



IBM Software Group

SAP integration workshop

IDS Scheer ARIS to IBM WebSphere® integration introduction



@business on demand.

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This presentation covers how IDS Scheer ARIS and WebSphere work together in a SAP environment.

Objectives for ARIS and WebSphere cooperation

- Customers
 - To utilize the assets in form of business processes and transform them into implemented processes to be run in a runtime environment
 - To simplify a deployment of ARIS models in WebSphere
 - To support the entire BPM life cycle from modeling and running to monitoring
- IDS Scheer
 - To extend the market share of WebSphere and ARIS in accounts against established competitors
 - To bridge the gap between ARIS Design Platform and ARIS Controlling Platform
 - To maintain a separate corporate and ARIS brand identity
 - Live up to the promise of openness
- IBM
 - To extend the market share of WebSphere and ARIS in accounts against established competitors
 - Live up to the promise of openness
 - To build comprehensive business integration solutions starting with and refining documented enterprise business processes



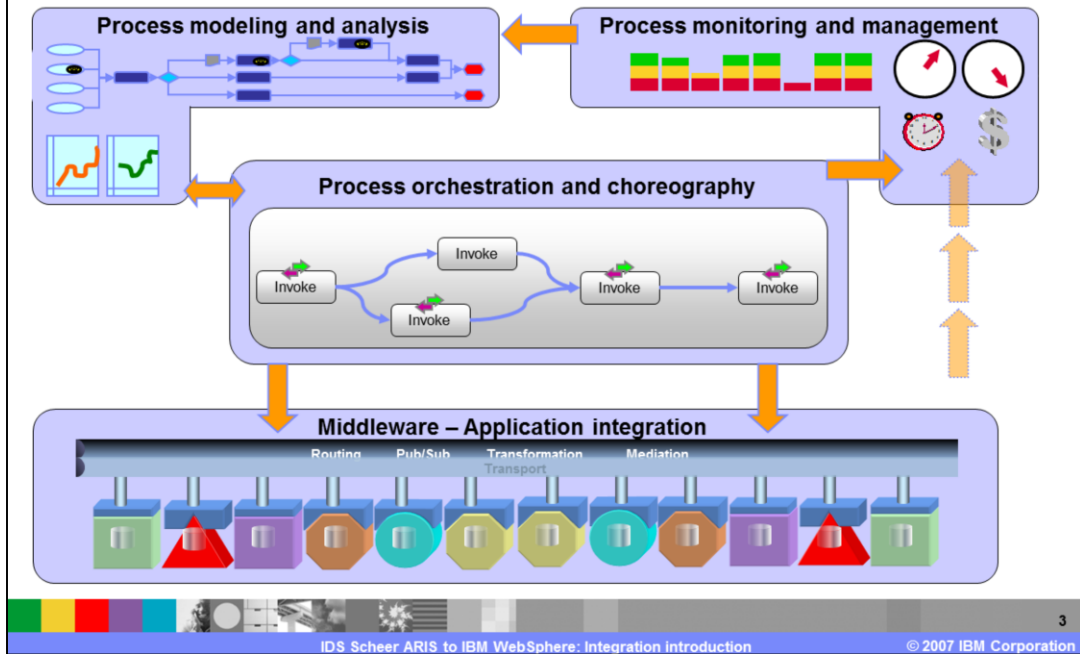
There are different objectives for ARIS and WebSphere to fund a cooperation. The customers had the demand to utilize modeled business processes in ARIS to transform them into an implemented process for running.

The target was to simplify the deployment from ARIS processes in a WebSphere runtime environment.

Also the BPM life cycle - with monitoring - needs to be supported.

From an IDS Scheer and IBM perspective both wanted to leverage this tight integration to win in customer situations against competitors and show that they also implement their promised openness.

Disciplines of business process management



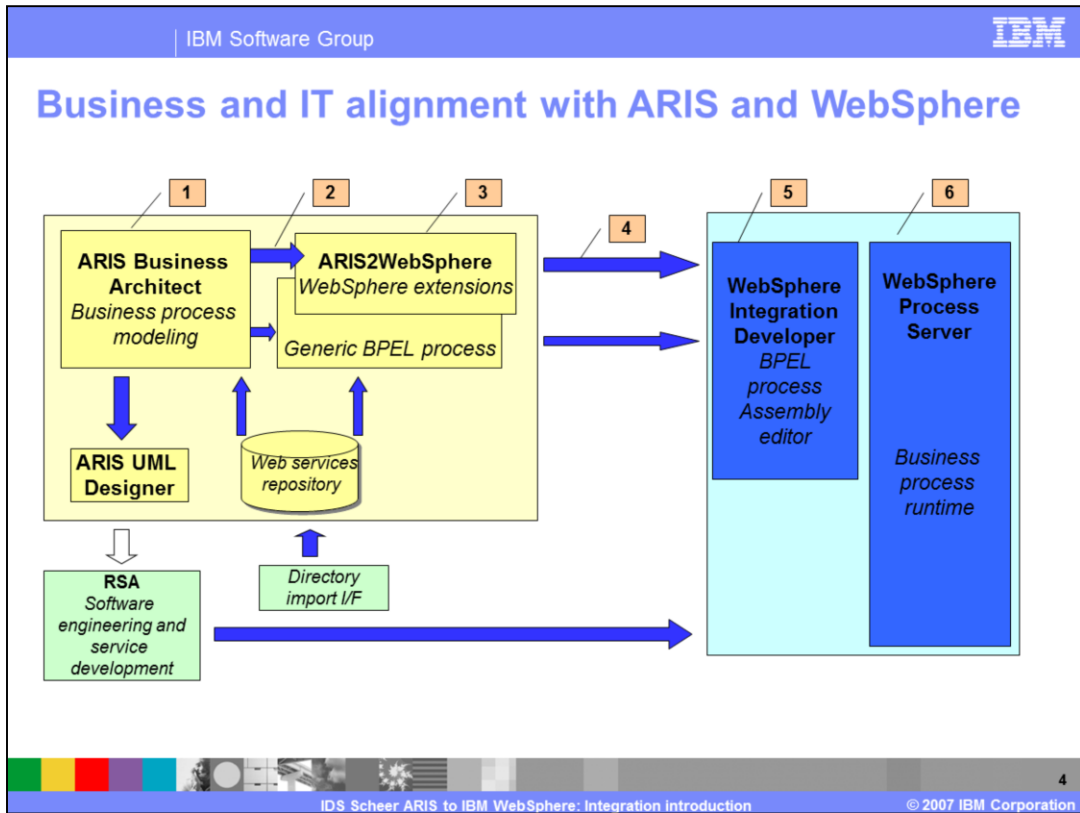
The business process management can be separated in four main areas.

In the process modeling and analysis step, the general process gets drawn. Mostly business people without the technical knowledge do most of the work here.

Then the process orchestration is drawn; the business process gets more technical and implemented in code and connections.

The middleware then becomes the runtime environment for this implementation.

In the process monitoring step, the general process gets deployed and then the KPIs get monitored on the middleware. This monitoring allows for direct feedback into the process modeling step, to optimize the process.



The main topics are also reflected in the ARIS and WebSphere cooperation.

In step 1, The modeling is done in ARIS Platform (Business Architect) This model gets adapted for the implementation purposes.

Step 2: Transformation of the drawn process – this is covering IBM specific BPEL extensions by way of the EPC2BPEL converter

Step 3: Some additional specification/refinement in ARIS BPEL is needed.

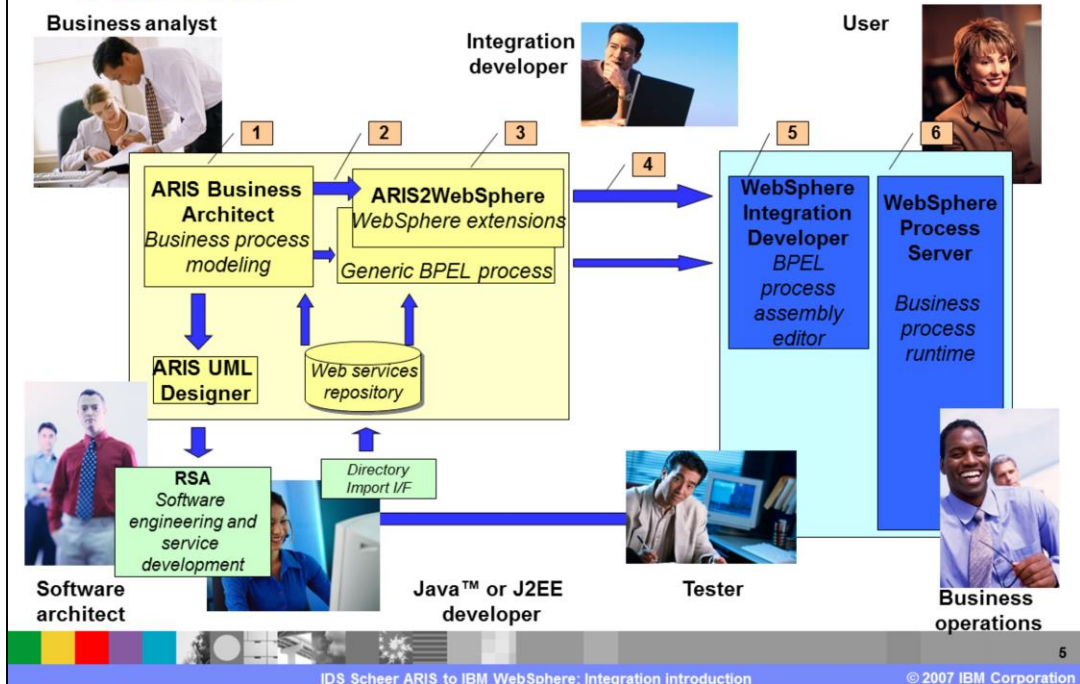
In step 4, the ARIS export is done to WebSphere Integration Developer. This leverages the import and migration tools of WebSphere Integration Developer from BPEL 1.1 to BPEL V2.0 (draft)

Step 5, the BPEL process gets enhanced in WebSphere Integration Developer. Some refinement for exploitation of functionality of WPC is needed. Also the process can be built and tested.

Step 6 - After the process is ready the identified services get developed.

Step 7 - In the end the solution is deployed

User roles



Here the different roles are added for the different steps. You can see the separation of, for example, the business analyst and the integration developer roles. Each role has its core competencies.

From process modeling to running

1. Develop service-oriented business process model in ARIS Business Architect based on modeling conventions (EPC)
2. Automated transformation of EPC into ARIS BPEL (customer- and vendor-specific transformation)
3. (optional) Refine and enhance generated ARIS BPEL processes
4. Export and post-processing from ARIS Business Architect and import to WebSphere Integration Developer
5. Refine BPEL and assemble services in WebSphere Integration Developer
6. Debug, test and deploy the solution

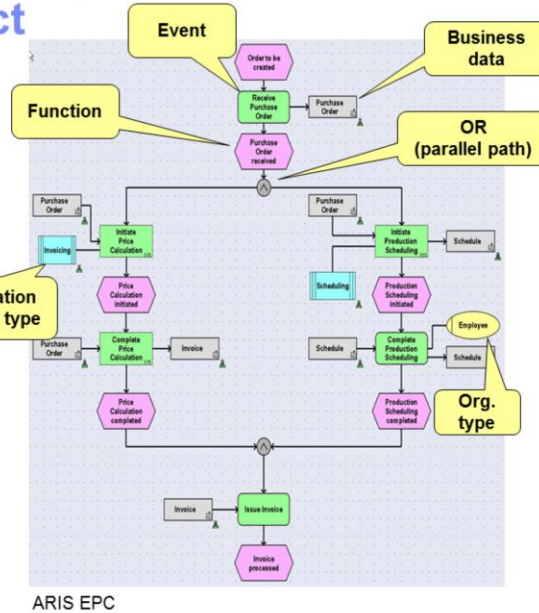


This section takes a deeper look into these six steps from modeling to running.

Step 1: Develop business process model in ARIS Business Architect

ARIS EPC

- ▶ ToBe business process model
- ▶ Intended for process implementation, otherwise further refinement step required
- ▶ Add implementation specific details
- ▶ Conventions for service-oriented modeling towards BPEL transformation later on
- ▶ Apply best practices for nested levels of decomposition in various diagrams
- ▶ Import and usage of external service information/existing services
- ▶ Target for SOA oriented modeling

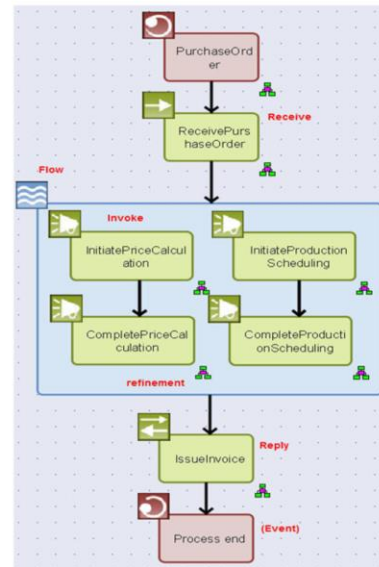


In the development step in the ARIS tools you will create the process. In this example, it is the ToBe process.

It needs to be well formed for the later conversion; if it is not, you need to enhance it.

Step 2: Automated transformation to ARIS BPEL

- EPC2BPEL transformation
 - ▶ Adaptation due to customer-specific modeling conventions
 - ▶ Vendor-specific adaptation for example, Organization type > Staff activity
 - ▶ Filter information not relevant to process automation
 - ▶ Organizational means/procedures to keep master and derived / refined processes in sync (uni-directional transformation)

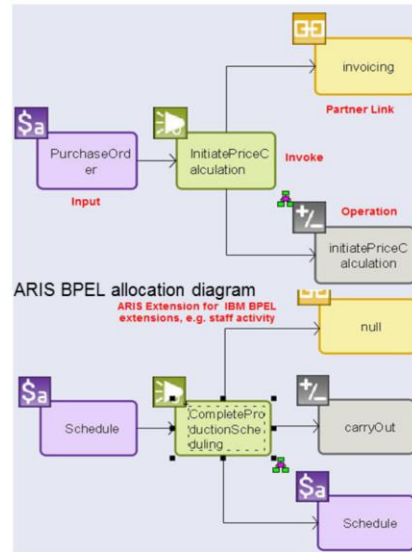


ARIS BPEL

The transformation from EPC to BPEL is automated with scripting.
Also a staff activity can be transformed to IBM BPEL

Step 3 (optional): Refine and enhance

- Refine and enhance the generated IT processes including vendor specific enhancements
 - ▶ Model enhancements due to transformation deficiencies and for IT modeling
 - ▶ Specification and development of IT functions (like partner links)
 - ▶ Refine vendor-specific BPEL extensions; for example, human activities
 - ▶ Adoption of a model to handle external events

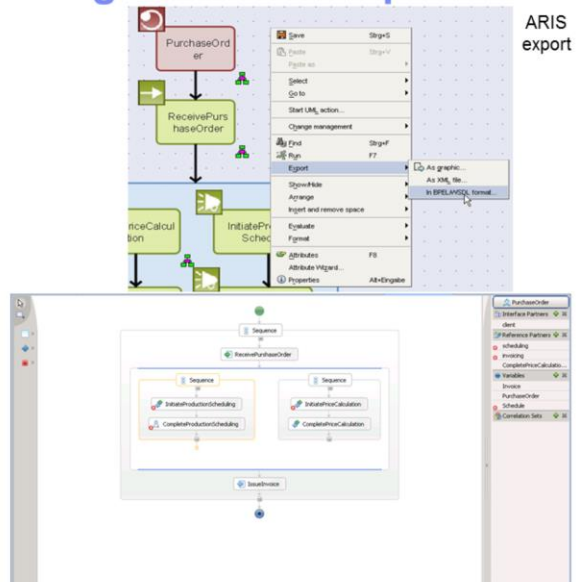


Staff activity - Extension

Depending on the process, some manual optimizations of the converted model are needed.

Step 4: Export from ARIS Business Architect and import to WebSphere Integration Developer

- Export from ARIS
- Vendor-specific post-processing
- Import into WebSphere Integration Developer
- Migration to BPEL V2.0 (Draft, SCA)



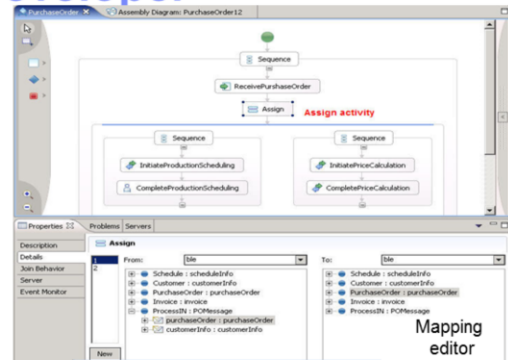
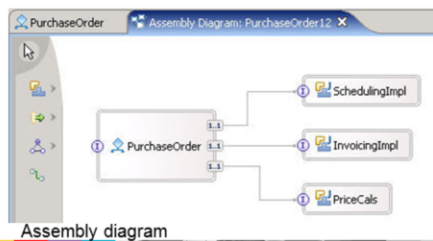
WebSphere
Integration
Developer
import

After the conversion is done, the model can be exported as a BPEL file.

This file can be imported with the WebSphere Integration Developer import wizard.

Step 5: Refine and assemble the IT process in WebSphere Integration Developer

- Eclipse based BPEL and wiring editor
 - ▶ **Binding existing services** (same WSDLs used in ARIS)
 - ▶ Enhancement for vendor specific workflow engine, for example, for compensation or human task implementation
 - ▶ Internal data mapping, for example, assign nodes
 - ▶ External data mapping / mediation / brokering
 - ▶ Assembly wiring
 - ▶ Service components specification and implementation generation



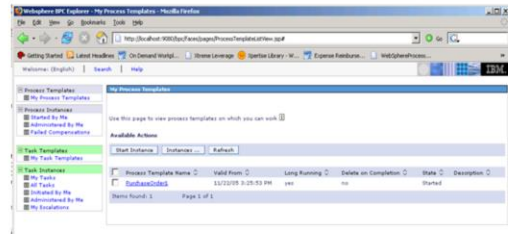
Human task modeler

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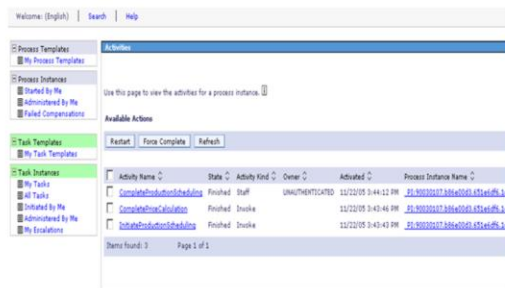
Then an IT person can assemble the endpoints and create a mapping in WebSphere Integration Developer.

Step 6: Debug, test and deploy the solution

- Test and debug in WebSphere Integration Developer
 - ▶ Integrated test client
 - ▶ BPC Explorer
- Operational concept: development, test and production environment



Process template list



Work list

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Also the internal test environment of WebSphere Integration Developer can be leveraged to test this process.

ARIS2WebSphere key benefits

- Investment protection – ability to re-use existing process models
- Exploit existing skill in ARIS (of a very resistant non-technical community)
- Provides choice and flexibility and avoids vendor lock-in: standards-based (Web Services, BPEL)
- Business-IT alignment combining two leading technologies for modeling and running processes
- Very high degree of business process information exploited by WebSphere Process Server
 - ▶ Data structures and services specification
 - ▶ Flow routing conditions (switches, loops)
 - ▶ Organization types assignment to human tasks potential owners
- Clean separation between business process and orchestrated services by means of SCA
 - ▶ Making easier repetitive change management (life cycle: from Business to IT)

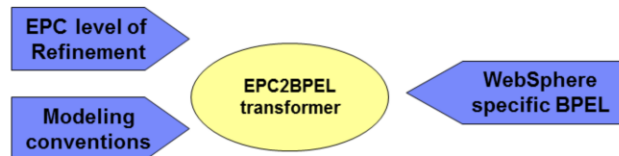
As you have seen the technical steps are done.

But the business benefits are visible: you can preserve your investment in ARIS knowledge.

All content that is already generated in ARIS can be run, and the roles and tools of business process and service implementation are visible and separated.

Considerations and open issues

- Existing business process modeling in ARIS for documentation purposes rather for IT implementation
- Adapt the EPC2BPEL transformer to customer specific modeling conventions



- Missing bi-directional bridge between business (EPC) and IT (BPEL)
 - ▶ different audience and objectives for each tool
 - ▶ different meta models
 - ▶ different granularity of processes between business and IT model
 - ▶ adaptation to specific functionality of the process engine
 - ▶ **Organizational issues about process ownership and responsibility: best practices still being discovered**
- Business Monitoring: currently under investigation

There are still some issues to mention.

First, ARIS is often seen as documentation tool only, not as a tool used to generate usable code fragments.

Also the adoption of specific modeling conventions – like the human task from IBM – is possible but needs a little extra one-time effort.

The current transformation is one way only; a round-trip is needed to re-import the changed IT business process back into ARIS.

Summary

- ARIS2WebSphere is not a product, it is a capability, based on the standards, regarding WebSphere BPEL extensions, supported both by IBM and IDS Scheer,
- ARIS2WebSphere provides an alternative implementation of SOA-based BPM life cycle, providing WebSphere Process Server runtime for ARIS EPC business process models
 - ▶ Where the questions is about the runtime platform for ARIS business models

In the end, there are two facts that you should take away from this presentation.

ARIS2WebSphere is not a product, it is a possibility of leveraging the current standards and technical options.

Also it offers easy use of WebSphere Process Server in ARIS accounts.

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