

# BPMN Import

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# BPMN IMPORT OVERVIEW

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The Business Process Modeling and Notation (BPMN) is a graphical representation for specifying processes. This design can be serialized into an xml file that supports the BPMN objects and diagrams. Each process is serialized into a bpmn file.

The MEGA BPMN import aims at importing workflow definitions from BPMN files so that workflows modeled in other BPMN modeling tools or workflow engines can be used by MEGA.

## Prerequisites

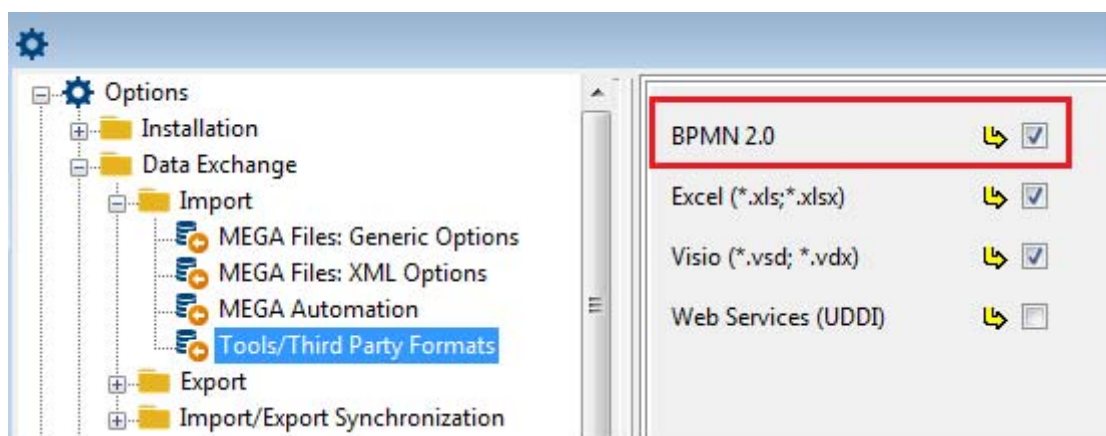
The BPMN import feature is available with **MEGA Process BPMN and MEGA System BluePrint**, and supports BPMN version 2.0.

## Source BPMN Tools

It should be possible to import BPMN data and diagrams from Tibco, Bonita, Yaoqiang BPMN, Joinwork Process and IBM BlueWorks.

## Activate/Deactivate BPMN Import

The BPMN import feature can be activated or deactivated for a user, a profile, an environment, or a site. This can be done using the corresponding option:



## Scope of BPMN Import

The purpose of BPMN import is to import a MEGA Process into a BPMN file.

The tool handles translation of BPMN processes into the one of the following process types in MEGA:

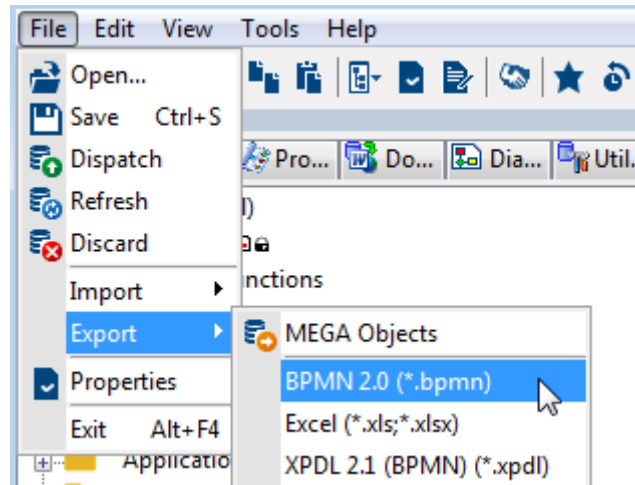
- System Processes
- Organizational Processes
- Functional Processes

The list of supported mappings is detailed below. See [Object Correspondences](#).

## Importing BPMN Files

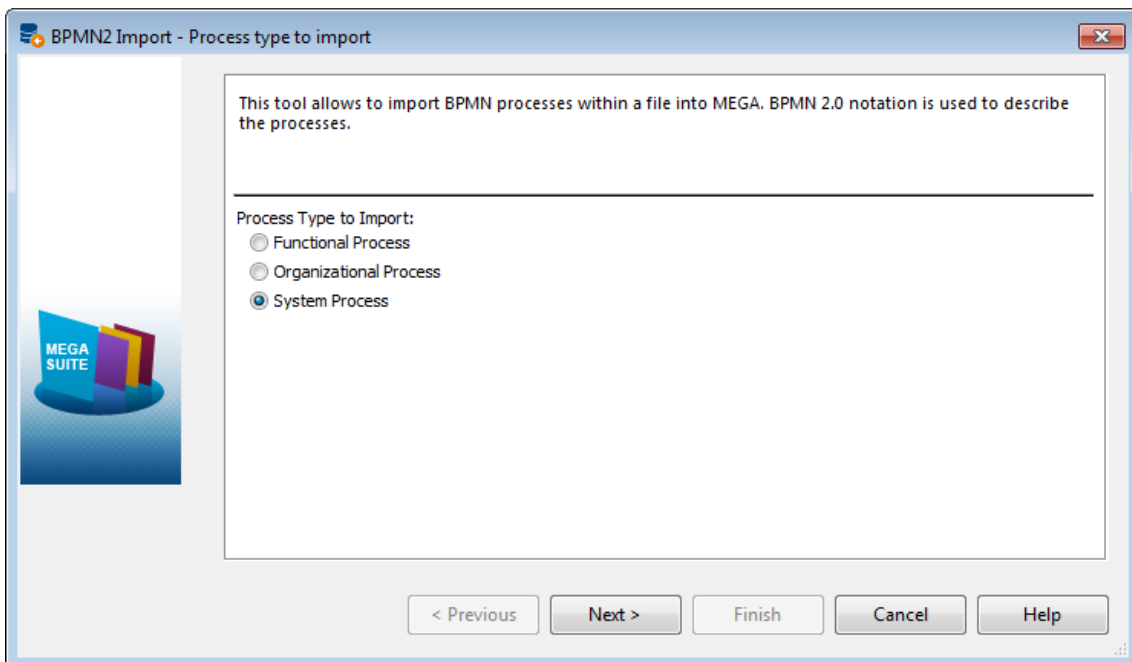
To import a BPMN file from MEGA:

1. In MEGA, select **File > Import > BPMN 2.0 (\*.bpmn)**.



The import dialog box appears.

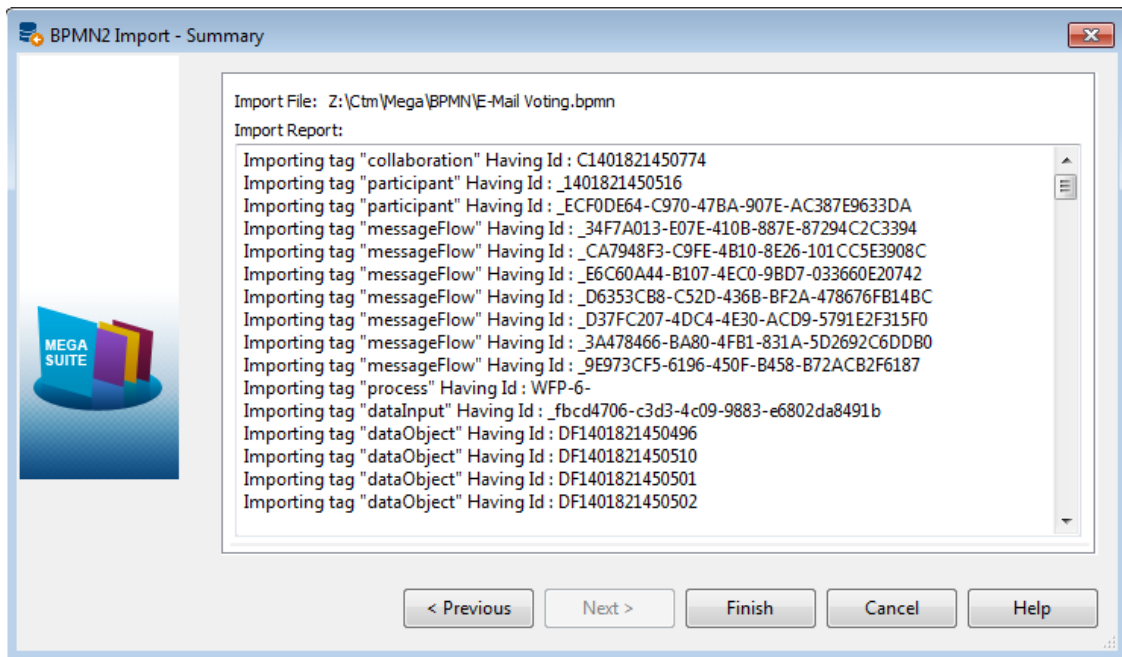
2. Select the type of object you want to import, for example System Process, and click **Next**.



Nb : System Process is the default value.

3. Specify the path of the file to be imported.
4. Click **Next**.

A window shows progression and report of the import.



5. Click **Finish**.

The diagram containing the description of the BPMN concepts opens.

# BPMN/MEGA OBJECT CORRESPONDENCE

The BPMN import feature translates a BPMN-compliant output file into a BPMN element specification in MEGA. It is based on a set of mappings between BPMN version 2.0 and the MEGA BPMN Process metamodel (including diagrams).

## Conventions

BPMN concepts relate to the following OMG Specification document: "Business Process Model and Notation (BPMN), formal/2011-01-03".

BPMN elements are delimited by <..>.

BPMN attributes are prefixed by ::.

MEGA concept names start with uppercase. Example: Task.

## Object Correspondences

The following table indicates concepts managed by the import tool:

The mapping of BPMN Processes and Tasks depends on the type of process selected in BPMN import wizard (Functional Process, Organizational Process or System Process).








































Nb: Business processes are not proposed as a target.

BPMN Concepts	MEGA Concepts
<p>↔ <b>&lt;process&gt; (if Organizational Process)</b></p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>&lt;task&gt;</p> <p>&lt;gateway&gt;</p> <p>&lt;event&gt;</p> <p>&lt;sequenceFlow&gt;</p> <p>&lt;dataObject&gt; and &lt;dataObjectReference&gt;</p> <p>&lt;messageFlow&gt;</p> <p>&lt;participant&gt; or &lt;lane&gt;</p> <p>&lt;laneSet&gt; and &lt;lane&gt;</p> <p>&lt;callActivity&gt; or &lt;subProcess&gt;</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p> <p>&lt;BPMNDiagram&gt;</p>	<p>☐ <b>Organizational Process</b></p> <ul style="list-style-type: none"> <li>☐ Short Name</li> <li>☐ _Hexaidabs</li> <li>☐ Comment</li> <li>⌘ Owned Operation</li> <li>⌘ Owned Element <ul style="list-style-type: none"> <li>☐ Gateway</li> <li>☐ Event</li> <li>☐ Sequence Flow</li> <li>☐ Data Object</li> <li>☐ Message Flow</li> <li>☐ Participant</li> </ul> </li> <li>⌘ Internal Participant</li> <li>⌘ Owned Organizational Process</li> <li>⌘ Note</li> <li>⌘ Description</li> </ul>
<p>↔ <b>&lt;task&gt; (See Table 1) (if Organizational Process)</b></p>	<p>☐ <b>Operation</b></p>

BPMN Concepts	MEGA Concepts
<p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>isForCompensation</p> <p>&lt;standardLoopCharacteristics&gt;</p> <p>&lt;loopCondition&gt;</p> <p>&lt;multiInstanceLoopCharacteristics&gt;</p> <p>calledElement</p> <p>&lt;dataInput&gt; and &lt;dataInputAssociation&gt;</p> <p>&lt;dataOutput&gt; and &lt;dataOutputAssociation&gt;</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Short Name</li> <li><input type="checkbox"/> _Hexaidabs</li> <li><input type="checkbox"/> Comment</li> <li><input type="checkbox"/> Compensation</li> <li><input type="checkbox"/> Loop</li> <li><input type="checkbox"/> Loop Condition</li> <li><input type="checkbox"/> Multiple</li> <li><input checked="" type="checkbox"/> Called Organizational Process</li> <li><input checked="" type="checkbox"/> Data Object Used</li> <li><input checked="" type="checkbox"/> Produced Data Object</li> <li><input checked="" type="checkbox"/> Note</li> </ul>
<p><b>↻ &lt;gateway&gt;</b> (See Table 2)</p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p>	<p><b>☐ Gateway</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Short Name</li> <li><input type="checkbox"/> _Hexaidabs</li> <li><input type="checkbox"/> Comment</li> <li><input checked="" type="checkbox"/> Note</li> </ul>
<p><b>↻ &lt;event&gt;</b> (See Table 3)</p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>isInterrupting or cancelActivity</p> <p>attachedToRef</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p>	<p><b>☐ Event</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Short Name</li> <li><input type="checkbox"/> _Hexaidabs</li> <li><input type="checkbox"/> Comment</li> <li><input type="checkbox"/> Interrupting</li> <li><input checked="" type="checkbox"/> Bounded Activity</li> <li><input checked="" type="checkbox"/> Note</li> </ul>
<p><b>↻ &lt;SequenceFlow&gt;</b></p> <p>id</p> <p>&lt;documentation&gt;</p> <p>&lt;conditionExpression&gt;</p> <p>sourceRef</p> <p>targetRef</p>	<p><b>☐ Sequence Flow</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> _Hexaidabs</li> <li><input type="checkbox"/> Comment</li> <li><input type="checkbox"/> Predicate</li> <li><input checked="" type="checkbox"/> Predecessor</li> <li><input checked="" type="checkbox"/> Successor</li> </ul>
<p><b>↻ &lt;dataObject&gt; and &lt;dataObjectReference&gt;</b></p> <p>name</p> <p>id</p> <p>isCollection</p> <p>&lt;dataObjectReference&gt; and &lt;documentation&gt;</p> <p>&lt;dataObjectReference::name&gt;</p>	<p><b>☐ Data Object</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Short Name</li> <li><input type="checkbox"/> _Hexaidabs</li> <li><input type="checkbox"/> Collection</li> <li><input type="checkbox"/> Comment</li> <li><input type="checkbox"/> Data Object Status</li> </ul>

BPMN Concepts	MEGA Concepts
<p>↻ <b>&lt;dataStore&gt; and &lt;dataStoreReference&gt;</b></p> <p>name</p> <p>id</p> <p>Link Input and Output to DataStore</p>	<p>☐ <b>Data Store</b></p> <ul style="list-style-type: none"> <li>☐ Short Name</li> <li>☐ _Hexaidabs</li> </ul> <p><b>Message Flow</b> into the Data Store or out of the data store</p>
<p>↻ <b>&lt;messageFlow&gt;</b></p> <p>id</p> <p>&lt;documentation&gt;</p> <p>sourceRef</p> <p>targetRef</p>	<p>☐ <b>Message Flow</b></p> <ul style="list-style-type: none"> <li>☐ _Hexaidabs</li> <li>☐ Comment</li> <li>☞ Source Element</li> <li>☞ Target Element</li> </ul>
<p>↻ <b>&lt;lane&gt;</b></p> <p>name</p> <p>id</p> <p>name</p> <p>&lt;flowNodeRef&gt;</p>	<p>☐ <b>Internal Participant</b></p> <ul style="list-style-type: none"> <li>☐ Short Name</li> <li>☐ _Hexaidabs</li> <li>☞ Assignment</li> <li>☞ BPMN Element</li> </ul>
<p>↻ <b>&lt;participant&gt;</b></p> <p>name</p> <p>id</p> <p>name</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p>	<p>☐ <b>External Participant</b></p> <ul style="list-style-type: none"> <li>☐ Short Name</li> <li>☐ _Hexaidabs</li> <li>☞ Assignment</li> <li>☞ Note</li> </ul>
<p>↻ <b>&lt;textAnnotation&gt; and &lt;association&gt;</b></p> <p>id</p> <p>&lt;text&gt;</p>	<p>☐ <b>Note</b></p> <ul style="list-style-type: none"> <li>☐ _Hexaidabs</li> <li>☐ Comment</li> </ul>
<p>↻ <b>&lt;process&gt; (if System Process)</b></p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>&lt;task&gt;</p> <p>&lt;gateway&gt;</p> <p>&lt;event&gt;</p> <p>&lt;sequenceFlow&gt;</p> <p>&lt;dataObject&gt; and &lt;dataObjectReference&gt;</p> <p>&lt;messageFlow&gt;</p> <p>&lt;participant&gt; or &lt;lane&gt;</p>	<p>☐ <b>System Process</b></p> <ul style="list-style-type: none"> <li>☐ Short Name</li> <li>☐ _Hexaidabs</li> <li>☐ Comment</li> <li>☞ Owned Task</li> <li>☞ Owned Element <ul style="list-style-type: none"> <li>☐ Gateway</li> <li>☐ Event</li> <li>☐ Sequence Flow</li> <li>☐ Data Object</li> <li>☐ Message Flow</li> <li>☐ Participant</li> </ul> </li> </ul>



BPMN Concepts	MEGA Concepts
<p>&lt;laneSet&gt; and &lt;lane&gt;</p> <p>&lt;callActivity&gt; or &lt;subProcess&gt;</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p> <p>&lt;BPMNDiagram&gt;</p>	<ul style="list-style-type: none"> <li> Internal Participant</li> <li> Owned System Process</li> <li> Note</li> <li> Description</li> </ul>
<p> <b>&lt;task&gt; (See Table 1) (if System Process)</b></p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>isForCompensation</p> <p>&lt;standardLoopCharacteristics&gt;</p> <p>&lt;loopCondition&gt;</p> <p>&lt;multiInstanceLoopCharacteristics&gt;</p> <p>calledElement</p> <p>&lt;dataInput&gt; and &lt;dataInputAssociation&gt;</p> <p>&lt;dataOutput&gt; and &lt;dataOutputAssociation&gt;</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p>	<p> <b>Task</b></p> <ul style="list-style-type: none"> <li> Short Name</li> <li> _Hexaidabs</li> <li> Comment</li> <li> Compensation</li> <li> Loop</li> <li> Loop Condition</li> <li> Multiple</li> <li> Called Organizational Process</li> <li> Data Object Used</li> <li> Produced Data Object</li> <li> Note</li> </ul>
<p> <b>&lt;process&gt; (if Functional Process)</b></p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p> <p>&lt;task&gt;</p> <p>&lt;gateway&gt;</p> <p>&lt;event&gt;</p> <p>&lt;sequenceFlow&gt;</p> <p>&lt;dataObject&gt; and &lt;dataObjectReference&gt;</p> <p>&lt;messageFlow&gt;</p> <p>&lt;participant&gt; or &lt;lane&gt;</p> <p>&lt;laneSet&gt; and &lt;lane&gt;</p> <p>&lt;callActivity&gt; or &lt;subProcess&gt;</p> <p>&lt;textAnnotation&gt; and &lt;text&gt;</p> <p>&lt;BPMNDiagram&gt;</p>	<p> <b>Functional Process</b></p> <ul style="list-style-type: none"> <li> Short Name</li> <li> _Hexaidabs</li> <li> Comment</li> <li> Owned Functional Activity</li> <li> Owned Element <ul style="list-style-type: none"> <li> Gateway</li> <li> Event</li> <li> Sequence Flow</li> <li> Data Object</li> <li> Message Flow</li> <li> Participant</li> </ul> </li> <li> Internal Participant</li> <li> Owned Functional Process</li> <li> Note</li> <li> Description</li> </ul>
<p> <b>&lt;task&gt; (See Table 1) (if Functional Process)</b></p> <p>name</p> <p>id</p> <p>&lt;documentation&gt;</p>	<p> <b>Functional Activity</b></p> <ul style="list-style-type: none"> <li> Short Name</li> <li> _Hexaidabs</li> <li> Comment</li> </ul>

BPMN Concepts	MEGA Concepts
isForCompensation <standardLoopCharacteristics> <loopCondition> <multiInstanceLoopCharacteristics> calledElement <dataInput> and <dataInputAssociation> <dataOutput> and <dataOutputAssociation> <textAnnotation> and <text>	<ul style="list-style-type: none"> <li>▣ Compensation</li> <li>▣ Loop</li> <li>▣ Loop Condition</li> <li>▣ Multiple</li> <li>🔗 Called Organizational Process</li> <li>🔗 Data Object Used</li> <li>🔗 Produced Data Object</li> <li>🔗 Note</li> </ul>

Table 1:

BPMN	Task Type
🔗 <task> <userTask> <serviceTask> <callActivity> <scriptTask> <sendTask> <receiveTask> <manualTask> <businessRuleTask>	<ul style="list-style-type: none"> <li>▣ Task Type</li> <li>▣ User</li> <li>▣ IT-Service Call</li> <li>▣ System Process Call</li> <li>▣ Script</li> <li>▣ Send</li> <li>▣ Receive</li> <li>▣ Manual</li> <li>▣ Business Rule</li> </ul>

Table 2:

BPMN	Gateway Type
<p>↻ <b>&lt;gateway&gt;</b></p> <p>&lt;inclusiveGateway&gt;</p> <p>&lt;complexGateway&gt;</p> <p>&lt;parallelGateway&gt;</p> <p>&lt;exclusiveGateway&gt;</p> <p>&lt;eventBasedGateway&gt; and ::eventGatewayType=Exclusive and ::instantiate=false</p> <p>&lt;eventBasedGateway&gt; and ::eventGatewayType=Exclusive and ::instantiate=true</p> <p>&lt;eventBasedGateway&gt; and ::eventGatewayType=Parallel and ::instantiate=true</p>	<p>☐ <b>Gateway Type</b></p> <ul style="list-style-type: none"> <li>☐ Inclusive</li> <li>☐ Complex</li> <li>☐ Parallel</li> <li>☐ Exclusive (Data)</li> <li>☐ Exclusive (Event)</li> <li>☐ Exclusive (Instantiate)</li> <li>☐ Parallel (Instantiate)</li> </ul>

Table 3:

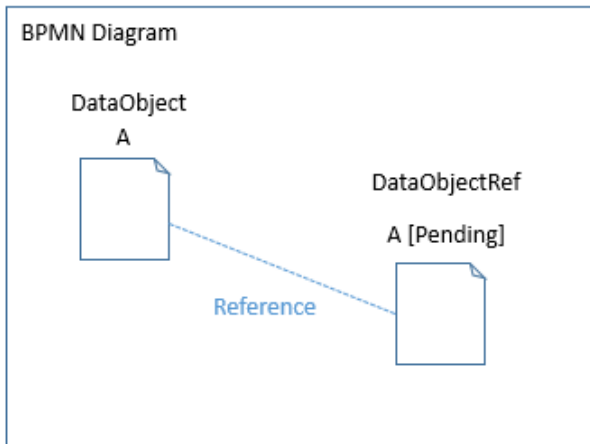
		Event Nature				Bounded Activity
		<input type="checkbox"/> Start	<input type="checkbox"/> End	<input type="checkbox"/> Throw	<input type="checkbox"/> Catch	
		<i>&lt;startEvent&gt;</i>	<i>&lt;endEvent&gt;</i>	<i>&lt;intermediateThrowEvent&gt;</i>	<i>&lt;intermediateCatchEvent&gt;</i>	<i>&lt;boundaryEvent&gt;</i>
<b>Event Type</b>	<input type="checkbox"/> <b>Generic</b>					
	<input type="checkbox"/> <b>Message</b>	<i>&lt;messageEventDefinition&gt;</i>	<i>&lt;messageEventDefinition&gt;</i>	<i>&lt;messageEventDefinition&gt;</i>	<i>&lt;messageEventDefinition&gt;</i>	<i>&lt;messageEventDefinition&gt;</i>
	<input type="checkbox"/> <b>Timer</b>	<i>&lt;timerEventDefinition&gt;</i>	*	*	<i>&lt;timerEventDefinition&gt;</i>	<i>&lt;timerEventDefinition&gt;</i>
	<input type="checkbox"/> <b>Error</b>	<i>&lt;errorEventDefinition&gt;</i>	<i>&lt;errorEventDefinition&gt;</i>	*	*	<i>&lt;errorEventDefinition&gt;</i>
	<input type="checkbox"/> <b>Cancel</b>	*	<i>&lt;cancelEventDefinition&gt;</i>	*	*	<i>&lt;cancelEventDefinition&gt;</i>
	<input type="checkbox"/> <b>Compensation</b>	<i>&lt;compensateEventDefinition&gt;</i>	<i>&lt;compensateEventDefinition&gt;</i> and <i>::waitForCompletion=true</i>	<i>&lt;compensateEventDefinition&gt;</i> and <i>::waitForCompletion=true</i>	*	<i>&lt;compensateEventDefinition&gt;</i> and <i>::waitForCompletion=true</i>
	<input type="checkbox"/> <b>Conditional</b>	<i>&lt;conditionalEventDefinition&gt;</i> and <i>&lt;condition&gt;</i>	*	*	<i>&lt;conditionalEventDefinition&gt;</i> and <i>&lt;condition&gt;</i>	<i>&lt;conditionalEventDefinition&gt;</i> and <i>&lt;condition&gt;</i>
	<input type="checkbox"/> <b>Link</b>	*	*	<i>&lt;linkEventDefinition&gt;</i>	<i>&lt;linkEventDefinition&gt;</i>	*
	<input type="checkbox"/> <b>Signal</b>	<i>&lt;signalEventDefinition&gt;</i>	<i>&lt;signalEventDefinition&gt;</i>	<i>&lt;signalEventDefinition&gt;</i>	<i>&lt;signalEventDefinition&gt;</i>	<i>&lt;signalEventDefinition&gt;</i>
	<input type="checkbox"/> <b>Terminate</b>	*	<i>&lt;terminateEventDefinition&gt;</i>	*	*	*
	<input type="checkbox"/> <b>Escalation</b>	<i>&lt;escalationEventDefinition&gt;</i>	<i>&lt;escalationEventDefinition&gt;</i>	<i>&lt;escalationEventDefinition&gt;</i>	*	<i>&lt;escalationEventDefinition&gt;</i>
	<input type="checkbox"/> <b>Parallel Multiple</b>	<i>::parallelMultiple=true</i>	*	*	<i>::parallelMultiple=true</i>	<i>::parallelMultiple=true</i>
<input type="checkbox"/> <b>Multiple</b>						

\* = Combinaison not possible

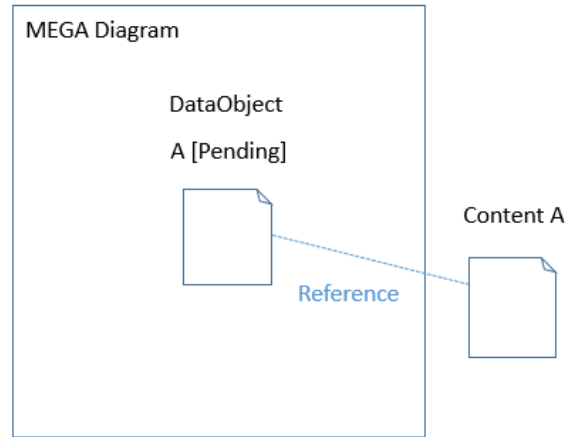
## Specific Mapping Cases

BPMN Concepts imported	Result in MEGA
Process	
One process per file	The process is described in the resulting diagram.
One process with external participants (that do not refer processes)	The process is described in the resulting diagram.
Several processes per file	A new "container" process is created in MEGA. It is the object of the resulting diagram and it contains the different processes imported.
Dataobject/Dataobjectreference (Datainput/Dataoutput)	
<i>(Reminder)</i> DataObject DataObjectReference	Content DataObject
DataObject without Reference	As a content can not be represented graphically on its own in MEGA, a DataObject is created with a content.

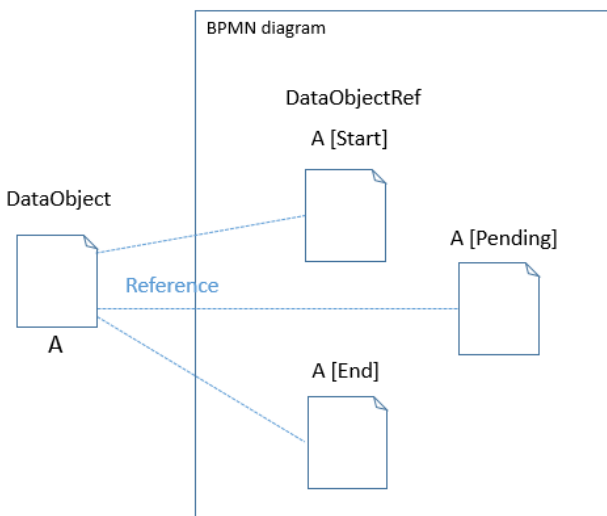
DataObjectReference + DataObject in the diagram



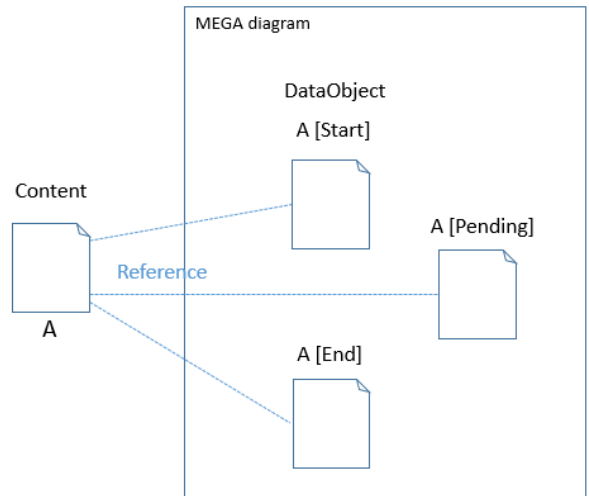
References resulting in DataObjects are represented in the diagram. The content is also created but not represented in the diagram.



DataObjectReferences in the diagram + DataObject outside the diagram



References resulting in DataObjects are represented in the diagram, with their status. A content is also created, not represented in the diagram.



Cases of DataInput/DataOutput

Links between DataInput/DataOutput and Events are not handled. Indeed, in MEGA you can not create links between DataObject and Event.

### Comments on TextAnnotations

If the "textAnnotation" tag contains a "text" tag, and if the latter contains a chain, this chain is included in the comment of the Note object. If the chain contained in the "text" tag is empty or if the "text" tag does not exist, the chain contained in the "documentation" tag, under the "textAnnotation" tag, is taken.