WebSphere Education

Exporting from WebSphere Business Modeler

Unit 23

5.1.0.1

Unit objectives

After completing this unit, you should be able to:

- Describe the process for exporting the following types of files from WebSphere Business Modeler:
  - WebSphere Business Modeler project
  - WebSphere Integration Developer
  - WebSphere MQ Workflow buildtime
  - WebSphere Business Monitor Development Toolkit
  - WebSphere Business Modeler XML
  - WebSphere Studio Application Developer Integration Edition
  - FileNet Business Process Manager
  - Rational Data Architect
  - UML Business Modeling Profile
  - Delimited text

Exporting data from Modeler
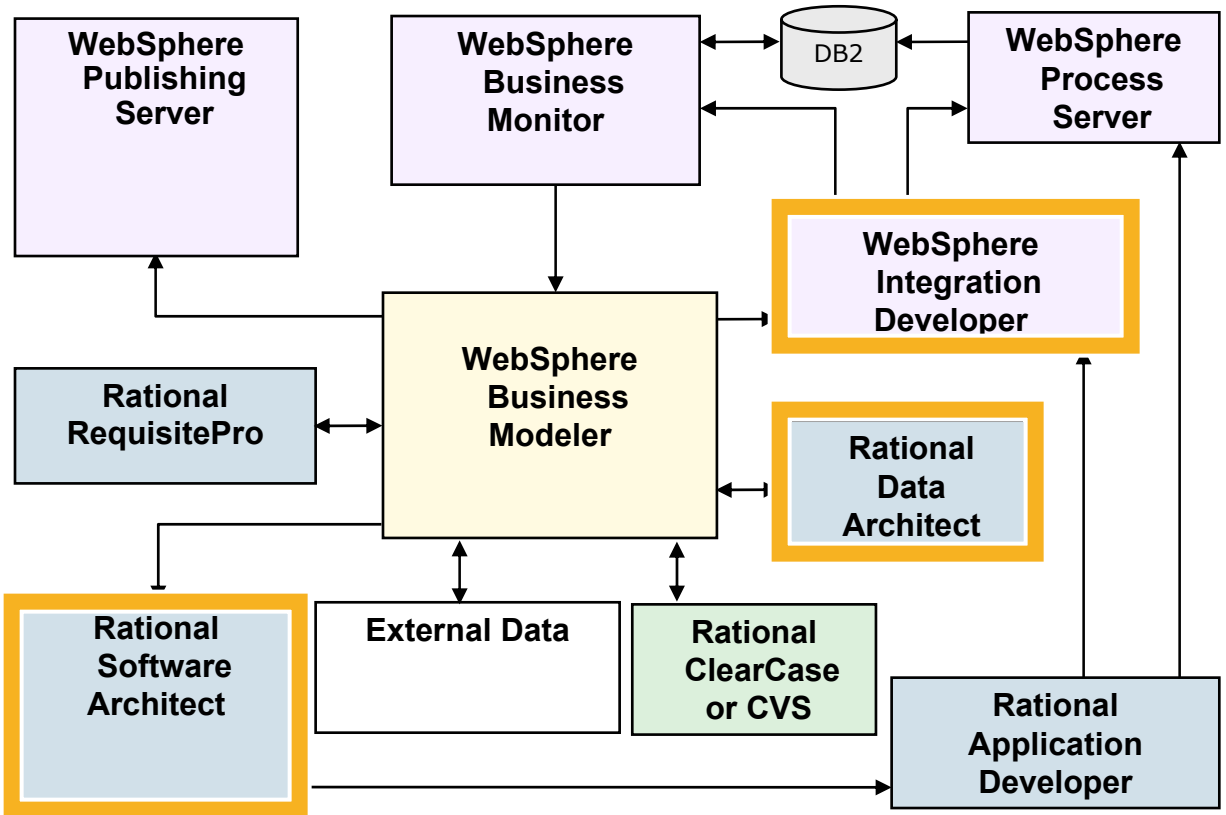
Modeler export
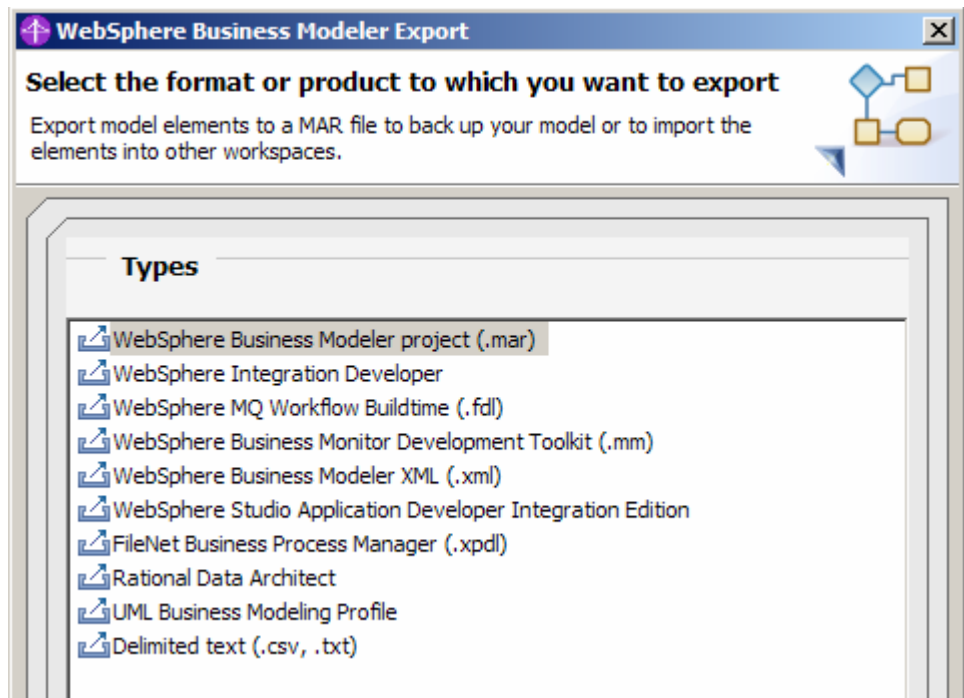
Exporting models to different formats (1 of 2)

- WebSphere Business Modeler project
  - Exports the selected project or elements into a MAR file
- WebSphere Integration Developer
  - Exports Service Component Architecture (SCA) artifacts and Business Process Execution Language (BPEL), Web Services Description Language (WSDL), and XML Schema Definition (XSD) files that can be imported into WebSphere Integration Developer to create an implementation for WebSphere Process Server
- WebSphere MQ Workflow Buildtime
  - Exports the selected project or element into a FlowMark Definition Language (FDL) file
- WebSphere Business Monitor Development Toolkit
  - Exports to an MM (monitor model) file and to two or more SVG files
- WebSphere Business Modeler XML
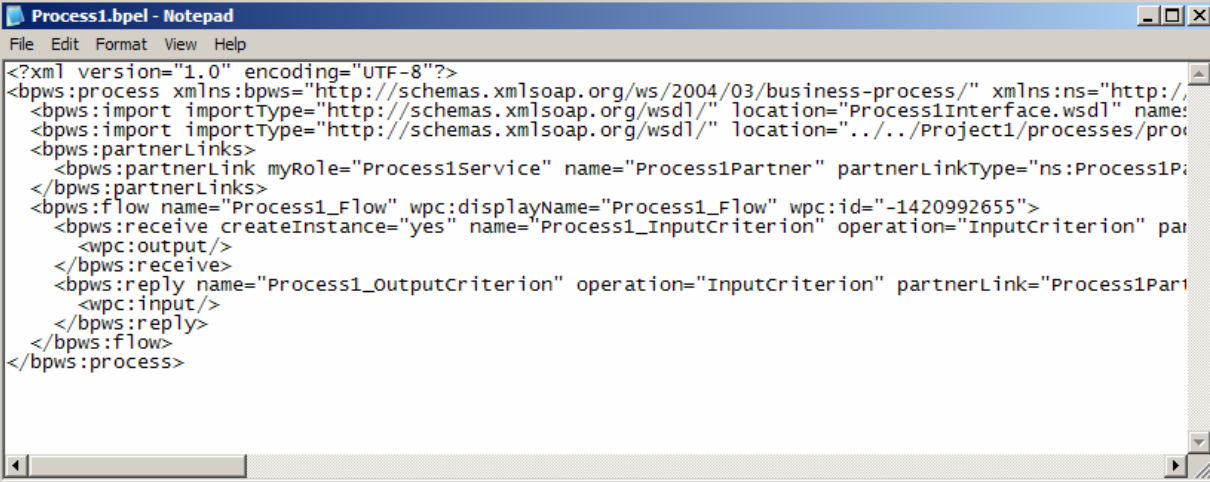 - Exports the selected project or element into an XML file

- WebSphere Studio Application Developer Integration Edition
  - Exports the selected project or elements into BPEL, WSDL, and XSD files. These files can then be imported into IBM WebSphere Studio Application Developer Integration Edition.
- FileNet Business Process Manager
  - Exports the selected process or process catalog as XPDL files. These files can then be opened with the Process Designer of FileNet P8 to create implementations for the FileNet P8 runtime environment.
- Rational Data Architect
  - Exports the selected business objects into XSD files. These files can then be imported into Rational Data Architect through the use of an XML to LDM transform.
- UML Business Modeling Profile
  - Exports the selected project or elements into a UML 1.4 XMI 1.1 file.
- Delimited text
  - Exports the selected project or element into a text file.

WSBPEL: Business Process Execution Language

- WSBPEL is also referred to as BPEL.
  - Industry standard for Web services choreography
  - Published by IBM, Microsoft, and BEA (plus SAP and Siebel)
- Language describes simple or complex exchanges that characterize business partner interactions.
- Defines control elements for workflow.
- Creates a fully-executable, portable script.
- Modeler can transform process models to WebSphere Integration Developer (WID). It includes files in three formats: BPEL (Business Process Execution Language), WSDL (Web Services Description Language), and XSD (XML Schema Definition). These files import to WID to develop executable application code.
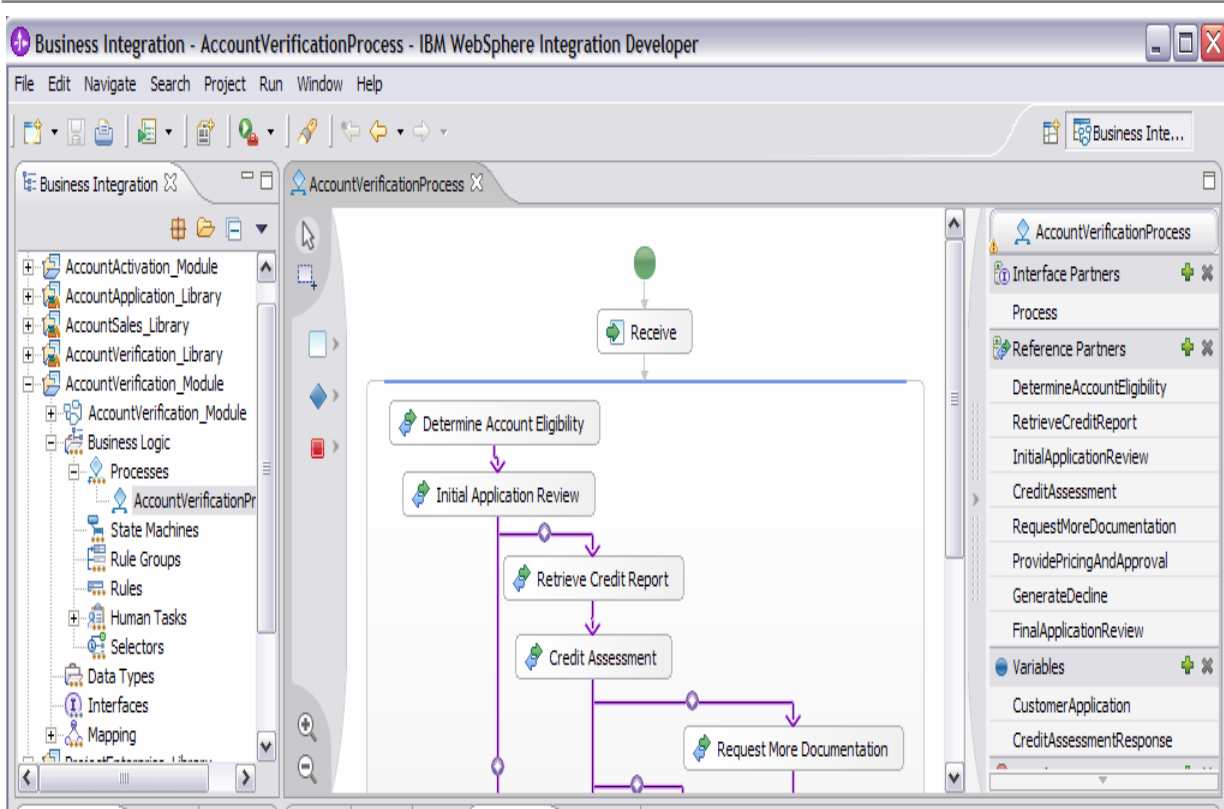
Export to BPEL

- For each process, one BPEL and one WSDL file are created
  - If the process references a global process, task, or services, additional WSDL files are created for each
- XSD files are created for business items used within the process
- The generated files are placed in subdirectories based on the catalog hierarchy of the process and business items
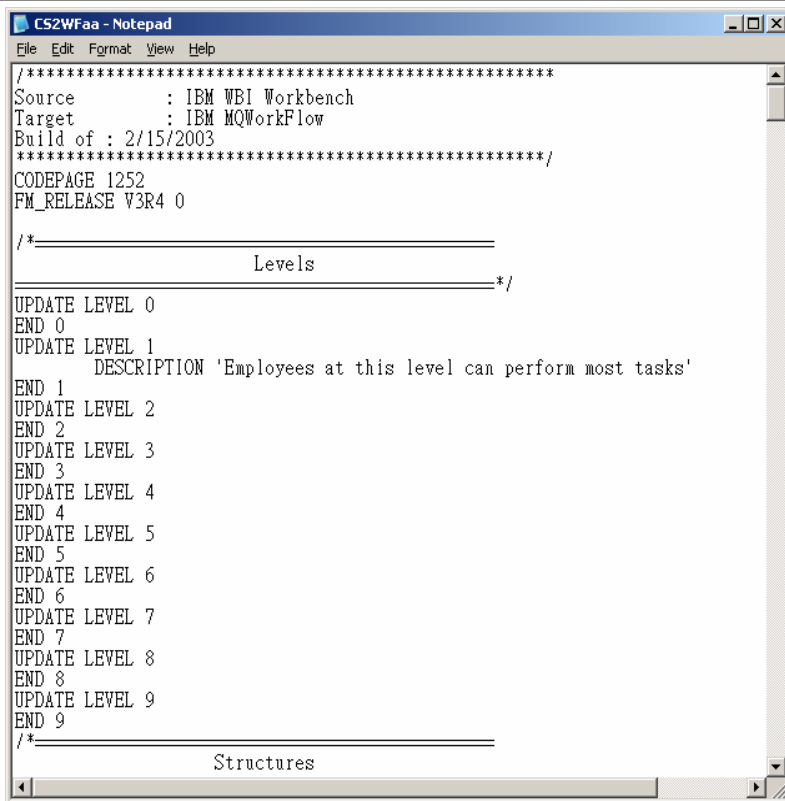- Service specifics (ports) are added in the runtime environment

BPEL diagram in IBM WebSphere Integration Developer

FDL: FlowMark Definition Language

- FDL:
  - Defines all possible paths through the Business Process including the rules that define which paths should be taken and all actions that need to be performed
- WebSphere Business Modeler continues to export processes as FDL for import into WebSphere MQ Workflow.
- Use of FDL as a modeling language is superseded by WSBPEL.

```
CS2WFaa - Notepad
File Edit Format View Help
/*****************************************************
Source       : IBM WBI Workbench
Target       : IBM MQWorkFlow
Build of : 2/15/2003
*****************************************************/
CODEPAGE 1252
FM_RELEASE V3R4 0

/*==================================================
                    Levels
==================================================*/
UPDATE LEVEL 0
END 0
UPDATE LEVEL 1
       DESCRIPTION 'Employees at this level can perform most tasks'
END 1
UPDATE LEVEL 2
END 2
UPDATE LEVEL 3
END 3
UPDATE LEVEL 4
END 4
UPDATE LEVEL 5
END 5
UPDATE LEVEL 6
END 6
UPDATE LEVEL 7
END 7
UPDATE LEVEL 8
END 8
UPDATE LEVEL 9
END 9
/*==================================================
                    Structures
```

# Transformation into MQ Workflow Buildtime
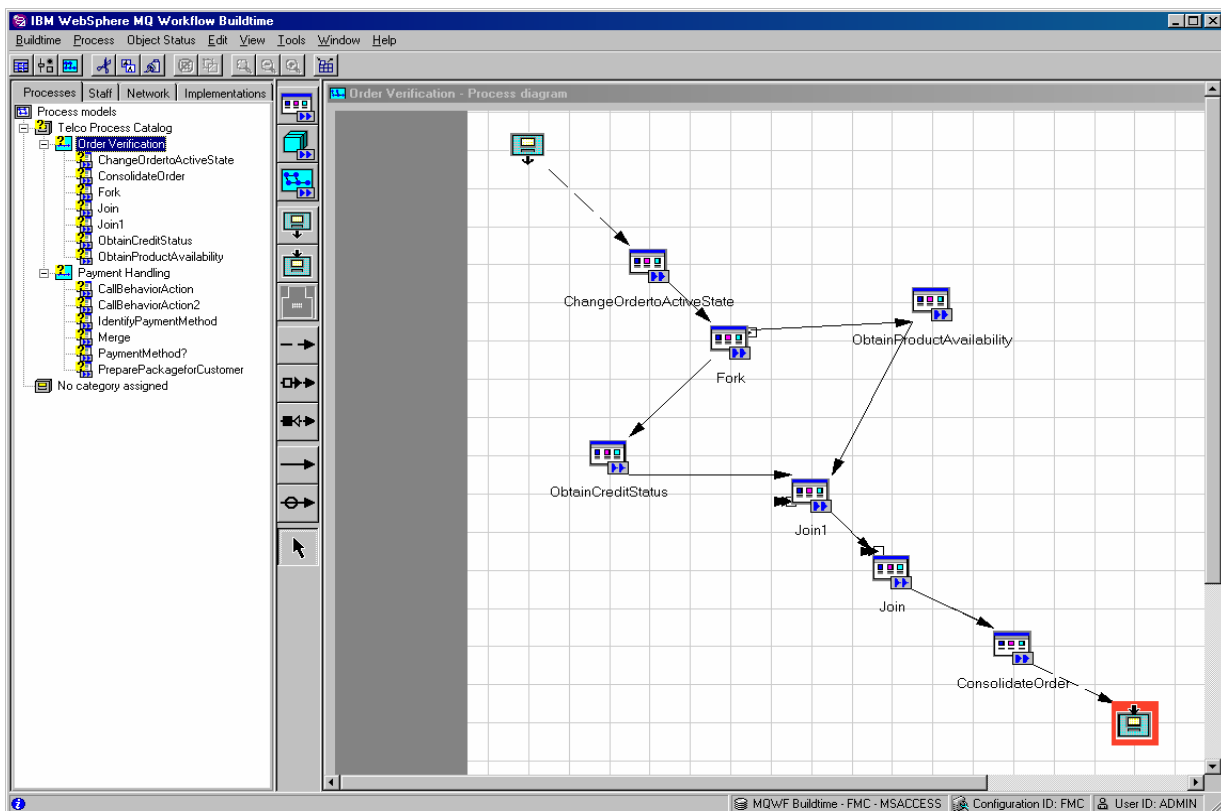
FDL elements not supported

The following FDL elements are not generated when exporting from Modeler to FDL files:

- Process attributes
  - Global container
  - Process administrator
  - Duration of process
  - Control setting (Control tab settings on process: audit trail, notification mode, etc)
  - Activity setting (Activity tab settings on process)
- Program/Process activity attributes
  - Execution setting (Execution tab setting on program/process activity: execution server, and so on)
  - Expiration
  - Tools
  - Notification
  - Control setting (Control tab settings on program/process activity)
  - System (on process activity)
- Connector
  - Data loop connector
  - Default connector
  - Default data connector (generated only for an empty activity)
- Network
  - Anything related to network topology (such as UPES or queue manager) is not supported
- Program
  - Programs are not supported (an empty program is generated for any program activity that is generated)
- Visuals
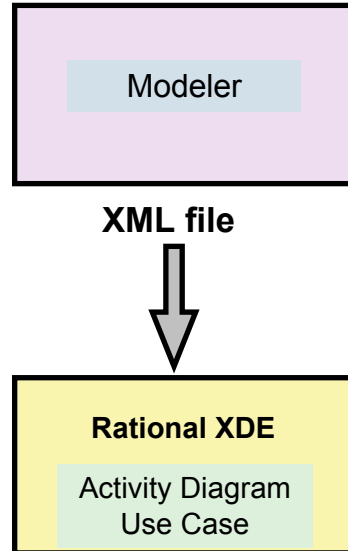 - Visual information is not exported

Export UML from Modeler

- Either export the entire project or specific objects.
- Two options for export:
  - Role-based swimlanes partitions in the UML Activity Graph to be created for each role
  - Or, Resource-based swimlanes partitions in the UML Activity Graph to be created for each resource
- After export, an XML file will be created using the name of the project, and the file extension is XML.
- The XML file can be imported into Rational Software Architect.
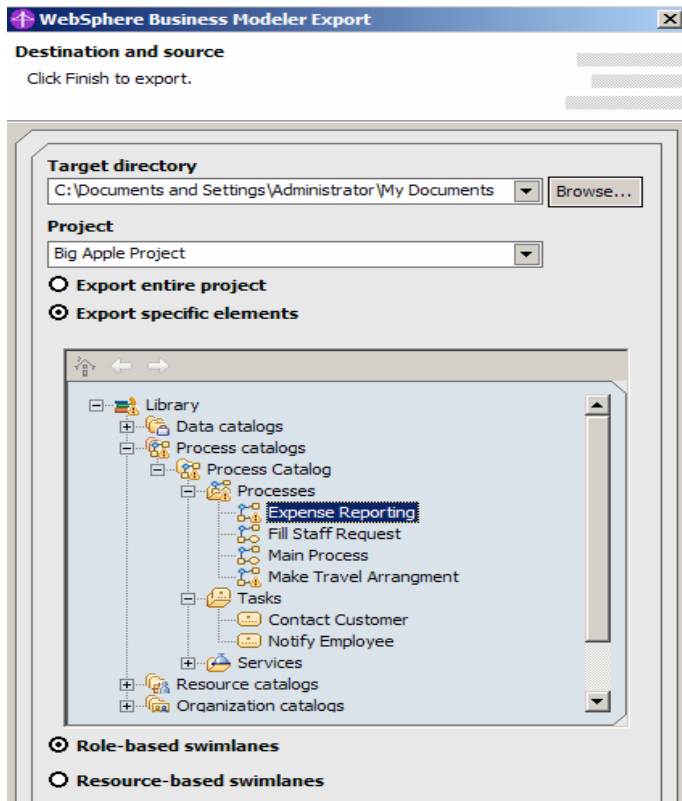
Export to UML for application development

- Export models to UML file which can be imported into IBM Rational XDE.

- Modeler elements are mapped to UML constructs and saved to an XML file.

- Each data definition is mapped to a UML Class, and each process is mapped to a UML Use Case and associated with a UML Activity Graph to represent the process flow.

Modeler

XML file

Rational XDE

Activity Diagram
Use Case

Display activity diagram in Rational XDE

FileNet Business Process Manager Mode

- Filters out the ability to add the unsupported process elements
  - Observers
  - Timers
  - Notification broadcasters
  - Notification receivers
  - Global tasks
  - Global services
  - Global repositories
  - Business services
- Pre-existing unsupported elements marked as errors
- Expressions required for all decision choices

Basic	Alt+Ctrl+B
Intermediate	Alt+Ctrl+I
Advanced	Alt+Ctrl+A
WebSphere Business Integration Server Foundation	Alt+Ctrl+S
WebSphere MQ Workflow	Alt+Ctrl+M
✓ FileNet Business Process Manager	Alt+Ctrl+F
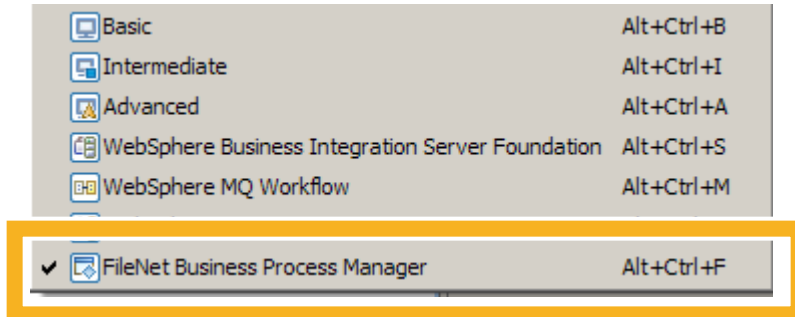
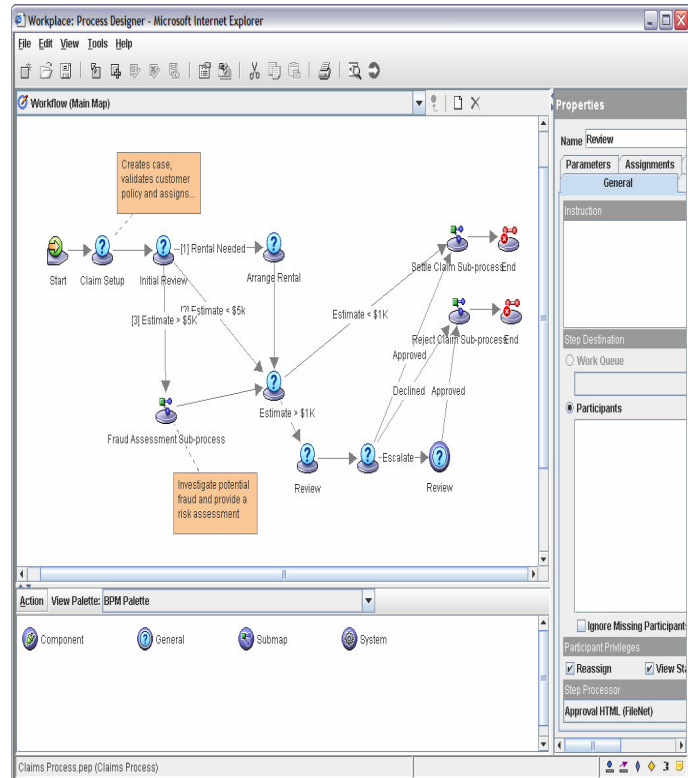# Modeler: Integration with FileNet

- Enables user to create processes in WebSphere Business Modeler and then import them into FileNet Business Process Manager for further refinement and execution.

- FileNet Business Process Manager modeling mode:
  - Supports creating FileNet-compatible process models that can be exported into the FileNet Business Process Manager by validating processes
  - Marks elements that do not have an equivalent in FileNet.
  - Exports processes as XPDL and XSD files which can then be imported into the FileNet Business Process Manager

- User should have extensive experience using WebSphere Business Modeler Advanced and FileNet Business Process Manager.

IBM FileNet Business Process Manager

- Standard-based process modeling for business
  - Supports Business Process Modeling Notation (BPMN)
  - Read and produce process definition in XML Process Definition Language (XPDL) format
- 100% Web-based tool
  - easily accessible while minimizing deployment costs
- Process Simulation
  - based on real execution data or assumed scenarios
- Integrated content management
  - Process flows are primarily document-driven
- Versioning and collaboration support
  - Supports rapid deployment of improved processes while minimizing the impact on normal operations

IBM FileNet Business Process Manager: Process designer

Import XPDL file into IBM FileNet Process Designer

Delimited text export

- Elements that can be exported
  - Business items
    - File name of business item adds " _bi.txt"
  - Business item templates
    - File name of business item template adds " _bit.txt"
- Attributes that are not supported:
  - Expressions (used in rules and in default values)
  - Complex types
- Roles are referred to as "qualifications" in the exported delimited text files.

Checkpoint: Exporting from Modeler

Your instructor will review these questions with you as a group.
If time permits, the instructor may provide you time to answer
the questions on your own before the group discussion.

1. Name some of the export formats supported by WebSphere
   Business Modeler.

2. Name some of the delimited text attributes that are not
   supported by the Modeler export.

Checkpoint solutions: Exporting from Modeler

1. WebSphere Business Modeler project
   WebSphere Integration Developer
   WebSphere MQ Workflow buildtime
   WebSphere Business Monitor Development Toolkit
   WebSphere Business Modeler XML
   WebSphere Studio Application Developer Integration Edition
   FileNet Business Process Manager
   Rational Data Architect
   UML Business Modeling Profile
   Delimited text

2. Expressions (used in rules and in default values), and complex types

Unit summary

Having completed this unit, you should be able to:
- Describe the process for exporting the following types of files from WebSphere Business Modeler:
  - WebSphere Business Modeler project
  - WebSphere Integration Developer
  - WebSphere MQ Workflow buildtime
  - WebSphere Business Monitor Development Toolkit
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  - Rational Data Architect
  - UML Business Modeling Profile
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Exercise overview

In this exercise you will:

- Switch from intermediate mode to WebSphere Integration Developer mode
- Examine and correct errors
- Export your FMC project in a format that can be imported into WebSphere Integration Developer