Oracle® Application Integration Architecture Foundation Pack 11*g* Release 1 (11.1.1.2.0): Reference Process Model Guide

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Oracle Application Integration Architecture Foundation Pack 11*g* Release 1 (11.1.1.2.0): Reference Process Model Guide

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Preface

Welcome to the *Oracle Application Integration Architecture Foundation Pack: Reference Process Model Guide.*

Oracle Application Integration Architecture (AIA) provides the following guides and resources for this release:

Oracle AIA Guides

- *Oracle Application Integration Architecture Foundation Pack: Installation Guide*
- *Oracle Application Integration Architecture Foundation Pack: Getting Started with the Oracle AIA Foundation Pack and Demo*
- *Oracle Application Integration Architecture Foundation Pack: Concepts and Technologies Guide*
- *Oracle Application Integration Architecture Foundation Pack: Development Guide*
- *Oracle Application Integration Architecture Foundation Pack: Infrastructure Components and Utilities Guide*
- *Oracle Application Integration Architecture Foundation Pack: Reference Process Model Guide*
- *Oracle Application Integration Architecture Foundation Pack: Migration Guide for Foundation Pack 2.X to Foundation Pack 11gR1 (11.1.1.2.0)*

Additional Resources

The following resources are also available:

Resource	Location
Oracle Application Integration Architecture Foundation Pack: Product-to-Guide Index	My Oracle Support: https://support.oracle.com/
Known Issues and Workarounds	My Oracle Support: https://support.oracle.com/
Release Notes	Oracle Technology Network: http://www.oracle.com/technology/
Documentation updates	My Oracle Support: https://support.oracle.com/

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1. Introduction

This document discusses the AIA Reference Process Models delivered with an Oracle Application Integration Architecture Release. Refer to My Oracle Support note 824633.1 titled *Oracle Application Integration Architecture 2.0.1 – 11gR1x: List of Delivered Reference Process Models* for a complete list of models delivered with an AIA release.

Topics

Oracle Business Process Modeling and Analysis Overview

Modeling Approach and Methodology

Modeling Standards and Notation

Modeling Tool and Viewer

Integration with Oracle Enterprise Repository

Authoritative and Guiding Sources for Industry Process Best Practices

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2. Oracle Business Process Modeling and Analysis Overview

This section discusses:

- Our understanding of Business Process Management.
- What is the challenge?
- What is the answer?
- What is a business process?

2.1. Our Understanding of Business Process Management

Business Process Management (BPM) includes a set of activities that organizations perform to either optimize their business processes or adapt them to new organizational needs.

Important elements include business process modeling and analysis (BPA), orchestration (BPEL), and business activity monitoring (BAM).

This guide focuses on the BPA element, outlines Oracle's approach and methodology, and describes the business process models delivered with an Oracle Application Integration Architecture Release.

2.2. What is the Challenge?

Coordinating business processes is not simple or linear as might be portrayed in the world of traditional task management.

Business is constantly changing, messy, unordered and chaotic; work activities and tasks have to be processed in parallel.

Coordination requires the spawning and asynchronous execution of nested tasks and parallel activities.

And it is not just tasks that occur in parallel, but decision-making, distributed computation and the movement of information within the company and across the value chain.

2.3. What is the Answer?

The best way to understand how your business is running is to understand your processes.

The first step in doing that is to model your business processes.

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Oracle has created and delivered business process models for those processes supported by Oracle Application Integration Architecture Releases. These business process models will enable you to see and understand how Oracle Application Integration Architecture provides application integration solutions for your business processes.

2.4. What is a Business Process?

A business process is a set of coordinated tasks and activities, involving both human and system interactions, that will lead to accomplishing a set of specific organizational goals. Characteristics of business processes include the following:

- Large, complex, long running
- Widely distributed and customized
- Dynamic
- Automated
- Both business and technical in nature
- Cross boundaries within and between businesses
- Dependent on and supportive of human intelligence and judgment
- Difficult to recognize

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3. Modeling Approach and Methodology

This section discusses:

- Oracle's Approach to Business Process Modeling and Analysis (BPA)
- Methodology and Organization

3.1. Oracle's Approach to Business Process Modeling and Analysis (BPA)

We combine the business view of the business analyst with a glimpse of the technical view of the technical analyst. We use a standard modeling method and add technical artifacts to the models at the lowest level of decomposition.

3.2. Methodology and Organization

We use accepted standard modeling methods and notation and add Oracle-specific information on the most detailed level of the models. Our models:

- Use horizontal, role-based swimlane workflow modeling method based on the Rummler-Brache diagramming technique
- Are BPMN-compliant at the lowest level
- Include both human and system lanes

We have organized our model content using four levels of hierarchical decomposition as follows:

- The top three levels are conceptual
- The conceptualization of SOA services can be observed on third level
- The fourth level is implementation specific
- Process integration points and AIA artifacts appear on lowest level

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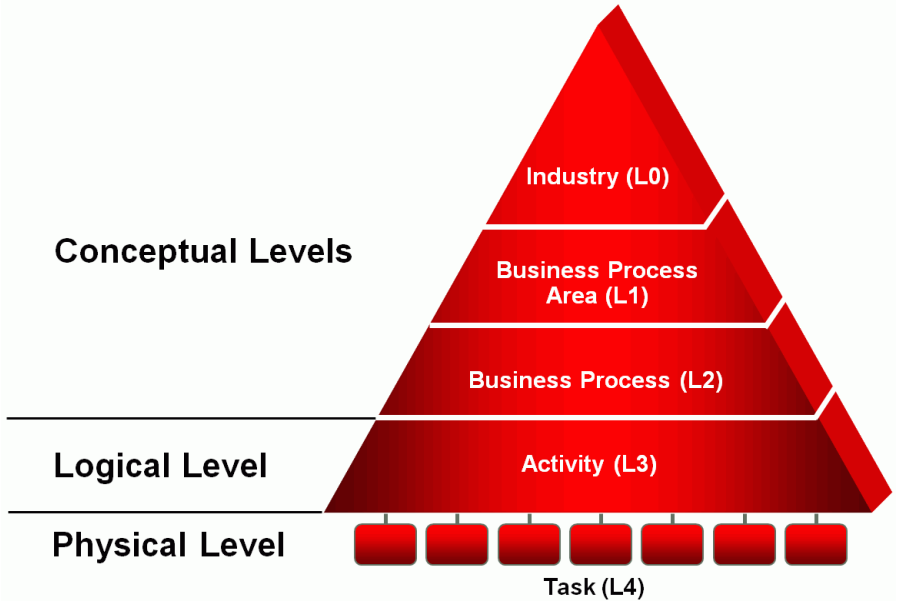

Figure 1: Hierarchical organization of model content

We have created many sets of the lowest level models that correspond to particular implementation solutions. AIA provides solutions that quilt together pieces of application functionality between two or more Oracle product families.

We have also created industry-specific variations of our models for many of the industries that Oracle supports.

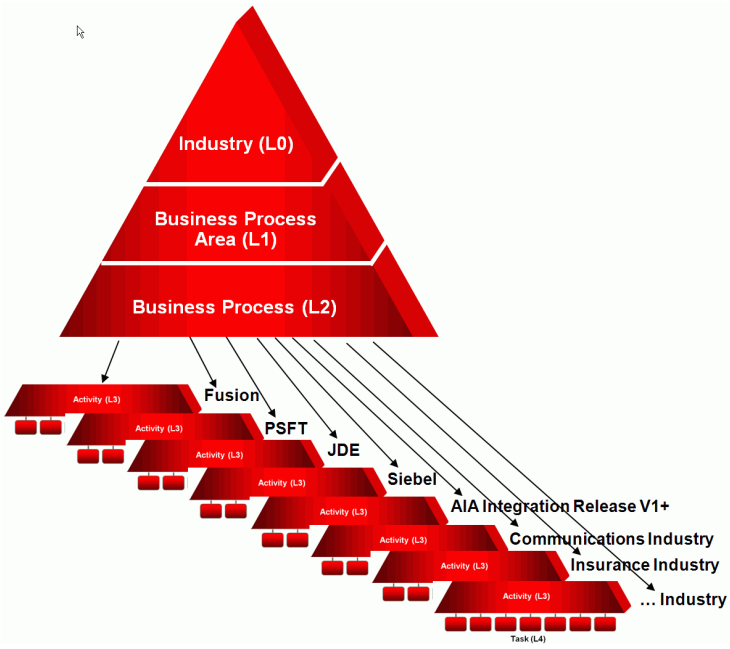

Figure 2: Multiple sets of implementation-specific models

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Model Types

We create and deliver the following types of models:

- Reference Process Models (RPMs) – Horizontal, functionally scoped business process models that depict all of the aspects of the processes supporting a particular function (Marketing, Sales, and Order Fulfillment, for example).
- Industry Reference Process Models – Industry-specific business process models that combine industry processes with relevant horizontal processes and variations of horizontal processes.
- Composite Business Flows – End-to-end processes that are comprised of parts of several functional business processes (Order to Cash, Procure to Pay, and Design to Release, for example).

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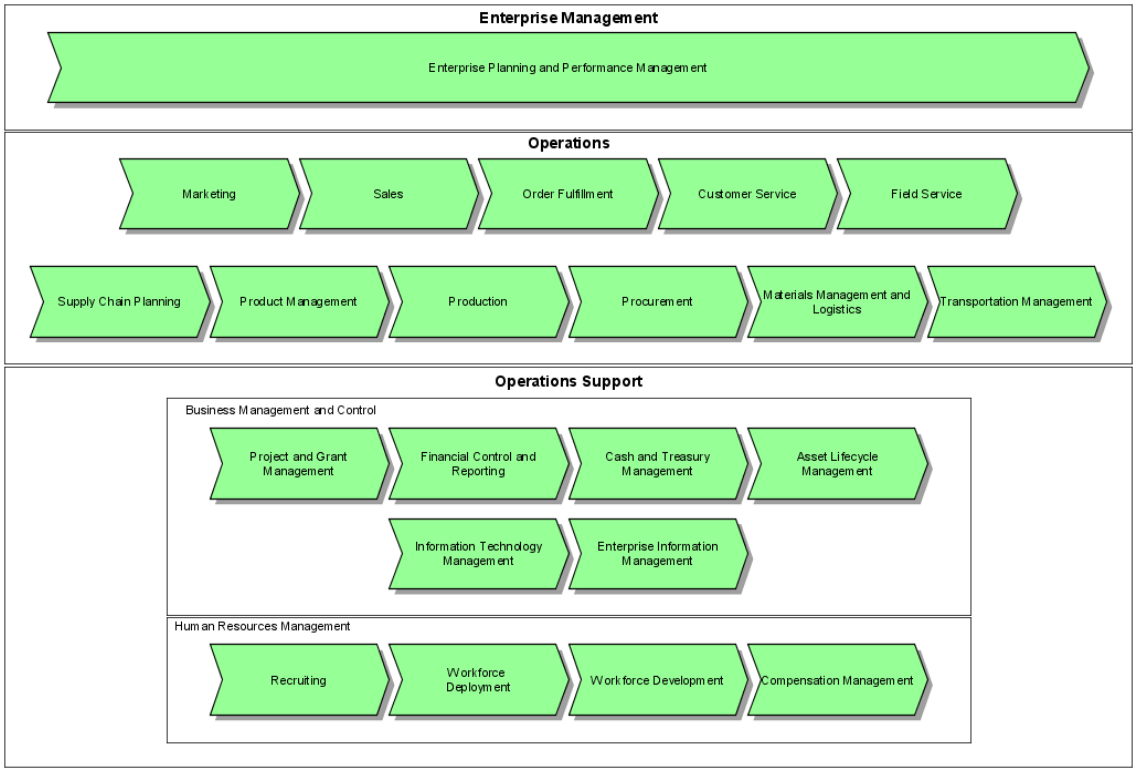
4. Modeling Standards and Notation

Following are examples of a model for each level as well as a list of the symbols and annotation used on each level.

4.1. Level 0

Sample model:



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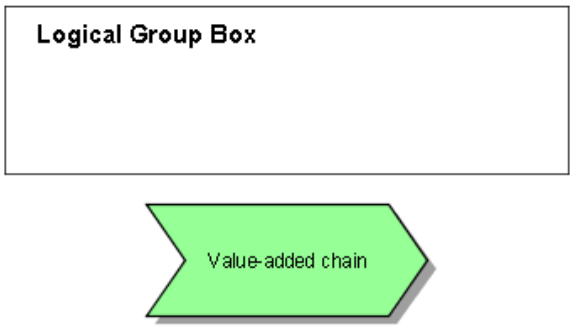
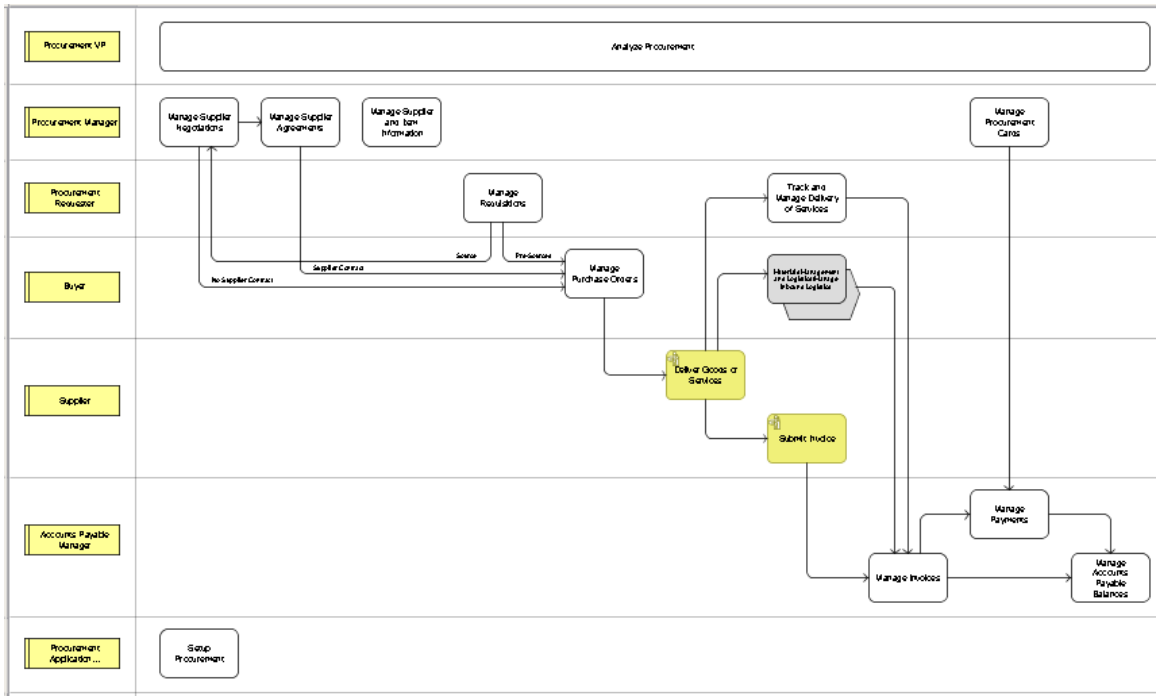
Allowable symbols:



4.2. Level 1

Sample model:



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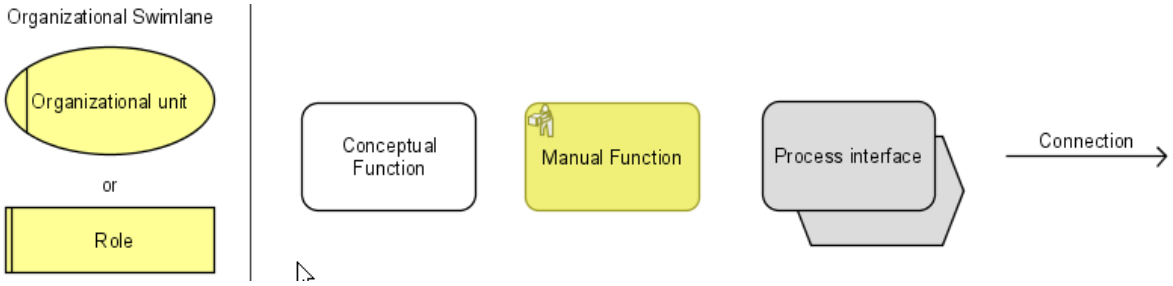
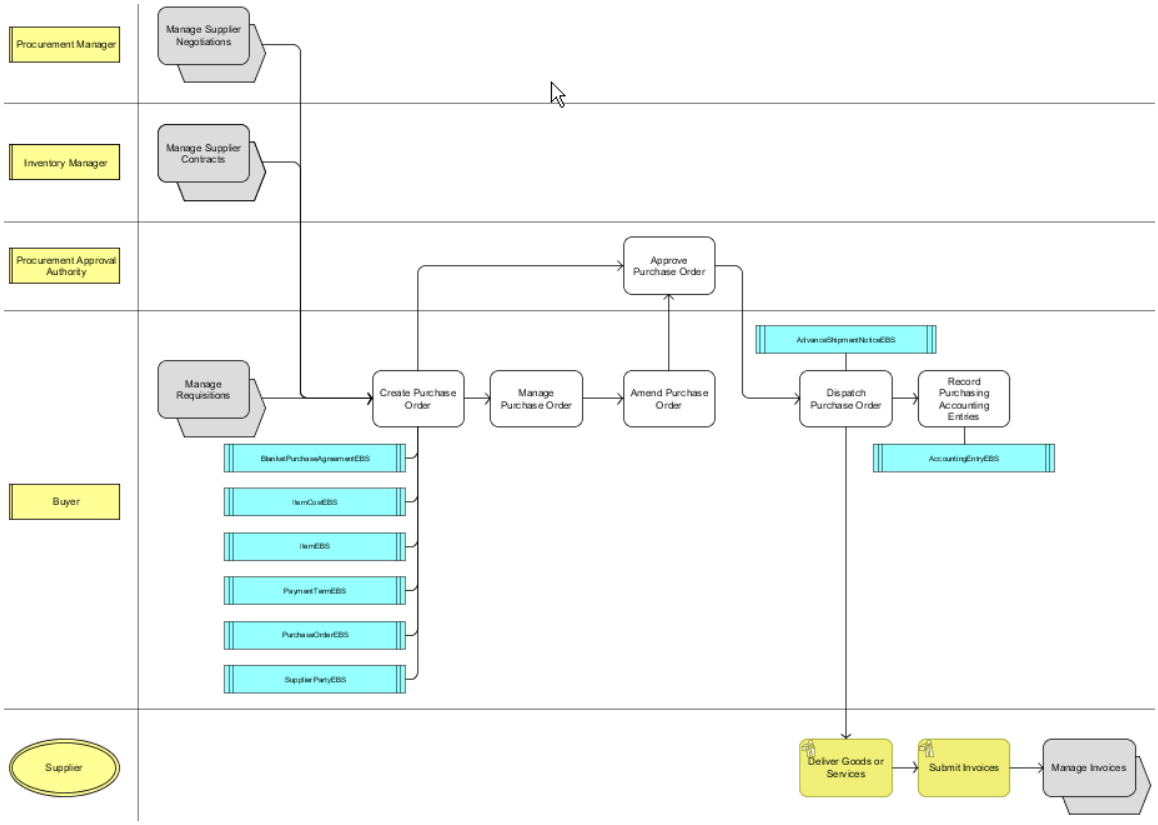
Allowable symbols:



4.3. Level 2

Sample model:



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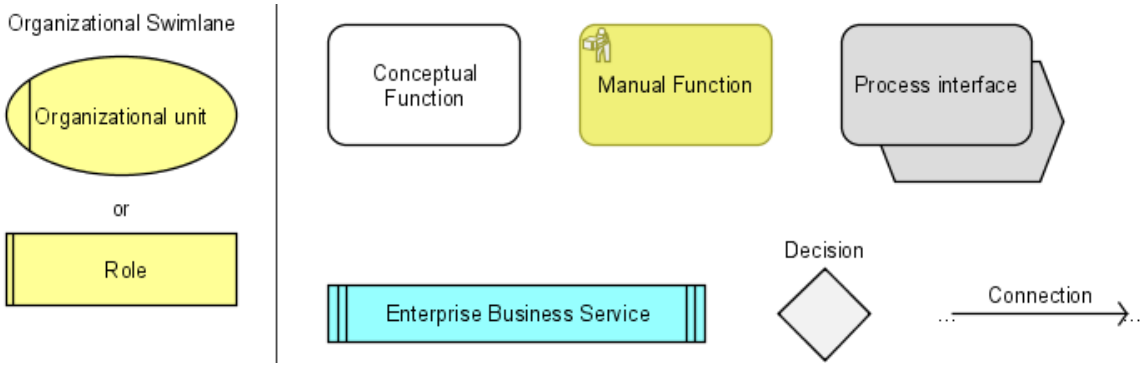
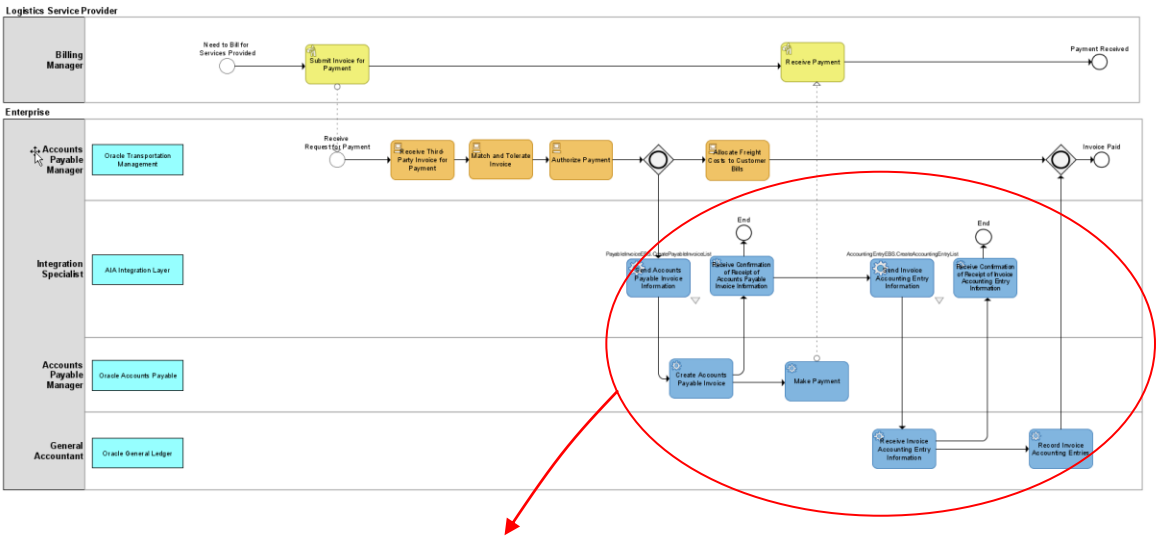
Allowable symbols:



4.4. Level 3

Sample model:



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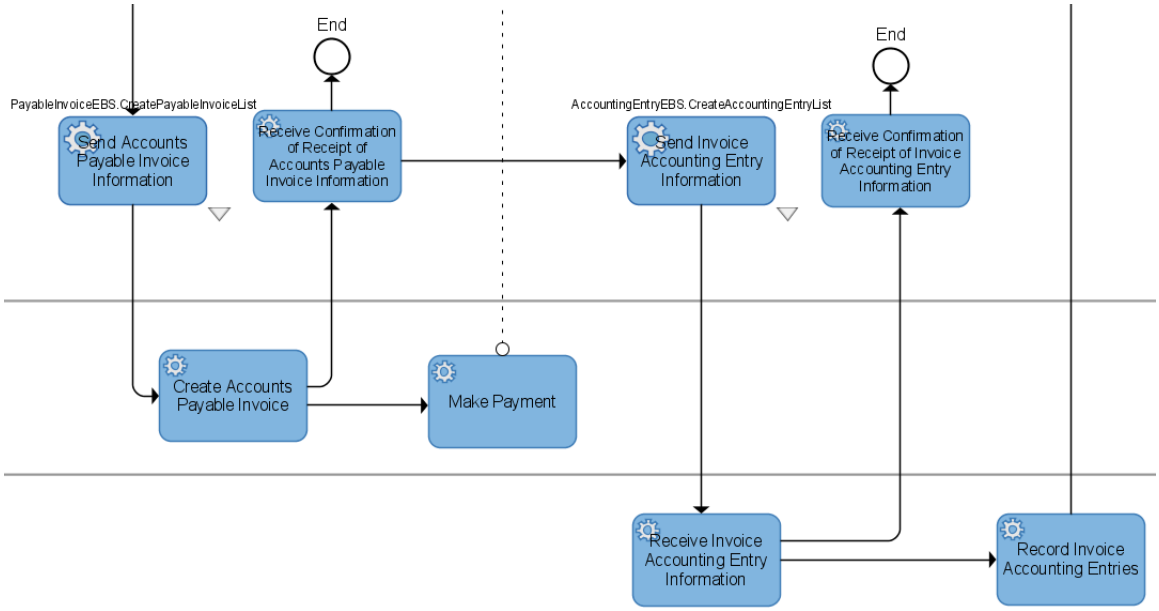
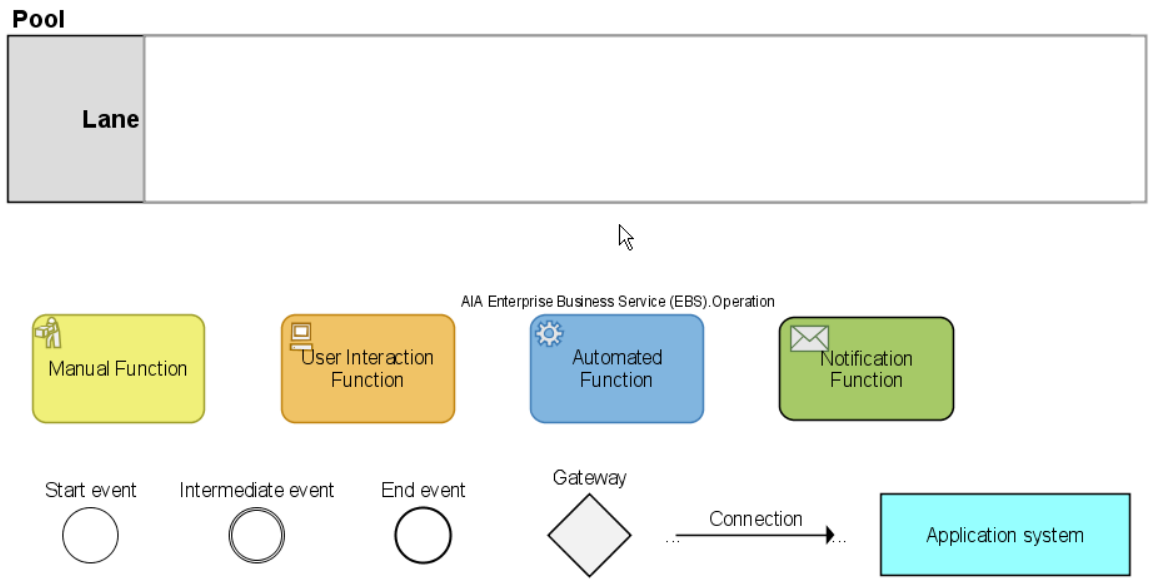


Allowable symbols:



4.5. Level 4

Level 4 is not a model level. It is the tasks that appear on the models at level 3; level 4 is the leaves at the bottom of the branch of the tree.

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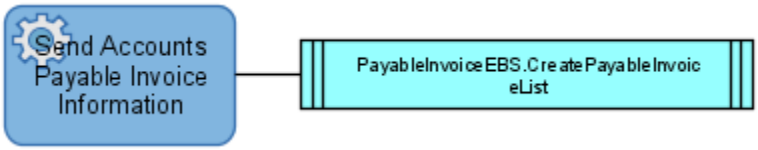
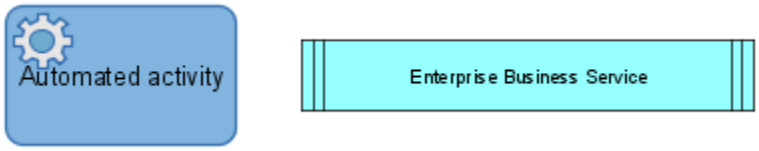
4.6. Functional Allocation Diagram

Like level 4, the Functional Allocation Diagram (FAD) is not a model level. The FAD diagram is use to depict the Enterprise Business Services and operations that are used by the Application Integration Architecture for a particular integration.

Sample diagram:



Allowable symbols:



Functional and Composite Business Process Views

Our reference process models depict functionally scoped business processes.

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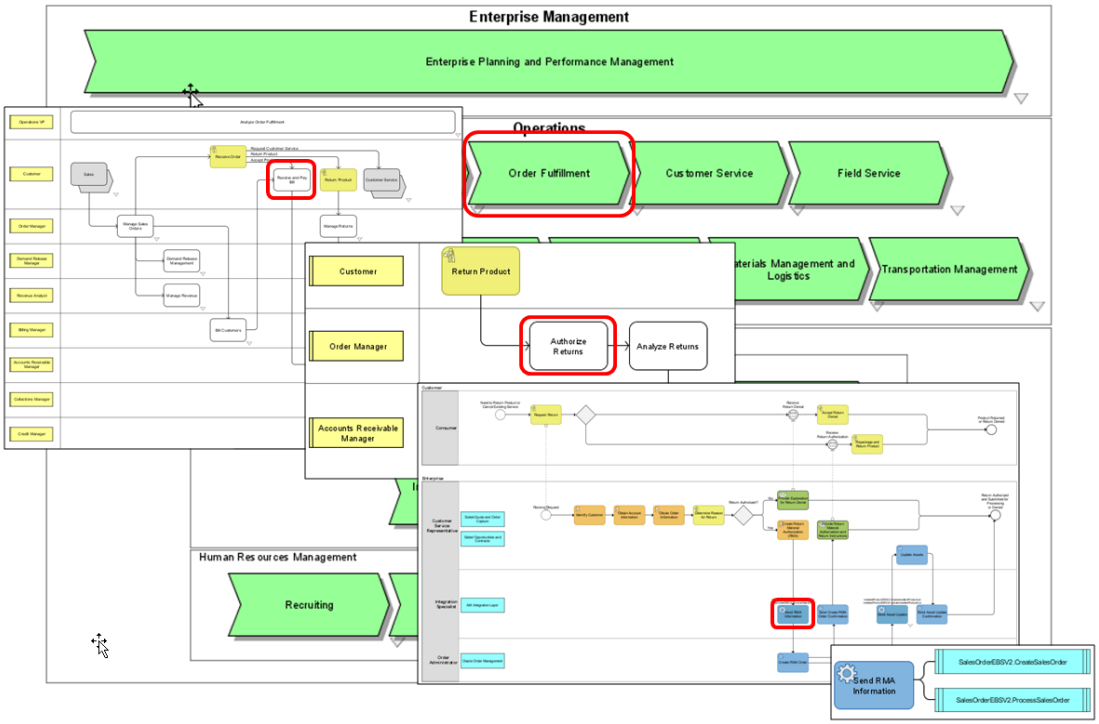

Figure 3: Functional business process view drill-down, all four levels (Order Fulfillment) and the FAD

Our composite business flows depict end-to-end processes that span portions of several functional business processes (Order to Cash, Procure to Pay, and Design to Release, for example).

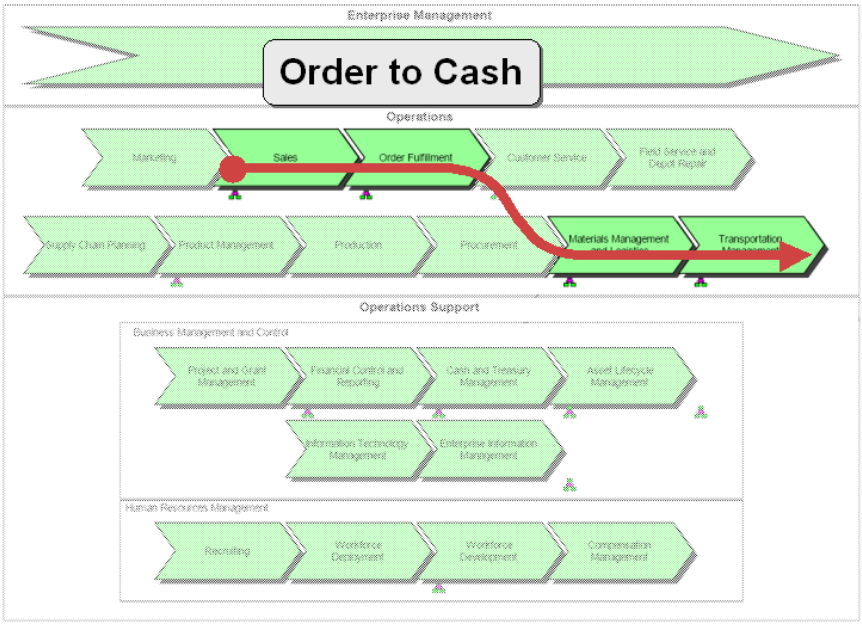

Figure 4: Composite business process view drill-down, level 0 (Order to Cash)

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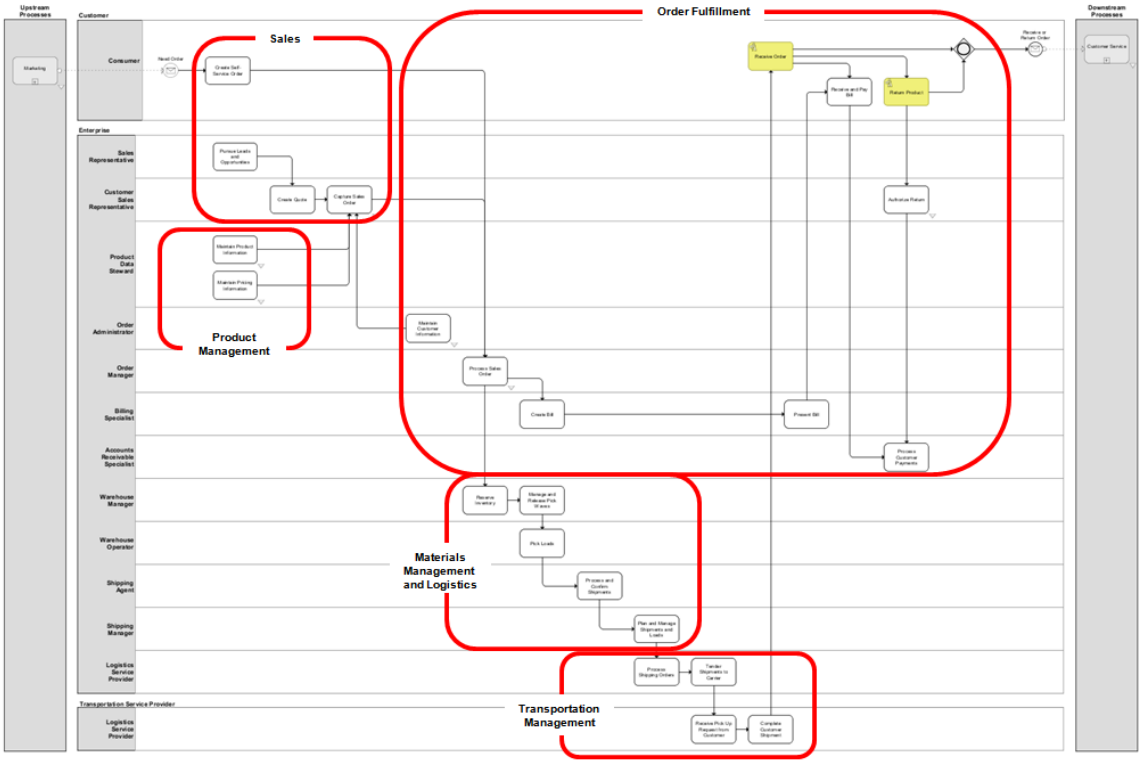

Figure 5: Composite business process view drill-down, level 1 (Order to Cash)

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5. Modeling Tool and Viewer

Our modeling tool is our own Oracle Business Process Analysis (OBPA) Suite. The components in the OBPA Suite include:

- **Business Process Architect**

  Standards-based tool for process modeling. Uses various standards-based notations and templates such as BPMN, EPC, etc.

- **Business Process Repository Server**

  Server component for sharing the process repository across multiple users in a collaborative environment

- **Business Process Simulator**

  Tool for simulating the process models based on a set of discrete events to do "what if" analysis

- **Business Process Publisher**

  Publishes process models to a large audience outside of the core team designing the process models

- **Oracle Extensions for SOA**

  Allows bi-directional integration with Oracle SOA Suite

We use the Business Process Architect and the Business Process Repository Server components to create the models. We then use the Business Process Publisher component to publish the models in HTML format. We provide the Business Process Publisher along with Oracle Application Integration Architecture release media pack for you to be able to view the published set of models. Once installed and implemented, you can allow business and technical analysts in your entire enterprise to view the models with a web browser. The published models include hyperlinks to entries in the Oracle Enterprise Repository (OER) where technical details are described for the Oracle Application Integration Architecture Release integration artifacts.

Following is a walk through the published model experience:

Logon to the Business Process Publisher:

Your implementation specialist will provide a URL to the logon page.

User name: AIA

Password: Welcome1

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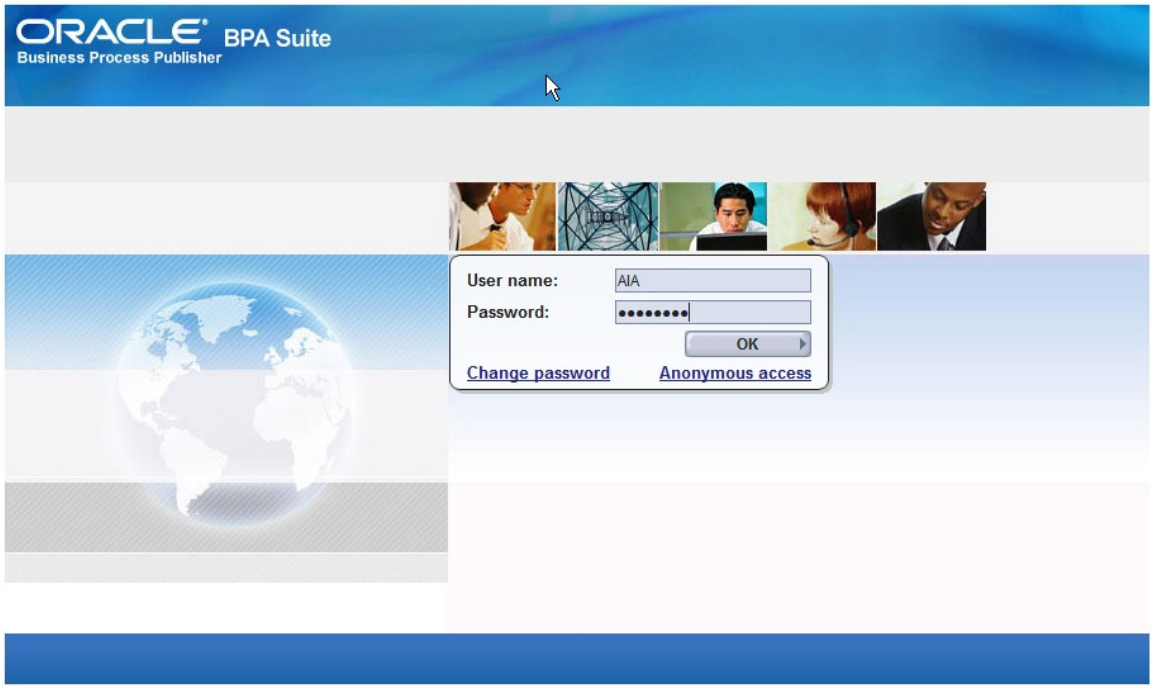

Choose a language:

Only available in English at this time.

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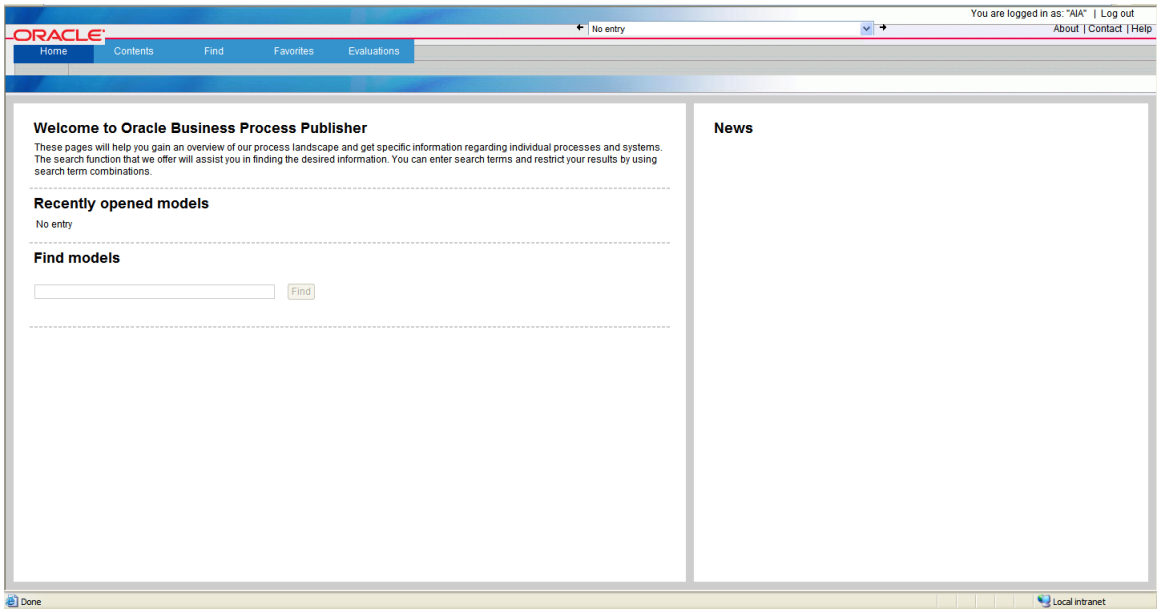
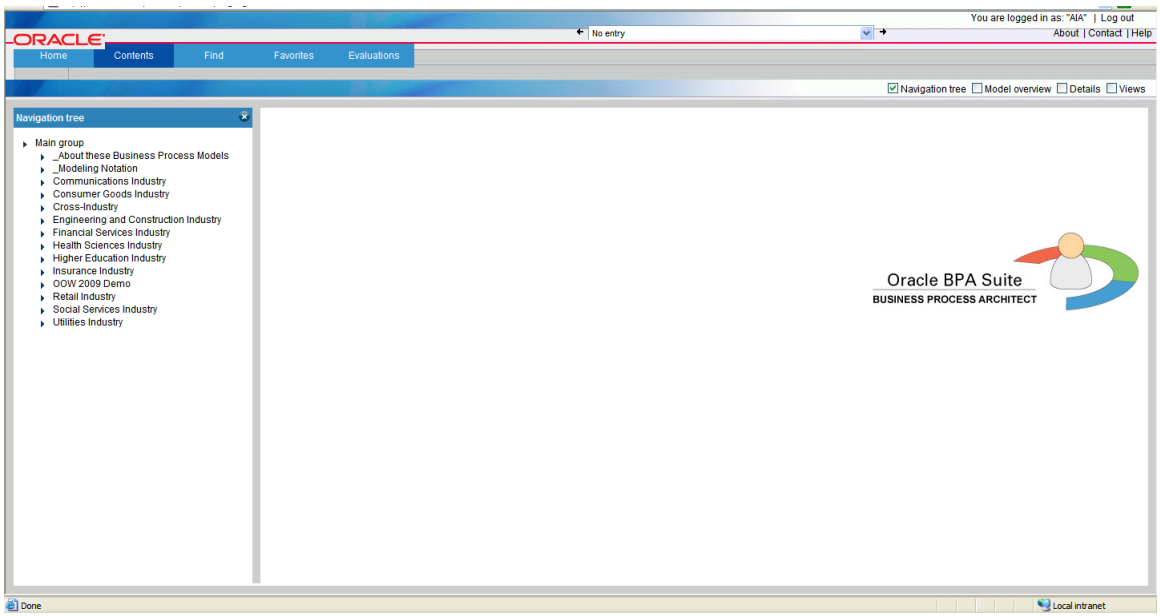
Access Business Process Publisher homepage:



Choose Contents module:



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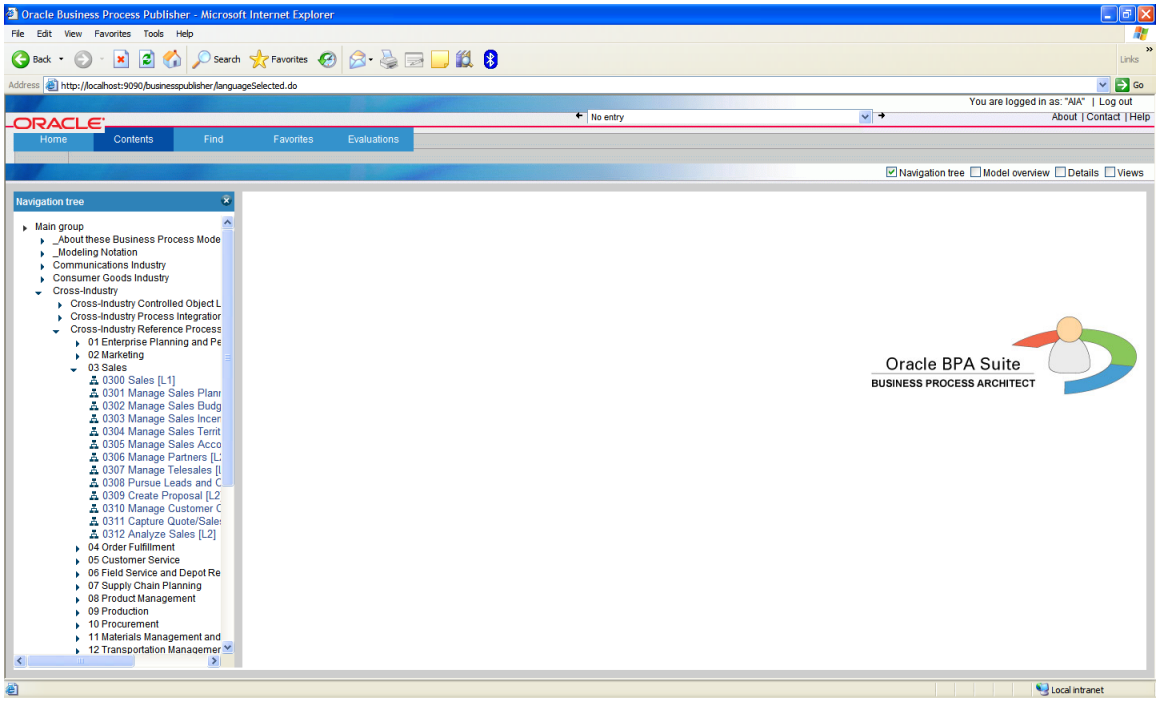
Expand groups in Navigation tree:



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Navigate to desired model and click on it:

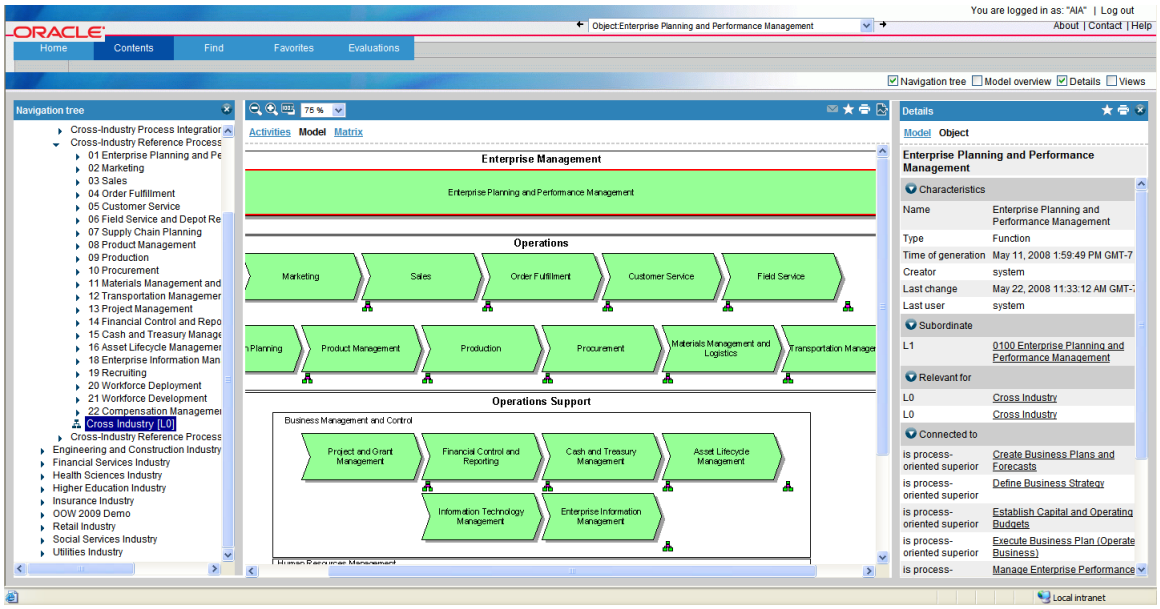
Model is displayed in model pane.

View model attributes in Model Information pane.

Use view controls

to zoom in and zoom out.

Navigate to a child model by clicking on the ‘assignment icon’ on the model , or by navigating to a model in the navigation pane.



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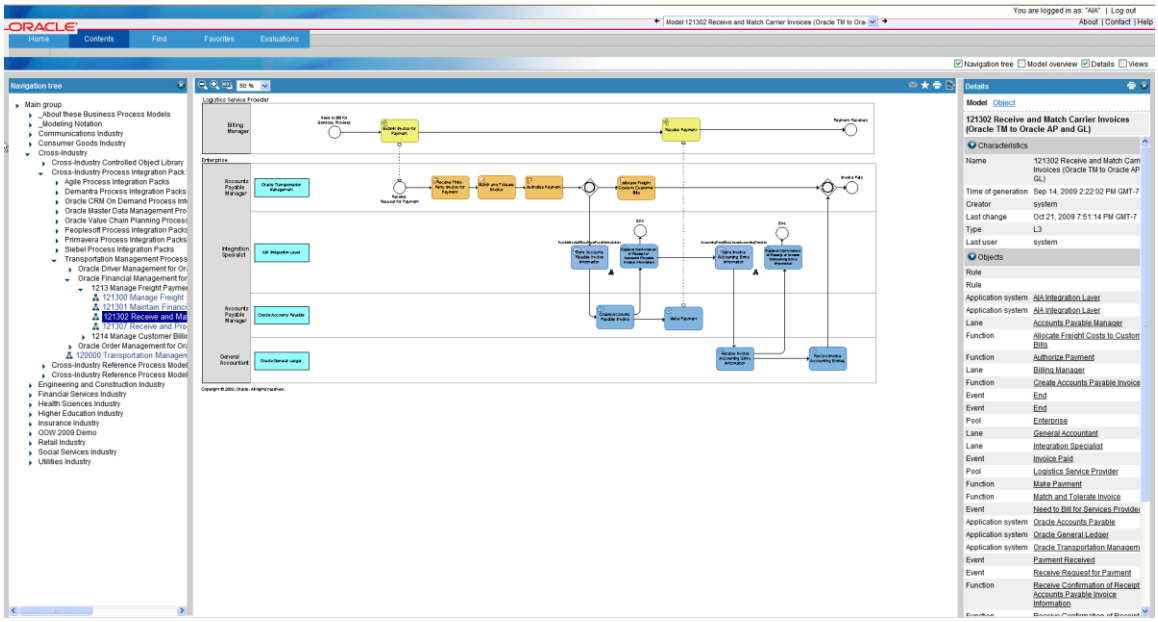
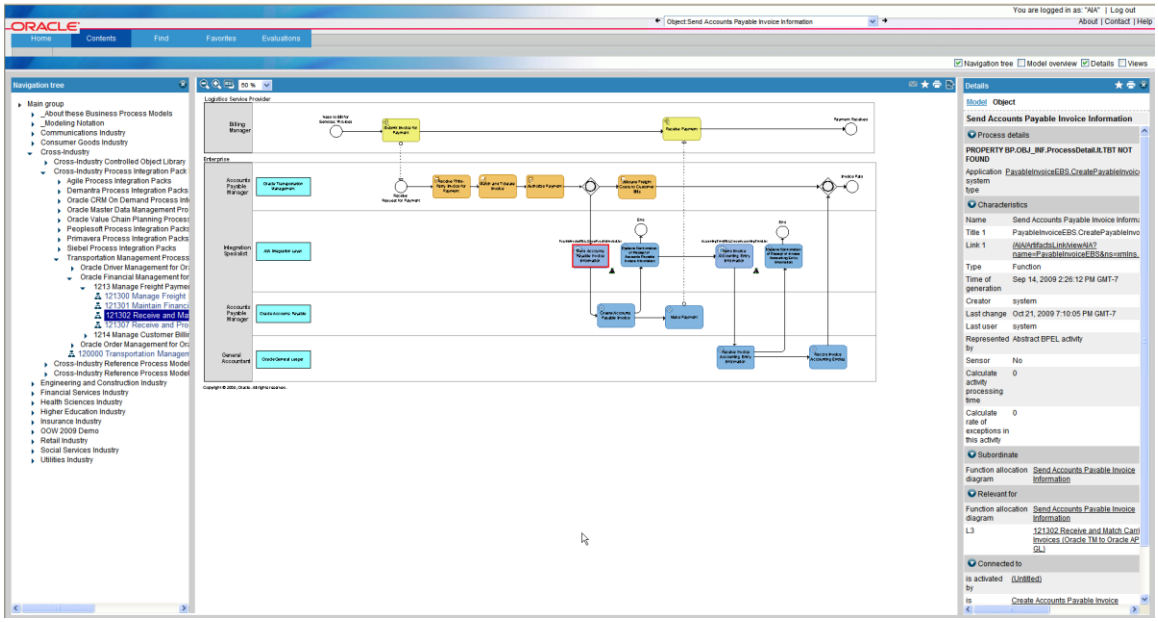
Navigate to Level 3 model:



View object attributes in Object characteristics pane:



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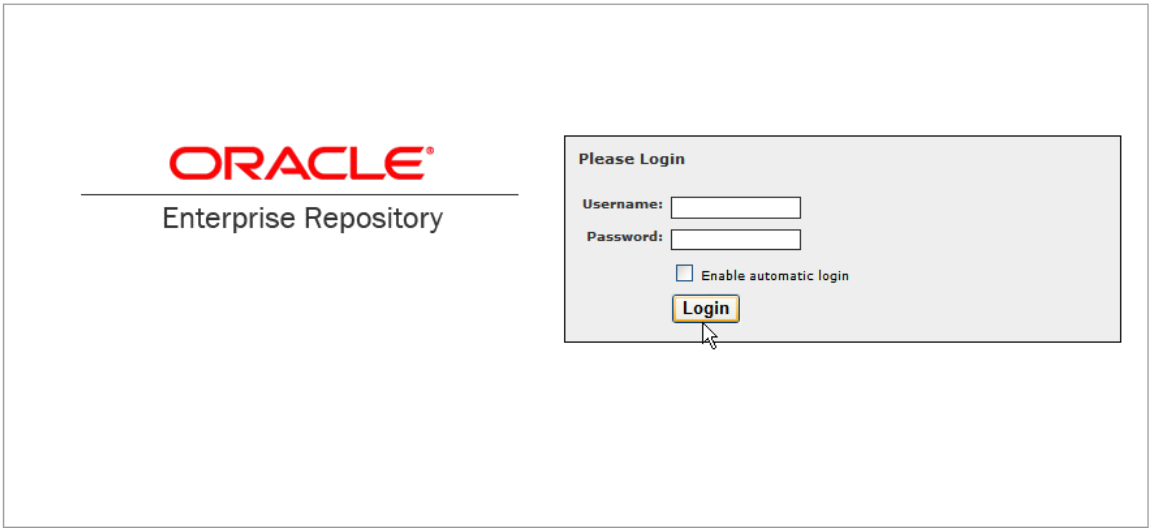
Access Oracle Enterprise Repository (OER) for AIA artifact entry.

Click on AIA artifact link.

Your implementation specialist will provide a User Name and Password for your OER implemented instance.



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6. Integration with Oracle Enterprise Repository

The Oracle Enterprise Repository (OER) is delivered with Oracle Application Integration Architecture (AIA) solutions. Our models include references to the AIA integration artifact metadata defined in OER as well as URL links to those OER entries.

Following is a sample of an AIA Enterprise Business Service artifact entry in OER.

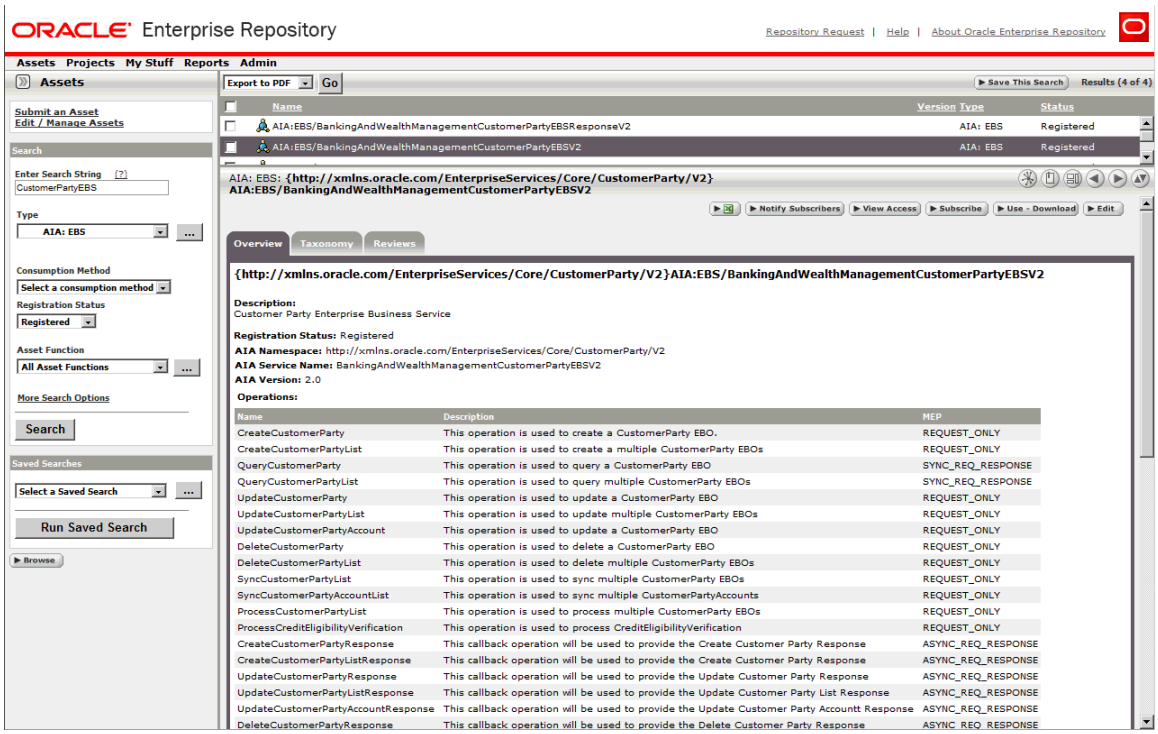

Figure 6: AIA Enterprise Business Service artifact entry in OER

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7. Authoritative and Guiding Sources for Industry Process Best Practices

The TeleManagement Forum enhanced Telecom Operations Map® (eTOM®) was used as a reference to frame the conceptual levels of the Communications business process models.

We continue to determine current external best practice and governing sources and use them as references to frame and influence our business process models, including:

- Supply Chain Council (SCOR)
- Value-Chain Group (VCG)
- Federal Enterprise Architecture Business Reference Model (FEA)
- Other external industry best practice sources

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