

Inside the BPMN 2.0 Specification

This poster illustrates the content and the main structure of the OMG's 508-page specification for BPMN 2.0, which is available at the following URL: www.omg.org/spec/BPMN/2.0

Scope

The primary goal of BPMN is to provide a notation that is readily understandable by all business users, from the business analysts that create the initial drafts of the processes, to the technical developers responsible for implementing the technology that will perform those processes, and finally, to the business people who will manage and monitor those processes. Thus, BPMN creates a standardized bridge for the gap between the business process design and process implementation.

Conformance

Software can claim compliance or conformance with BPMN 2.0 if and only if the software fully matches the applicable compliance points as stated in this section.

Normative References

RFC-2119: Request for comments. Precisely defines the meaning of the following keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL".

Terms and Definitions

This section is empty. See Annex C - Glossary.

Symbols

This section is empty as there are no symbols defined in this specification.

Additional Information

The section introduces the conventions used in the document. This includes (text) notational conventions and notations for schema components. Also included are designated namespace definitions. There are acknowledgements to the participating organizations, finalization task force voting members, and special acknowledgements to members of the core contributing team.

Overview

This section discusses the scope of the specification and provides a summary of the elements introduced in subsequent sections of the document.

BPMN Core Structure

This chapter introduces the BPMN core, which consist of the basic BPMN elements needed to construct business processes such as collaborations, orchestration processes and choreographies.

Collaboration

This section contains the classes used when modeling collaborations - a collection of participants shown as pools, their interactions as shown by message flows, and processes within the pools and/or choreographies between the pools.

Process

This section contains classes that are used when modeling processes that describe a sequence or flow of activities in an organization, with the objective of carrying out work. Processes can be defined at any level, from enterprise-wide processes to processes performed by a single person. Low-level processes can be grouped together to achieve a common business goal.

Choreography

This section defines Choreography Diagrams, which formalize the way business participants coordinate their interactions. The focus is not on orchestrations of the work performed within these participants, but rather on the exchange of information (messages) between these participants.

Notation and Diagrams

This section specifies the meta-model and schema for the BPMN 2.0 diagram interchange (BPMN DI), which is meant to facilitate the interchange of BPMN diagrams between tools rather than being used for internal diagram representation.

BPMN Execution Semantics

This section defines the execution semantics for orchestrations in BPMN 2.0. The purpose of this execution semantic is to describe a clear and precise understanding of the operation of executable BPMN elements.

Mapping BPMN Model to WS-BPEL

This section covers a mapping of a BPMN model to WS-BPEL, which is derived by analyzing the BPMN objects and the relationships between these objects. WS-BPEL provides a language for the specification of executable and abstract business processes.

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Exchange Formats

In practice, it is common for models to be interchanged before they are complete. This occurs frequently when doing iterative modeling, where one user first defines a high-level model, and then passes it on to another user to be completed and refined. Such "incomplete" models occur when not all mandatory attributes have been filled in, or when the cardinality lower bound of attributes and associations has not been satisfied. XML allows for the interchange of such incomplete models.

a. Changes from BPMN 1.2.2 Pages

The major notational changes include:

- The addition of a choreography diagram
- The addition of a conversation diagram
- Non-interrupting events for a process
- Event sub-processes for a process

The major technical changes include:

- A formal meta-model, as shown through the class diagrams
- Interchange formats for abstract syntax model interchange
- Interchange formats for diagram interchange
- XSLT transformations between the XML and XSD formats

b. Diagram Interchange 18 Pages

This annex provides documentation for a relevant subset of an alpha version of a Diagram Definition (DD) specification. The Diagram Definition specification provides a basis for modeling and interchanging graphical notations, specifically node and edge style diagrams as found in BPMN, UML and SysML, for example, where the notations are tied to abstract language syntaxes defined with MOF.

c. Glossary 6 Pages

This annex defines the most common terms used in the specification.