IBM Software Group

WebSphere® Business Modeler V6.1

Human task support

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This presentation will discuss the human task support that is available with WebSphere Business Modeler V6.1

Human tasks in business process flows

- Human interactions are an integral part of many business process flows.
  - ▶ Sign a document
  - ▶ Approve a special purchase
  - ▶ Review information and provide comments
  - ▶ Check a resume

Occasionally, people need to intervene in a business process.

For example, a customer wants to purchase an item that is above their credit limit. A human task lets you intervene and override a business rule that prevents "the customer" from making the purchase.

A human task element in a business process must provide a way to associate the task with a person or group of people, a way to present information to the person working on the task, and a way for the person to respond back to business process.

These features, and more, are part of the human task support that is now available with WebSphere Business Modeler V6.1

Human tasks in V6.0.2

- There is no first class support for human tasks in WebSphere Business Modeler V6.0.2

- Tasks with person or staff resources associated with them are exported as human tasks when using the WebSphere Process Server export type.
  - To be imported into WebSphere Integration Developer

- Local tasks with person or staff
  - Map to in-line human tasks in WebSphere Integration Developer V6.0.2

- Global tasks with person or staff
  - Map to human task components in WebSphere Integration Developer V6.0.2

With V6.0.2 of WebSphere Business Modeler the business analyst can indicate that a given task is to be managed by a person by assigning a person or staff resource to it. If they are modeling with the intention of implementing the business process in WebSphere Process Server, they can specify the implementation type in the technical attributes of the task.

With these two attributes set, when the business process is exported, using the WebSphere Integration Developer export type, the human task activity or component for the BPEL business process is created.

If the task is local then a human task activity is created directly in the flow of the business process. If the task is global then a separate human task component is created and invoked from the business process using the BPEL invoke activity.

Human tasks in V6.1

New V6.1

- First class support for human tasks is provided.
  - Support for escalations
  - Support individual or role based assignments
  - Integration with IBM Lotus Forms

- There are 2 new process elements
  - Local human task
    - Maps to in-line human task in WebSphere Integration Developer
    - Created from the process editor palette and the pop-up menu of the process editor

  HR Manager
  Perform Interview

  - Global human task
    - Maps to human task component in WebSphere Integration Developer
    - Created from the project tree and the pop-up menu of the process editor

  HR Specialist
  Check Resume
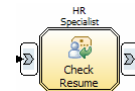
WebSphere Business Modeler V6.1 now provides first class support for human tasks.

This includes support for escalations, individual or role based assignments and integration with lotus forms.

This presentation Will discuss each of these new features in detail in the following slides.

What you will notice while modeling is that there are 2 new process elements that can be used in your business process flows; one to indicate a local human task and another for a global human task. It is easy to tell by looking at them that they are special tasks that require human interactions. The global human task is further distinguished from the local human task by the double edged border.

Although the human tasks can be used in basic modeling mode, the real power is when the WebSphere Process Server modeling mode is used. In this mode additional details regarding the assignment of the people and escalations can be specified. The details specified here are preserved and used when exported using the WebSphere Integration Developer export type.

Human tasks in V6.1

- A regular task with the person or staff resource association will no longer be mapped to a human task when using the WebSphere Integration Developer export type.
  - When importing a V6.0.2 model archive, this condition is flagged with a warning to notify you that a manual conversion might be required.

- Pay attention to the modeling mode
  - Capabilities are exposed depending on the modeling mode.
  - Human tasks are targeted for the WebSphere Process Server V6.1 runtime.
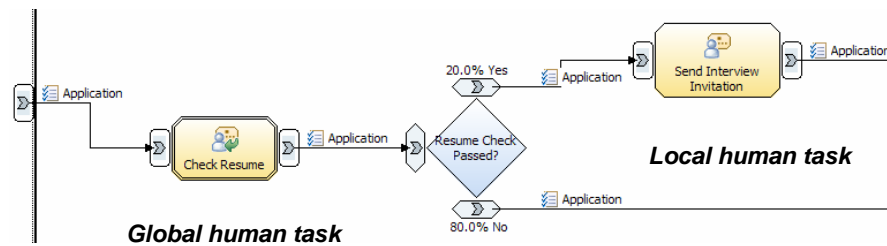
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If you are importing a V6.0.2 modeling archive that has a task defined to be a human task using the V6.0.2 rules, there will be warning messages in the 'error' view. These warnings are to remind you to convert the old style human task to the new V6.1 human task modeling element.

Hint: If you do not see the details in the escalations or the role assignments in the primary owner, you are not in the WebSphere Process Server modeling mode.

Human tasks

- A Human task is a special kind of task
  - With unique resource requirements related to ownership, security and management.
    - There must be a primary owner
    - There must be a way to ensure that only the person or persons that need to work with the task have access to it.
  - There are also certain input and output constraints
    - Multiple input and output criteria are not allowed.
- Shown here as they are modeled in V6.1

Local human task

Global human task

Here you can see a snippet of a business process that is using both a global and local human task.

A human task is a special kind of task which requires the intervention of a person in order to complete the task.

What makes it different from the generic task is the need for a primary owner. If a human is involved, then you have to have a way to specify who is responsible for it. When associating a person to a human task you can specify a specific individual, a role, or a member of a group.

The other thing that makes a human task different from a generic task is the inputs and outputs. With a human task there can only be one input and one output criteria.

This becomes evident when browsing the attributes for the human task. There are no tabs for the input logic or output logic views.

Something else that makes human task different is that you can associate a form with the input and or the output.

Creating a global human task

- Use the project tree for creating global entities
  - Human task is available as a process element
  - Forms can be associated with the input, output or both.

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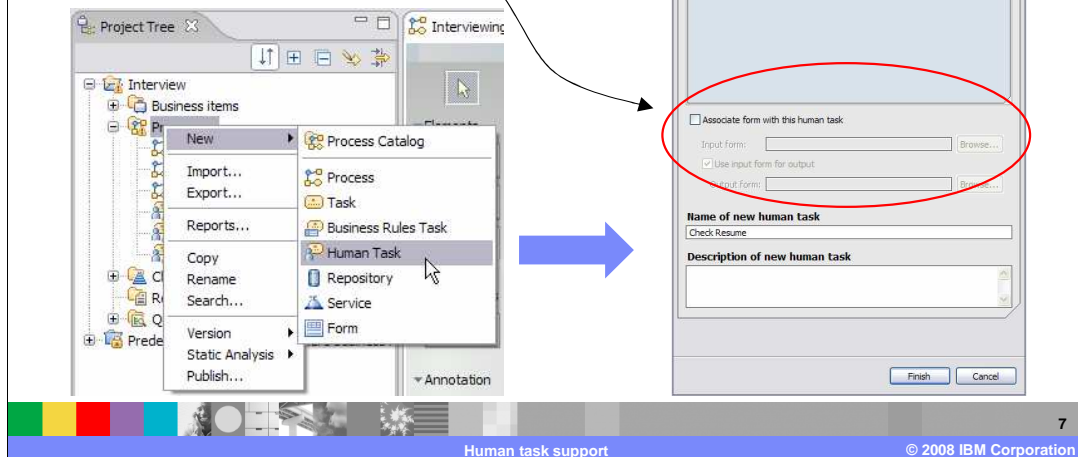
There are really three ways to create a global human task. As shown here you can use the pop-up menu from the project catalog in the navigation tree and associate an existing form to the input and or output, all in one operation.

Another way to create a global human task is from pop-up menu of the process diagram. If you use this method, you will have to make the association to the form in a separate operation.

And the third way is to promote an existing local human task to a global human task using the pop-up menu for the local human task.

Global human task

- In the end there is another element in the Process folder that can be used across the business processes in the project.
  - ▶ Opening the global human task presents a specification sheet that is very familiar
    - With new resource properties and a reduced input output specifications
    - Escalations

As with the generic tasks, to edit the attributes for the global task one uses the specification sheet. When you open the specification sheet for a global human task you will notice that it is slightly different.

You will see that the inputs and outputs are not expandable. This is because of the single input/output criteria.

The resources are also different. With the human task you have the Primary Owner as a key resource that needs to be specified.

And then there is the escalation. This is discussed in detail in subsequent slides.

Whether you are specifying a global or local human task, the information is the same. Shown here is an example of the specification sheet for a global human task.

When using human tasks in WebSphere Business Modeler V6.1 you do not need to specify the details. If you leave this information blank, then it is up to the integration developer, using WebSphere Integration Developer V6.1, to complete the specification.

If the information is available and it is important to the business analysis, then you can add it in here.

Always fill in the description, particularly if you are not going to add the other details.

The first decision to make is whether to use an individual resource definition or a role based approach. The approach taken will determine how the search criteria is developed.

The time required field is strictly for process modeling and simulation. This is where you can provide the amount of time the task is expected to complete in.

The people assignment criteria is where you define how to locate a person, an individual or a member of a group, that will be able to claim and complete the task.

It will be used by the WebSphere Process Server runtime environment but not by the WebSphere Business Modeler simulator.

If you are not modeling in Advanced or WebSphere Process Server mode, you will not be able to see the People assignment criteria.

Individual resource definition

- Once the query for the assignment criteria is selected, the attributes and their associated values are presented in the table.
- The attributes will vary depending on the query selected.

Select an individual resource definition as the prima

Choose an individual resource definition to complete
Click OK.

- HR
  - Resources
    - HR Resource Definition
  - Predefined elements (WebSphere Business Modeler)
    - Predefined resources
      - Person
      - Staff

Primary Owner

This section displays the primary owner (the resources or staff role that will perform the task).

Description | Determine the primary owner using the individual resource definition. This provides a richer set of queries to help identify the resource.

⦿ **Individual resource definition** | Person | Browse...

◯ **Role** | | Browse...

	Days	Hours	Minutes	Seconds	Milliseconds	
Time required	0	0	0	0	0	Clear

▼ **People assignment criteria**

You can specify an individual to be assigned this task at runtime, or you can specify a person with a particular role or from a particular organization to be assigned this task.

Name | None

None
Person by name
Person by person ID
Members by group name
Members by department name

Attribu

- Queries
  - ▸ Person by name
  - ▸ Person by ID
  - ▸ Members by group name
  - ▸ Members by department name
  - ▸ Person's manager by person name
  - ▸ Person's manager by person ID
  - ▸ Person by multiple attributes
  - ▸ Members by multiple group attributes
  - ▸ Members by group ID

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To use an individual resource definition you start by selecting the radio button and then the browse button. The browse button will show you what individual resource definitions are available for you to select from. You must use the predefined individual resource definition of Person or Staff either directly or as a parent template at some point in your resource definition hierarchy.

Notice that the HR Resource Definition shown here is a resource definition and not an individual resource.

The time required fields are for process modeling and simulations; they are not used by WebSphere Integration Developer or WebSphere Process Server.

The people assignment criteria are specific to WebSphere Integration Developer and WebSphere Process Server and are not available in the basic modeling mode.

When name field in the people assignment criteria is selected, you will see a list of the queries that can be used at runtime to locate a person in the user-directory. The full list of available queries is shown on the right. Once a query has been selected then the attribute values, or parameters for the query will need to be selected. The attribute values required will depend on the query. In essence, you are constructing a query with replaceable parameters that will be resolved at runtime.

You can see from the list of available queries that all of the most common scenarios are covered.

The queries model very closely to those that are available in WebSphere Integration Developer.

Role resource definition

- There is only one query when using the role to specify the primary person.
  - Members by role name.
    - The Name field is mandatory as indicated by the asterisk.

Using the role for defining the primary owner is very much like the individual resource. In this case the available options are a little different.

In the people assignment, there is only one option available, members by role name.

You can specify a primary role and two alternate roles. You use the selection wizard to select from the available roles to complete the specification of the query.

Escalations

- A task is assigned to a person, a role (member of a group)
    - ▶ It is specified that the task must complete within a given period of time, say two days.
    - ▶ What can you do if the task has not been claimed or completed in the allotted time?
        - Send a notification
            - – Email
            - – As an item on someone's work list
        - Repeat the notification on a periodic basis.

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When humans are involved, it is sometimes necessary to have a reminder mechanism to ensure that the task is not forgotten or lost when a person is on vacation; or unable to complete the task in the allotted time.

With WebSphere Process Server, this mechanism is called an escalation. If the human task is not completed in the specified amount of time, then either a new work item can be created or an e-mail notification can be sent to alert someone that some action is necessary. The notification can also be repeated on a periodic basis until the problem is resolved.

As you will see on the next couple of slides, an escalation chain can be created where an escalation is generated based on the results of a previous escalation. This allows for a series of increasing levels of action. The first notification might be the person directly responsible for the task and the next notification to that person's manager.

Escalation specification – level 1

- If the task is in the
  - ▸ *ready* or c*laimed* state and
  - ▸ has not been *claimed* or *ended* after given time then
  - ▸ send *notification*

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Notice the escalation tree at the top. This displays the relationship between the different levels of escalations. Currently the first level, day 1, is selected.

In this example, if the task remains in the ready state for more that 1 day, a new work item is put on Marlin's work list. Marlin is the team lead for the group.

If necessary, the notification can also be repeated periodically.

Escalation specification – level 2

- If after the first escalation and 2 more days have past and the task is still in the ready state and has not been claimed
  - send e-mail *notification* to manager.

Escalations
  1 day limit [1 day]
    2 day limit [2 days]

Add
Remove

▼ Details
This section shows the detailed information for each escalation.

Name	2 day limit
Description	An incoming resume has not been reviewed in the allotted time period of 2 days
If task is	Ready

Escalate when

| Task is not | Claimed |

| | Days | Hours | Minutes | |
| After | 2 | 0 | 0 | Clear |

| After escalation | 1 day limit |

Escalation action

Notify	Person's manager by person name("Bartlett")	Details...
Notification type	● E-mail ○ Item on work list
Email message	Default E-mail message	Details...

| | Days | Hours | Minutes | |
| ☐ Repeat notification every | | | | Clear |

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To define another level in the escalation chain, select the first level in the tree and press the add button. The next level is created and added to the tree under the first level.

In this example, if the task has already exceeded the 1 day limit from the first escalation and it is still not claimed after an additional 2 days, the primary owner's manager is notified by e-mail.

Summary

- First class support for human tasks in WebSphere Business Modeler V6.1
  - ‣ Designed to compliment the human task features in WebSphere Integration Developer V6.1
    - Mapped to the *business logic module* when using the 'best practice' export pattern
  - ‣ Local human task
  - ‣ Global human task
  - ‣ Escalations
  - ‣ User roles and queries
- Support for input and output forms used for interacting with the human tasks
  - ‣ IBM Lotus Forms

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With version 6.1 of WebSphere Business Modeler you now have first class support for human tasks, including escalations.

The human task support provides tight integration with WebSphere Integration Developer V6.1, providing the ability to specify in-line human tasks by way of local tasks or human task components by way of global tasks.

The user roles and queries can also be specified in modeler and then used in WebSphere Integration Developer for the implementation.

There is also support for using IBM Lotus Forms for the input and output forms to the human tasks. To find out more about this feature see the presentation on Human Tasks and Forms Support.

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