

WS-BPEL Issue 82.2 – Proposal

Last modified: October 03, 2005 – 23.00 PDT

The 82.2 subissue was raised to address the definition of a process template profile for abstract BPEL.

Below is the proposal to define this template profile based on work performed in small-group meetings:

Introduction:

A WS-BPEL abstract process based on the template profile may be created that is compatible with a design-time representation, by taking various inputs from technical analysts or other modelling languages. This template process may be provided at a later stage to process developers to complete execution details - for example, adding conditions and defining endpoints to template process for an executable completion.

Usage profile URI:

urn:oasis:names:tc:wsbpel:2.0:abstract:simple-template/YYYY/MM

Semantics:

This profile uses the common abstract BPEL base as follows:

In all cases other than the exceptions listed below, explicit opaque tokens - i.e. opaque activity, opaque attributes and opaque expression - MUST be used in order to denote where executable WS-BPEL constructs are added to produce an executable completion. Implicit omission of opaque tokens MUST NOT be used in this profile - such as implicit omission of an attribute with or without a default value, which is consistent with the common base. For example, variables and properties used in an inbound message operation that correlates process instances to message MUST be explicitly opaque, if not specifically defined.

All start activities MUST be present in the template. This implies that NO new start activity is allowed to be added during executable completion. An <exit> activity MAY be used.

Exceptions:

Explicit opacity MAY be used, but is not required in the following cases:

- **Attributes:**
 1. Adding a validate attribute within a <assign> activity.

- **Message Correlation:**
 1. Adding a correlationSet used in a message activity, where NO correlationSet is used.

- **Scope Declaration:**
 1. Adding new data and resource declaration at a scope/process, such as partnerLinks, variables and/or correlationSets.
 2. Adding a faultHandlers declaration at a scope/process.
 3. Adding terminationHandler at a scope.
 4. Adding a eventHandlers declaration at a scope/process.

- **Extensions:**
 1. Adding new general extension elements and attributes.

Extension usage:

Extension attributes and elements are generally allowed in both Abstract and Executable Processes. An example in the context of this abstract process template profile is as follows: a unique identifier attribute may be added to uniquely identify a WS-BPEL fragment which spans the lifetime of a business process in template, abstract and execution completion stages. As such, the activity to replace an "opaqueActivity" may retain the same unique identifier.

Information could be added in extensions, or by natural language documentation in the business process, to signal the intention of the designer where needed. An example in the context of this abstract process template profile is as follows: [TBA].