



Using Automatic Planning for Supply Chain Management

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Objective

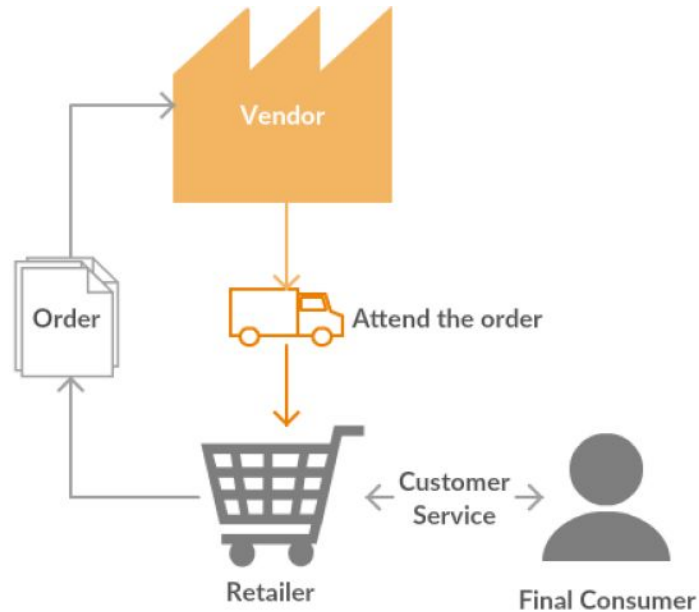
- Find an optimal plan to execute orders and replenishments in an effective way
- Minimize loss and potential production bottlenecks



Supply Chain

- *“The management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole.”* - Logistics and Supply Chain Management - Martin Cristopher
- Win-win situation

Supply Chain





Numerical Planning

- Find an optimal plan given the following information
 - Retail stock level
 - Final customer demand
 - Vendor stock level



Automatic Planning

- **Fluents support - PDDL 2.1**
 - Numerical representation
 - Plan quality criteria



Automatic Planning

- **Basic Actions**
 - Order
 - Replenishment
 - Produce
 - Sell



Planners

- LPG-td
- ENHSP



Related Work

- *Radzi, NH Mohamed, Maria Fox, and Derek Long. "Planning in supply chain optimization problem." PlanSIG 2007 (2007): 100.*



Project Management

- Week 1
 - Select Planner
 - Define planning domain
- Week 2
 - Define planning domain
- Week 3
 - Analysis of results
- Week 4 and 5
 - Writing the paper