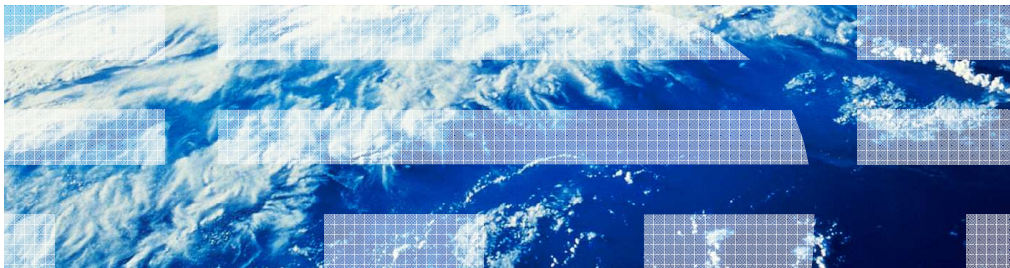

IBM Business Process Manager V7.5

IBM BPM Banking Pack V7.5



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This presentation provides an introduction to IBM Business Process Management (BPM) Banking Pack V7.5

Goals and Agenda

- Goals
 - Introduction to BPM Banking pack V7.5
 - Introduction to different models within Banking pack
- Agenda
 - Banking pack standards
 - Banking pack assets
 - Capability models
 - Process models
 - Service models
 - Common components
 - Business vocabulary
 - Business objects models
 - Summary

The goal of this presentation is to provide an introduction to the BPM Banking Pack V7.5 and understanding the various assets provided with the pack.

Banking pack standards

This section provides a list of standards that are supported by the BPM Banking Pack V7.5

Summary of Key Standards Leveraged (1 of 2)



Common Components

www.nacha.org

NACHA is a not-for-profit association, led by member depository financial institutions and payments associations, that is responsible for the administration, development, and governance of the ACH Network. NACHA promulgates and enforces the *NACHA Operating Rules*, develops new ACH payment applications, and establishes sound risk management practices for the ACH Network.

ISO 20022

Provides the financial industry with a common platform for the development of messages in a standardized XML syntax, using:

- A modeling methodology (based on UML) to capture in a syntax-independent way financial business areas, business transactions and associated message flows
- A set of XML design rules to convert the messages described in UML into XML schemas

Business Vocabularies, Business Object Models, Common Service

www.iso20022.org
<http://www.swift.com/>



Common Components

The EPC develops the payment schemes and frameworks necessary to realize the [Single Euro Payments Area](#) (SEPA). SEPA is an EU integration initiative in the area of payments designed to achieve the completion of the EU internal market and monetary union.

The Single Euro Payments Area or SEPA will be the area where citizens, companies and other economic participants make and receive payments in euro, whether between or within national boundaries, under the same basic conditions, rights and obligations. In the long-term, the uniform SEPA payment instruments are expected to replace national euro payment systems now being operated in Europe.

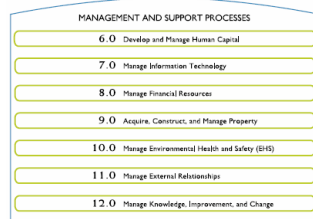
<http://www.europeanpaymentscouncil.eu/>

The key standards leveraged by the BPM Banking Pack are NACHA, SEPA, International Organization for Standardization (ISO) 20022, American Productivity and Quality Center (APQC)-Process Classification Framework (PCF), and Information FrameWork (IFW) Interface Design Model (IDM).

The BPM Banking Pack includes pre-built banking-specific assets based on the above industry standards and IBM best practices. It is not a replacement of Banking standards – it provides derivative works based on NACHA, SEPA, ISO 20022, and IFW standards.

Summary of Key Standards Leveraged (2 of 2)

APQC® American Productivity and Quality Center Process Classification Framework (PCF)



www.apqc.org/portal/apqc/site **Key Performance Indicators**

The Information Framework (IFW) Business Object Model (BOM) is used as a source from which the vocabulary terms for the IBM WebSphere Banking Content Pack are derived. Additionally, the IFW model has well-defined service interfaces and data types as part of the Interface Design Model (IDM). A logical subset of service interfaces and definitions have been chosen to define Industry service interfaces. These interfaces and data types are logically grouped into SCA libraries that are used to implement the SCA modules.



**Business Vocabulary
Business Object Models,
Service Models**

Banking pack assets

This section provides details about different assets of BPM Banking Pack V7.5

IBM Business Process Manager Banking Pack v7.5

Banking “Solution Scenario” for New Account Opening



Pre-built scenario that combines the Banking assets into an end-to-end BPM solution

Banking Assets

<p>Process Models</p> <p><i>Process Flows to visualize human workflows & automate processes</i></p> <p>IBM BPM Process Designer</p>	<p>Service Models</p> <p><i>Service Interfaces & Schemas to facilitate creation & assembly of process implementations</i></p> <p>IBM BPM Process Designer and Integration Designer</p>	<p>Business Object Models</p> <p><i>Conceptual Data Models to provide a foundation for information management</i></p> <p>IBM Rational Software Architect</p>
<p>Capability Models</p> <p><i>Capability Maps & Process Maps to align business strategy with process execution</i></p> <p>WebSphere Business Compass</p>	<p>Business Vocabulary</p> <p><i>Business Concepts, Terms & Relationships to ensure consistency</i></p> <p>IBM BPM Integration Designer</p>	<p>Common Components</p> <p><i>Common Services & Utilities to enable interoperability with the application ecosystem</i></p> <p>IBM BPM Integration Designer</p>

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IBM BPM Banking Pack V7.5

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The BPM Banking Pack provides the New Account Opening Solution Scenario to demonstrate the capabilities of assets in developing an end-to-end Business Process Management (BPM) solution based on a set of real-life scenarios that are considered common within the banking industry.

The Banking institution can use the New Account Opening Solution Scenario for a bank customer or prospect to open a new bank account. The bank officer searches and identifies a customer, verifies the customer's information, updates his or her details, and initiates the process for opening a new account. The bank officer also validates that the required documents are submitted using a checklist and submits the new account opening application. The new account opening application is verified using background validation checks. If any validation failures occur, the account opening request is sent to the bank manager for manual verification and approval. The bank manager logs on, verifies the new request, and then approves or rejects the new account opening request.

The various artifacts that are used in the New Account Opening Solution Scenario can be viewed by using the different tooling that each of these artifacts use as mentioned in the boxes.

A demonstration is provided on how to run the New Account Opening Solution Scenario.

The next few slides discuss about banking assets that different users can use based on their business requirements.

Use banking *Capability Model* to identify target business areas



- Based on *IBM Best Practices* and *APQC PCF standards*
- Tooling with *WebSphere Business Compass*; Packaged as *Business Document Archive*
- E.g. *Payments Initiation, Payments Clearing and Settlement, Exception and Investigation, Reconciliation*

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- *Capability Maps & Process Maps align business strategy with process execution*
- *Capability maps are defined up to level 4*

The Banking Capability Model consists of Capability Maps, which represent the banking domain decomposition of business capabilities. Based on American Productivity & Quality Center (APQC)-Process Classification Framework (PCF), International Organization for Standardization (ISO) 20022, and IBM best practices.

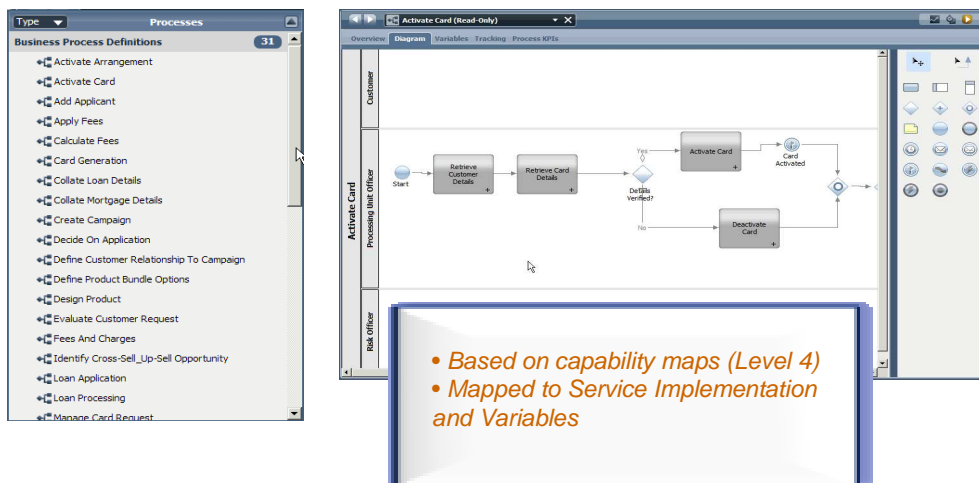
In the previous release of the BPM Banking Pack, processes and sub processes were part of process maps, which were mapped to capability maps. In this release, these processes and sub processes have been moved such that they form the next level of sub capabilities in an existing capability map.

These assets are packaged as a Business Document Archive (.bda) files and can be easily viewed using WebSphere Business Compass. Before you can begin using the capability maps you need to identify the business area that corresponds to your requirement. This identification helps in aligning the business strategy with process execution.

Model detailed process flows, sub processes using Process Models



- Based on *IBM IFW Models and IBM Best Practices*
- Tooling with *IBM BPM Process Designer*
- E.g. *Card Transaction, Stop Payments, New Account Opening, Loans Processing, Manage Customer Profile*



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The Banking Process Models are modeled as Business Process Definitions (BPDs) inside the IBM Process Designer. A BPD defines the process workflow for users, creates logic inside a process, and integrates with other applications and data sources. The process acts as a container for all the components of a process definition, which includes participant groups, lanes, services, activities, gateways, sequence lines, rules, and variables.

Each of the BPDs related to a specific focus area are packaged as part of the Toolkits. The Banking Process Models include the Core Systems and Payments Toolkits.

The BPDs that are available as part of the Banking Pack serve as templates that can be used to start, or in some cases, accelerate the development of a Process Application. This provides the user an ability to use the provided assets as a starting point and customize them as per their requirements.

In the earlier release, the Process Models were provided as WebSphere Business Modeler artifacts.

Model detailed process flows, sub processes using Process Models



- Based on **IBM IFW Models and IBM Best Practices**
- Tooling with **IBM BPM Process Designer**
- E.g. **Card Transaction, Stop Payments, New Account Opening, Loans Processing, Manage Customer Profile**

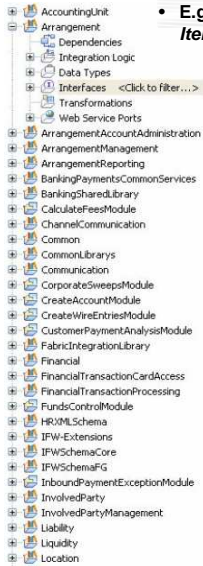
The screenshot displays two windows from the IBM BPM interface. The left window, titled 'Performance', shows a list of 22 reports under the 'Reports' section. The right window, titled 'Card Activation (Read-only)', shows the configuration for a specific report. It includes an 'Overview' section with metadata, a 'Report' section with instructions, and sections for 'Exposed Process Values', 'Tracking Groups', 'Exposing', and 'Localization Resources'. A callout box highlights 'Predefined Banking Business Measures' which includes 'Reports' and 'Tracking Groups'.

The toolkits contain predefined Reports and Scoreboards for monitoring process-related performance. Reports are used to analyze the process performance-related data as a graph or chart that easily depicts the data in an easy to understand format, as opposed to a tabular format of information. Scoreboards are an aggregation of reports that can be seen in the IBM Process Portal.

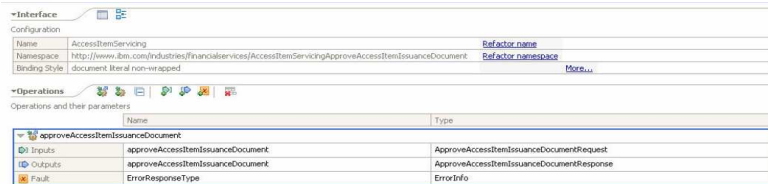


Assemble Integration Solution by using Banking *Service Models*

Developer



- Based on *IBM's IFW-IDM model and IBM Best Practices*
- Tooling with *IBM BPM Integration Designer and Process Designer*; Packaged as SCA Libraries and Toolkits
- E.g. *Retrieve Customer Details, Prepare Outpayment Instruction, Retrieve Account Details, Access Item Servicing, Evaluate Customer Risk*



- *Service Interface & Schemas facilitate creation & assembly of process implementations*
- *Service definition includes input, output, operations, etc*

The Banking Service Models are pre-built service interfaces and schemas that facilitate interoperability across diverse platforms for a specific industry. You can use the service interfaces and the associated schemas to create and assemble process implementations that can later be used as endpoints for process flow executions.

The service interfaces are created based on IBM IFW-IDM model and IBM Best Practices and are packaged as SCA libraries which can be viewed in the IBM Integration Designer.



Achieve component reuse using Banking Common Components

- Based on **IBM's IFW-IDM model and IBM Best Practices**
- Tooling with **IBM BPM Integration Designer**; Packaged as **SCA libraries**
- E.g. **Retrieve Customer Details, Prepare Outpayment Instruction, Retrieve Account Details, Access Item Servicing, Evaluate Customer Risk**

Developer

The screenshot shows the IBM BPM Integration Designer interface. On the left is a project tree for 'BankingPayme' with folders for Dependencies, Integration Logic, Data Types, and Interfaces. The 'Interfaces' folder is expanded, listing various service port types such as CCTIDebulkingServicePortType, CCTIRepairServicePortType, CCTIUnBundleServicePortType, CCTIValidationServicePortType, CDDIDebulkingServicePortType, CDDIRepairServicePortType, CDDIUnBundleServicePortType, CDDIValidationServicePortType, CPCRejectRepairServicePortType, CPCValidationServicePortType, CPRRejectRepairServicePortType, CPRValidationServicePortType, ErrorIdentificationServicePortType, ISO20022ValidationServicePortType, NACHAValidationServicePortType, RulesEngineServicePortType, SEPA AOS ValidationServicePortType, and SEPAValidationServicePortType. Below the tree, a configuration window for 'CCTIDebulkingServicePortType' is open, showing configuration details like Name, Namespace, Binding Style, and a table of operations with their parameters.

Operations and their parameters		
	Name	Type
Inputs	inputDocument	CustomerCreditTransferInitiationV02
Outputs	outputDocument	CustomerCreditTransferInitiationV02

- **Common Services & Utilities enable interoperability with the application ecosystem**
- **Pre-built implementation logic to allow custom implementation using configurations**

The Banking Common Components includes a set of Banking-specific common service definitions and implementations. The common services help achieve component reuse and serve as accelerators for BPM solutions, where you can use the provided implementations or customize their configurations to suit your application needs. The Common Components are based on ISO20022, SEPA, SEPA-AOS, NACHA standards and IBM Best Practices. The common services for the BPM Banking Pack use messages from the ISO20022 messaging schema, SEPA, SEPA-AOS, and NACHA standards.

The common services in the BPM Banking Pack are packaged as a single SCA library and are also configured as a deployable EAR file for use with the IBM Integration Designer. These common services can be configured to work with different APIs such as a JSR94-compliant rules engine or WebSphere Transformation Extender.

Use Business Vocabulary to map to business data in messages



Developer

- Based on *IFW and IBM best practices*
- Tooling with *IBM BPM Integration Designer*
- E.g. *Customer, Arrangement, Involved Party, Payment Instruction*

Configure business items and aliases. The aliases are used in other places, such as in the XPath Expression Builder.

Name	Type	XPath Expression
AccountingUnitBI		
ActivationDetailsBI		
AddressDetailsBI		
Address	string	/addressComponents[type = 'addressLines']/value
City	string	/addressComponents[type = 'city']/value
Region	string	/addressComponents[type = 'region']/value
Country	string	/addressComponents[type = 'country']/value
PostalCode	string	/add...
ArrangementActivationDocumentBI		
ArrangementConditionsBI		
ArrangementDetailsBI		
Balance	double	/num...
Customer	CustomerDetailsBI	/cust...
ArrangementIdentifierBI		

- *Taxonomy of banking business vocabulary terms*
- *Aliases to map business vocabulary to message elements containing business data*

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IBM BPM Banking Pack V7.5

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The Banking Business Vocabulary is a taxonomy of business terms derived from various industry models and standards for the Banking industry. The Business Vocabulary provides the ability to interoperate between diverse systems in an enterprise through business services metadata such as roles, channels, assertions, and policies. The Business Vocabulary terms are based on Information FrameWork (IFW) Interface Design Model (IDM) and IBM best practices. In this release, the business vocabulary provided with the BPM Banking Pack can be viewed in the IBM Integration Designer.



Developer

Implement Logical Data Model using *Business Object Models*

- Based on *ISO 20022 Data Dictionary*
- Tooling with *Rational Software Architect*; Packaged as *Project Interchange File*
- E.g. *Payment limit, Payment amount, Bank name, Interest, Customer details, Fees details, Transaction amount, Agent Details*

The screenshot displays the IBM BPM Banking Pack V7.5 interface. On the left, a 'Business Objects' tree lists various entities like Account, Address, and Customer. The central pane shows the 'Business Object' editor for 'Account (Account Only)', detailing its 'Common' properties (Name, HostRef, Documentation) and 'Parameters' (accountNo, accountType, etc.). The right pane shows a 'UML Model' diagram with classes and relationships. A callout box contains the following text:

- *Conceptual Data Models to provide a foundation for information management*
- *Starting point for logical data model and physical data model*
- *Used in the input and output definition for Banking Service Models.*

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IBM BPM Banking Pack V7.5

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The Banking Business Object Models are conceptual data models that provide the foundation for information management. You can implement a logical data model (LDM) and physical data model (PDM) using the Business Object Models. These assets are based on the ISO 20022 Data Dictionary. The ISO 20022 Data Dictionary is rich in Banking business concepts, which makes it a good candidate for use as a base standard for the BPM Banking Pack Business Object Model.

The Banking Business Object Model is made available as a UML model that can be imported in a UML modeling tool such as Rational Software Architect.

Banking pack features V7.5

This section provides details about the different features of the BPM Banking Pack V7.5.

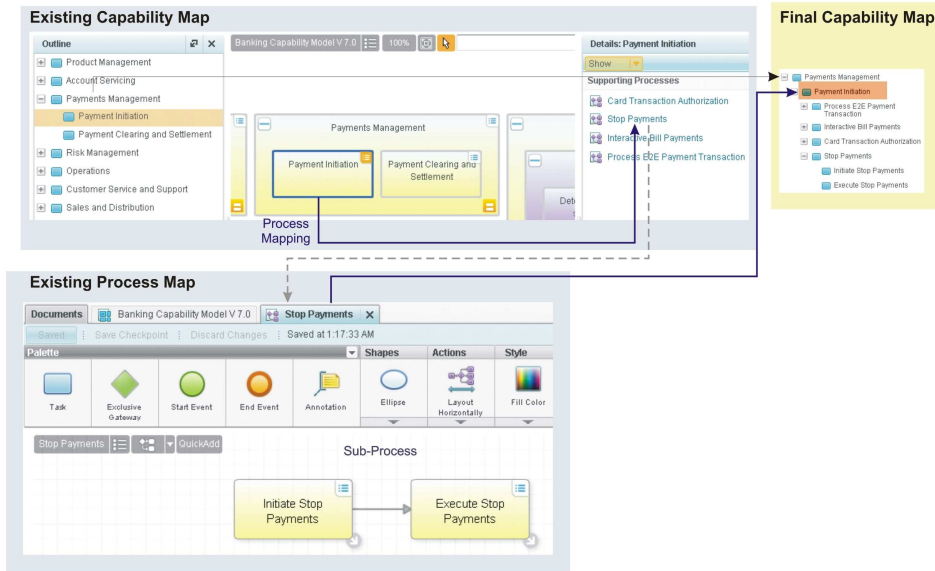
Banking Pack Features

Feature	Banking Pack 7.0	Banking Pack 7.5
Capability Models		Process models are mapped as sub capabilities level 3 onwards
Process Models		New models for Process Designer
Service Models		New utility to simplify maintenance of source models from IBM IFW.
Business Object Models		New utility to simplify maintenance of source models from IBM IFW.
Common Components		
Solution Scenarios <i>New Account Opening</i>		Updated for Express, Standard, and Advanced editions, including: <ul style="list-style-type: none"> • Process Flows • Coach Flows • Scorecards / KPIs • Integration Services
Dynamic Service Selection and Business Vocabulary	Dynamic Assembler	2 New options: <ul style="list-style-type: none"> • Integration Designer + Decision Service • Process Designer + Decision Service

A comparison of the assets and the features provided in the previous release and the current V7.5 is shown in a tabular format.

Capability Model - Updates

Capability Model - Updates



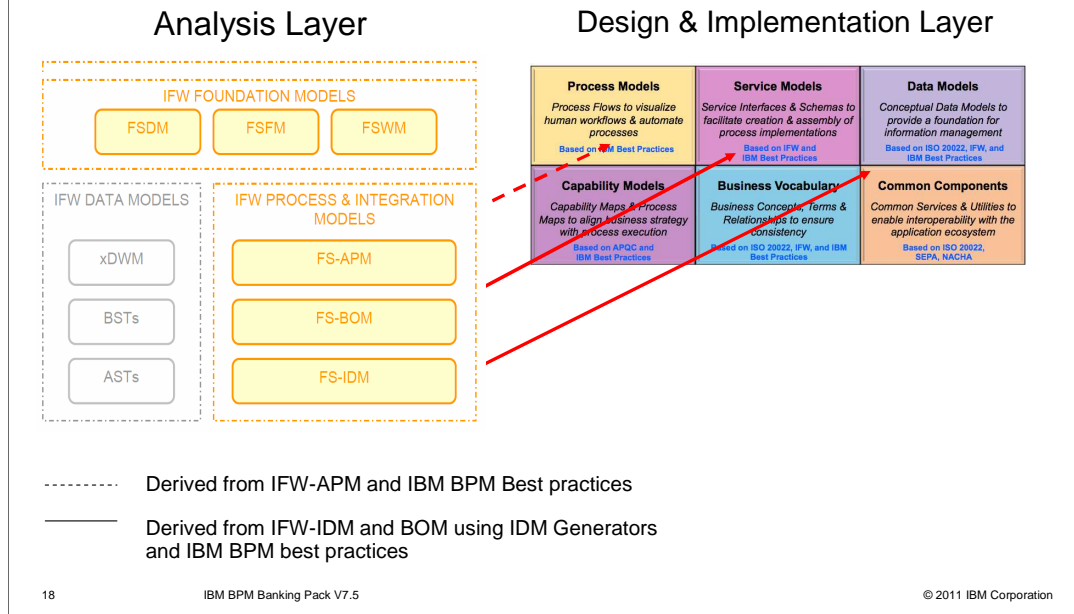
17

IBM BPM Banking Pack V7.5

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In the previous release of the BPM Banking Pack, processes and sub processes were part of process maps, which were mapped to capability maps. In this release, these processes and sub processes have been moved such that they form the next level of sub capabilities in an existing capability map. As shown here the Stop Payments is now a sub-capability under Payment Initiation.

BPM Banking Pack alignment with IFW



This slide shows the mappings between the BPM Banking Pack assets and the model layers of the Information FrameWork (IFW). Process Models are derived from the IFW-APM model and IBM Best Practices. The Service Models and Business Object Models are derived from the IFW-IDM and IFW-BOM models using the IDM generators and are also based on the IBM Best Practices.

Why BPM Banking Pack above and beyond IFW?

- Facilitates consumption of the IFW models
- Accelerates solution implementation on IBM WebSphere
- Aligns analysis and implementation models for architectural consistency

This slide explains the following benefits of the Banking Pack with respect to the IFW models:

- The Banking Pack facilitates consumption of the IFW models
- Accelerates the development and implementation of a banking-specific solution on the IBM WebSphere BPM suite of products
- Aligns analysis and implementation models of IFW for architectural consistency

Accelerates Solution Implementation on IBM WebSphere:

- Identifies relevant process models, service interfaces, and data models from IFW
- Provides missing implementation models
- Packages and optimizes IFW artifacts for use on WebSphere:
 - service interfaces
 - data types
- Eliminates redundant use of data types across service interfaces

Here, you see how the Banking Pack accelerates solution implementation on the IBM WebSphere BPM suite of products:

It identifies relevant process models, service interfaces, and data models from IFW.

It Provides missing implementation models; packages and optimizes IFW artifacts such as service interfaces and data types for use on WebSphere BPM suite of products.

It eliminates redundant use of data types across service interfaces.

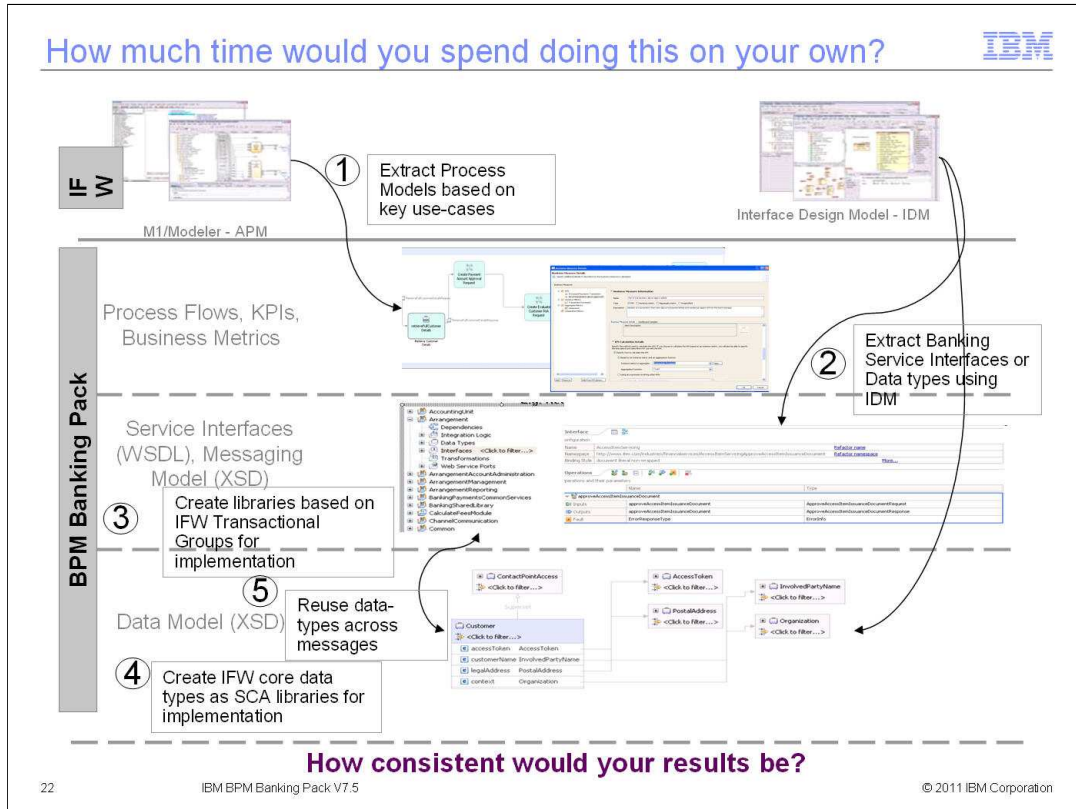
Aligns analysis and implementation models for architectural consistency

- Provides top-down decomposition of capabilities and processes
- Provides level 3 and 4 process flows to fill gaps between Analysis Process Models (APM) and Interface Data Models (IDM)
- Maintains alignment between analysis and implementation models
- Accelerates future changes through maintained alignment

Here, you see how the Banking Pack aligns analysis and implementation models from IFW for architectural consistency:

- Provides top-down decomposition of capabilities and processes
- Provides level 3 and 4 process flows to fill the gaps between Analysis Process Models (APM) and Interface Data Models (IDM)
- Maintains alignment between analysis and implementation models
- Accelerates future changes through maintained alignment

How much time would you spend doing this on your own?



This slide depicts how a solution can be easily built for implementation using the Banking Pack assets and IFW models together.

Summary and References

This section provides information about references that can be used to learn more about the BPM Banking Pack V7.5.

Goals and Agenda

- Summary
 - Learned about different industry standards that are supported by BPM Banking pack
 - Provided details of banking-specific assets
 - Capability models
 - Process models
 - Service models
 - Common components
 - Business vocabulary
 - Business objects models
- References
 - Industry Packs Infocenter V7.5
<http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/index.jsp?topic=/com.ibm.ws.wicp.icmaster.doc/ic-homepage.html>

In summary, you have learned about different standards that are supported by BPM Banking Pack V7.5. You have also learned about different banking-specific assets.



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