Three Participant Choreography

The Three Participant Choreography Pattern describes how three participants (organizations) communicate by exchanging information (messages). The Choreography diagram defines the coordination of an interaction between business participants where the focus is on the exchange of information between participating parties rather than their internal processes.

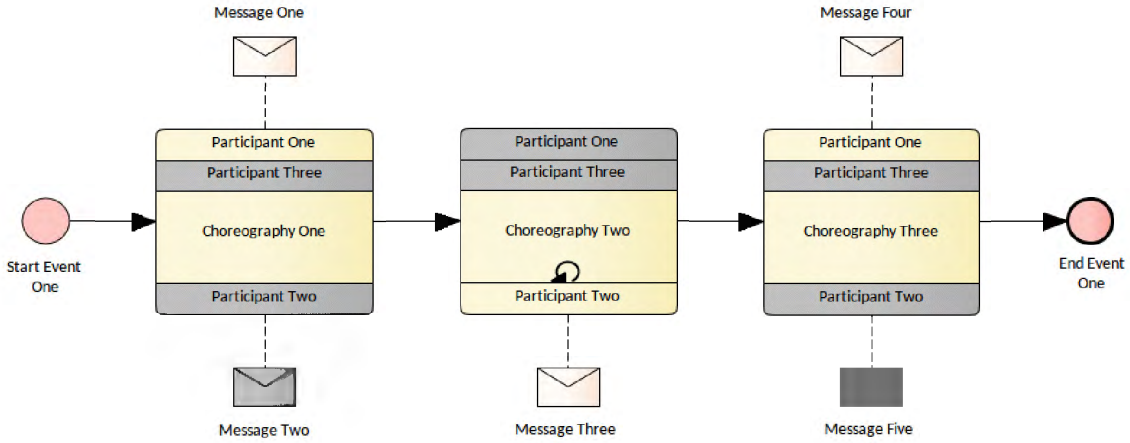

Figure 1. Shows three participants involved in three choreographies one of which has a loop marker.

Discussion

The goal is to describe how three participants interact with each other and in contradistinction to a Business Process Diagram, which focuses on what happens within a participant, this diagram focuses on the exchange of messages between the participants. The Choreography diagram helps to visualize the business contract that exists between the three participants showing who is responsible for the messages. The word choreography conjures up the sequence of movements used to describe how ballet dancers interact with each other on a stage.

The pattern is typically created early on as a way of understanding the 'contract' that exists between a number of parties involved in the interaction. It can be used for the

following purposes:

- The pattern is used when it is important to visualize the interaction and message exchange between two participants ignoring the details of how a given participant carries out (orchestrates) their work.
- It can be used to get a high level view of how two participants must interact as a useful precursor to a detailed business process diagram (orchestration) which describes the how a participant achieves its work.

The following is a list of some things you may want to do when working with this pattern.

- Rename the Package and the diagram to suit the initiative.
- Rename the items in the diagram to suit the initiative. The names of the Participants can be changed in the Tagged Values Window.
- Add notes to the Choreographies, Messages and other elements that add detail and an explanation.
- Add new Choreographies from the toolbox or Project Browser and connect them with Sequence Flows as required.
- Add new Messages to the Choreographies to reflect the messages that originate with the participants.

The following is a list of some of the next steps available when applying the pattern.

- Create documentation automatically with the document generator using built-in or user defined templates.
- Create Trace relationships between the Activities and other elements in the repository including up-process elements such as Drivers, and Goals and down-process elements such as Use Cases, User Stories, Components.
- Create a linked document to record additional information about the process or other elements in the model
- Create a Business Process Diagram that shows either a black box or a white (glass) box view that elaborates the interaction between the two participants.

Reference

The following help topic will help you learn about how to wok with this Pattern

Business Process Diagram

Business Process Toolbox Pages

Model Simulation

Run Model Simulation

Business Process Simulation (BPSim)

Working with Diagrams

Baseline Tool

Specification View

Document Window

The following are some of the tools that will be helpful when working with this pattern.

Document Generator

The Document Generator is a powerful facility in Enterprise Architect that allows a Database Engineer or other stakeholder to create high quality corporate or technical documentation directly from the model, suitable for internal or external audiences. For more details see the Documentation help topic or the more general topic on Model Publishing.

Specification View

The Specification View can be used as a way of working with any element type in a spreadsheet or word process view. It is particularly useful when there are a large number of elements as is typically the case when describing a system of any appreciable size. For more details see the Specification View help topic.

Document Window

The Document Window is a powerful tool for generating, reading and editing narrative style information for an element. There are two tabs: the Dynamic Document Tab and the Linked Document Tab. The Dynamic Document tab generates documentation automatically from element information and the Linked Document tab cab be used for reading and editing an element's linked document. For more details see the Document Window help topic.

Relationship Matrix

The Relationship Matrix provides a spreadsheet like view of two groups of elements and the relationships that exist between them. It can be a used as a powerful analysis mechanism to visually indicate how elements are related to each other and to discover which elements are missing relationships. For more details see the Relationship Matrix help topic.

Traceability Window

The Traceability Window automatically displays the relationships that exist between Use Cases and other model elements including up-process and down-process elements. The traceability tree view can be conveniently expanded to see deeper relationships and elements displayed in the window can be located in all diagrams in which they appear. For more details see the Traceability Window help topic.

BPMN Business Process Diagram

Business Process Diagrams are part of the Business Process Model and Notation (BPMN) standard and allow a modeler to document a business process, including the way the process starts, what work is performed and how it ends. Gateways and connecting lines determine the sequence of activities. Current state and Future state process models can be created and managed in Enterprise Architect. The diagrams can be organized into a process hierarchy allowing drill down from high level to lower level diagrams. BPMN is emerging as an important standard for modeling business processes and has gained much traction with business and technical communities. It can be automatically generated to the Business Process Execution Language (BPEL), which is an XML based language that can be ingested by a number of orchestration engines. For more details see the BPMN Business Process Diagram help topic.

Model Simulator

Model Simulation brings your behavioral models to life with instant, real-time behavioral model execution. Coupled with tools to manage triggers, events, guards, effects, breakpoints and simulation variables, plus the ability to visually track execution at run-time, the Simulator is a powerful means of 'watching your behavioral models in action' and verifying their correctness. With Simulation you can explore and test the dynamic behavior of models. For more details see the Model Simulation help topic.

Business Process Simulation (BPSim)

The BPSim facility provides a way of simulating processes written in Business Process Model and Notation (BPMN), providing valuable results that can be used in process

analysis. The BPMN models are augmented with extra data as parameters to the simulation. It allows structural and capacity analysis to be performed, providing for pre and post execution optimization. Enterprise Architect allows you to construct the Process models and enter the appropriate data, which is then sent to an internal or external BPSim Simulation engine. For more details see the Business Process Simulation (BPSim) help topic.

Element Discussions

The Element Discussion facility is a fully featured collaboration tool allowing modelers and model viewers and reviewers to communicate with each other directly inside the repository. Modelers using the full client or occasional viewers using WebEA can both post and reply to discussions and communicate and engage in chat. For more details see the Element Discussions help topic.

Diagram Layout

The Diagram Layout tool allows you to layout an entire diagram, selected elements or sections of a diagram to make it more visually appealing or meaningful to a particular audience. There are a wide range of layout types to choose from and some types have filters that can be applied. For more details see the Diagram Layout help topic.

Pan and Zoom

The Pan and Zoom facility is one of the tools that can be used to navigate around a large diagram. Often the resolution of a diagram must be reduced to ensure it is wholly visible but by using the Pan and Zoom window you can leave the diagram at a readable resolution and pan around to areas of interest zooming in when necessary. For more details see the Pan and Zoom help topic.

Diagram Legends

The Diagram Legend facility is useful for manually or automatically changing the appearance of elements and connectors on a diagram. A legend can be added from the Common Toolbox and configured to codify the fill and line color and line thickness. This is a powerful way to add meaning and expression to a diagram and is particularly expressive when applied automatically based on element or connector properties. It can be used with a number of specialized diagrams such as roadmaps to create a powerful visualization. For more details see the Diagram Legends help topic.

Baseline Tool

The Baseline Tool can capture a snapshot of a selected Package at a point in time and then at a later time the repository can be compared to this (or another baseline) for the

purpose of determining what has changed. Any number of baselines can be created and labeled and there is a baseline comparison tool which displays the differences between the baseline and the model and allows the modeler to revert a change in the model to a baseline at a granular level. For more details see the Baseline Tool help topic.

Linked Documents

Linked Documents provide a way of incorporating extensive and highly formatted documentation for an element. While an elements notes are a useful place to provide brief and visible information about an element a Linked Document can be used to create extensive documentation for an element including all the features you available in a typical word processing tool such as: Paragraph Formatting, Header and Footers, Table Images, Tables of contents and much more. For more details see the Linked Documents help topic.

Artifact

An Artifact can be used as a placeholder for a Financial Analysis file or web address such as a spreadsheet or document that resides external to the repository. The Artifact element can be hyper-linked to the external document allowing it to be launched from within Enterprise Architect. This provides a convenient way to reference the document inside the model for example by linking other elements such as Requirements to the document. For more details see the Artifact help topic.