

# BPMN2 Correctness Validation Rules

The BPMN2 validation rules included in the BPMN2 Correctness validation rules suite are described in the table.

| Validation rule                                                                                                                                    | Severity |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| An Event SubProcess cannot have any incoming or outgoing Sequence Flows.                                                                           | Warning  |
| An Ad Hoc SubProcess cannot have a SubChoreography.                                                                                                | Warning  |
| An Ad Hoc SubProcess cannot have Conversations.                                                                                                    | Warning  |
| A Converging Gateway should not have more than one outgoing Sequence Flow.                                                                         | Info     |
| A Diverging Gateway should not have more than one incoming Sequence Flow.                                                                          | Info     |
| A Participant's multiplicity minimum value must be 0 for an unspecified multiplicity or $\geq 2$ when the multiplicity minimum value is specified. | Warning  |
| A Participant's multiplicity maximum value must be 0 for an unspecified multiplicity or $\geq 2$ when the multiplicity maximum value is specified. | Warning  |
| The beginning quantity of an Activity should be one (1) or greater.                                                                                | Warning  |
| The ending quantity of an Activity should be one (1) or greater.                                                                                   | Warning  |
| A Data Input cannot have an incoming Data Association.                                                                                             | Warning  |
| A Data Output cannot have an outgoing Data Association.                                                                                            | Warning  |
| A Condition cannot be specified for an outgoing Sequence Flow from a Start Event.                                                                  | Info     |
| Only Messages and Multiple Start Events can have incoming Message Flows.                                                                           | Warning  |
| Only Multiple Start Events can have multiple incoming Message Flows.                                                                               | Warning  |
| A Cancel Event can only be attached to a Transaction SubProcess boundary.                                                                          | Warning  |
| An Intermediate Boundary Event cannot have an incoming Sequence Flow.                                                                              | Warning  |
| A Compensation Boundary Event cannot have an outgoing Sequence Flow.                                                                               | Warning  |
| A Link Intermediate Event can have either an incoming or outgoing Sequence Flow. It cannot contain both.                                           | Warning  |
| A Compensation Start Event should not be used with a top-level Process.                                                                            | Info     |
| A Cancel End Event can only be used within a Transaction SubProcess.                                                                               | Warning  |
| A None Start Event cannot be used with an Event SubProcess.                                                                                        | Warning  |
| A default Sequence Flow should not have a conditionExpression.                                                                                     | Warning  |
| A Sequence Flow outgoing from an Event Gateway should not have a conditionExpression.                                                              | Info     |
| A Non-Interrupting Start Event can only be used inside an Event SubProcess.                                                                        | Warning  |
| A CallActivity cannot be displayed in the Choreography Diagram.                                                                                    | Error    |
| A CallChoreography cannot be displayed in the BPMN Process Diagram.                                                                                | Error    |
| A CallConversation cannot be displayed in the BPMN Process Diagram.                                                                                | Error    |
| A Conversation cannot be displayed in the BPMN Process Diagram.                                                                                    | Error    |
| A SubChoreography cannot be displayed in the BPMN Process Diagram.                                                                                 | Error    |
| A SubConversation cannot be displayed in the BPMN Process Diagram.                                                                                 | Error    |
| A SubProcess cannot be displayed in the Choreography Diagram.                                                                                      | Error    |
| A Task cannot be displayed in the Choreography Diagram.                                                                                            | Error    |
| A Data Association should not be connected between Data Object and Gateway.                                                                        | Warning  |
| A ChoreographyTask cannot be displayed in the BPMN Process Diagram.                                                                                | Error    |

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|--------------------------------------------------------------------|---------|
| A Compensation Activity cannot have any incoming Sequence Flows.   | Warning |
| An Escalation Start Event cannot be used with a top-level Process. | Error   |
| An Error Start Event cannot be used with a top-level Process.      | Info    |