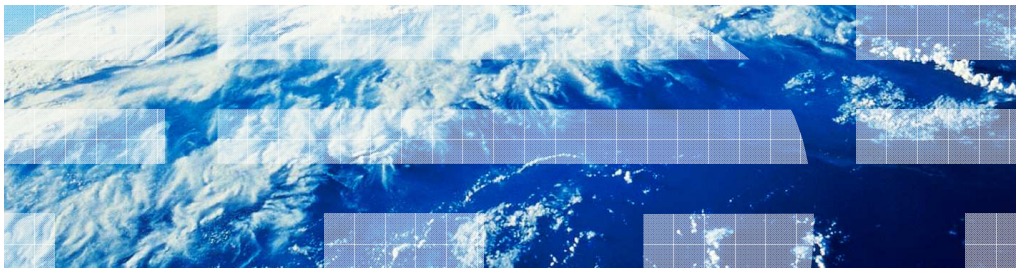
WebSphere Business Process Management
WebSphere Process Server V7

Business processes and human tasks
What is new - Overview



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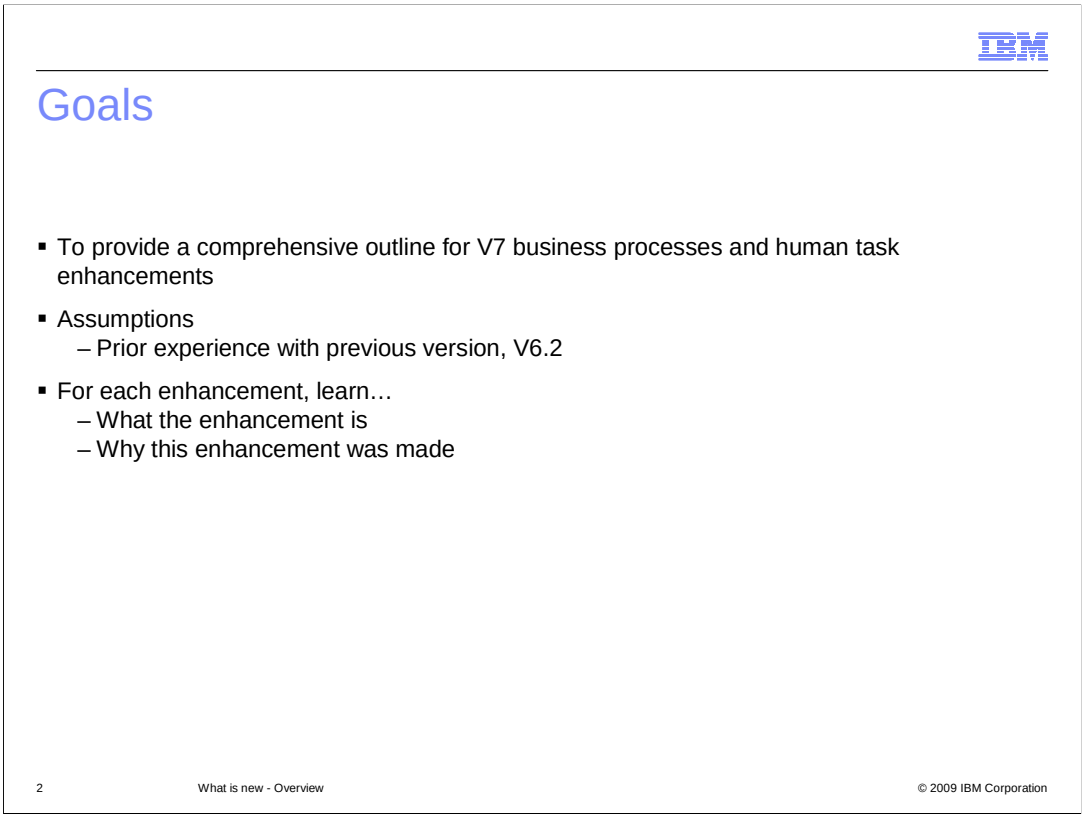
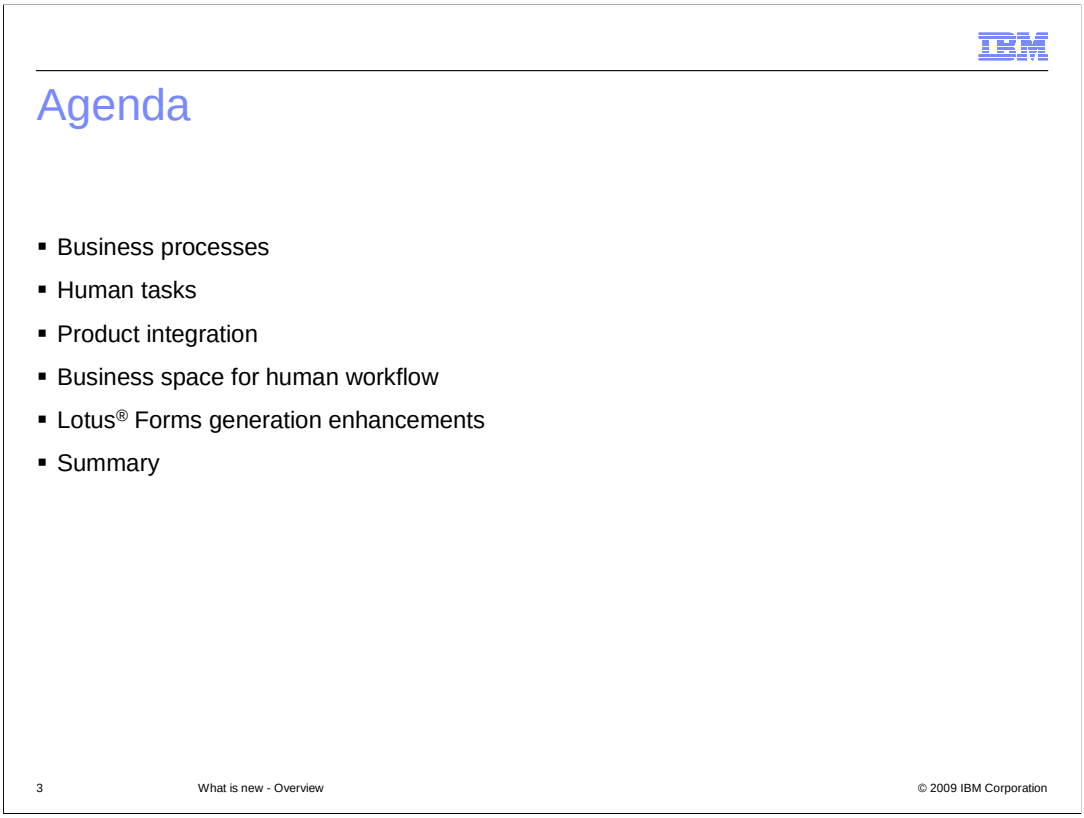
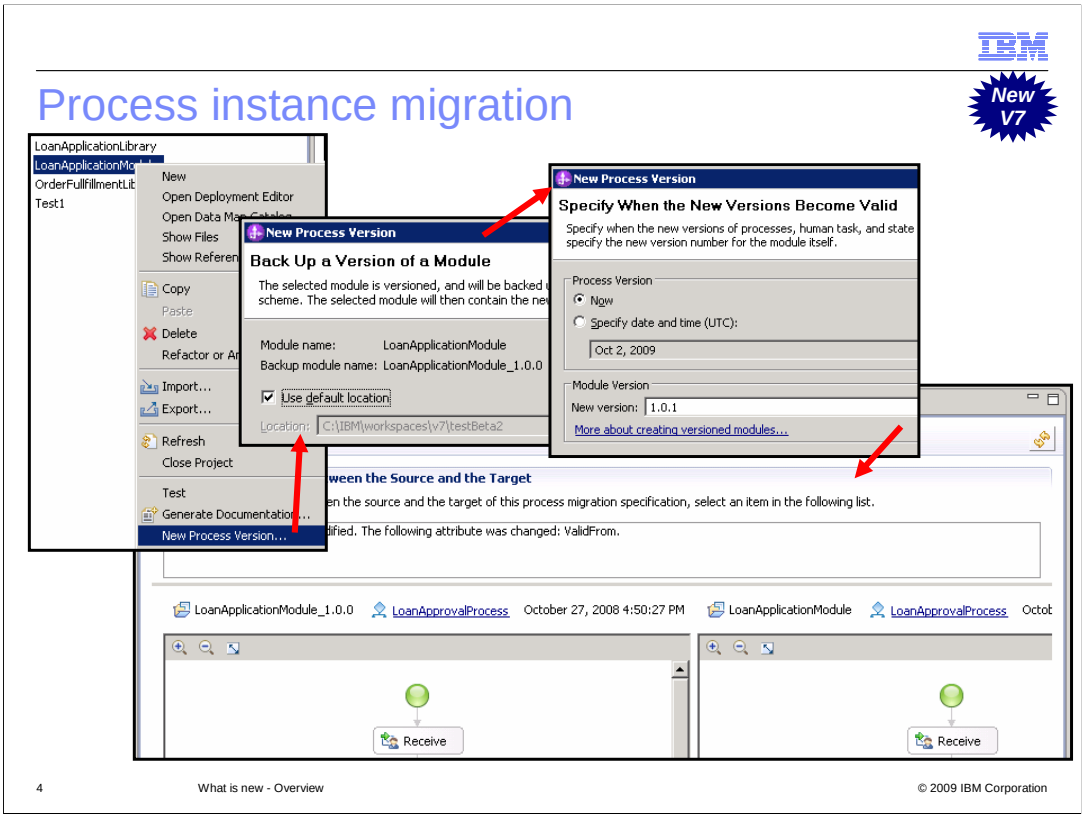
This presentation provides an overview of the new features for business processes and human tasks in WebSphere® Process Server version 7.



The goal is to provide you a comprehensive outline for version 7 enhancements. The assumption for this presentation is that you have prior experience with previous versions, specifically V6.2. For each enhancement, you will learn what the enhancement is, and why this enhancement was made, and other overview details that help explain the enhancement.



The agenda is as follows. You will start out by focusing on business process enhancements. Then human task enhancements along with a product integration section highlighting integration with WebSphere Business Modeler. The last two sections will cover business space for human workflow and Lotus Forms generation enhancements. You will end with a complete summary with highlights of all the enhancements.



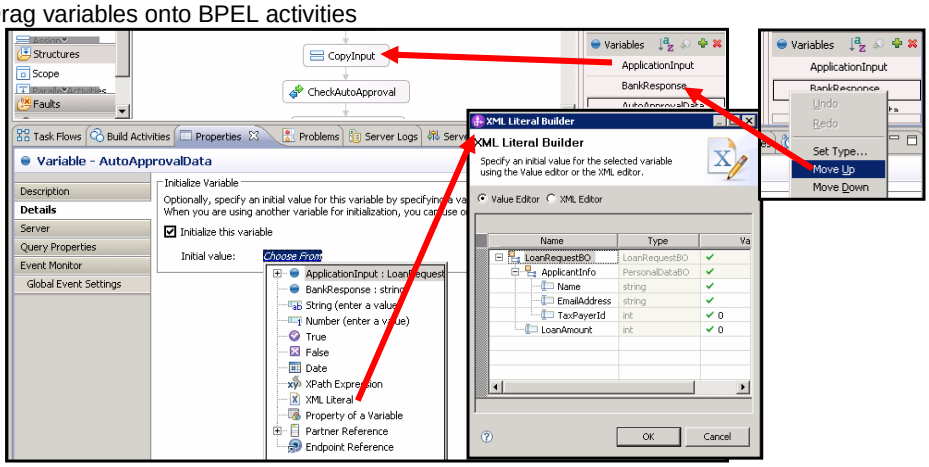
Process instance migration provides the ability to migrate in-flight process instances to the new version at runtime. To start you will need to create a new version of a V7 process model in WebSphere Integration Developer V7 with a new validFrom date. Then you will make changes to the new business process version and view those changes in the differences editor. Once deployed you will be able to see the different versions in the BPC Explorer application and migrate using two ways, the BPC Explorer application for select business processes or a script for batch migration. If the business process has SCA version handling set, a backup module is created.

Of critical importance, the two versions must have the same name and namespace, but have different valid-from dates. Correlation set specifications of different process versions need be the same. Interface specifications of different process versions need to remain the same. These process instance migration tools are provided to allow you to update versions of running instances of processes in a late-binding situation. With early binding a client is hard-wired to a process in such a way as to force a continued relationship between the two of them, even if another version of the process becomes available.

BPEL variables

New V7

- Ability to set initialization values for BPEL variables
- Capable of initializing complex BOs - XML Literal option
- Drag variables onto BPEL activities



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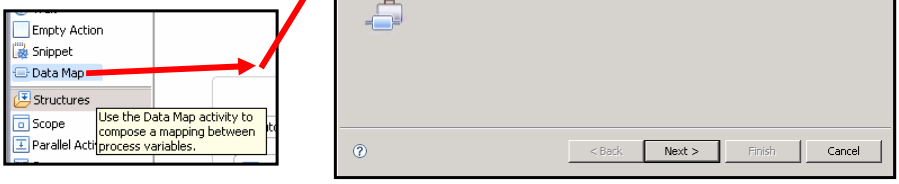
There have been several improvements for BPEL variables in the BPEL Editor. You now have the ability to set initialization values for BPEL variables and capable of initializing complex BOs with the XML Literal option. To easily initialize variables that point to complex business objects, use the Value composer, which is part of the assignments in an assign activity. You can initialize variables according to BPEL 2.0 specification. You can move variables up or down in the BPEL Editor's tray to control order of initialization since ordering of variables on when they are initialized may make a difference how the application runs. You can now drag variables onto invoke, receive, reply, and human task activities to assign inputs and outputs. In addition, you can drag variables onto collaboration scope activities to set the folder variable if the variable is of type caseFolder, forEach activities if the variable is of type array, and throw activities if the variable is a fault variable. All of these enhancements make using BPEL variables easier to use in version 7.

BPEL Editor

New V7

- Data map activity replaces business object map activity in BPEL Editor
- XML Map support new for version 7
- New Data Map Wizard has text to better choose between business object and XML map



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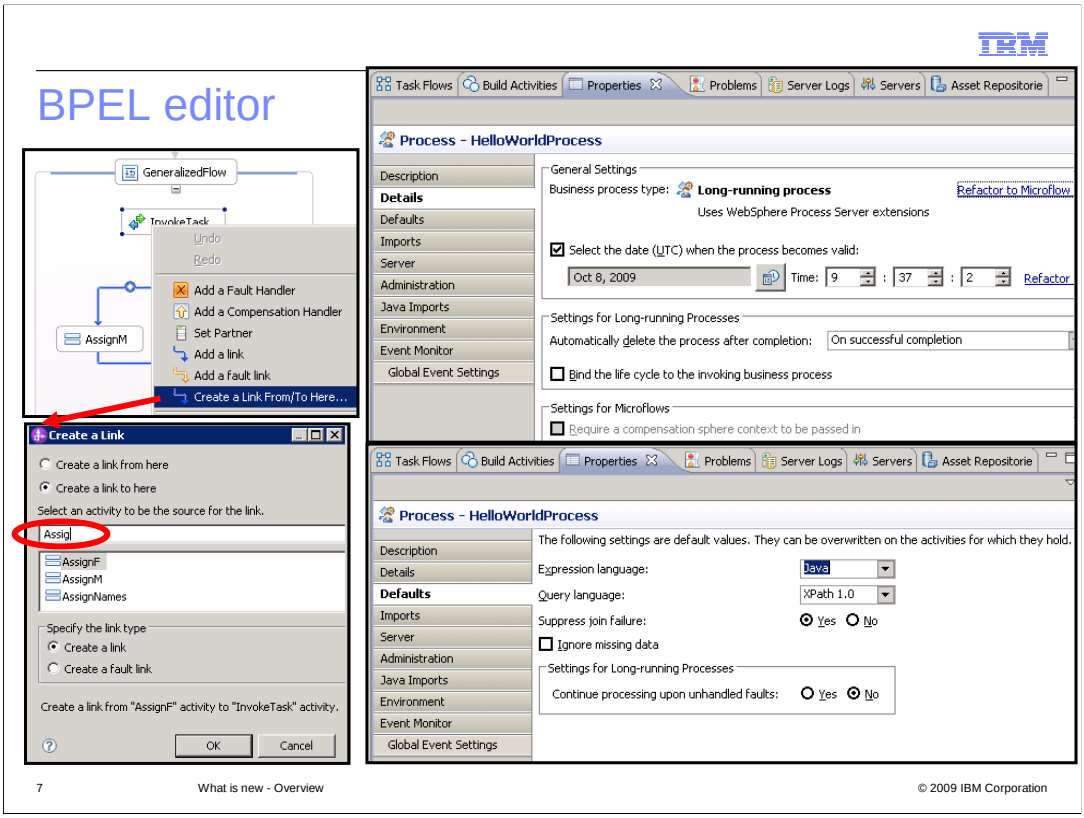
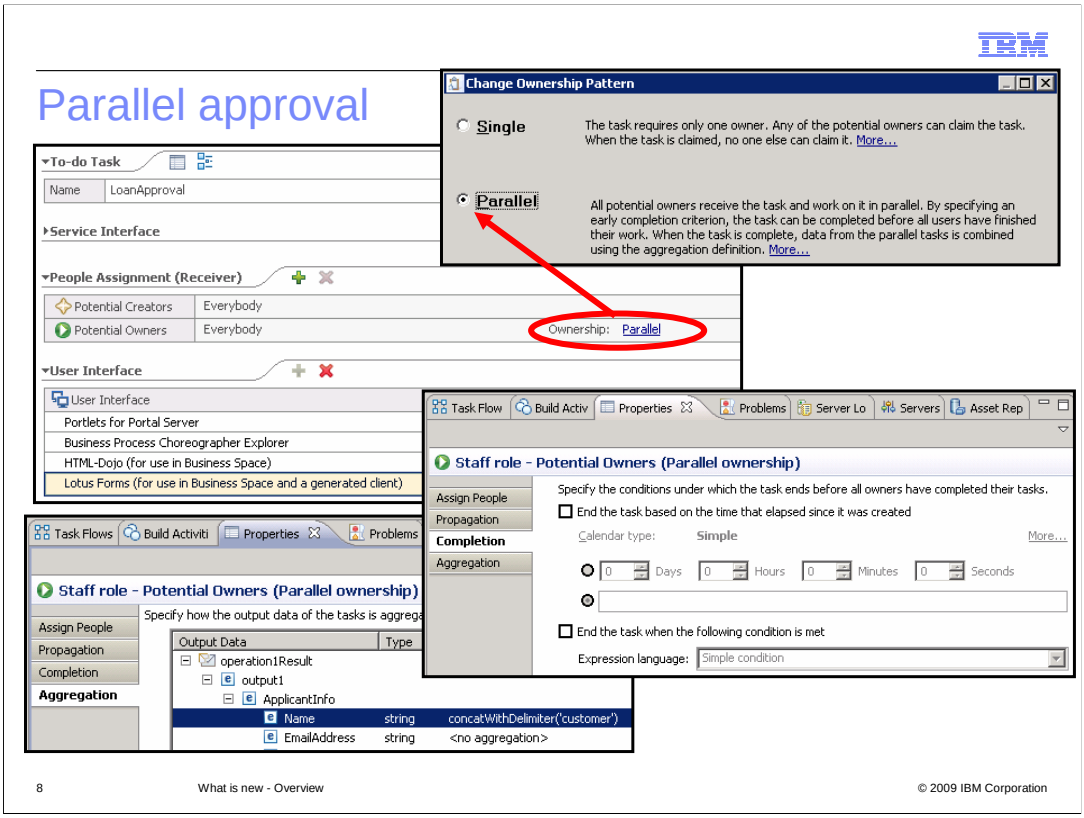
One change in the palette of the BPEL Editor is the data map activity replacing the business object map activity. The usage is still to compose a mapping between process variables, but now you can choose XML or business object map implementations. The ability to use the XML Map in BPEL is new for version 7. Therefore, you will drag a data map into BPEL just like you did in version 6.2. Except now in version 7 you will be prompted with a new data map wizard to select which type of map you want to use and text to help guide you to a better informed decision.

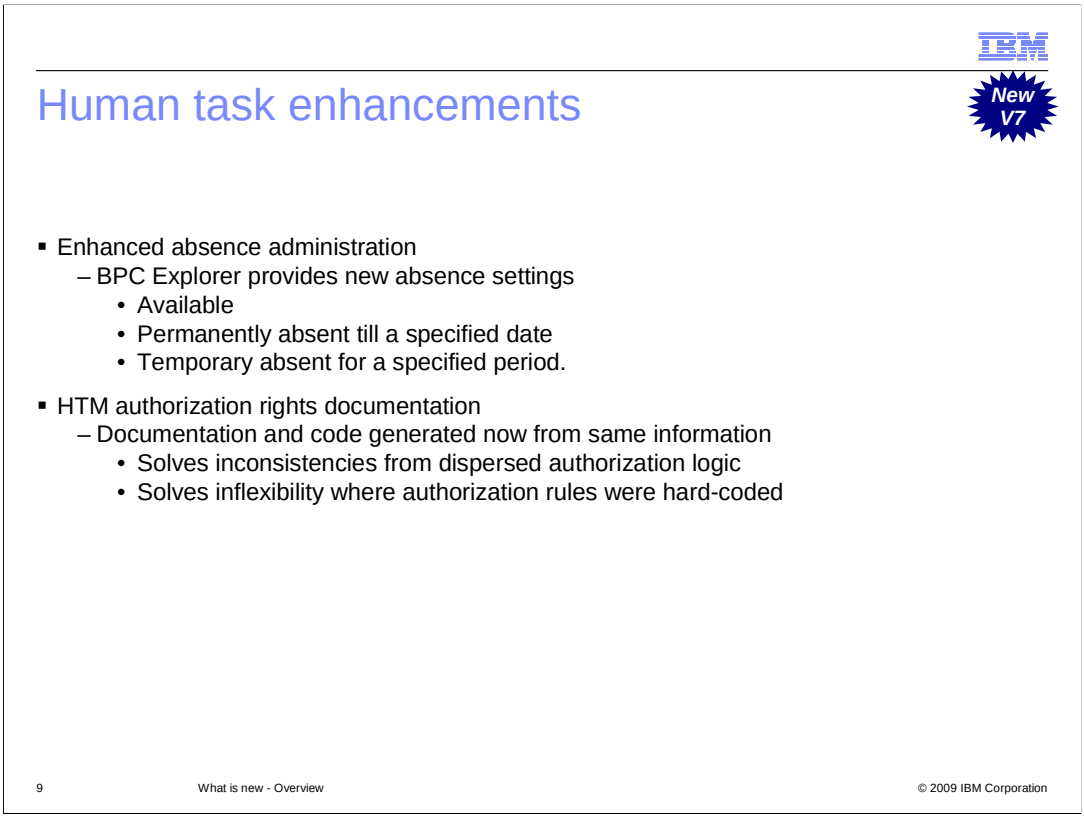


For large business processes, it can be troublesome to create links to activities that are outside the screen. In version 7 you can now easily link to off-screen activities using the “Create a link” menu option. The version 6.2 details page of the properties view for the BPEL editor has been divided into two pages: details and defaults. The details page holds settings like for processes that are long or short running and the validFrom date, where the defaults page holds settings for the BPEL defaults like expression language and faults.



The task requires multiple owners. A subtask is created for every potential owner. Each of these people can work simultaneously on their assignment and when they are finished, criteria that you specify are used to aggregate the results and determine when the task is complete.

The completion settings allow you to define an early completion condition. You may need only a subset of the potential owners to complete the task before the business process can proceed. The aggregation settings must be set for parallel approval and allow you to control the way in which individual responses are aggregated together into a single task result. Even if the human task has escalations defined, those escalations can adapt to parallel approval.

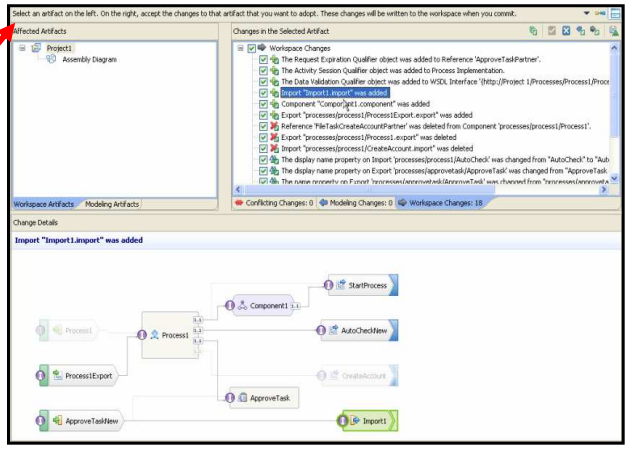


Enhanced absence administration in the BPC Explorer provides new absence settings, available, permanently absent till a specified date, and temporary absent for a specified period. This is helpful when a coworker's absence length needs to change while out and absence settings need to be changed. Also the HTM authorization rights documentation has been improved given documentation and code generated will now be from the same information. Therefore if the code changes, so does the documentation. This solves inconsistencies from dispersed authorization logic and inflexibility where authorization rules were hard-coded.

WebSphere Integration Developer / Modeler enhancements

New V7

- BPEL and HTM components locked from editing when imported from Modeler into WebSphere Integration Developer
- Graphical compare and merge
  - "Synchronize with Modeler Export"
  - Show differences between the two models and allow to merge



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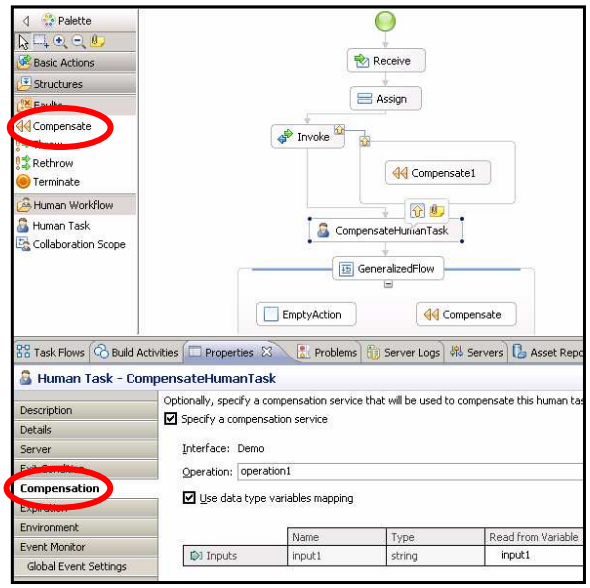
The BPEL and HTM components in WebSphere Integration Developer will be locked from editing when imported from Modeler into WebSphere Integration Developer. You will see a small, yellow lock pad icon at the bottom right of a BPEL or HTM activity in the editor. You can right click the component to unlock, though changes should be made in the Modeler model. For cases where changes to the Modeler model cannot be made, the graphical compare merge framework has been improved in version 7. The "Synchronize with Modeler Export" function shows differences between the two models and allows you to merge the updates into a new model, ready for exporting those changes back into Modeler.

WebSphere Integration Developer / Modeler enhancements

New V7

- BPMN Compensation
  - Additional enhancements for compensation to make round trip from V7 Modeler model possible
- BPEL
  - Ability to add a compensate activity to flow
  - Ability to add a compensate activity to a generalized flow
- HTM
  - V7 Modeler can generate human tasks with BPMN compensations



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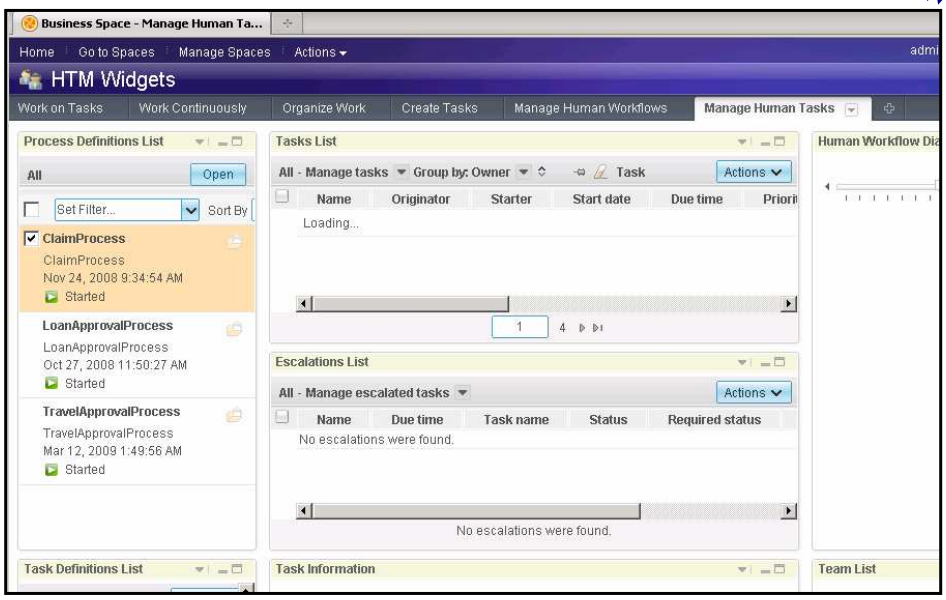
There are additional enhancements for BPM compensation in order to make the round trip from version 7 Modeler model easier. For BPEL, you now have the ability to add a compensate activity to a flow. Previously, compensate activities could only be used in compensation handlers and fault handlers. Also, you have the ability to add a compensate activity to a generalized flow. This means that an entire generalized flow will be compensated, though you will not be able to specify compensation target. For HTM, version 7 Modeler can generate Human Tasks with BPMN compensations. This is needed to handle compensation handlers and inline compensation for human tasks.

Business space for human workflow

New V7



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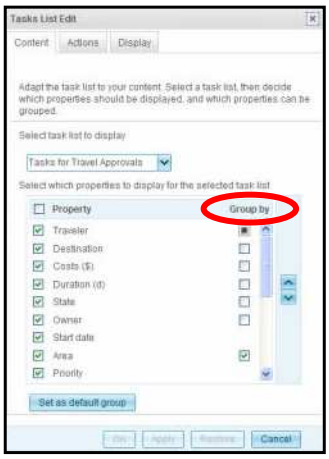
There are several improvements to business space for human workflow. There are six pages in the updated template. The work on tasks page is the page where users pick tasks to work on. Single person workflow can be enabled to auto accept the next task in process. It adds a new escalation tasks widget which is used to show, sort, and filter escalations. You can view or start pre-modeled escalations your user ID can access, filter escalations using menu and column headers, and choose between multiple escalation chains to specify a certain escalation. You can also initiate pre-modeled escalations from the task information widget and the tasks list widget. The work continuously page provides one widget, the task information widget, with a get-next pattern. You are automatically presented with your next task one after the next until completion of all your tasks. This pages helps keep a user focused on the next task and not on a list view to make better progress. The organize work page is the My Work organizer page from version 6.2.0.1 feature pack, but has an updated task information widget where a new task entry is entirely encapsulated. A pop-up dialogue is no longer used. Creating subtasks are also easier. The Create Tasks page has the human workflow diagram added to see status of processes and who is working on the task. Nothing new is added to the Manage Human Workflows page, but the Manage Human Tasks page has the escalations list widget added.

Business space for human workflow

New V7

- 6.2.0.1 Feature Pack widget integration and streamlining
  - Check boxes and action icons more noticeable
  - Documentation improved – clarity and shortness
  - My Tasks widget becomes a deprecated widget
- List widget enhancements
  - Can now sort lists based on groups for better organization
    - Can display business data as header for grouped lists with query tables
  - Can display image for users



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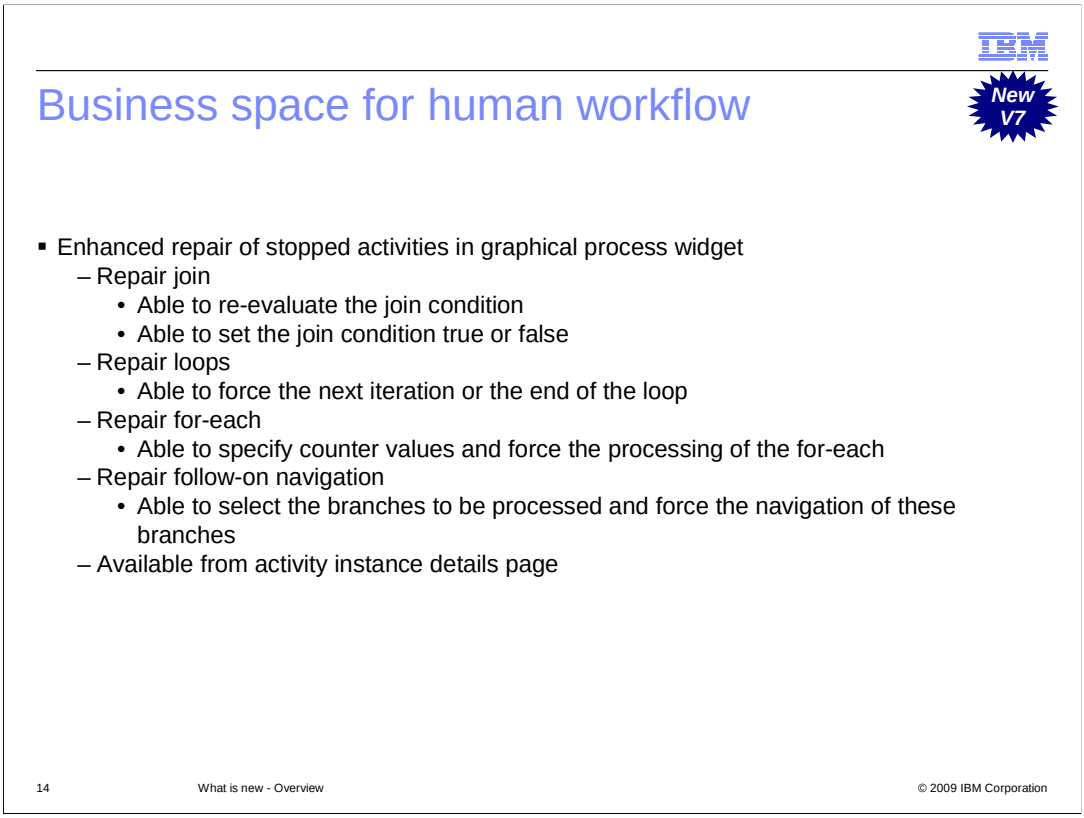
The user experience from version 6.2.0.1 feature pack has been improved with check boxes and action icons more noticeable, and documentation improved for clarity and shortness. The My Tasks becomes a deprecated widget. The four list widgets received some enhancements in version 7. You can now sort lists based on groups for better organization, which means if you are using query tables you can group lists with business data as a header; like customer name or order date. If you have images set for users in business space, you can now display the user's image when looking at a list.

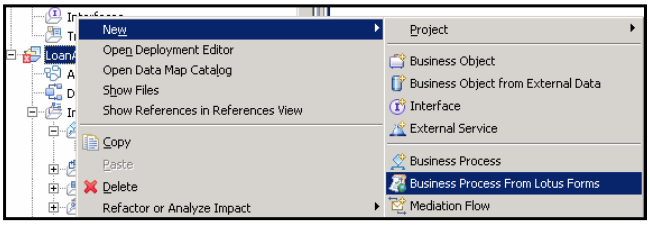


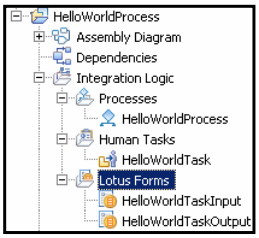
The graphical process widget has enhanced repair of stopped activities. The repair join action allows you to re-evaluate the join condition and set the join condition true or false. For the repair loops action, you can force the next iteration or the end of the loop. For the Repair for-each action, you can specify counter values and force the processing of the for-each loop. For the repair follow-on navigation action, you can select the branches to be processed and force the navigation of these branches. These options are available from activity instance details page.

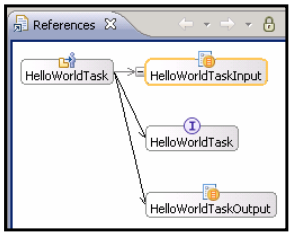
Lotus Forms generation enhancements

New V7

- Create business process from Lotus Form from the business integration pop-up menu
- Lotus Forms Designer 3.5.1 optionally installed with WebSphere Integration Developer V7
- Lotus forms are shown in the business integration view
- References view shows human task references to Lotus Forms
- Case folder support for Lotus Forms
- Propagate any changes in business objects into generated forms







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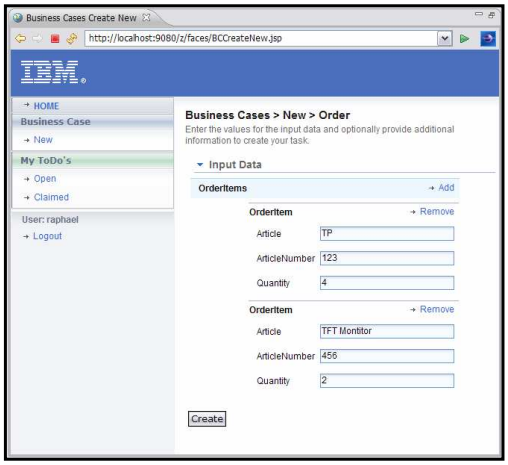
You can now create a business process from Lotus Forms from the Business Integration pop-up menu. Lotus Forms Designer 3.5.1 is optionally installed with WebSphere Integration Developer version 7 which means Lotus Forms can be edited and viewed from inside WebSphere Integration Developer. Lotus Forms are now shown in their own category under integration logic in the Business integration view. In addition, the references view now allows you to see human task references to Lotus forms. Case folder support for Lotus Forms allows URL attachments to be viewed when a predefined business object “tCaseFolder” is used in the process. Once you have generated a Lotus Form from a business process and make a change to a business object used in the business process, that change will be propagated into the generated form so you do not have to regenerate the form.

Lotus Forms generation enhancements

New V7

- Enhanced pattern wizard automatically assigns BPEL variables for invocation and to-do tasks
- Improved validation
- Mandatory fields marked with a * and textbox coloring
- Nested business objects are now visualized for Dojo/HTML
- Generator for JSF human task clients handles arrays and optional nested business objects
  - For input, Add and Remove links are used



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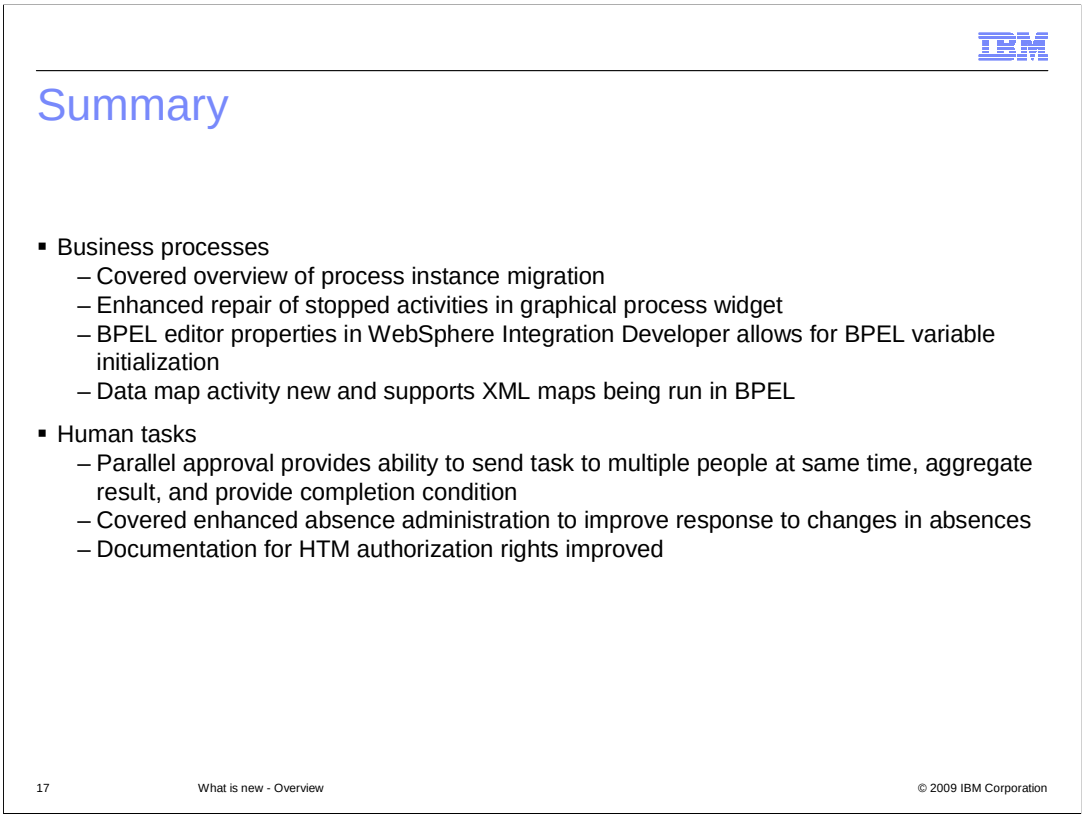
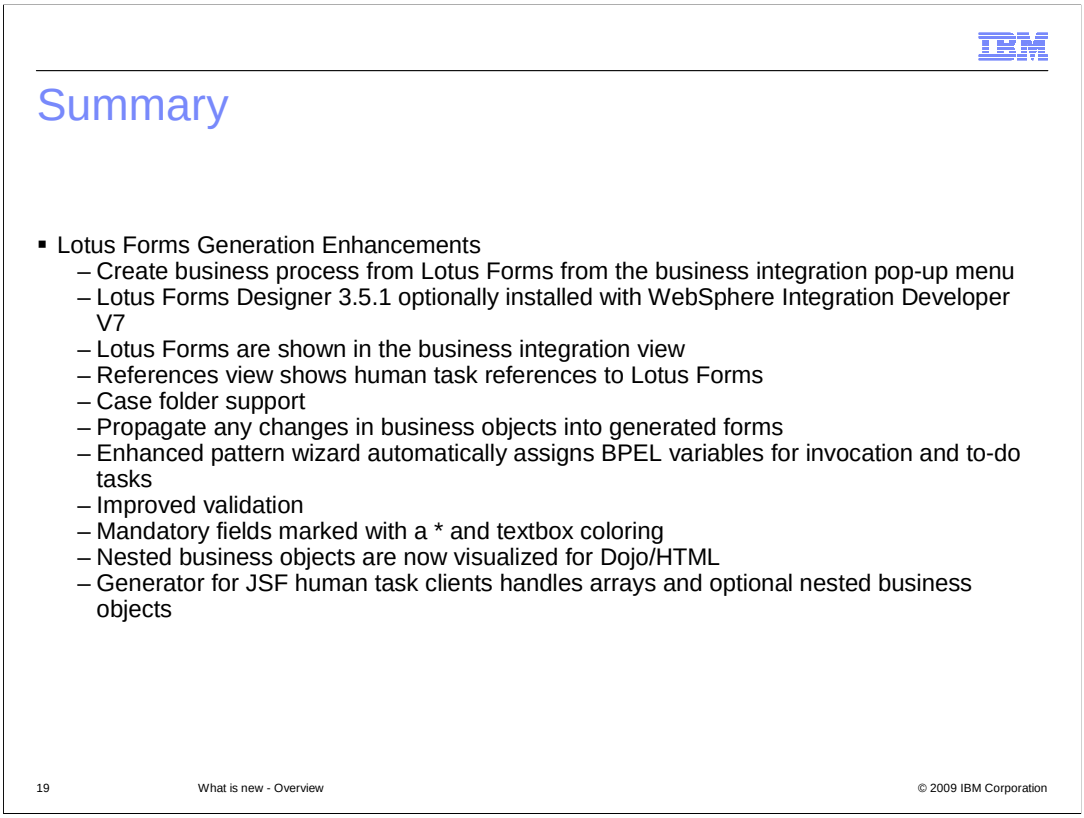
The same BPEL variable for invocation and to-do tasks can be used to create new BPEL with human tasks from Lotus Forms. Data is automatically assigned between variables. This enhancement saves you from having to manually assign the BPEL variables and allows you to generate different tasks from the same form.

Lotus Form validation has improved with the ability to specify ranges and limitations for values in business object fields. Mandatory fields will now have a star icon (*) in front of the text area. Also, a programmer can change the color of the entry that is mandatory to further display a field that is mandatory. Nested business objects are now visualized for Dojo/HTML allowing you to expand or collapse each level. The generator for Java™ Server Faces, or JSF, human task clients now handles arrays and optional nested business objects. For input messages, array elements can be added or removed using the Add and Remove links for the JSF client.

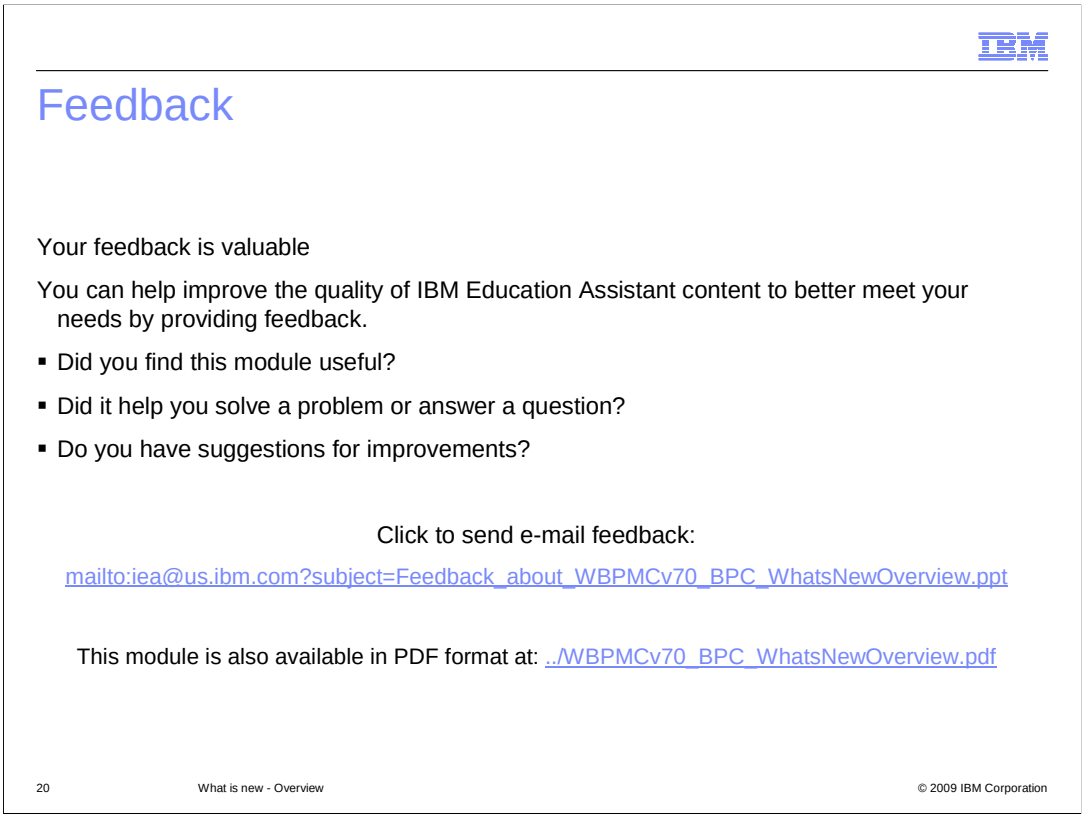


You started out by focusing on business process enhancements. The first enhancement discussed was an overview of process instance migration; the ability to migrate in-flight process instances to the new version at runtime. You also learned about the enhanced repair of stopped activities in the graphical process widget. The BPEL Editor inside of WebSphere Integration Developer version 7 provides the ability to initialize BPEL variables as part of the flow. The data map activity now supports XML maps being run in BPEL. For human tasks, you were introduced to parallel approval which provides the ability to send tasks to multiple people at the same time in parallel, complete the task with a condition you choose, and aggregate the result of your choosing. Enhanced absence administration of human tasks improves the response to changes in absences. The documentation for HTM authorization rights are now clear and dynamically change along with code changes.

The product integration section highlighted how the round trip story for business process changes have been improved with editor locking, graphical compare merge improvements, and BPMN compensation. Business space for human workflow has improved the “Advanced Managing of Human Tasks and Workflows” template and has several new additions like the work continuously page and escalation list widget. One of the new features for escalations is the ability to initiate pre-modeled escalations from business space. There are several enhancements to list widgets like the ability to group results for organized viewing. The enhancements from the version 6.2 feature pack have been integrated and streamlined for version 7.



There were many Lotus Form generation enhancements. You can now create a business process from Lotus Form from the business integration pop-up menu. Lotus Forms Designer 3.5.1 is optionally installed with WebSphere Integration Developer V7. Inside of WebSphere Integration Developer, Lotus Forms are shown in the Business integration view and the references view shows human task references to Lotus forms. In addition, there is case folder support to allow management of links or information about documents. Changes made in business objects are propagated into generated Lotus Forms. Enhanced pattern wizard automatically assigns BPEL variables for invocation and to-do tasks. There is improved validation and mandatory fields marked with a * and textbox coloring. For Dojo/HTML client generation, nested business objects are now visualized. And the generator for JSF human task clients handles arrays and optional nested business objects.



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