WebSphere® Business Modeler V6.1

Managing iterative development

Business models created by WebSphere Business Modeler can be converted to BPEL models and exported as project interchange files. The project interchange files can then be imported into WebSphere Integration Developer where the runtime services supporting the BPEL model can be created and deployed to a WebSphere Process Server runtime.

This presentation discusses some of the considerations for managing the iterative development process when using the new model synchronization features of WebSphere Business Modeler and WebSphere Integration Developer V6.1

Managing the iterative process

- Requires adherence to sound application development processes.
  - ▸ Establish and follow best practices.
- Two basic models
  - ▸ Distributed team
    - Each member of the integration development team (role= integration developer) gets the model updates for their part of the project.
  - ▸ The single workspace approach
    - A single member of the integration development team is responsible to getting the model updates and synchronizing with the implementation model.

Model synchronization

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Since the model synchronization feature is based on the individual workspace, working on a project with several integration developers can be a challenge to manage.

First, make sure you have listened to, and understand the presentation on model synchronization. If you haven't already done so, you should also review the on-line help in both WebSphere Business Modeler V6.1 and WebSphere Integration Developer V6.1 on iterative development and model synchronization.

As shown here there are two basic approaches. One way is to have each of the developers responsible for a given part of the model manage their own synchronization. This would be the distributed team approach. Another way to manage it is to have a lead developer be responsible for synchronizing the entire model. This would be the single workspace approach.

The key to using the distributed approach is partitioning the business process such that there is a single project for each integration developer.

The single workspace approach is useful when the business process cannot be partitioned, such that each developer can have his or her own project.

The distributed team approach

- Distributed team
  - ▶ Each member of the integration development team (*role= integration developer*) gets the model updates for their part of the project.
    - Project/module specific
    - Each member provides the delta file back to the business analyst

Model synchronization

When using the distributed team approach, the key is to divide the business processes so that each member of the integration development team can have a module of their own.

It is easier to do this in WebSphere Business Modeler V6.1 now, with the cross project referencing feature. Working with interdependent modules in WebSphere Integration Developer can be also be managed using a source code control system such as CVS. When using this approach, it can also be advantageous to create a shared modeling project that contains the common data elements, much like the pre-defined elements project.

The single workspace approach

- The single workspace approach
  - A single member of the integration development team is responsible to getting the model updates and synchronizing with the implementation model.
    - Single workspace used
    - Updated project interchange files are distributed to the team or the team repository is updated with the change.
    - Integration developers provide their updates to the model integrator on their team

Model synchronization
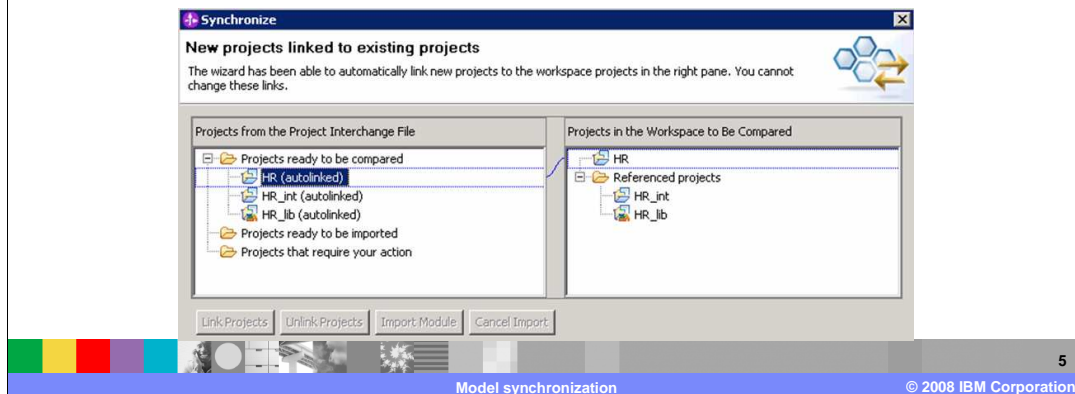
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With the single workspace approach, a single workspace is used by one developer to do the model synchronization. Again, used with a source code control system, the team lead checks out all the artifacts related to the project, does the model synchronization, checks the items back in and then notifies the team.

This is the approach to take if you cannot partition the modeling project into multiple projects.

Migration issues

- Support for iterative development is new in 6.1.
- A model that was exported from WebSphere Business Modeler 6.0.2 will not have the required structure.
  - ▸ The model must be migrated to WebSphere Business Modeler 6.1 and exported again.
- The application must also be migrated to WebSphere Integration Developer 6.1.
- The integration developer in WebSphere Integration Developer must manually link the related projects from the model and the application before comparing and merging can take place.

Synchronize

New projects linked to existing projects

The wizard has been able to automatically link new projects to the workspace projects in the right pane. You cannot change these links.

Projects from the Project Interchange File

- Projects ready to be compared
  - HR (autolinked)
  - HR_int (autolinked)
  - HR_lib (autolinked)
- Projects ready to be imported
- Projects that require your action

Projects in the Workspace to Be Compared

- HR
- Referenced projects
  - HR_int
  - HR_lib

Link Projects Unlink Projects Import Module Cancel Import

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When working with a business process that was developed using WebSphere Business Modeler and WebSphere Integration Developer V6.0.2, the project names will not match up during the model synchronization.

First, upgrade the business model in WebSphere Business Modeler by importing the V6.0.2 model archive file. Save the newly migrated project as a 6.1 model archive file.

If your application was created from an earlier version of WebSphere Business Modeler, there is no mapping information available for the tools, so you will not be able to compare the model to the application.

Next, upgrade the projects in WebSphere Integration Developer to V6.1. This can be done by opening WebSphere Integration Developer V6.1 on a V6.0.2 workspace or by importing the V6.0.2 project interchange file. Use a project interchange file that was exported from WebSphere Integration Developer V6.0.2, not WebSphere Business Modeler V6.0.2.

In WebSphere Integration Developer V6.1, run the model synchronization wizard using the project interchange file from WebSphere Business Modeler V6.1 as the input. In this case, the integration developer will need to manually link the projects and then synchronize.

After the synchronization, manual associations can be made between the artifacts in the projects that are manually linked.

When the commit button is pressed, the synchronization is re-run.

The manual associations between the artifacts are remembered; that is to say, they are permanent.

Un-Supported constructs

- Business rules
  - ▶ If a business rule task is added after initial iteration, the interface and rule group are detected by the model synchronization wizard
    - but the rule logic is not
  - ▶ Subsequent changes to business rules are not detected.

- Human tasks
  - ▶ If a human task is added after the initial iteration, most of the elements are managed.

- Lotus® Forms
  - ▶ If a form is added after the initial iteration, the entry in the human task for the Lotus Forms Client is set…
    - but the form itself is not

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The special features associated with human tasks, business rules tasks and forms are not supported for iterative modeling in this release. Human tasks and business rules tasks are treated in the same way as generic tasks during the comparison in WebSphere Integration Developer model synchronization.

This means that if you add a business rule or human task to the business model after the first iteration, it is created in the business logic module, but the details will not be merged in.

Lotus Forms are only supported as an attribute to the human task. The form is not merged into the WebSphere Integration Developer business logic module.

Summary

- There are two basic approaches to iterative development when using the model synchronization features.
  - ▶ Distributed Team
  - ▶ Single work space
- To work with V6.0.2 models they must first be migrated to V6.1 models.
  - ▶ Both the WebSphere Business Modeler and the WebSphere Integration Developer models
  - ▶ The projects and modeling artifacts will need to be manually linked.

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When using the new model synchronization features with a large project you must understand and consider how the tools work, and adjust your application development process accordingly.

Two basic approaches have been briefly discussed here, the distributed team approach and the single workspace approach.

It is also possible to migrate your existing V6.0.2 projects to V6.1 so that you can start to use these new features with your existing projects. There is some work upfront to establish the linkage between the projects and the modeling artifacts, but once this has been done, the links are remembered.

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