



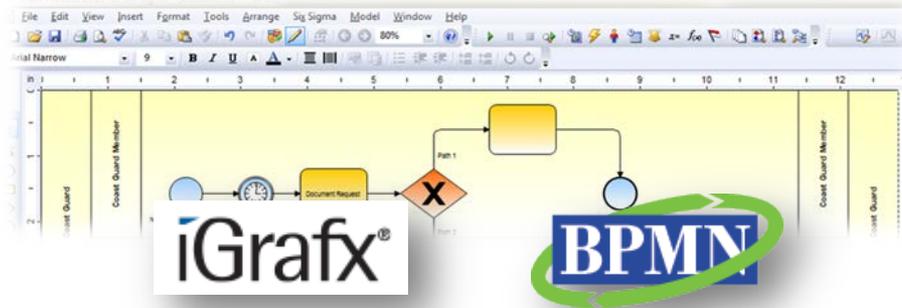
## HCM Modeling Elements

Creating a better understanding of the process model standards used within the MHR-BPS Process Modeling initiative.



# HCMS Modeling Element Process

- **This presentation will:**
  - Present 7 distinct ways in which the models help the YN's
  - Provide clarity on Business Process Model and Notation (BPMN) Guidelines & Conventions
  - Describe basic business process model elements
  - Present simple examples of modeling elements.



# Supporting YN Transactions

7 distinct ways the MAPS support YN's performing required transactions:

1. Eliminate unnecessary steps / tasks
  1. The maps are up to date and contain a comprehensive list of required references / steps to accomplish the work.
2. Rein in unproductive performance
  1. The maps show performers exactly what is needed, with what, whom, etc..
3. Focus on high-value decision points
  1. The maps provide all the decision points to ensure the transaction is completed correctly / timely.
4. Update / upgrade policy and software
  1. In the development process gaps are identified, and solutions presented.
5. Reduce delays
  1. The YN now have consistent guidance / direction.
6. Cut back on inquiries to PPC / others
  1. The YN now have consistent guidance / direction.
7. Provides YNs more control over transactions
  1. The YN have the whole plan at their fingertips, and can see how they actions effect others.



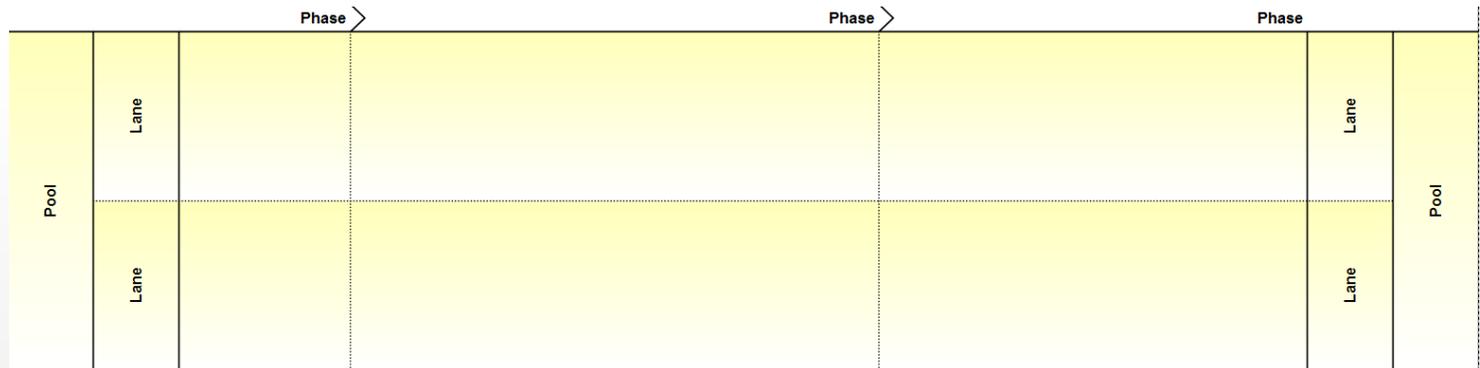
# Business Process Model and Notation (BPMN)

- Process modeling notation is a language that describes the structure and elements of a process.
- As with all languages, the vocabulary is defined, and it is organized such that we understand how it should flow.
- By creating a model with this language, a business can capture, analyze, understand, automate, and even optimize their processes.
- Like any other language, learning the terms and rules of grammar is important to using it...



# Basic Business Process Model Elements

## Pools, Lanes and Phases



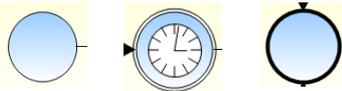
- The Pool is representative of the business participant or entity involved in the process.
  - The Pool will be represented as the Coast Guard, or a Coast Guard entity (e.g, CG PPC).
- The Lane (or Swimlane) is the specific participant within the process.
  - The Swimlane will most frequently be reflected as the Unit Level Administration or SPO Technician.
- Phases are intended to represent a timeline in some cases, or a delineation between sub-processes within the same process.
  - For example, the process of “Start BAH” is a phase within the larger Effect BAH model.



# Basic Business Process Model Elements

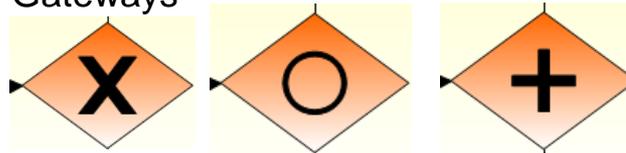
## Flow and Connecting Objects

### Events



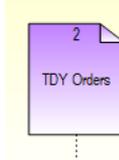
Start      Timer      End

### Gateways



Exclusive      Inclusive      Parallel

### Data Object

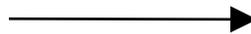


### Task



### Communication Flows

**Sequence:** used to depict communication between events, gateways, or tasks



**Message:** used to depict communication between data objects and tasks



**Collaboration:** used to depict communication between two entities



# Flow Objects: Events

An event is something that affects the flow of the process and usually has a trigger or a result. There are three types of Events, based on when they affect the flow: Start, Intermediate and End.

## Events: Start Events

A **Start Event** indicates where a process will begin.

**Start Events** represent the trigger or condition that start the business process.

A **Start Event** does not have any incoming sequence flow, instead only an outgoing flow.



Start

## Events: Intermediate Events

A **Timer Event**, a type of Intermediate Event, indicates when the task it precedes is expected to be completed or when it should occur.

A **Timer Event** can also start a process, if necessary.

A **Timer Event** is used to indicate process delays, deadlines, duration or elapsed time.



Timer

## Events: End Events

An **End Event** indicates where a process will end.

**End Events** represent the result or outcome.

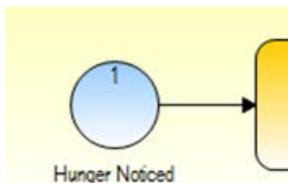
**End Events** will not have any outgoing sequence flows, only an incoming flow.

An exit to another process using an **End Event** should identify the process(es) that start when the current process ends. (Refer to MHR-BPS...)



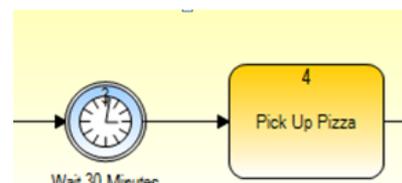
End

Example:



Hunger Noticed

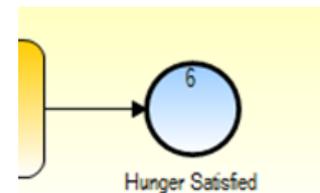
Example:



Wait 30 Minutes

4  
Pick Up Pizza

Example:



6  
Hunger Satisfied

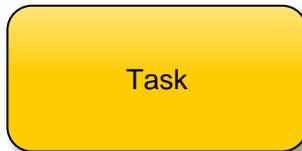
# Flow Objects: Tasks

A task represents work that is performed within a business process. A task, a type of activity, is action-oriented and describes a unit of work or an action with well defined start and end points.

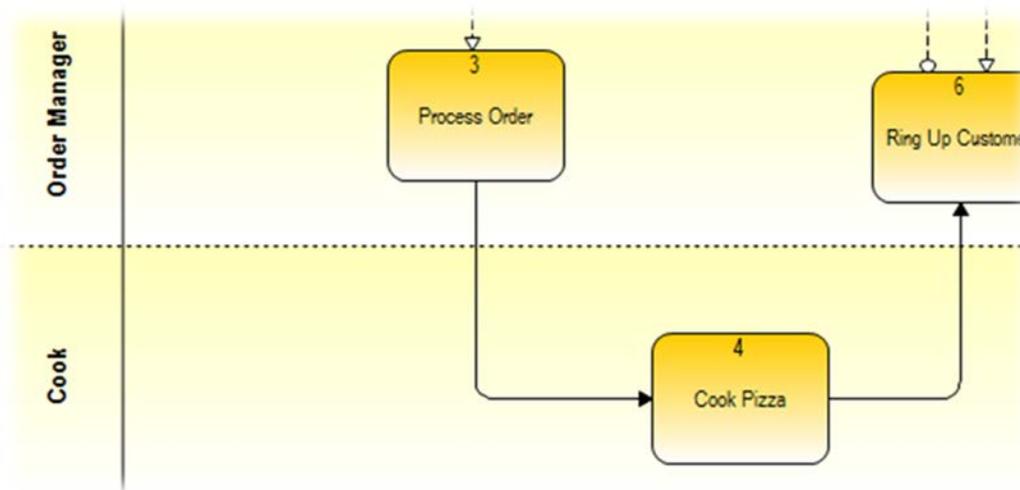
## Activities: Tasks

A **Task** is an atomic activity included within a business process. A real world activity should be modeled as a **Task** if it cannot be additionally decomposed into sub-elements.

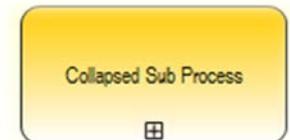
Tasks are classified into different lanes according to who performs or is responsible for them. Therefore, is a Task is shown in the SPO Technician lane, it is understood that the SPO Technician should perform (or is responsible for) the task.



Example:



You may also see a Task with a plus sign (+). This signifies that to complete this task, the referenced process should be reviewed.





# Flow Objects: Gateways

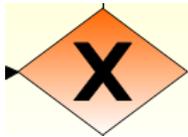
Decisions, merges, forks and joins in the process flow are modeled with a gateway symbol. The purpose of a gateway is to split or merge the flow of the process depending on the outcome of the tasks.

## Gateway Objects

Decision **Gateways** must have, at a minimum, two outflows and at least one in flow.

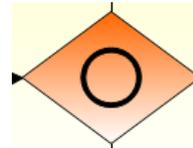
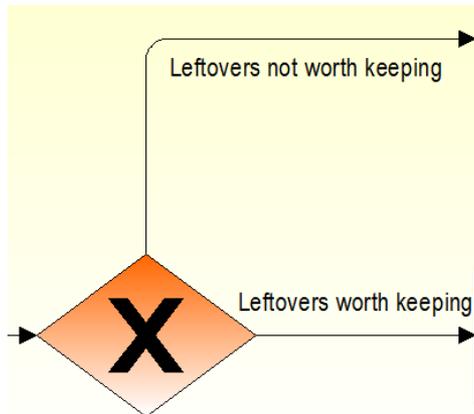
Gateways are elements used to control how sequence flows converge and diverge within a business process; whether they are combined on input or split on output.

When a gateway is used as a split, the outputs reflect the detailed results of a decision made in the preceding task. The task preceding the gateway (not the gateway itself) represents the decision/activity performed.



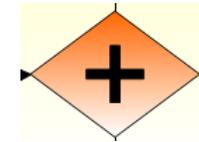
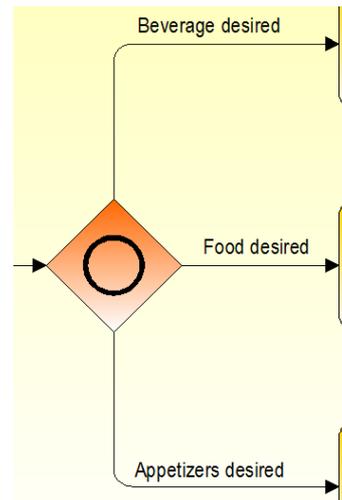
**Exclusive Gateway:** Use exclusive gateways when only one of the paths will be taken

Example:



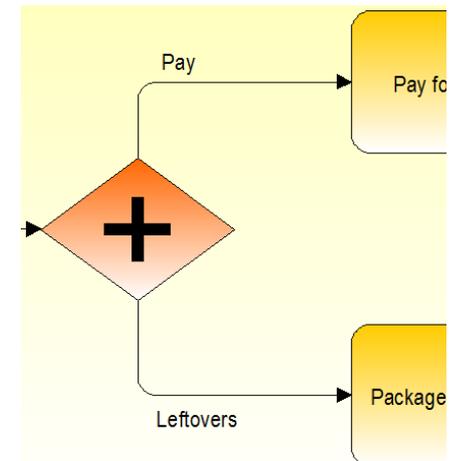
**Inclusive Gateway:** Use inclusive gateways when one or more of the paths may be taken

Example:



**Parallel Gateway:** Use parallel gateways when all of the paths will be taken

Example:



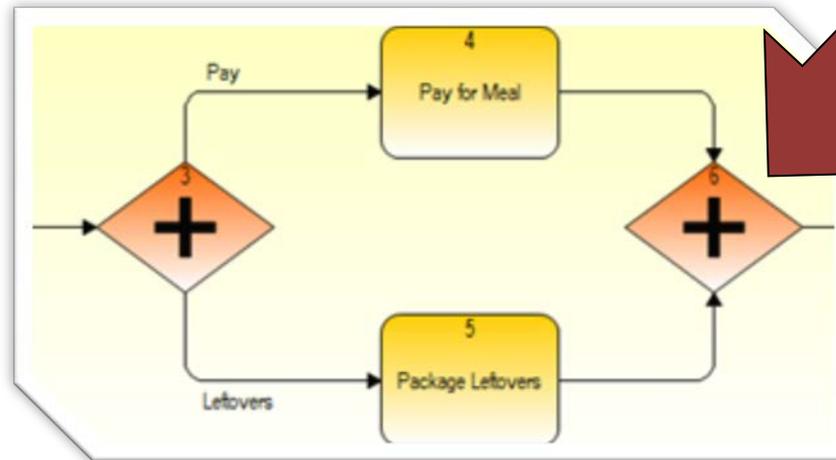
# Flow Objects: Merge Gateway

A gateway can be used as a join in the process in order to merge separate paths into one prior to moving on to the next task.

## Merge Gateway

As shown in the below example, when using a **Merge Gateway** the process must have previously split, conditional activities have been performed, and now the process will join together prior to continuing onto the next task.

Example:

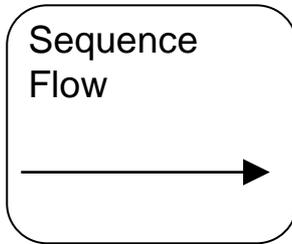


# Flow Objects: Communication Flows

Flows are used to represent the overall progression of how a process would be performed.

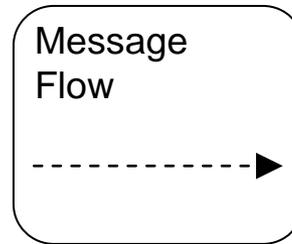
## Flow Objects: Sequence Flow

A **Sequence Flow** line connects events, tasks, and gateways placed within the same pool. This Sequence Flow is the line you will follow to determine the process.



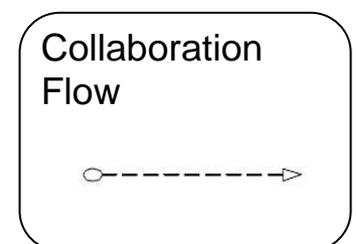
## Flow Objects: Message Flow

A **Message Flow** line to connects supporting documentation (Data Objects) to the tasks.

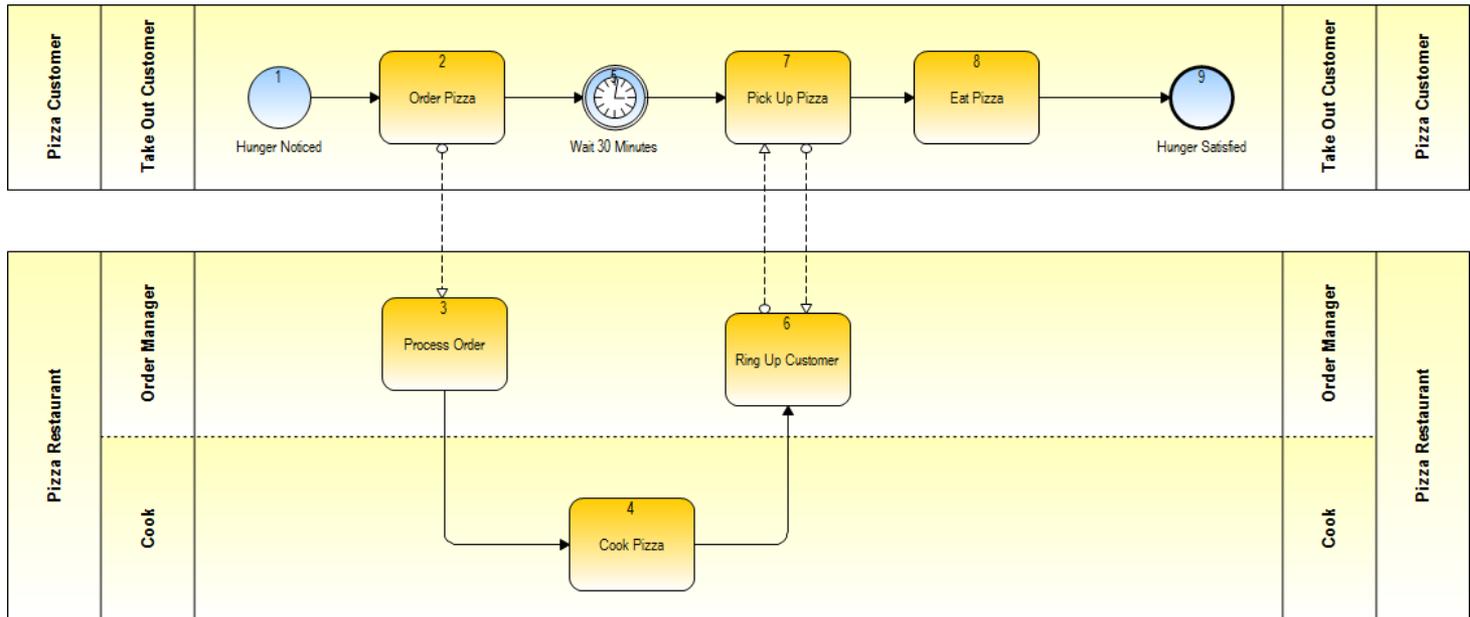


## Flow Objects: Collaboration Flow

A **Collaboration Flow** line to connects communication between two entities.



Example:



# Flow Objects: Data Objects

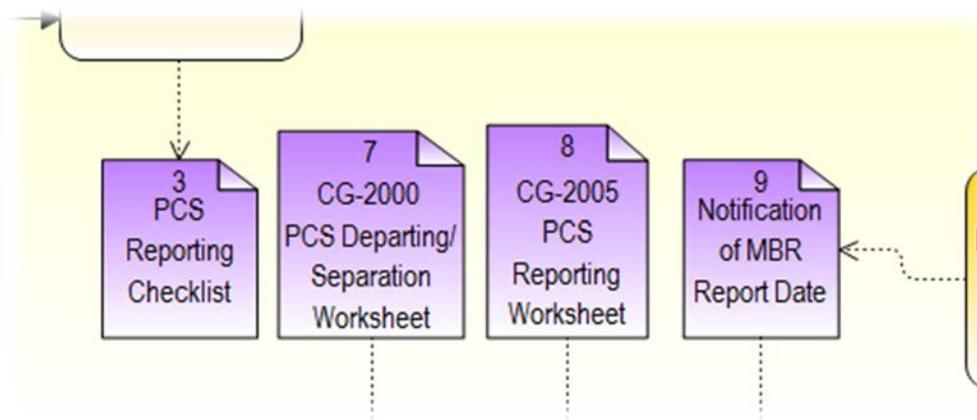
A Data Object can be anything that is regarded as a communications element (i.e. documents, invoices, emails, etc.).

## Data Objects

A **Data Object** is used to depict data that is produced by the process activity **Task**, or required in order to complete a Task included within a business process. If the process Task produced the data, the **Message Flow** line will come out of the Task and into the Data Object. If the Data Object is required to complete the Task, the Message Flow line will flow out of the Data Object and into the Task.

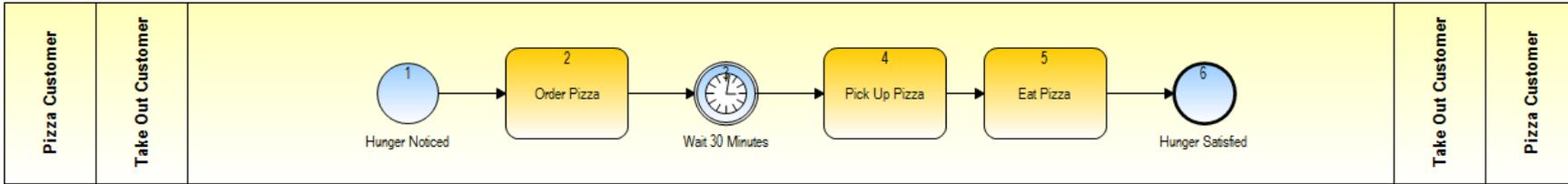
Data Objects, like Tasks, are classified into different lanes according to how the Data Object is generated. Therefore, if a Data Object is shown in the HCM System of Record lane, it is understood that the Document (or Data) lives within the System of Record.

Example:

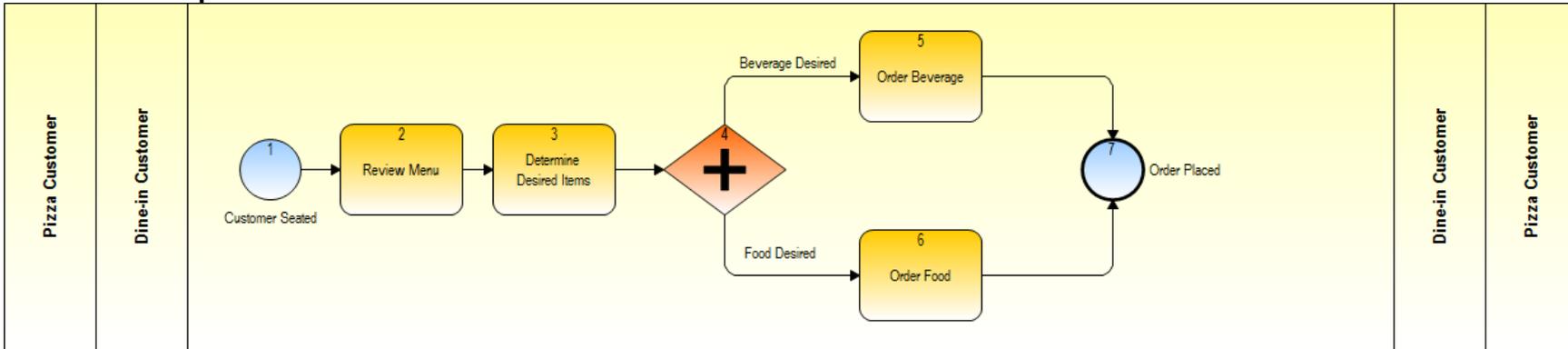


# Simple Examples

## Sequence with Intermediate Timer Event



## Parallel Split



## Synchronization

