(Message Exchange)

Multiple

Participants Marker

denotes a set of

same kind.

Message

Participants of the

a decorator depicting

the content of the

be attached to

message. It can only

Choreography Tasks.

# **Activities**

Task

A Task is a unit of work, the job to be performed. When marked with a + symbol it indicates a **Sub-Process**, an activity that can

Transaction

A Transaction is a set of activities that logically belong together; it might follow a specified transaction protocol.

Event **Sub-Process** 

An Event Sub-Process is placed into a Process or Sub-Process. It is activated when its start event gets triggered and can interrupt the higher level process context or run in parallel (noninterrupting) depending on the start event.

Call Activity

A Call Activity is a wrapper for a globally defined Task or Process reused in the current Process. A call to a Process is marked with a + symbol.

#### **Activity Markers**

Markers indicate execution behavior of activities:

Sub-Process Marker

Loop Marker

Parallel MI Marker

Sequential MI Marker

Ad Hoc Marker

Compensation Marker

#### Task Types

Types specify the nature of the action to be performed:

Send Task

User Task

Receive Task

Manual Task

Business Rule Task

Script Task

Service Task

#### Sequence Flow

defines the execution order of activities.

is the default branch to be chosen if all other conditions evaluate to false.

**Default Flow** 

outgoing flow.

which happens first.

When splitting, it routes the sequence flow to exactly

one of the outgoing branches. When merging, it awaits

one incoming branch to complete before triggering the

Is always followed by catching events or receive tasks.

Sequence flow is routed to the subsequent event/task

When used to split the sequence flow, all outgoing

complete before triggering the outgoing flow.

branches are activated simultaneously. When merging

parallel branches it waits for all incoming branches to

has a condition assigned that defines whether or not the flow is used.

**Conditional Flow** 

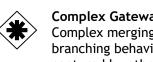
# **Gateways**

## **Exclusive Gateway**

**Event-based Gateway** 

**Parallel Gateway (+)** 

**Inclusive Gateway** When splitting, one or more branches are activated. All active incoming branches must complete before merging.



**Complex Gateway** Complex merging and branching behavior that is not captured by other gateways.

#### **Exclusive Event-based Gateway** (instantiate)

Each occurrence of a subsequent event starts a new process instance.

## Parallel Event-based Gateway (instantiate)

The occurrence of all subsequent events starts a new process instance.

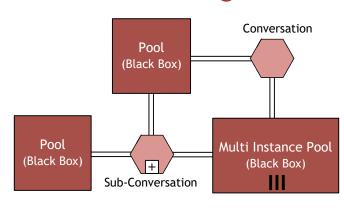
## **Conversations**

A Conversation defines a set of logically related message exchanges. When marked with a + symbol it indicates a Sub-Conversation, a compound conversation element.

A Call Conversation is a wrapper for a globally defined Conversation or Sub-Conversation. A call to a Sub-conversation is marked with a + symbol.

A Conversation Link connects Conversations and Participants.

## **Conversation Diagram**



# Choreographies

Participant A Participant A Choreography Sub-Choreography Task Participant B Participant B A Choreography Task Participant C represents an Interaction

A Sub-Choreography contains between two Participants. a refined choreography with several Interactions.

marked with a + symbol.

Participant A

Call

Choreography

Participant B

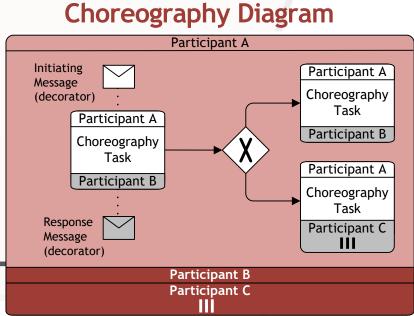
wrapper for a globally

A Call Choreography is a

defined Choreography Task

or Sub-Choreography. A call

to a Sub-Choreography is



# **Collaboration Diagram**

Task

Task

Pools (Participants) and Lanes

represent responsibilities for

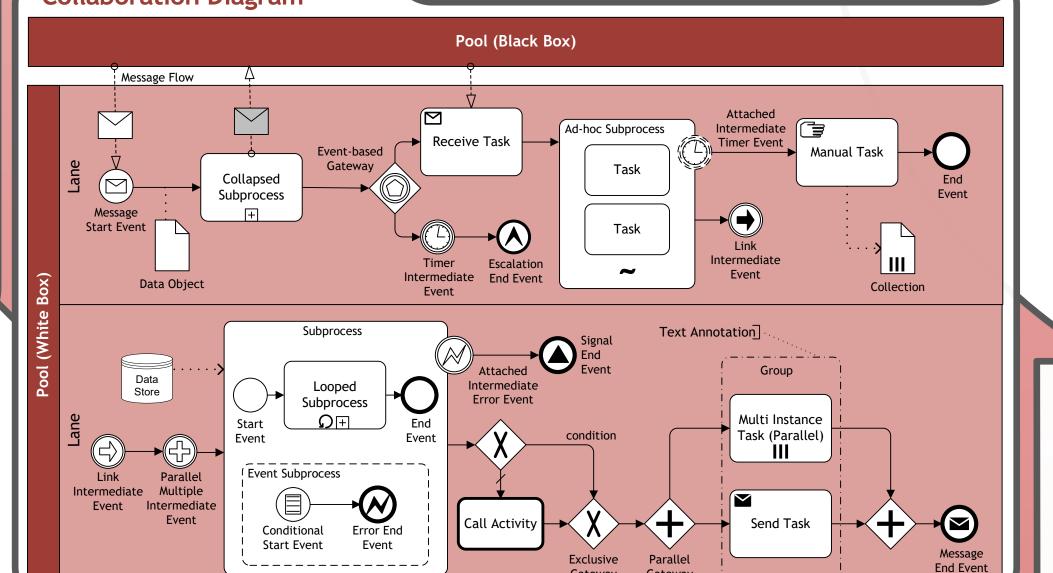
activities in a process. A pool

system. Lanes subdivide pools

or other lanes hierarchically.

organization, a role, or a

or a lane can be an



**Swimlanes** 

Message Flow symbolizes

organizational boundaries.

Message flow can be attached

message events. The Message

Flow can be decorated with

an envelope depicting the

content of the message.

information flow across

to pools, activities, or

Gateway

**-(||\_\_\_\_\_\_)** 

The order of message

specified by combining

exchanges can be

message flow and

sequence flow.

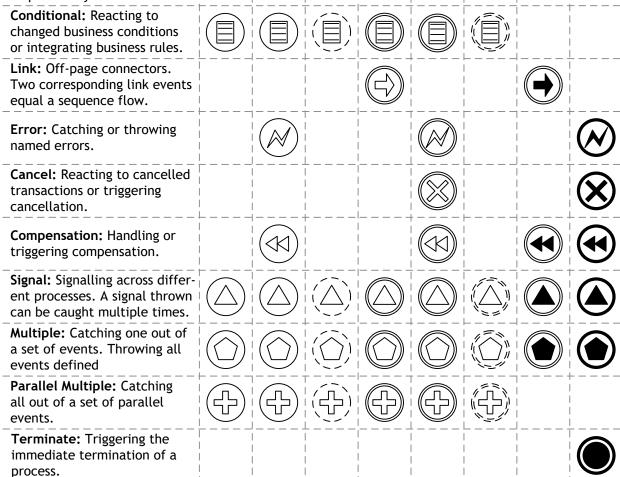
Gateway

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#### **Events** Intermediate Event Sub-Process Non-Interrupting Event Sub-Proce Interrupting None: Untyped events, indicate start point, state changes or final states. **Message:** Receiving and sending messages. **Timer:** Cyclic timer events, points in time, time spans or timeouts. **Escalation:** Escalating to an higher level of responsibility.



# Data



A **Data Object** represents information flowing through the process, such as business documents, e-mails, or letters.

collection of information, e.g., a list of order



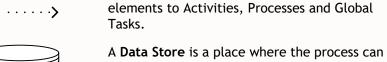
A **Data Input** is an external input for the entire process. A kind of input parameter.

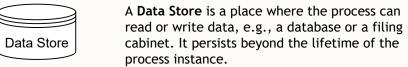
A Collection Data Object represents a



A **Data Output** is data result of the entire process. A kind of output parameter.

A **Data Association** is used to associate data









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