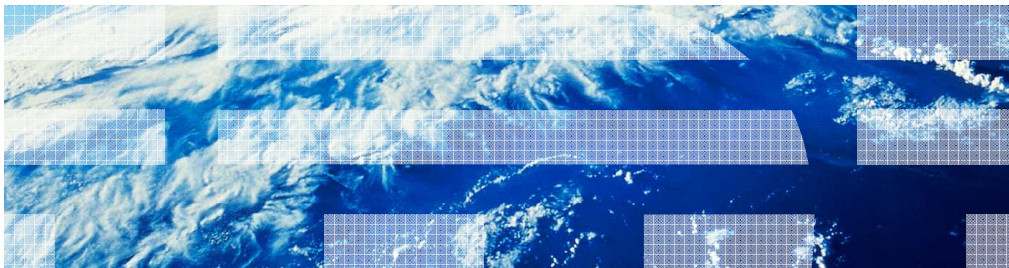

WebSphere Business Compass:

Creating a business process



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This presentation will take you through creating a simple business process using BPMN 2.0 and importing it into WebSphere Business Modeler. Importing the model into WebSphere Business Modeler will show the transformations that are made when going from a descriptive BPMN model to a model that can be implemented in WebSphere Process Server.

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After a brief introduction there is a discussion of the simple palette and then a quick tour of the process editor.

This will lead into a deeper discussion of how to specify the process details.

Next, you will see how to build a business process flow and how to specify the detailed information for the individual tasks and other modeling elements.

Having constructed the simple business process you will then see how to import it into WebSphere Business Modeler and review the results.

The last step is to incorporate the data flow into the BPMN model and inspect the results in WebSphere Business Modeler.

Introduction

The process editor for WebSphere Business Compass has two levels for specifying a business process. To capture the process flow quickly without getting bogged down with the details, use the Simple Palette. This facilitates collaborative brainstorming sessions and you'll always be able to complete the details at a later date, using the detailed palette.

This presentation will develop a simple business process using both palettes. It will start with the simple palette and then evolve the business process to include more detailed information about the tasks.

The simple palette



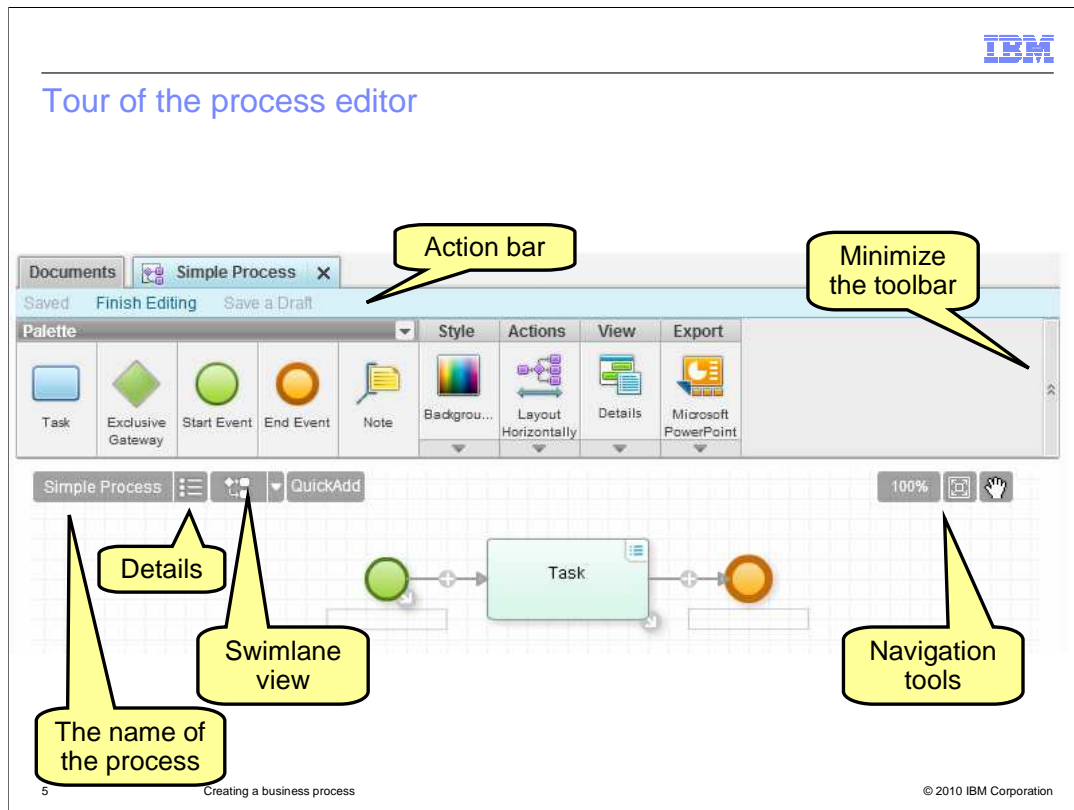
- Start by selecting the *Process Map* from the palette in the *Documents* view.
 - This will open the process editor in edit mode, with the simple palette.
- With the simple palette there are only four modeling elements to work with, plus the note element.
- To help you get started, a basic one-task flow is created.
 - It uses all the basic element except the exclusive gateway



To get started, select the process map icon in the toolbar of the documents page.

After providing a name and a brief description, the process editor will open with your new business process. There you are presented with a basic one-task flow to help you get started. This starting business process uses all of the elements in the simple palette with the exception of the exclusive gateway and the node.

There is a start node, flowing to a task which then flows to the end node.



First notice that the action bar indicates that the current diagram is in edit mode. There are several visual clues on the page but the fact that the finish editing action is enabled is the biggest clue. You can also see that you can save the document or save it as a draft. These options become available as soon as you begin making changes to the process flow.

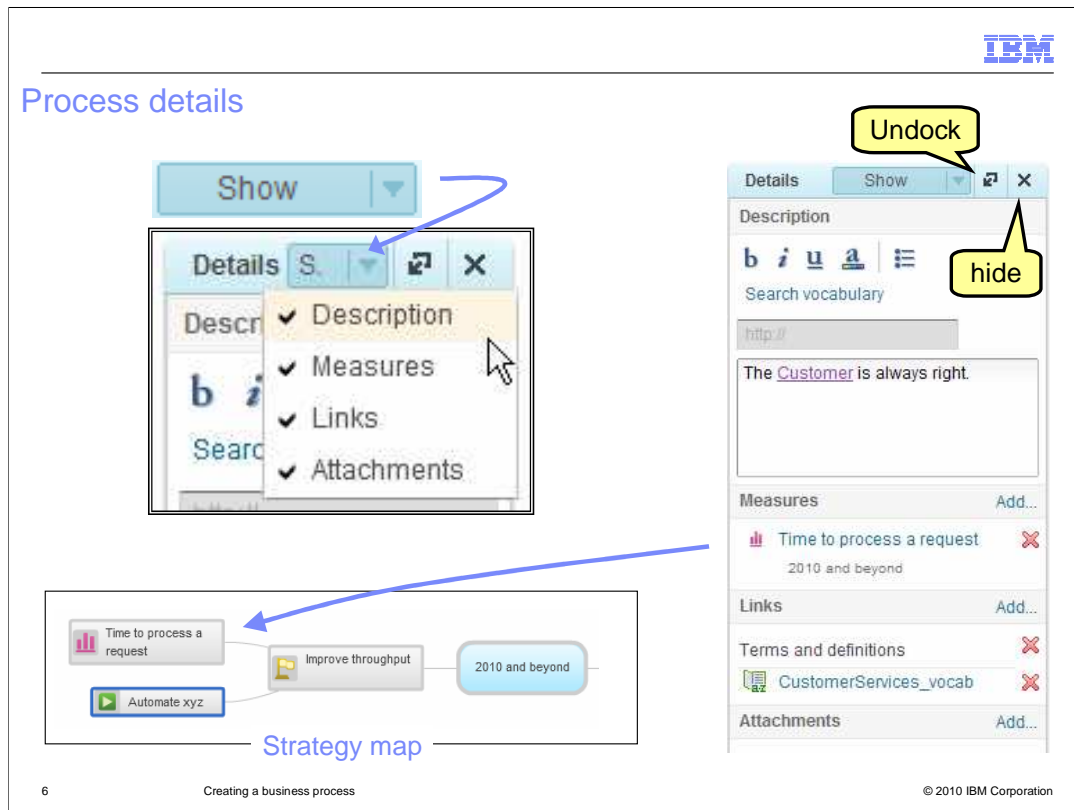
Next is the toolbar, which comes in two parts. The palette on the left, for which there are two versions, simple and detailed. The simple palette is shown here. Then on the right part of the toolbar are the editing, layout, viewing and exporting tools that are common to both palettes. Notice the drop down arrows at the bottom of each icon. Selecting the drop down arrow will expand the menu for the tool. These are shown in more detail in subsequent slides. Also notice the minimize toolbar button on the far right edge.

Once you're familiar with the toolbar you can increase the working space on your canvas by using the minimize button.

The next level down, is the top of the canvas where there are a few more tools for editing and navigating around the diagram. Moving from left to right, you see the name of the process is displayed. The next item over is a toggle button to show the document details as a sidebar on the right of the diagram. You'll learn more about the document details later. The next button over is used to switch between views, swimlane and free-form. Free-form layout is the default view.

The quick add button is a way you can quickly add a series of sequential tasks by typing in their name and hitting enter. When you hit enter, the new task is automatically inserted into the process flow at the current cursor location.

The navigation tools on the far right are zoom, fit-to-view and pan.



The details pane is a common way of capturing and displaying details that are relevant to a specific object. In this case the object is the process diagram. The details pane provides a way to filter out information that is not needed. By default only the description is shown. To see the other sections use the show button in the title bar of the details pane and select the section you want to see.

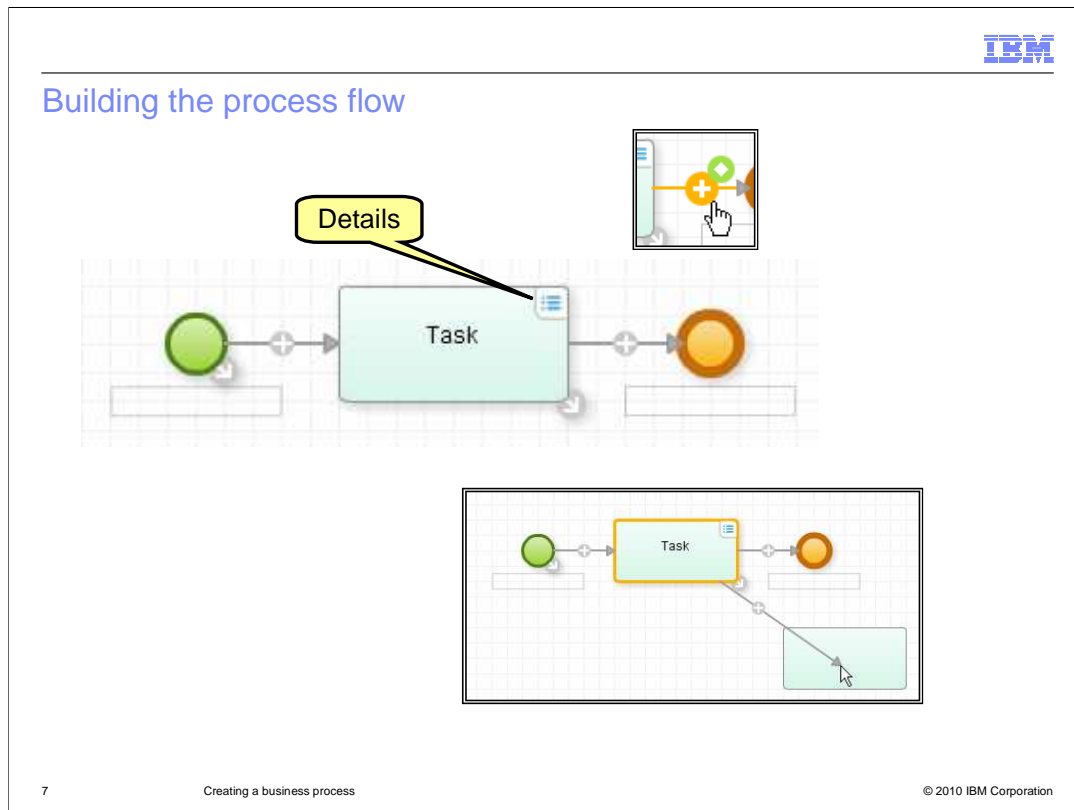
The various sections of the details pane provide a way to link to other elements in the Compass repository that are relevant to this process. The elements or information might already exist in the repository or if you realize that you need to add something new, you can do this while adding the element.

In the example here the description uses the word customer. To ensure that everyone uses the same definition for customer, the customer has been defined in a business vocabulary and linked into the description. Selecting the customer link will display the definition of customer in a popup. To create a link to a specific word, highlight the word and then select the 'search vocabulary' link. This will invoke a vocabulary search dialog which will let you locate and link to an existing definition or create a new one if a definition doesn't already exist.

Since there are other definitions related to the Customer Services process that might be of interest to someone reviewing this process, a link to the customer services vocabulary was also included in the links section.

The measures section provides a way to link this process to the specific business measures that are captured in the strategy map.

Building the process flow



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Creating a business process

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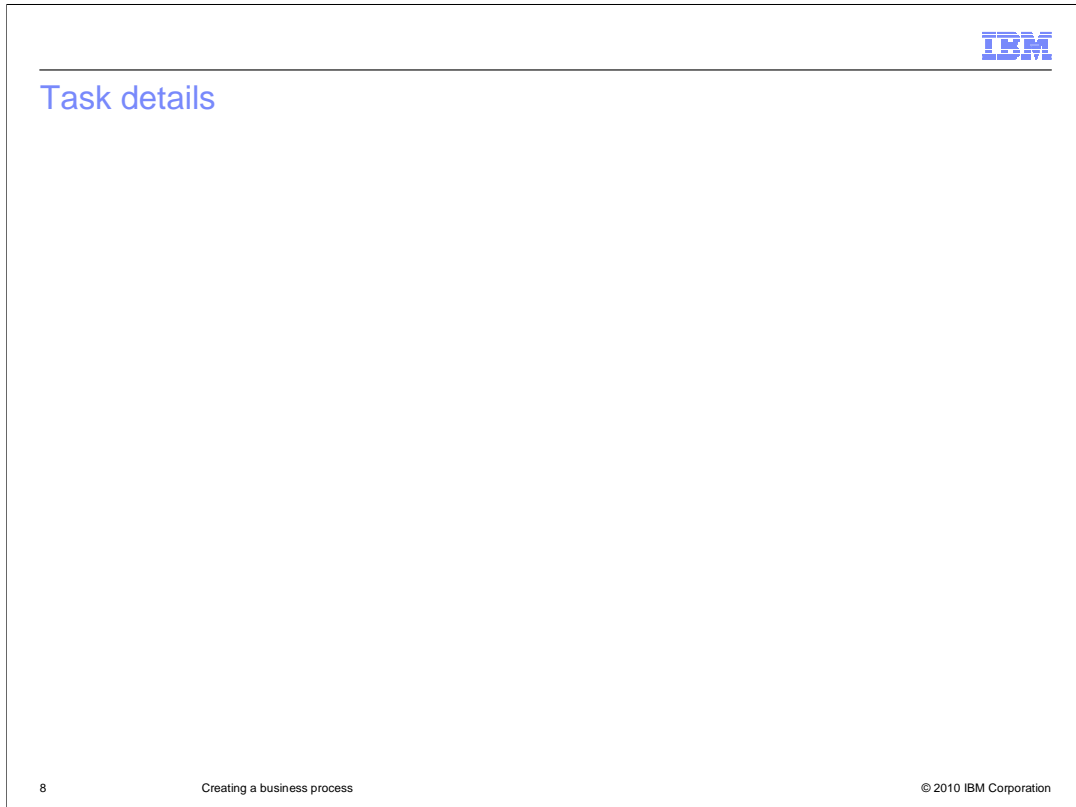
There are several editing aids directly on the canvas that help you to create your business process without having to go back to the toolbar. These aids are only visible in edit mode and are not displayed otherwise.

First, is the little arrow at the lower right of each element. This is for making connections and adding new tasks. As shown in the lower inset, when the handle is grabbed in a drag-and-drop operation, a new task can be created and automatically linked when the mouse button is released. If the target of the drop operation is an existing element then only a link is created.

The plus sign on the link is a way to insert a new task or a gateway. Shown in the upper inset is the plus sign when it is activated by the mouse. Selecting the orange plus will insert a task and selecting the green, with the diamond, will insert a gateway.

The icon in the upper right of the task is the toggle to show and hide the details associated with the task.

The name of the task can be changed by directly editing the text. The rectangles below the start and stop nodes indicate that you can also provide text there as well. Just select the rectangle and type.



The task details provide a few more sections that are specific to a process task.

The performers, the inputs and the outputs all link back to elements defined in the business vocabulary.

The performers actually map to roles and not individuals. If this is a manual task performed by a specific group of employees or 'actors' then you can specify this here. For instance the task to stock the shelves in a retail store outlet is done by the 'clerk'. If the role of the clerk is not yet defined in the business vocabulary, you can do this as you add the association from the details pane.

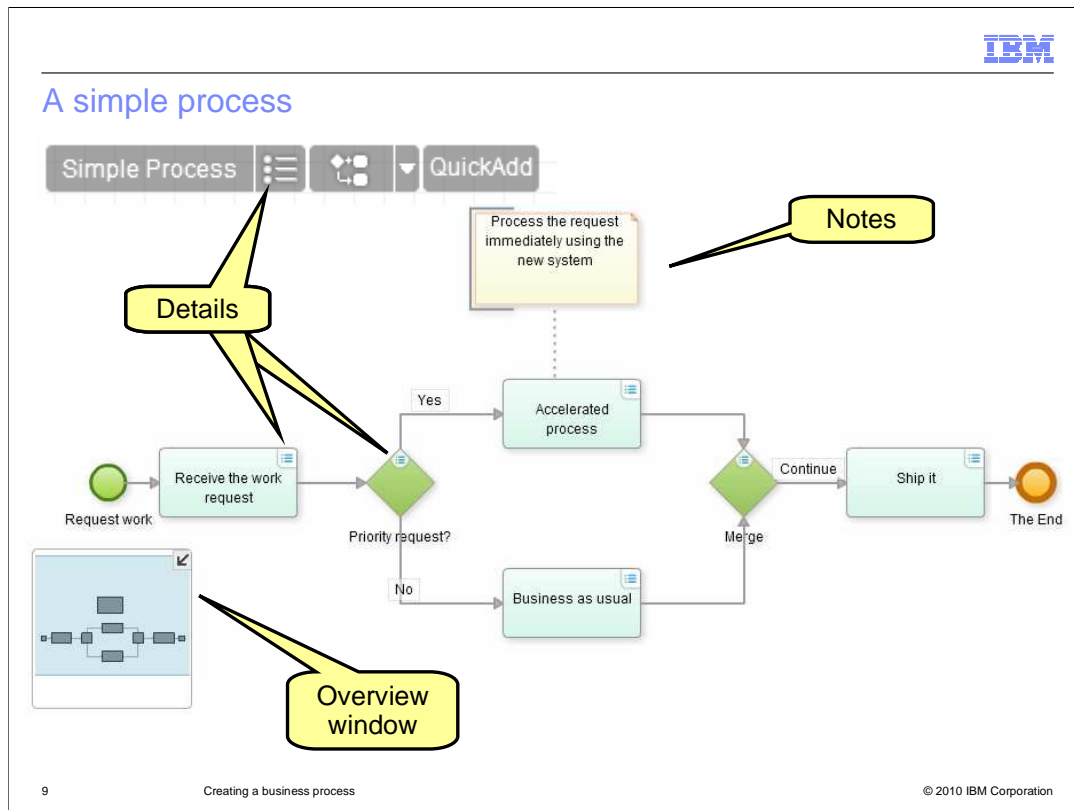
The inputs and outputs define the data that flow into and out of the task. You can add the associations here or you can do it when creating the links to the data objects in the process diagram. Again, if they don't exist yet, you can use the add button to create new ones. This is a common theme in all of the details throughout Compass.

The value stream mapping lets you specify a total duration for the task and additionally define how much of that goes toward adding value to the business and how much of that time does not add value. It is completely subjective.

You decide.

If you chose to provide this information the values are accumulated for each task that has this information and is displayed for you when you run a scenario walkthrough.

The URL field lets you create a custom hyperlink. When you highlight text in the description, the URL field becomes enabled. Type in the URL and the highlighted text becomes a hyperlink. To change it or to remove the hyperlink you need to highlight the text again.



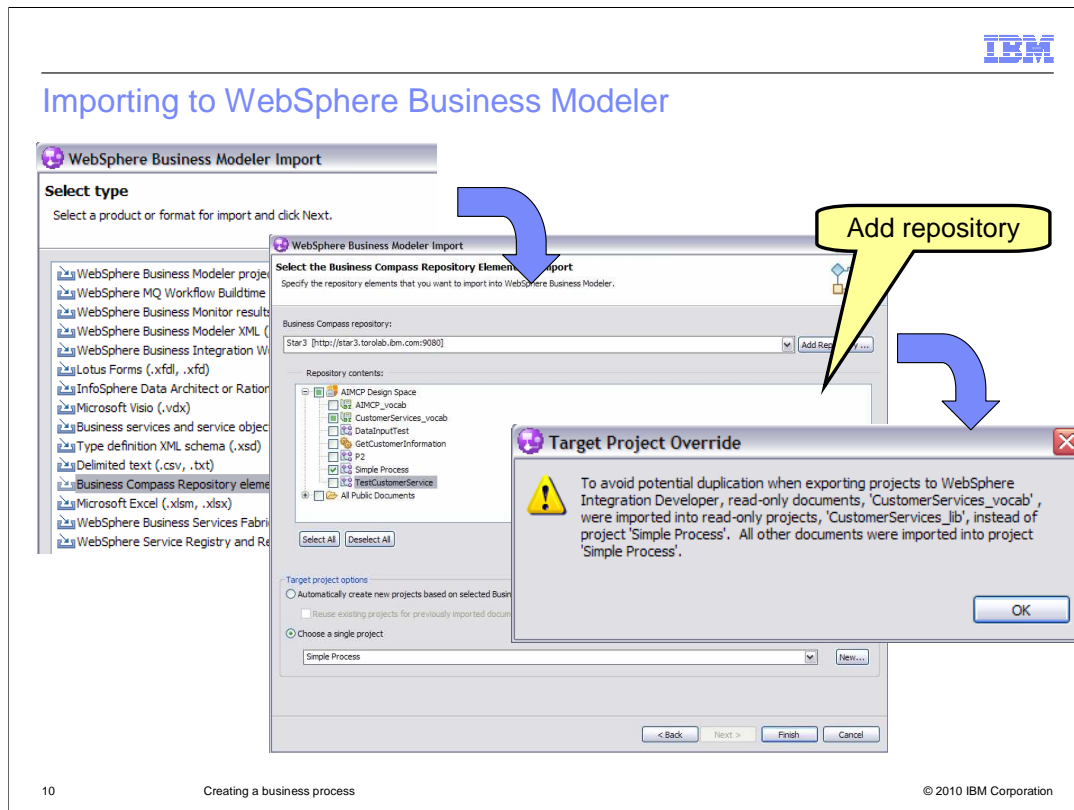
This simple process uses all of the elements available with the simple palette. The process diagram shown here is not in edit mode. You can tell by the absence of the link handles.

A few things to note.

The overview window is an alternate way to navigate around large documents. The blue area represents the viewing area of the browser window. In this case the diagram is fully displayed in the browser window. For larger business process you can quickly navigate to the area that is not in the viewing area by holding the right mouse button down over the blue area and moving it with the mouse.

There is only one symbol for the gateway, it doubles as both the decision and a merge.

The details are also available for viewing. If you open the details from the menu bar, the details pane will stay open and the contents will change as you select different elements, providing a convenient way to review the business process.



For discovering and documenting business processes WebSphere Business Compass is all you need. If at some point you want to move to the next step and automate all or part of a business process, you can import it into WebSphere Business Modeler. Even though this discussion is primarily about WebSphere Business Compass, it is useful to understand how the model is transformed when it is imported into modeler.

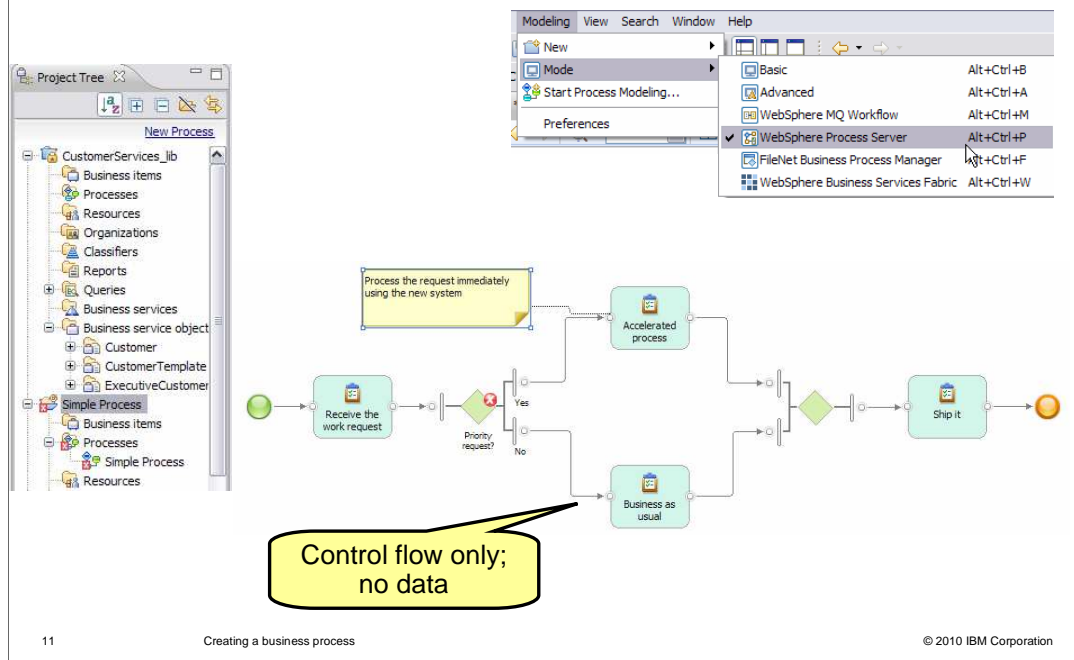
You begin by selecting the new import type called 'Business Compass Repository elements' from the import menu in WebSphere Business Modeler. You will then be presented with the import dialog, where you can select the elements that you want to import. All of the elements that are referenced by the ones you select, will automatically be selected. In this case, since there was a link created to the Customer definition in the Customer Services vocabulary, the vocabulary is automatically selected. The green square, as compared to the green check mark, which is the primary selection.

If you have not already configured a repository connection, you can do it from this dialog, using the 'add repository' button. You will need the host name and the default host port.

At the bottom of the dialog, you can choose the projects where you want to import the elements to. For the business process being used in this example, it turns out that the business vocabulary was originally created using WebSphere Integration Developer and was imported into Compass. For this reason, the 'Target Project Override' dialog is presented. The elements originating from WebSphere Integration Developer is placed in a separate, locked project. Changes or updates to these elements must come from WebSphere Integration Developer and be re-imported into Compass.

If the target project already exists and there are already WebSphere Business Compass elements present, the visual comparison merge tool is invoked and you can select the changes to accept or reject for the existing business process.

A simple process imported to WebSphere Business Modeler

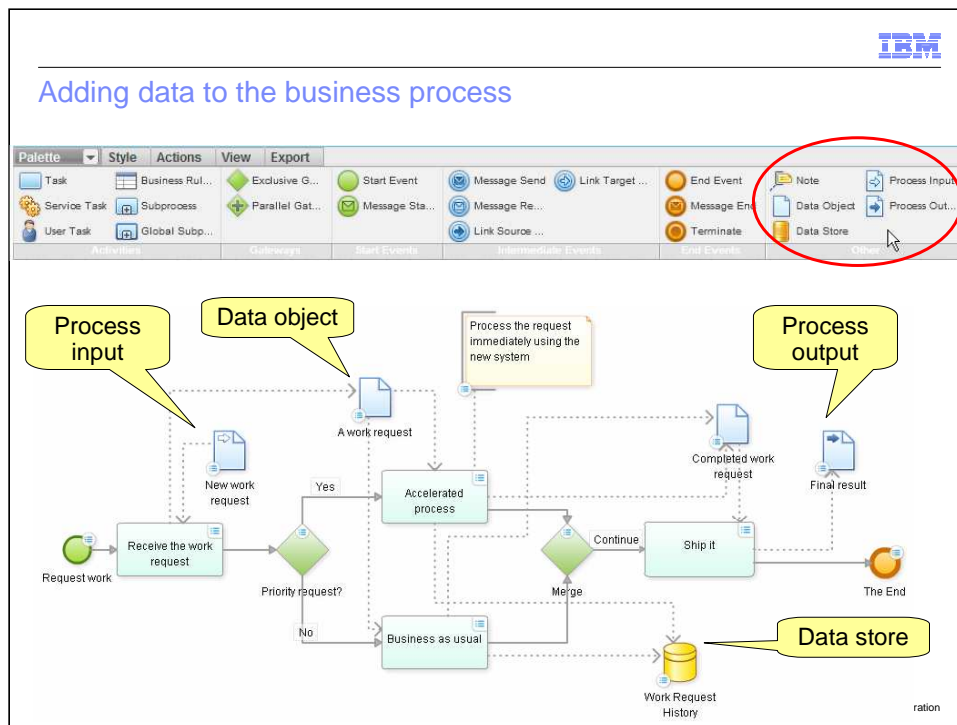


Here you see the simple business process as it is represented in the business modeling project.

The error indicator on the decision is a visual cue that there is further work needed to implement the logic of the decision. The error is displayed because the modeling mode is set to WebSphere Process Server, anticipating modeling for implementation.

Inspecting the imported business process, you'll notice that there is no data flow represented, only the control flow. This is indicated by the open circles at the end of the links.

This highlights one of the key difference between BPMN 2.0 and WebSphere Business Modeler. The next few slides will illustrate how data are represented in BPMN 2.0 and are transformed when importing to WebSphere Business Modeler.

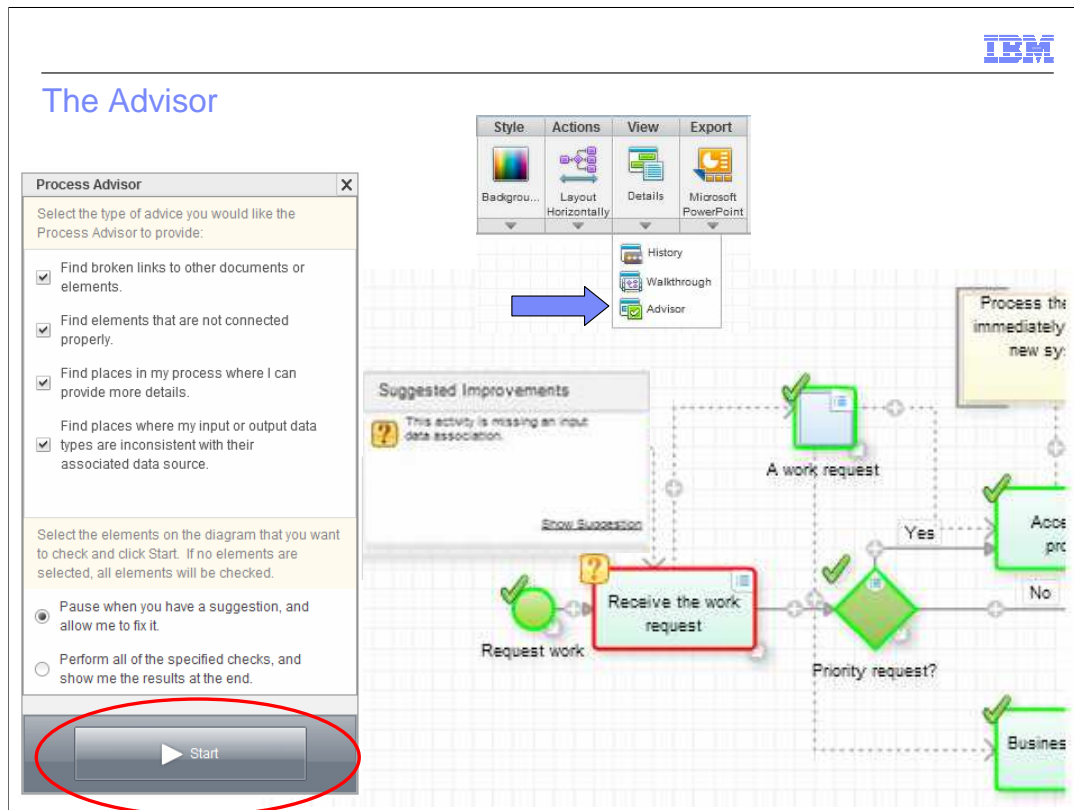


Returning back to the business designer process editor and switching to the detailed palette, you'll be able to work with inputs, outputs and data objects. They are available from the drop down menu of the notes button or you can get the view shown here by selecting the word 'palette' in the menu title. This will expand or collapse the menu bar horizontally.

The focus here is on the data that will flow through the business process. There are data objects, data stores and then the input and output to the process. The data object is like a variable and the data store is a persistent store. The process inputs and outputs allow the data to flow into and out of the business process. You use the details pane to set the data type for the all of these data modeling elements.

Associate the data type to the data objects before making connection. When you do this the inputs and outputs of the tasks are automatically populated with the data type when the links are made between the data object and the task.

After you have made all of your links, use the 'advisor' to make sure that you haven't missed something.



It is easy to miss a detail or two.

Running the process advisor will find some of the details that slipped by. Running the advisor is extremely important if you are planning on importing your model into WebSphere Business Modeler. A missed detail in Compass shows up in modeler as extraneous elements and sometimes broken links. Running the process advisor will save time by preventing rework and re-importing.

Selecting the advisor from the view toolbar, will invoke the process advisor dialog shown on the left.

In the process advisor dialog you can select the things you'd like to check for, you can....

Find broken links to other documents or elements

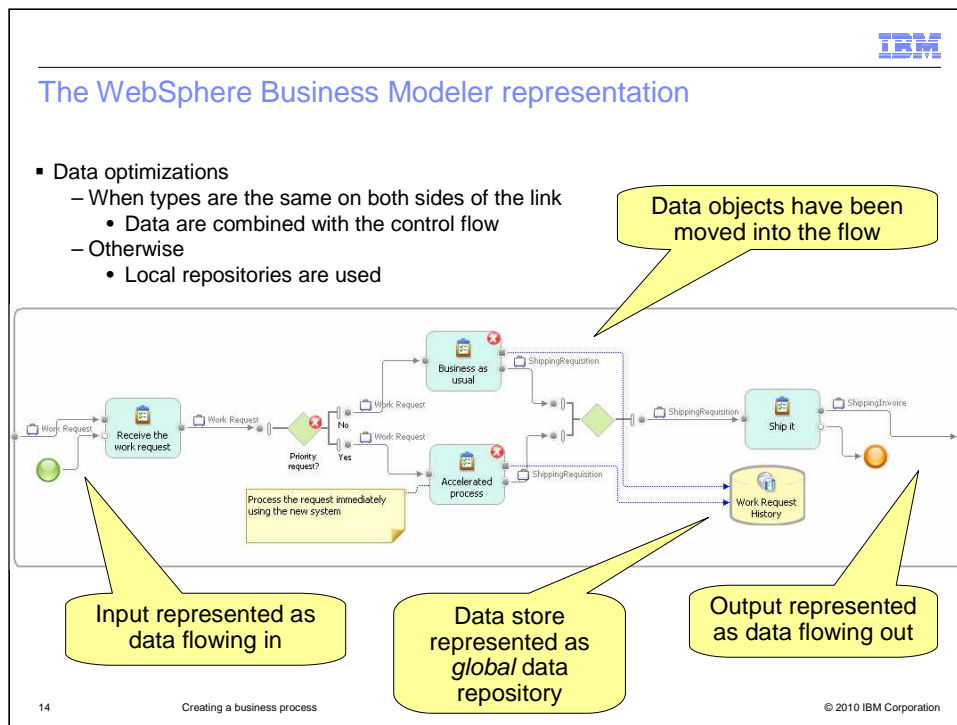
Find elements that are not connected properly

Find places in the process where you can provide more detail

Find places where the input or output data types are inconsistent with their associated data source.

Once the selections have been made, you can choose to pause at the first error or run through the entire business process, flagging each error.

Pressing the start button will initiate the verification and give you an indication of success or failure. In the case shown here, the input to the 'receive the work request' task was not specified. All of the other elements in the business process are ok, as indicated by the green check mark.



Switching back to the modeling project you can now see how the data flow for the simple business process is transformed. The data flowing into the business process is represented as data on a data flow link. The data objects have been moved into the flow and the data store has been transformed into a global repository. The data flowing out of the business process is represented as a data flow leaving the business process.

Again the errors are displayed because the modeling mode is set to WebSphere Process Server. The errors on the 'business as usual' and 'accelerate process' tasks indicate that the global repository cannot be used with the WebSphere Process Server. The global repository will need to be converted to either a local task, a global task or a global service. The error on the decision node indicates that there is logic to be completed if this process is to be run in WebSphere Process Server.

The BPMN-2 modeling style explicitly displays the data objects in the diagram. WebSphere Business Modeler allows this style with the use of local repositories, but this is not the norm in business modeler. Therefore there are some optimizations that are made during the transformation. If the data types are the same on both ends of the link, or on all the inputs and outputs of the decision, the data objects are not displayed. Instead, they are incorporated into the control flow as is the norm for WebSphere Business Modeler.

Summary



- Two levels of detail for specifying business processes
- There is a detailed specification window for the Process – and all the modeling elements
- BPMN visualizes the data flow and the control flow separately
- The BPMN model is transformed to a WebSphere Business Modeler model when imported into WebSphere Business Modeler
- The *Process Advisor* helps to catch missing details

As you saw in the beginning, there is a simple and detailed palette for specifying varying levels of detail in your business process. The purpose is to facilitate the modeling process by allowing you to keep it simple in the beginning, and provide a way to add the details when it becomes appropriate.

The other aspect that might be new for experienced modelers is the separation of control and data as rendered by BPMN 2.0. In this case the data objects are explicitly represented on the canvas with links illustrating the flow of the data. When this gets mapped to WebSphere Business Modeler models, the data flow is combined with the control flow and the data store becomes a global repository.

Some elements that are used in BPMN 2.0, such as the data store will not map directly to WebSphere Process Server.

They will need to be modified in WebSphere Business Modeler before the model can be fully realized as an runnable business process.

The process advisor is a tool that can help to find inconsistencies and omissions in the details of the model before handing off to WebSphere Business Modeler.



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