

# 8 Artifacts & Data Objects

- ▷ Group
- ▷ Comment
- ▷ Association
- ▷ Data object



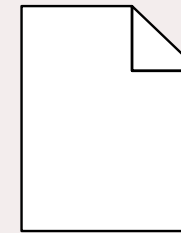
## Artifacts

Text  
Annotation

Goup

.....

Assosiation



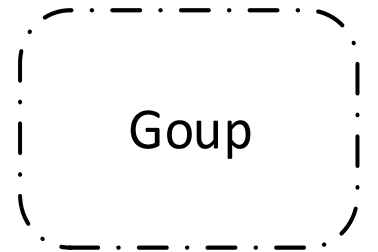
Data Object

1

Artifacts : Group

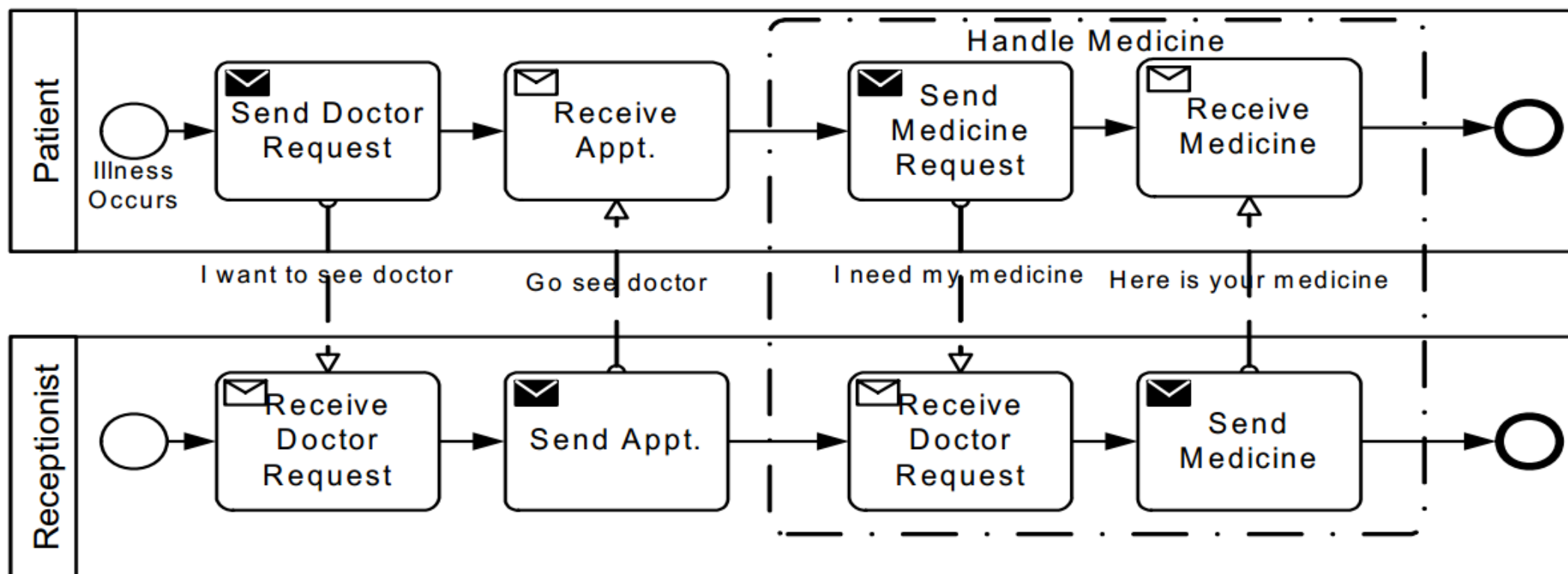
# Group

- The Group object is an Artifact that provides a visual mechanism to **group elements of a diagram informally**.
- As an Artifact, a Group is not an Activity or any Flow Object, and, therefore, **cannot connect to Sequence Flows or Message Flows**.
- Groups are **not constrained by restrictions** of Pools and Lanes , This means Group can stretch across the boundaries of a Pool to surround Diagram elements
- Use groups to better arrange your BPMN diagram and increase its usefulness to your organization.



**Group  
Notation**

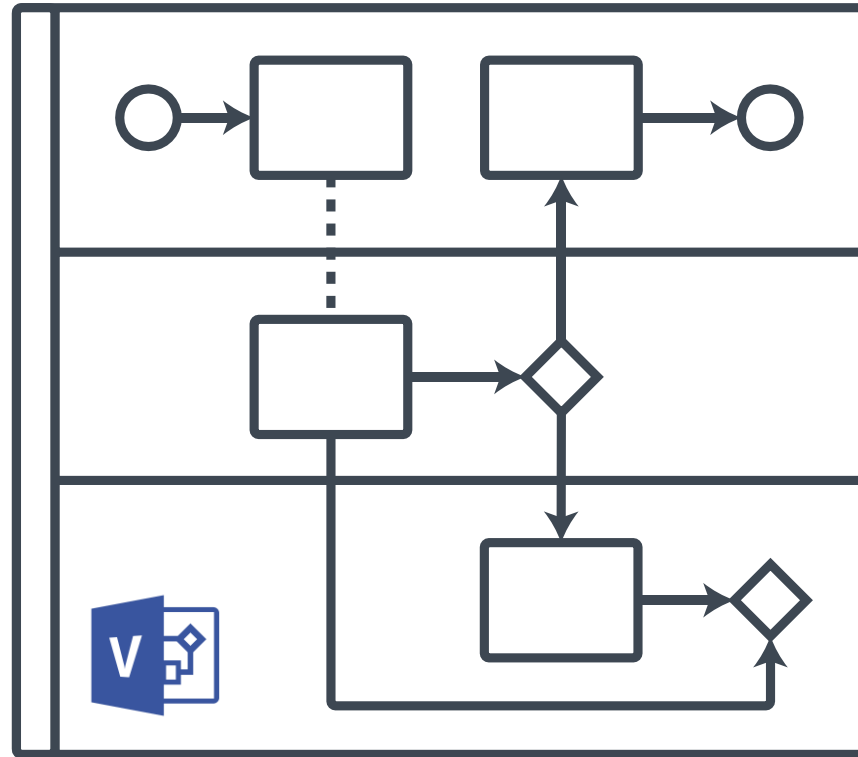
## Group - BPMN Example



### Group Sample

Usually, you need this when you want to represent that a group of BPMN Activities exist within a distributed business-to-business transaction.

## Group - BPMN Hands-on



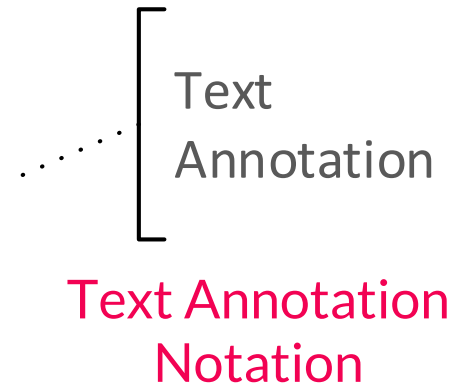
BPMN Demo using Microsoft Visio

2

Artifacts : Text Annotation  
(Comment)

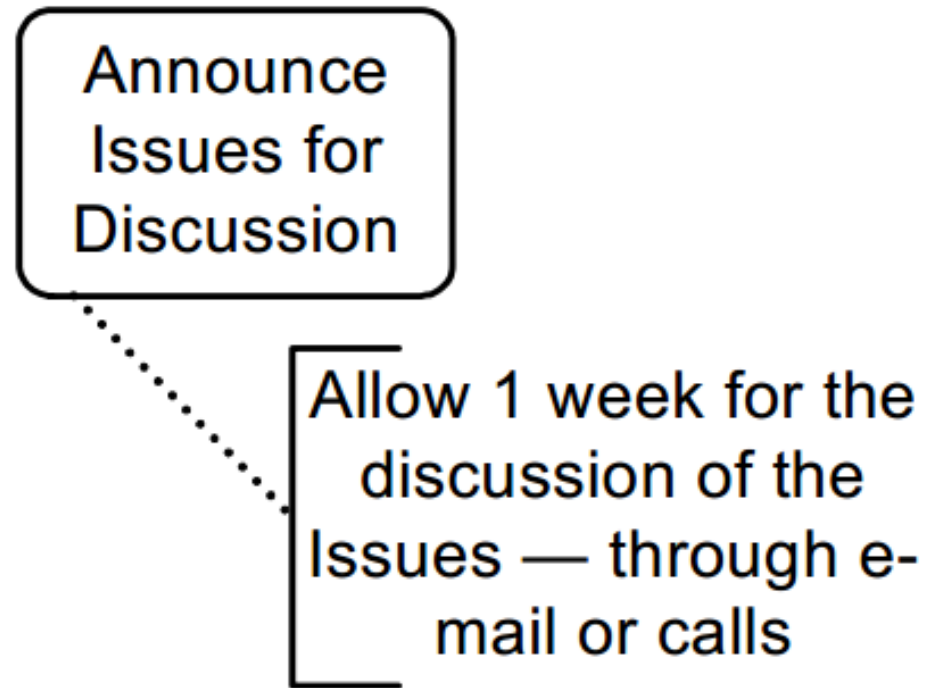
# Text Annotation

- Text Annotations are a mechanism for a modeler to provide **additional information** for the reader of a BPMN Diagram
- Text Annotation can be connected to a specific object on Diagram with an **Association**, but **does not affect the flow** of the Process.
- Text associated with the Annotation can be placed within the bounds of the open rectangle.
- Add annotations to make your BPMN more readable and further increase understanding of your process.



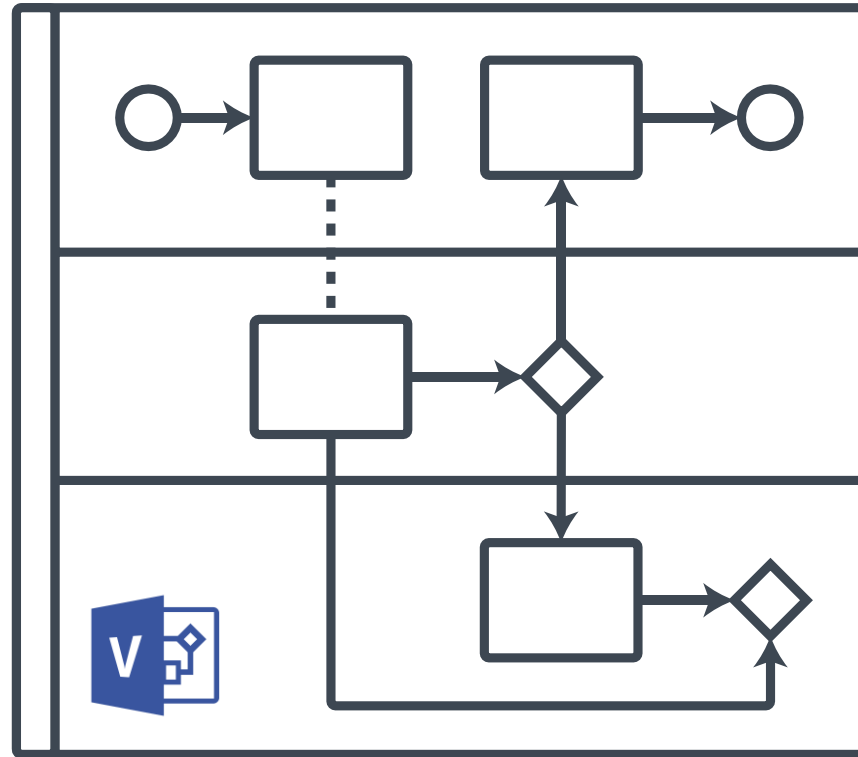


## Text Annotation - BPMN Example



Text Annotation Sample

# Text Annotation - BPMN Hands-on



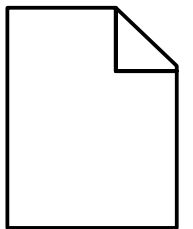
BPMN Demo using Microsoft Visio

3

Data Object

# Data Object

- Data Objects represent **information flowing** through the process such as business documents ,e-mails or letters.
- Data Objects show the **inputs and outputs of Activities, Processes, and Global Tasks** and do not affect the process flow.
- If a process instance is cancelled, all of its Data Object instances become inactive and, therefore, inaccessible to any external processes



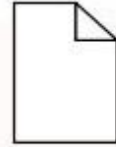
Data Object  
Notation

# Data Object - Types

Data objects can represent :

- Data placed to the process,
- Data resulting from the process,
- Data that needs to be collected,
- Data that needs to be stored

## Data



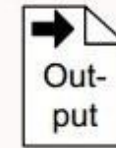
A **Data Object** represents information flowing through the process, such as business documents, e-mails, or letters.



A **Collection Data Object** represents a collection of information, e.g., a list of order items.



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



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



A **Data Association** is used to associate data elements to Activities, Processes and Global Tasks.

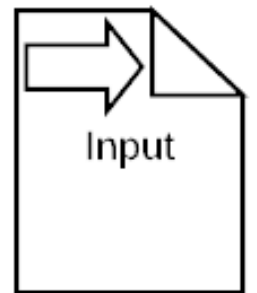


A **Data Store** is a place where the process can read or write data, e.g., a database or a filing cabinet. It persists beyond the lifetime of the process instance.

# Data Object – 1. Data Input

Tasks are often data-dependent, meaning the task cannot proceed until certain data has been collected.

Data inputs represent those data requirements of the business process.

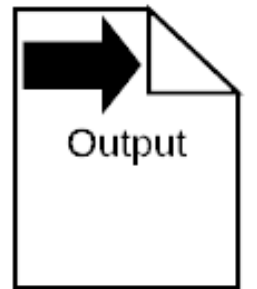


Data Input  
Notation

## Data Object – 2. Data Output

IF a process generates data, a data output represents the information produced as a result.

For instance, a BPMN diagram that represents the survey collection process would output result data and require a data output shape.

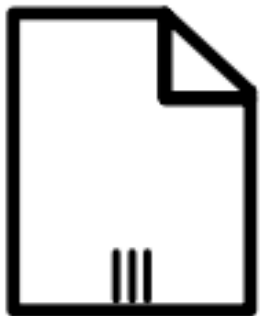


Data Output  
Notation

## Data Object – 3. Data Collection

Represent collection of information like list of order items.

Data collection is denoted differently than a one-time data requirement.



Data Collection  
Notation



# Data Object – 4. Data Store

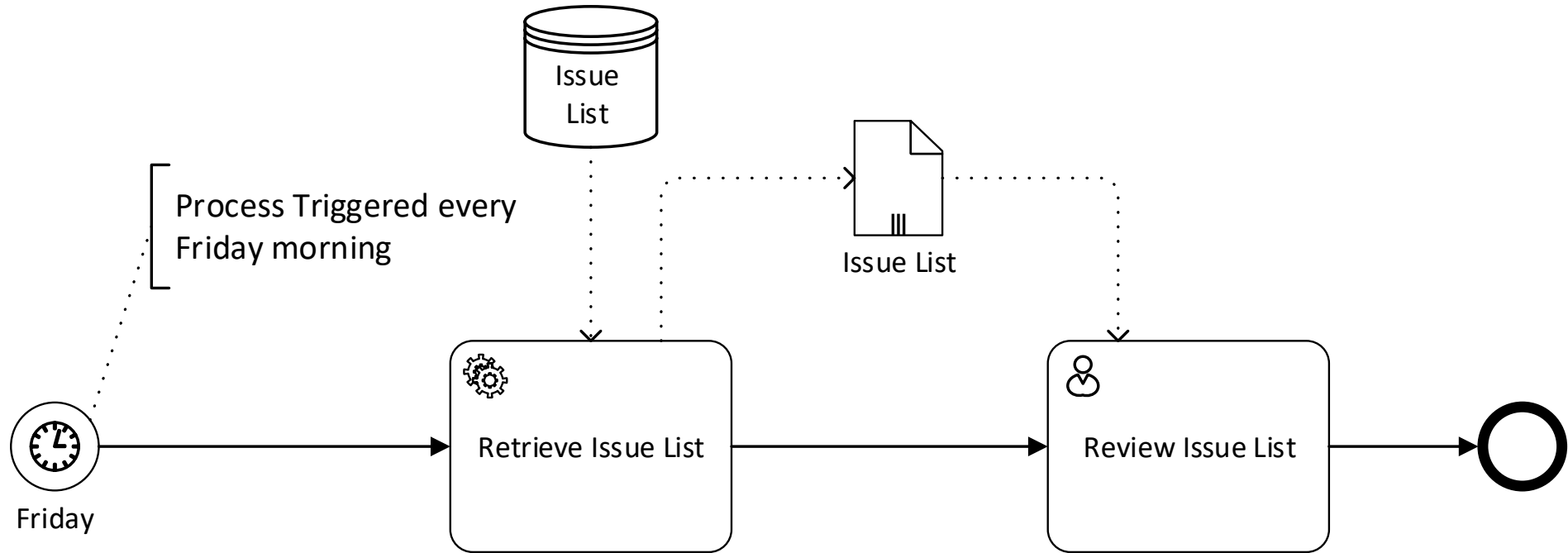
Datastore provides a mechanism for Activities to retrieve or update stored information that will persist beyond the scope of the Process

In a BPMN diagram, you can determine where you will store data to keep track of your data and increase efficiency.



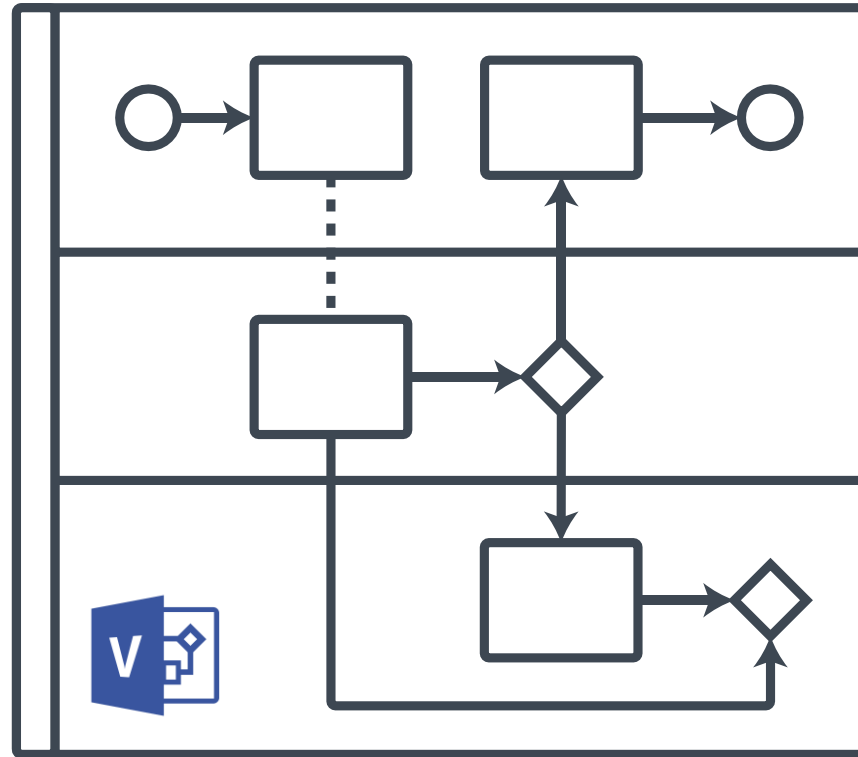
Data Store  
Notation

# Data Object - BPMN Example



Data Object Sample

# Data Object - BPMN Hands-on



BPMN Demo using Microsoft Visio

4

Artifacts : Association

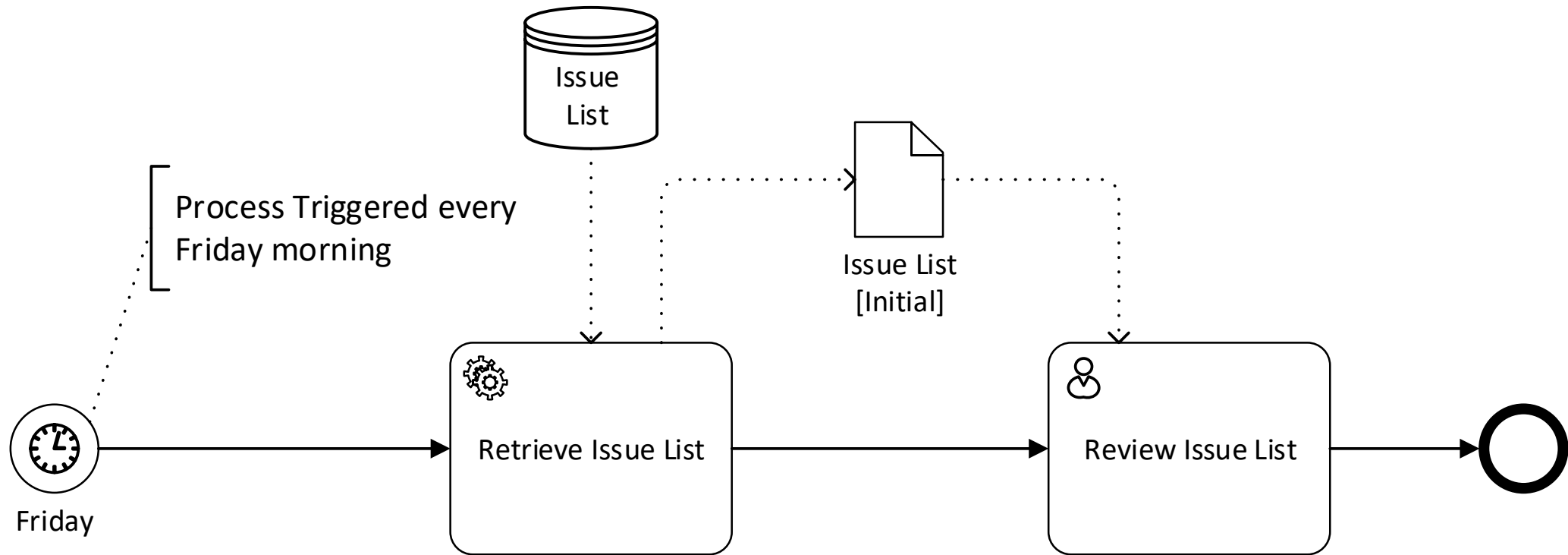
# Association

- An Association is used to associate information and Artifacts with Flow Objects.
- Associations are usually used to link a Text Annotation or a Data Object to an element of the process flow.
- Association can show the direction of a flow



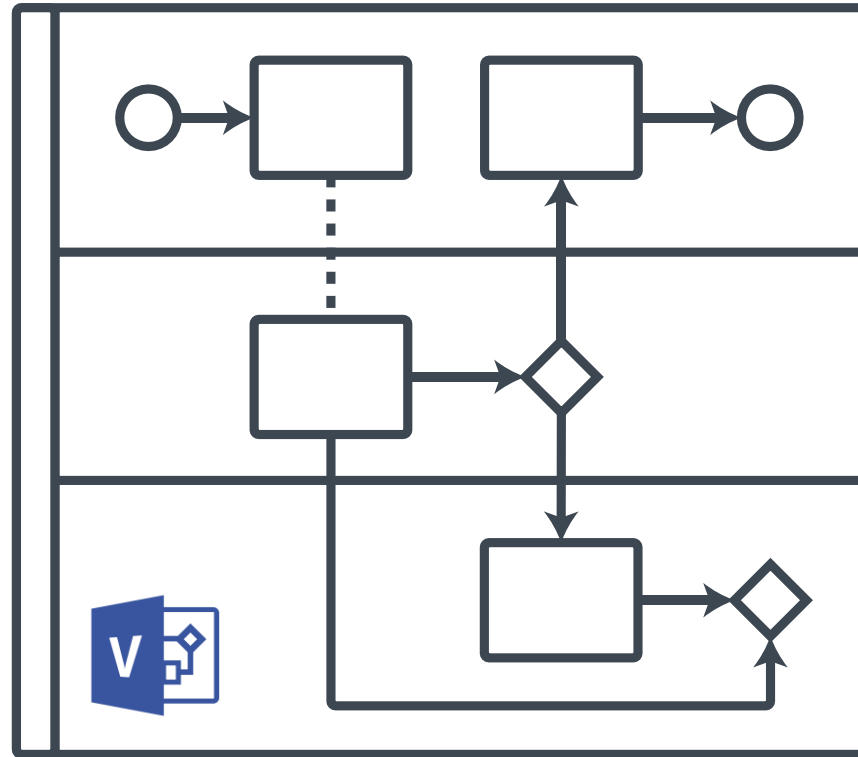
Association  
Notation

# Association - BPMN Example



Association Sample

# Association - BPMN Hands-on



BPMN Demo using Microsoft Visio



*To Be continue .. 😊*



# Thanks!

## Any questions?

You can find me at:



[eng.mohamedzakarya@gmail.com](mailto:eng.mohamedzakarya@gmail.com)



Mohamed Zakarya Abdelgawad