used to perform a project or a task. Examples of resources are Computers and Employees.

Resources are not the same as business items. Business items represent objects that undergo changes and are passed from one process step to the next. Resources represent the things that are performing the work or are required prerequisites, such as machines, fuel, vehicles, or skilled personnel.

The Role describes a group of people that will be doing a task. The role is a key resource for the human task and maps to the group concept in the user registry.

The Resource definition provides the mechanism for creating a hierarchy or resources. For example, if you have defined a resource definition called Vehicle, you can model types of vehicles, such as Light Truck and Van, as resources.

Resources can have specified periods when they are available. To specify availability, you can use an existing timetable or create a new timetable that indicates the periods of availability. If you do not specify the availability of a resource, it is assumed that the resource is always available.

Organization catalog

- ## Organization Unit
  - ▸ Enterprises, companies, departments, teams

- ## Location
  - ▸ Head office, branch office

- ## Structure
  - ▸ The 'org chart'
  - ▸ Pulls it all together into a hierarchical graph

Organization Catalog
Organization Definition
Organization Unit
Location Definition
Location
Structure Definition
Structure
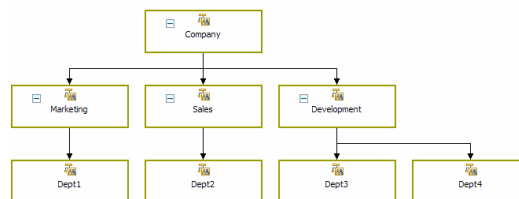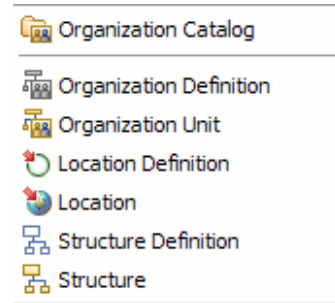
Organization units model the specific organizational groups inside of an organization. Typically, these groups are made up of people who cooperate to accomplish specified objectives. Organization units can be enterprises, companies, departments, or teams, for example.

Every organization unit is based on an organization definition. The organization definition defines the attributes of the organization unit. The values of those attributes are what make each specific organization unit a unique entity. The organization unit is an instance of the organization definition, with a specific value for each attribute defined by the organization definition.

For example, if you have an organization that has multiple accounting departments, you can create an organization definition unit called Accounting department. Then create separate organization units called Head Office Accounting department and Toledo Accounting department.

After the organization units are created, you can use the structure editor to model how the organization units relate to each other and to other aspects of your model. Alternatively, you can associate the organization units with tasks in your process models as a way of modeling which organizations are responsible for carrying out which tasks.
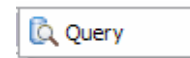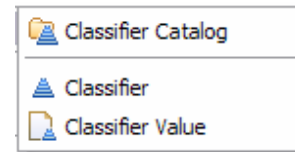
Locations model specific places of interest to your organization.

Every location is based on a location definition, which dictates the attributes used to define the location. The values you give to those attributes make each specific location a unique entity.

For example, if you have an organization that has multiple offices, you can create a location definition unit called Office, and then create separate locations called Head Office, Distribution Office, and Call Center Office

Classifiers and report catalogs

- Classifiers
    - A way to categorize tasks
    - Associate with colors
    - Can be used to organize swimlanes

- Reports
    - Predefined reports for…
        - Documentation, Dynamic analysis, History, Static analysis

- Queries
    - Large set of predefined *Standard* queries

Classifier Catalog
Classifier
Classifier Value

Report Catalog
Report Template
Report Style Master

Query

18

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Classifiers enable you to categorize tasks and other process elements for decision-making or process optimization. Predefined classifiers are provided for quality control, value added, and workflow. You can also define your own classifiers. You can associate colors with elements that have specific classifier values, enabling you to see these values at a glance in the Process editor. You can also display each classifier value in a different row using swimlanes

Reports provide a way for you to view, share, and print information derived from the models you have created.

WebSphere Business Modeler provides a variety of predefined report templates that you can use to generate reports based on your models. In addition, you can design your own report templates, and you can copy the predefined report templates to a different report catalog and then customize them.

All predefined queries have a corresponding predefined report based on the query. Use the query if you want to view the information, and use the report if you want to format, print, or save the information. For example, you can use the Process Statistics Report to generate, print, and save information equivalent to the information presented in the Query view when you run the Process Statistics Query.

Business services, business service objects

- The elements in these catalogs are created by import only
  - ▸ They are immutable
    - they cannot be changed in WebSphere Business Modeler
- Business Services
  - ▸ From WSDL import
- Business Service Objects
  - ▸ From XSD import
- Can import from
  - ▸ the file system
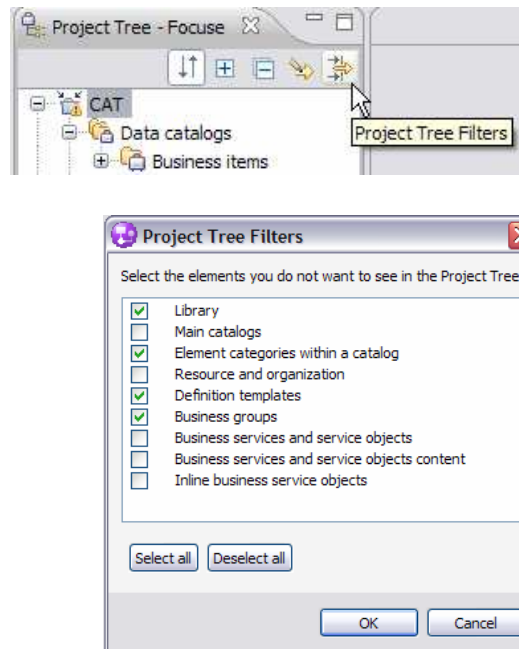 - ▸ WebSphere Services Registry and Repository
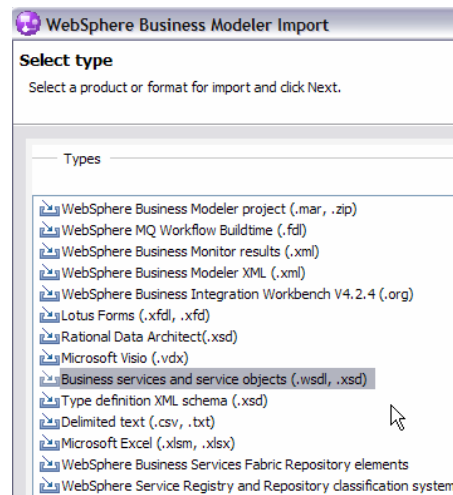
When you are modeling a process, you might encounter services and business objects that have already been implemented. Instead of modeling a representation of these elements, you can import their WSDL or XSD definitions. WebSphere Business Modeler creates model element representations for these files and their contents.

WebSphere Business Modeler uses a separate set of catalogs for elements imported from WSDL and XSD files. Despite their similarities to business items and global services they cannot be changed in WebSphere Business Modeler because they are reusable definitions used by other applications.

For this reason, you cannot edit the business services and business service objects within WebSphere Business Modeler.

Project tree filters

- There is still more in the in the project tree view
  - Not everything is visible by default

- Project tree filters
  - Let you hide the modeling elements that you do not work with on a regular basis

Project Tree - Focuse

CAT
- Data catalogs
  - Business items

Project Tree Filters

Project Tree Filters

Select the elements you do not want to see in the Project Tree:

- ☑ Library
- ☐ Main catalogs
- ☑ Element categories within a catalog
- ☐ Resource and organization
- ☑ Definition templates
- ☑ Business groups
- ☐ Business services and service objects
- ☐ Business services and service objects content
- ☐ Inline business service objects

Select all   Deselect all

OK   Cancel

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By now you should have a very good idea of how WebSphere Business Modeler is organized, what the elements and constructs are that you have to work with, and how to get around. There is a wealth of detailed information along with tutorials available in the online product information center. There you find the additional information you will need to understand the elements not covered in this presentation. They have been filtered out because they are not commonly used by the business user just getting started with WebSphere Business Modeler.

You now know about the filter. Explore the other elements when you are ready.

Wizads

- A few quick words about wizards

- There are many ways to get started creating your business models.

- Wizards are there to guide the new users in some of the basic tasks.

- Since you will most likely encounter the *Start Process Modeling* wizard when you first start using WebSphere Business Modeler
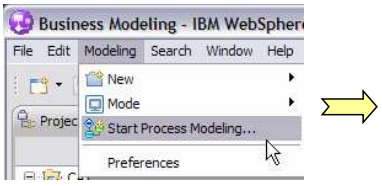   - ▸ We will take a minute to go over it with you.

21

There are many ways to get started creating you business models with WebSphere Business Modeler. There are wizards to guide the new users in some of the basic tasks.
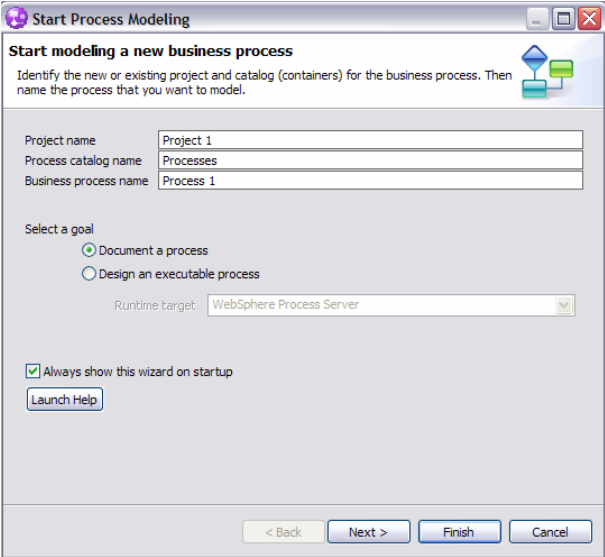
The next few slides will take you through the first wizard you are likely to encounter, the Start Process Modeling wizard.

Start process modeling

- Menu bar
- Toolbar
- Object-action
  - With the right mouse click

WebSphere Business Modeler is designed to accommodate both the novice and the experienced users.

There are many ways to invoke the functions available.

There is the menu bar as shown here, but there is also the toolbar, and my favorite, the object-action popup menus you get when you right-click an object.

As a new user you will discover the start process modeling wizard.

This is a great way to get started because it guides you through the steps for setting up a new business process.

You are presented with default names for the project, the process catalog, and the business process and given an opportunity to

provide names that are relevant to your business processes.

You are also given an opportunity to set the modeling goal. This setting effects the modeling mode and is discussed in more detail

on the next slide.

Modeling goal

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Target runtimes

- Used when modeling for execution

Taking a closer look at the modeling goal, remember the previous discussion about why you model? It can be that you just want to document the business process or maybe your end goal is to create an executable business process using one of the available runtimes.

It is important to make this decision early. As shown in the top picture there are several different modeling modes to choose from. Setting the modeling mode tells WebSphere Business Modeler what your end game is and it will apply filters and validation checks to make sure you do not use modeling constructs that can't be implemented in the target runtime you selected.

The wizard in the lower picture reminds you that this is an option. Selecting the target runtime at this point will set the modeling mode for you.

Finishing up with the start process modeling wizard, you can see that there are a few more important questions to consider still.

What do you want to call the data catalog?

What notation do you want to use and do you want to work in a free-form or swimlane layout?

You now have enough information to run the start process modeling wizard and to make informed choices.

Summary

- Projects and catalogs
  - ▶ Organizing structures for managing your business models.
  - ▶ Projects can reference other projects
  - ▶ Catalogs can contain catalogs
  - ▶ Some filters might apply
- Wizards
  - ▶ A way to get started with something new

25

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In conclusion, projects and catalogs are the basic organizing structure used in WebSphere Business Modeler to manage all of the elements that can be used to create your business models.

Once elements have been defined and business processes have been constructed, your work can be referenced and reused by other projects.

Type specific catalogs will guide you in partitioning your projects but you also have the ability to create your own catalogs and create your own folder structure.

Do not forget about the project tree filter.

Try the wizards and feel free to leave them behind when the time comes.

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