

Modeling BPMN 2.0

Level 2



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Seminar Overview

- Introduce BPMN Level 2 modeling and its palette
- Extending L1 process to L2
 - PV207/Seminars/Pizza_L2_Bug_free.bpmn
- Remarks on modeling
- Summary

Level 2 Modeling

- Also known as **analytical** modeling
- Created by **process specialists**
- Still concerned with **non-executable** processes
- Relies on information **visible** in the diagrams
- Adds **events**, additional **gateways**, **subprocess** nesting
- Often used for **exception handling**
- From activity order (L1) to **precise execution timing (L2)**

L2 Palette

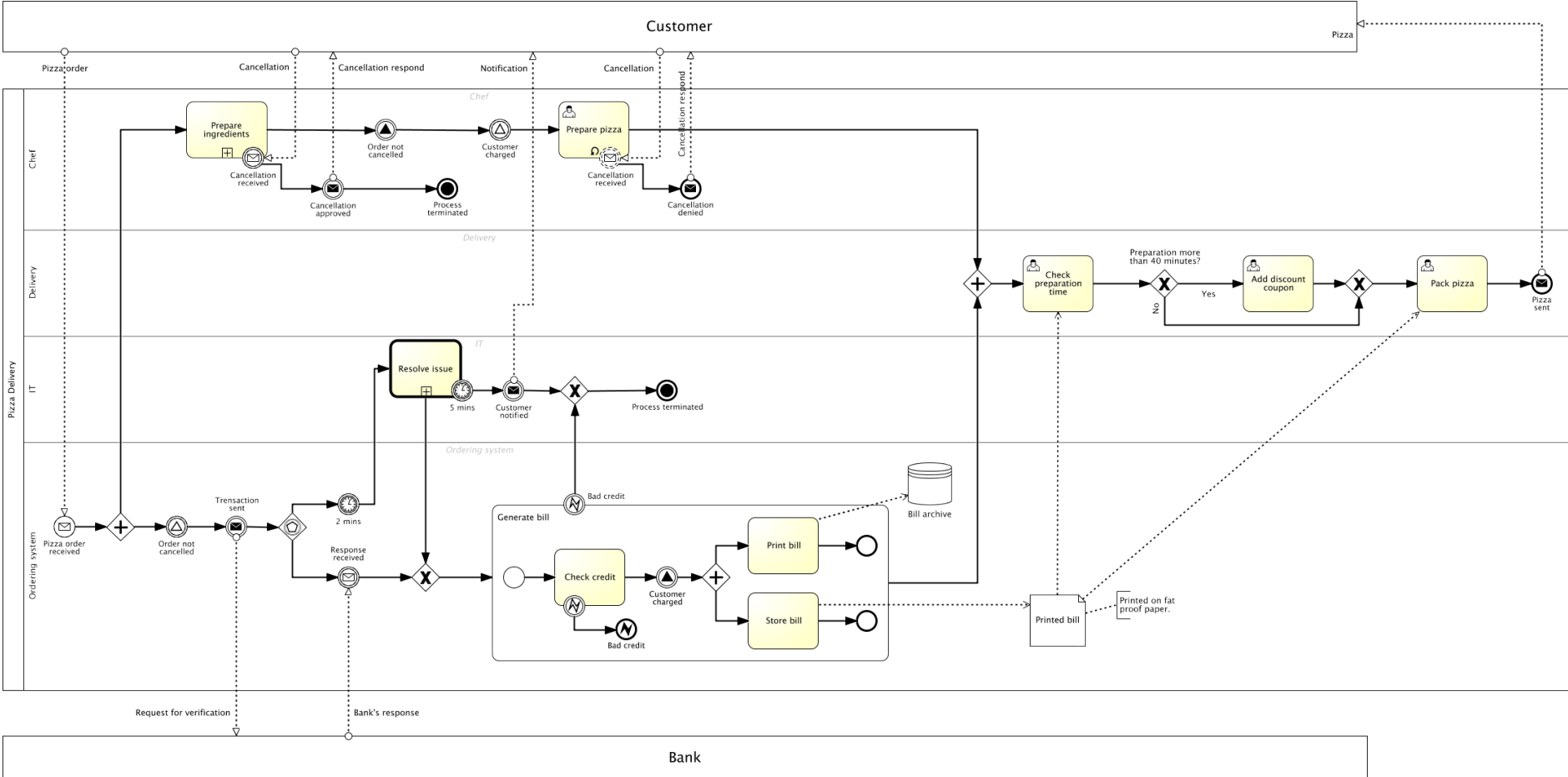
Types	Start			Intermediate			End
	Top-Level	Event Sub-Process Interrupting	Event Sub-Process Non-Interrupting	Catching	Boundary Interrupting	Boundary Non-Interrupting	
None							
Message							
Timer							
Error							
Escalation							
Cancel							
Compensation							
Conditional							
Link				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

- Intermediate events
- More specific types of tasks
 - User
 - Service
 - Abstract
 - Send
 - Receive
 - Manual
 - Script
 - Business rule
- Event and complex gateway
- Iterations in multiple instances

Extension

We have gathered more information after detail interviews:

- *chef can prepare more pizzas*
- *sometimes bank doesn't respond to our transaction request, if that happens then IT needs to resolve this as a standard issue (and if it takes more than 5 minutes we have to inform customer and cancel the process)*
- *customer can cancel order while chef prepare only ingredients, but not while pizzas are prepared*
- *bank can respond that customer's credit is not enough, in that case bill generation is interrupted*
- *Synchronize process: check credit through bank, only if order wasn't cancelled; prepare pizza only if customer was charged without errors*

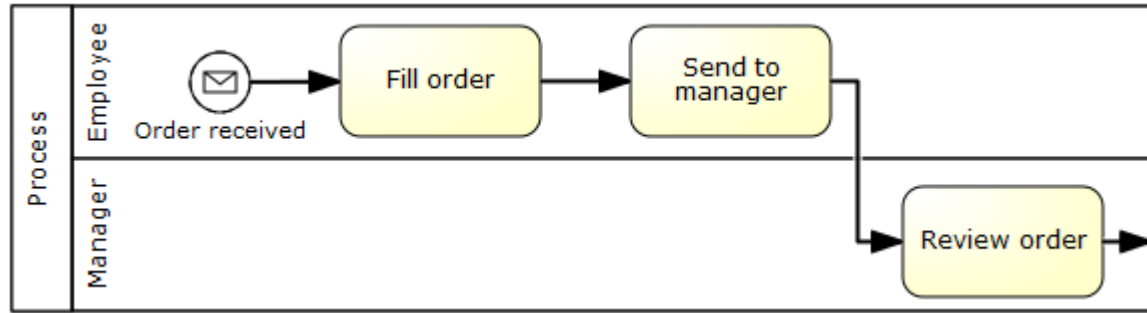


Message events

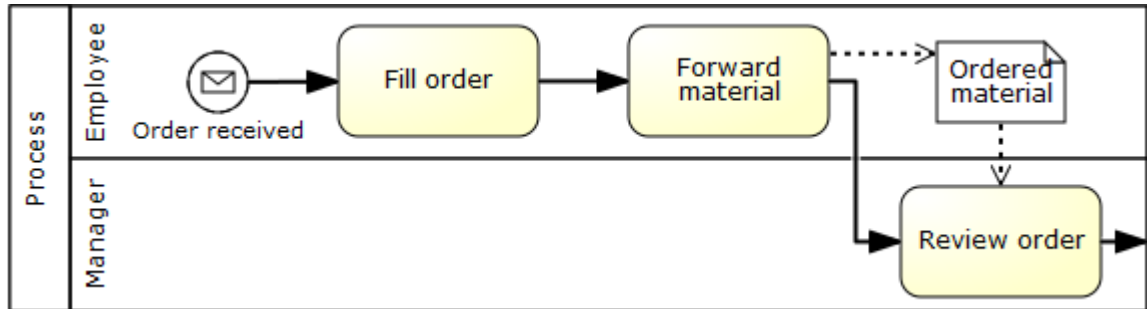
- Message is the content of communication between two different participants (not in the same process)
- Message can take any form
- Message flow is addressed to a particular process or process instance
- Use verbs like send or receive as a keywords

Hidden message flow

Avoid this:



When handling is non-trivial activity:

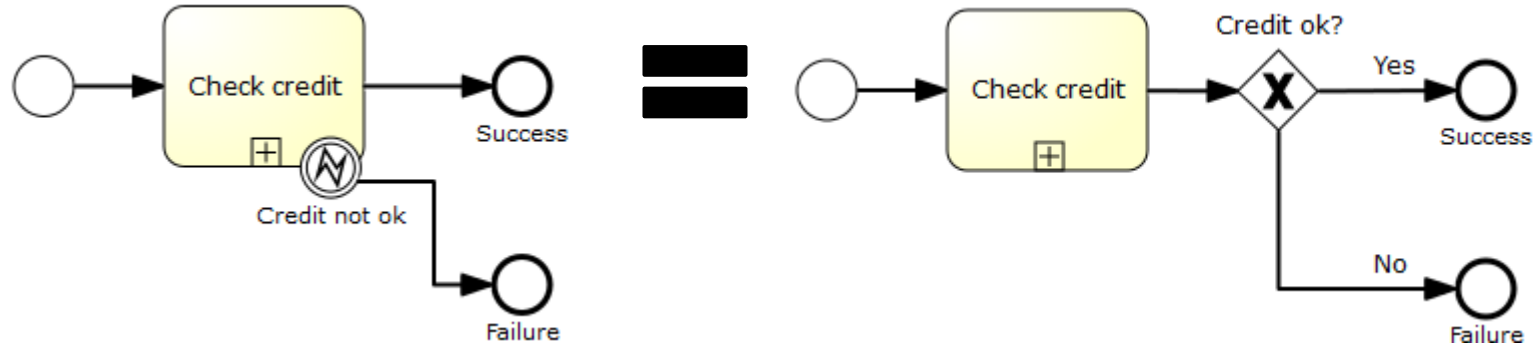


Signal events

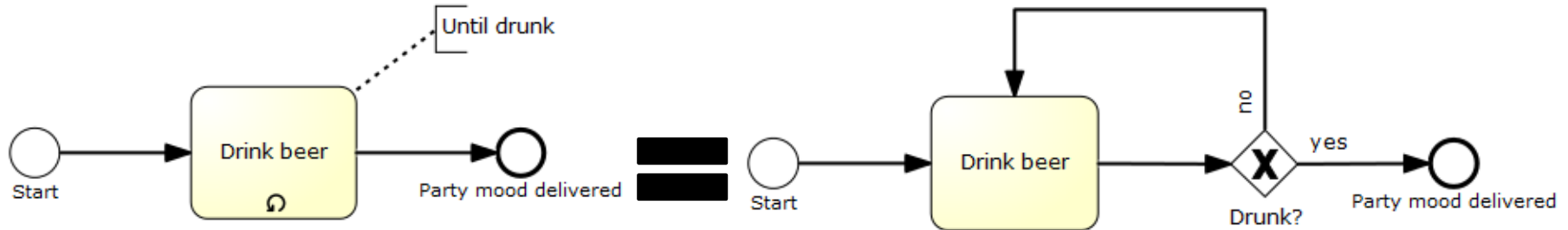
- Signal is broadcast and it is loosely coupled
- Can be used within pool, between processes and process instances
- In diagram there is no message flow between signals (only naming emphasizes relationship)
- Signal start event means that process is subscribed to another process or processes

Error events

- Only as Error end event or interrupting Error boundary event
 - Can be usually transform with usage of XOR gateway
- gateway:



Loop transformation



Summary

- Understand purpose and usage of BPMN L2
- Extend process from L1 to L2
- More familiar with the most common L2 elements

Thank you for your attention!



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