

BPMN 2.0 Business Process Model And Notation - Complete Element Set

Pools and Lanes



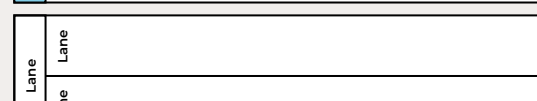
A **Pool** is used to define either a group of *Participants* such as an area within an organization or an external entity that collaborates within a process.

A process model is normally created from the perspective of a single participant – the **White Box Pool**, and contains the detail of that process. **Black Box Pools** are considered external to the scope of the process (although not necessarily outside of the organization), and do not show flow and activities. Black box pools may be collapsed and rotated, but do not have to be.

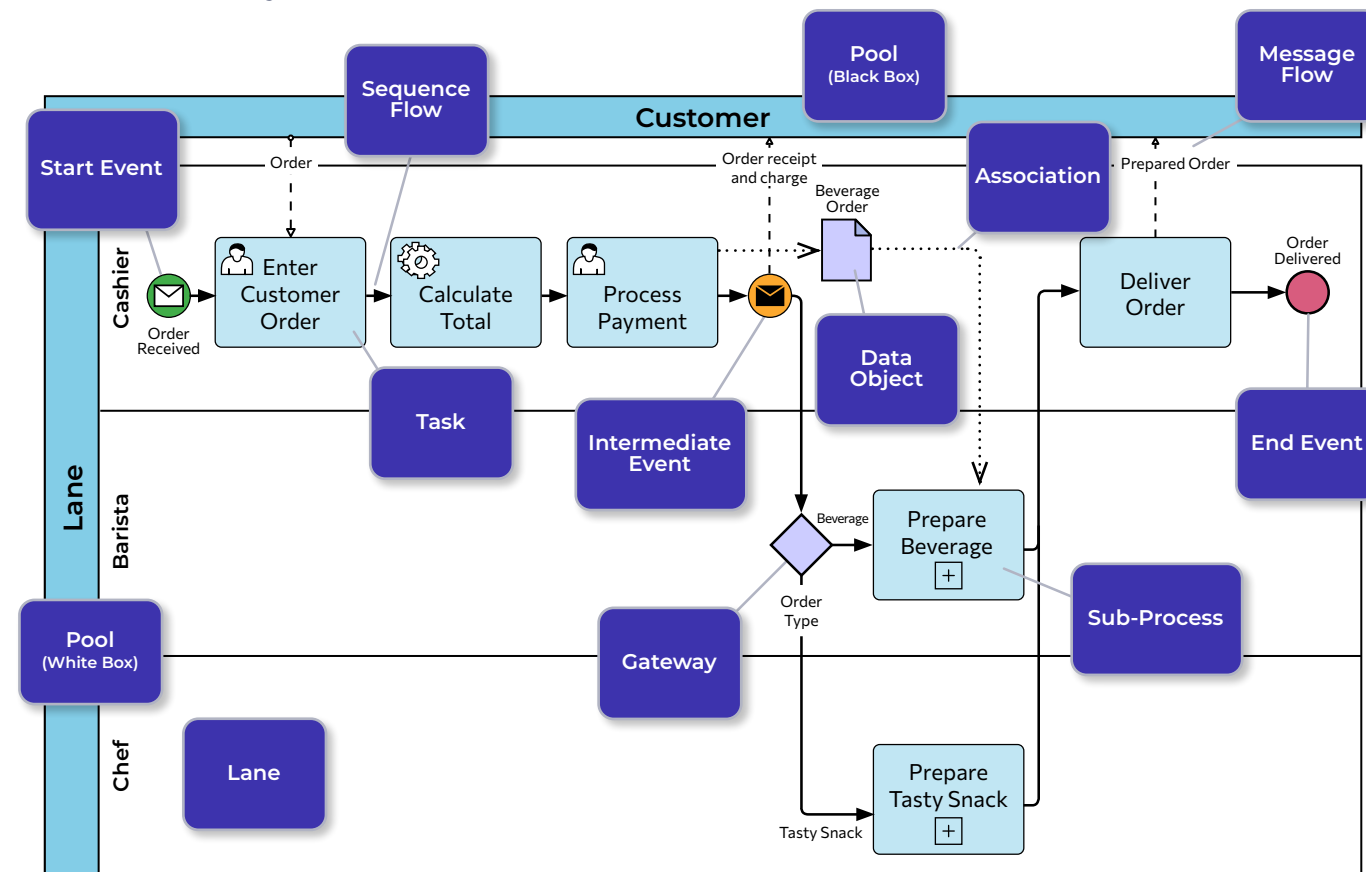


A **Lane** is used to define a specific participant or role within a process.

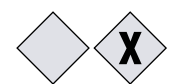
A lane may be contained within a pool or may itself be broken down into other lanes:



Core BPMN Objects



Gateways



A diverging **Exclusive Gateway** is used to create alternative paths within a Process flow. A converging Exclusive Gateway is used to merge alternative paths.



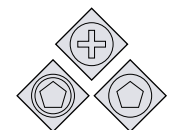
A diverging **Inclusive Gateway** can be used to create alternative but also parallel paths within a Process flow. A converging Inclusive Gateway is used to merge a combination of alternative and parallel paths.



A **Parallel Gateway** is used to synchronize parallel flows and to create parallel flows.



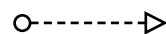
The **Complex Gateway** can be used to model complex synchronization behavior, not captured by other gateways.



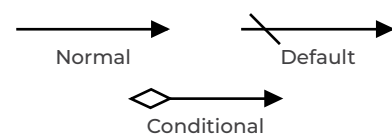
The **Event-Based Gateway** represents a branching point in the Process where the alternative paths that follow the Gateway are based on Events that occur, rather than the evaluation of Expressions using Process data (as with an Exclusive or Inclusive Gateway).

Flows

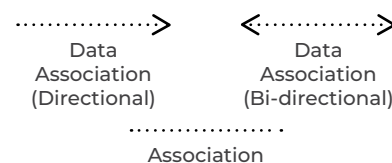
Message Flow is the flow of information as *Messages* between *Participants*.



Sequence Flow is the flow of the process between events that occur, activities performed by the lanes and decisions that are made (gateways).



Associations are used to attach artifacts (such as data objects) to activities.



Activities

Within the flow of a process, one or more lanes will perform a number of activities.

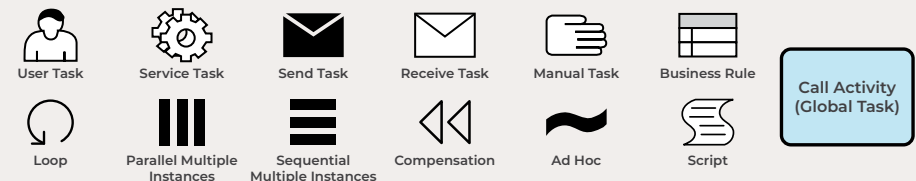


A **Task** is something that a lane (role) does during the process. A task is a granular (atomic) activity that cannot or does not need to be broken down any further.

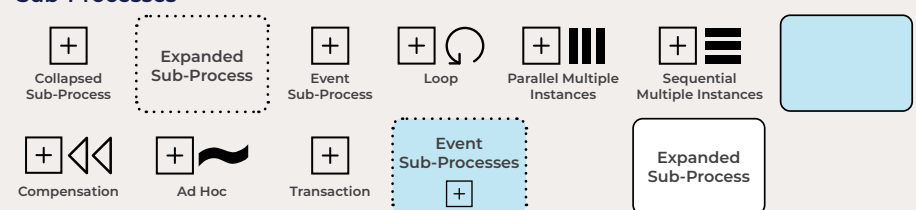


A **Sub-process** summarizes a group of activities, and can be expanded out into further detail. Sub-processes can be shown as collapsed (with the [+]) or expanded.

Tasks



Sub-Processes



Events

An Event is an indicator that something has happened within a process.

	Top Level	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Catching	Boundary Interrupting	Boundary Non-Interrupting	Throwing	End Event
None								
Message								
Timer								
Escalation								
Conditional								
Link								
Error								
Cancel								
Compensation								
Signal								
Multiple								
Parallel Multiple								
Terminate								

A process begins with a **Start Event** indicating something has happened, such as a message received or a date that has been reached.

Intermediate Events happen within the flow of the process (between the start and end events).

A process finishes with an **End Event**. Because a process may have several outcomes, there may be multiple end events.

Artifacts

Artifacts allow additional information to be provided on a process model



Data Objects are inputs to and outputs from activities. Data objects could be used to represent documents, data, or other objects that are passed between the activities in a process.



A **Data Store** is somewhere that the process can read or write data, that persists beyond the scope of the process.



A **Message** is used to depict the contents of a communication between 2 participants.



A **Group** is a visual way of informally grouping items on a diagram, for example to highlight an area that requires further analysis.



Annotations allow additional information relevant in documenting the process to be shown on the diagram.

