

# WS-BPEL Issue 82.2 – Proposal

*Last modified: September 09, 2005 – 22.00 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:**

TBD

## **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.

### **Extensions used in this profile:**

Implementation and future refinement of this template profile MAY define additional attributes from another namespace to enhance the semantics of a template-based abstract process and a resulting executable completion. For example, a unique identifier attribute may be added to uniquely identity 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.