DESCRIPTIVE AND ANALYTIC CONFORMANCE SUBCLASSES from BPMN 2.0 OMG Doc Frml/11-01-03

Descriptive Conformance Sub-Class

The **Descriptive** conformance sub-class elements are shown in Table 2.1.

Table 2.1 – Descriptive Conformance Sub-Class Elements and Attributes

Element	Attributes
participant (pool)	id, name, processRef
laneSet	id, lane with name, childLaneSet, flowElementRef
sequenceFlow (unconditional)	id, name, sourceRef, targetRef
messageFlow	id, name, sourceRef, targetRef
exclusiveGateway	id, name
parallelGateway	id, name
task (None)	id, name
userTask	id, name
serviceTask	id, name
subProcess (expanded)	id, name, flowElement
subProcess (collapsed)	id, name, flowElement
CallActivity	id, name, calledElement
DataObject	id, name
TextAnnotation	id, text
association/dataAssociation[a]	id, name, sourceRef, targetRef, associationDirection[b]
dataStoreReference	id, name, dataStoreRef
startEvent (None)	id, name
endEvent (None)	id, name
messageStartEvent	id, name, messageEventDefinition
messageEndEvent	id, name, messageEventDefinition
timerStartEvent	id, name, timerEventDefinition

terminateEndEvent	id, name, terminateEventDefinition
documentation[c]	text
Group	id, categoryRef

a. **Data Association** is ABSTRACT: **Data Input Association** and **Data Output Association** will appear in the XML serialization. These both have REQUIRED attributes[`sourceRef` and `targetRef`] which refer to `itemAwareElements`. To be consistent with the metamodel, this will require the following additional elements: `ioSpecification`, `inputSet`, `outputSet`, **Data Input**, **Data Output**. When a **BPMN** editor draws a **Data Association** to an **Activity** or **Event** it should generate this supporting invisible substructure. Otherwise, the metamodel would have to be changed to make `sourceRef` and `targetRef` optional or allow reference to non-`itemAwareElements`, e.g., **Activity** and **Event**.
b. `associationDirection` not specified for **Data Association**
c. `Documentation` is not a visible element. It is an attribute of most elements.

Analytic Conformance Sub-Class

The **Analytic** conformance sub-class contains all the elements of the **Descriptive** conformance sub-class plus the elements shown in Table 2.2.

Table 2.2 – Analytic Conformance Sub-Class Elements and Attributes

Element	Attributes
sequenceFlow (conditional)	id, name, sourceRef, targetRef, conditionExpression[a]
sequenceFlow (default)	id, name, sourceRef, targetRef, default[b]
sendTask	id, name
receiveTask	id, name
Looping Activity	standardLoopCharacteristics
MultiInstance Activity	multiInstanceLoopCharacteristics
exclusiveGateway	Add default attribute
inclusiveGateway	id, name, eventGatewayType
eventBasedGateway	id, name, eventGatewayType
Link catch/throw Intermediate Event	Id, name, linkEventDefinition
signalStartEvent	id, name, signalEventDefinition
signalEndEvent	id, name, signalEventDefinition
Catching message Intermediate Event	id, name, messageEventDefinition

Throwing message Intermediate Event	id, name, messageEventDefinition
Boundary message Intermediate Event	id, name, attachedToRef, messageEventDefinition
Non-interrupting Boundary message Intermediate Event	id, name, attachedToRef, cancelActivity=false, messageEventDefinition
Catching timer Intermediate Event	id, name, timerEventDefinition
Boundary timer Intermediate Event	id, name, attachedToRef, timerEventDefinition
Non-interrupting Boundary timer Intermediate Event	id, name, attachedToRef, cancelActivity=false, timerEventDefinition
Boundary error Intermediate Event	id, name, attachedToRef, errorEventDefinition
errorEndEvent	id, name, errorEventDefinition
Non-interrupting Boundary escalation Intermediate Event	id, name, attachedToRef, cancelActivity=false, escalationEventDefinition
Throwing escalation Intermediate Event	id, name, escalationEventDefinition
escalationEndEvent	id, name, escalationEventDefinition
Catching signal Intermediate Event	id, name, signalEventDefinition
Throwing signal Intermediate Event	id, name, signalEventDefinition
Boundary signal Intermediate Event	id, name, attachedToRef, signalEventDefinition
Non-interrupting Boundary signal Intermediate Event	id, name, attachedToRef, cancelActivity=false, signalEventDefinition
conditionalStartEvent	id, name, conditionalEventDefinition
Catching conditional Intermediate Event	id, name, conditionalEventDefinition
Boundary conditional Intermediate Event	id, name, conditionalEventDefinition
Non-interrupting Boundary conditional Intermediate Event	id, name, cancelActivity=false, conditionalEventDefinition
message[c]	id, name, add messageRef attribute to messageFlow

a. ConditionExpression, allowed only for **Sequence Flow** out of **Gateways**, MAY be null.
b. Default is an attribute of a sourceRef (exclusive or inclusive) **Gateway**.
c. Note that messageRef, an attribute of various message **Events**, is optional and not in the sub-class.