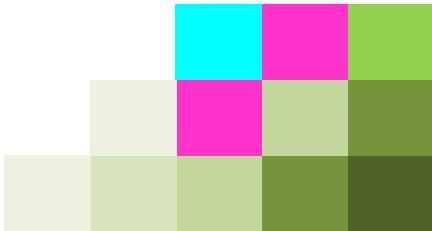
BPSIM - From a users perspective guide

Technical Support Use Case

process sphere

Innovation driven BPM



Agenda:

1. BPSIM References
2. Process Analysis Perspectives
3. Technical Support Use Case

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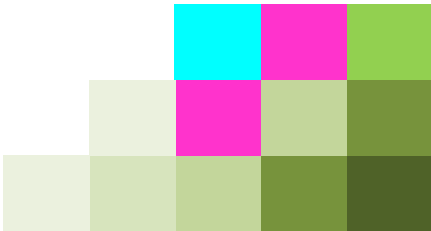

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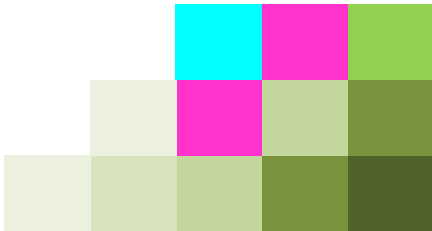
1. BPSIM References

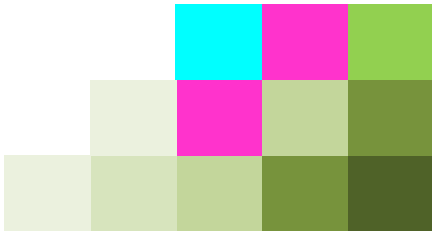


Everything, everything, about BPSIM, can be found here

http://www.bpsim.org/

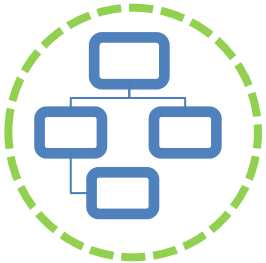
Agenda:

2. Process Analysis Perspectives



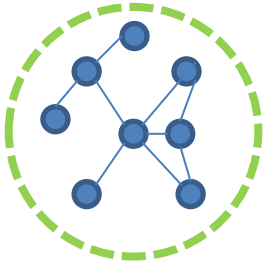
There are too many dimensions to do process analysis

The analysis should be question driven

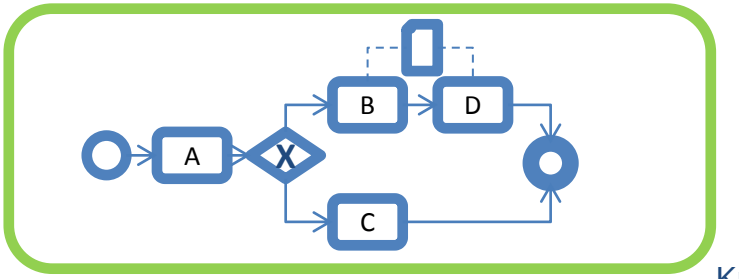


Organizational perspective

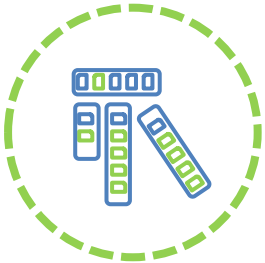
Performance perspective



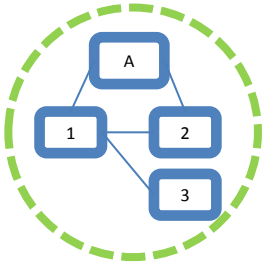
Social network perspective



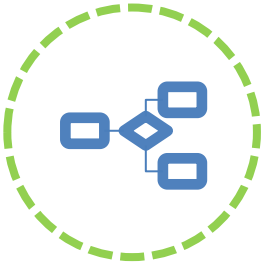
Analysis of a business process



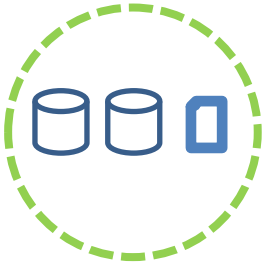
Knowledge perspective



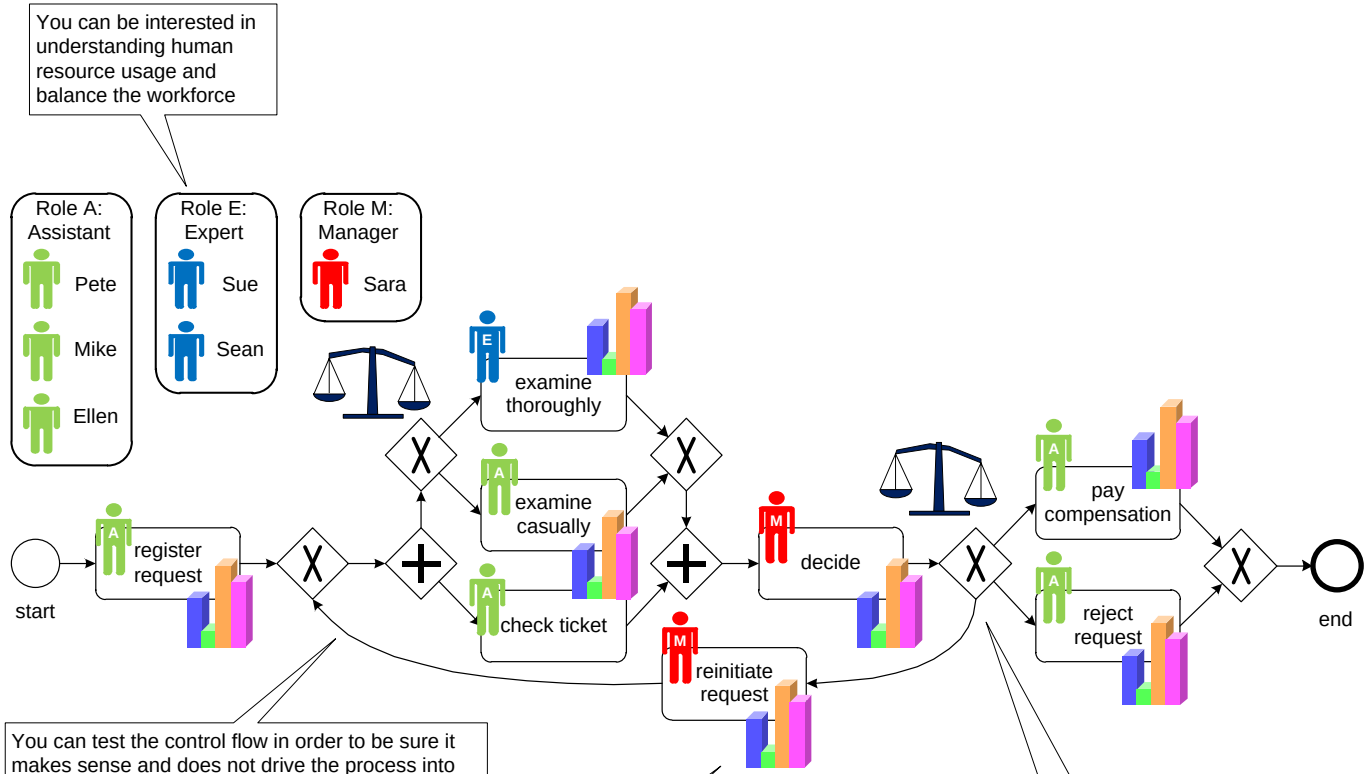
Activities perspective



Control flow perspective



Data perspective



Source: Process Mining Manifesto - Adapted

What do you want to accomplish?

Costs

Human Resources

Time

Simulation

Control flow

Objectives

People

Procedures

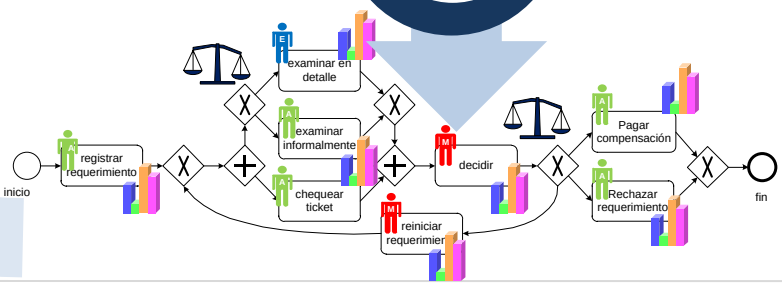
Rules

World

Events

Change

Data



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3. Technical Support Use Case

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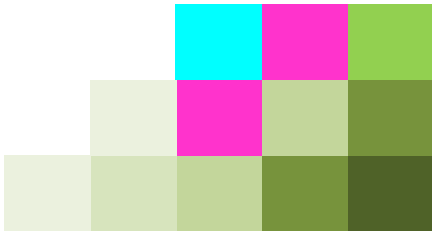


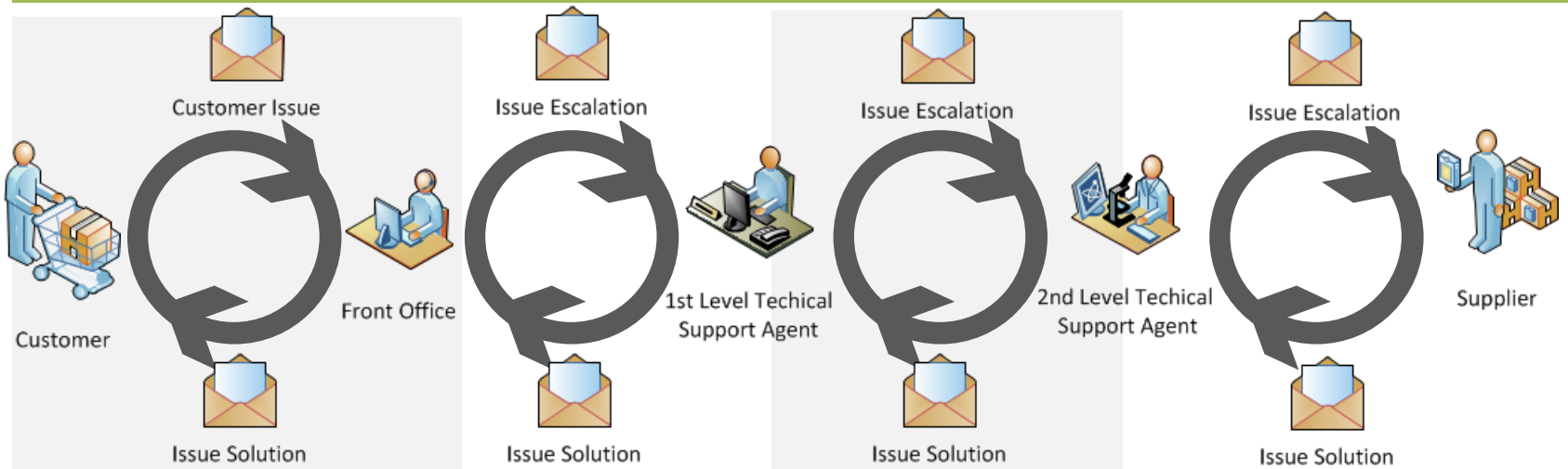
Process – Technical Support

process sphere

Context

- The customer calls the contact center and reports an issue about underperforming service or faulty equipment or software.
- The Front Office collects information and tries to provide a solution otherwise they inform the Customer the issue is going to be escalated to technical experts.
- When the Front Office receives the solution from the technical experts, they contact the customer and try to close the issue; otherwise they inform the Customer that the issue is going to be further escalated.

Doing



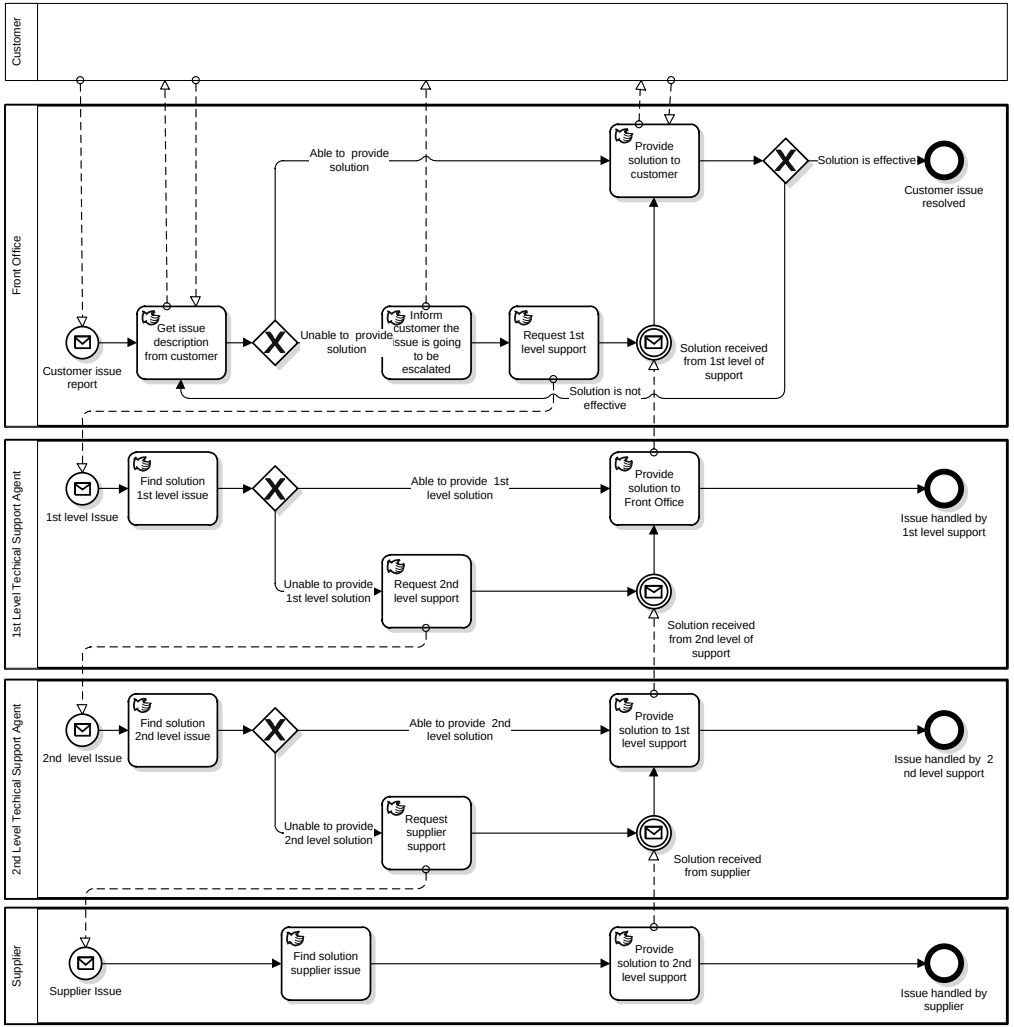
Think

- Knowledge Base provides a solution?
- Are there other alternatives?

- Deep investigate issue

- Forward to supplier if it's about technical design

- Specification analysis
- Root cause analysis



Detailed BPMN 2.0 Process model

Baseline parameters

Simulation parameters

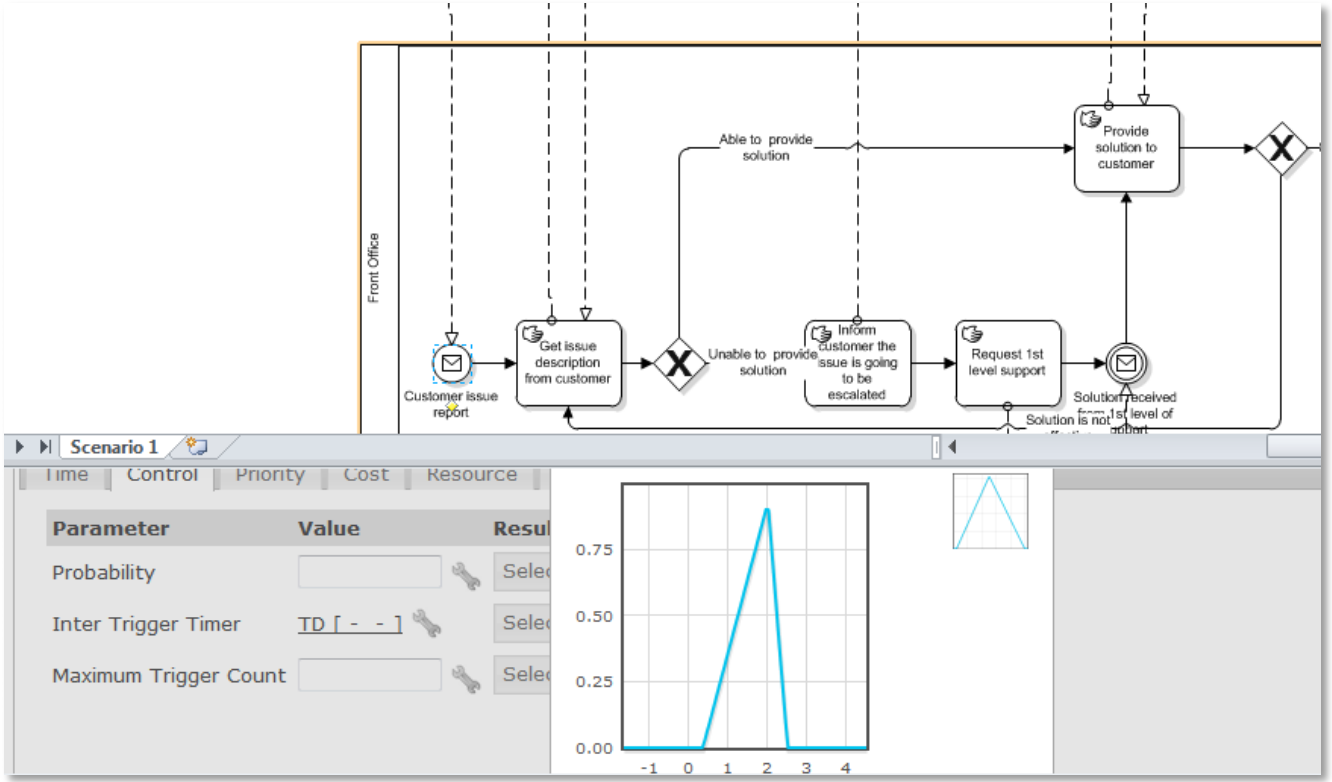
- Duration: 1 month
- Replications: 3
- Time unit: minutes

Process Triggers

- 2200 new calls raised by customers in each 24h period, distributed differently across time periods

Decision points

- Under the Front office responsibility:
  - 60% of the times is able to provide a solution;
  - 15% of the times the solution is not effective.
- Under the 1st level Technical support agent:
  - 70% of the times is able to provide a solution;
- Under the 2nd level Technical support agent:
  - 80% of the time is able to provide a solution.



Setting parameters in the model

Simulation scenario #1
Explore control flow perspective

Goals

- What are the most / less used paths?

Results wanted

- How many times activities were processed
- How many instances reached the end
- Completeness and Loss ratio

- <Insert short video with simulation and results>

Simulation scenario #2
Explore temporal perspective

Goals

- What is mean time for providing a solution to the customer?
- How can we use this data to setup internal acceptable (SLA)

Results wanted

- Min durations of the process instance
- Max durations of the process instance
- Mean durations of the process instance

Additional parameters

To explore this scenario, it's necessary to setup activity duration and standard deviation.

Activity	Mean (min)	Standard deviation (min)
Get issue description from customer	4	0,5
Provide solution to customer	10	2,5
Further data is provided in the BPSIM's Implementers guide [..]		

- <Insert short video with simulation and results>

Simulation scenario #3
Explore resource perspective

Goals

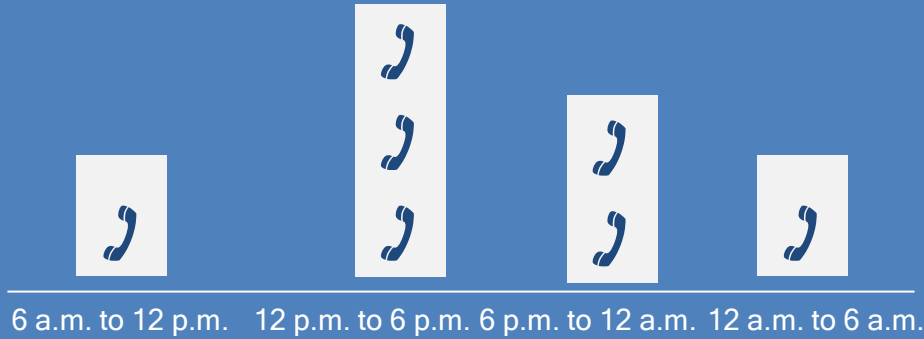
- Balancing the workforce with these constraint - number of reported requests during the day

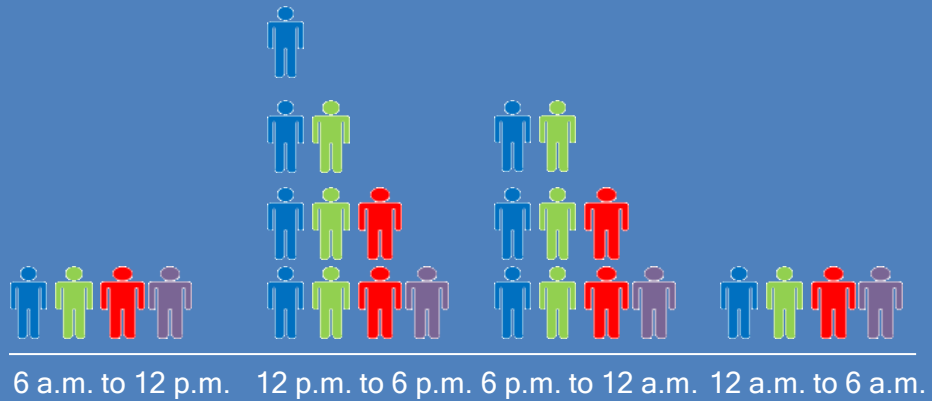
Results wanted

- Resource Sum of processing time
- Resource Sum of wait time
- Resource % occupancy

Additional parameters

To explore this scenario, it’s necessary to setup incoming calls during the day, plus available human resources.





- <Insert short video with simulation and results>

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Questions?

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