

Alongkorn Jarussuriya 2011: Development of Rapid Supply Chain Network Modeling Tool. Master of Engineering (Industrial Engineering), Major Field: Industrial Engineering, Department of Industrial Engineering. Thesis Advisor: Mr. Pornthep Anussornnitisarn, Ph.D. 155 pages.

Nowadays, supply chain is very important in business world. The effective supply chain management must consider the interactions and activities among parties in the system, including suppliers, manufacturers, distribution centers, retailers etc. To gain the insight and information which reflect the supply chain performance, supply chain model developed using discrete event simulation program has been often used by both academics and industries. However, the major obstacle for using discrete event simulation is the understanding and knowledge of the simulation software package. This problem has an impact on time to develop a supply chain simulation model. This research aims to alleviate this problem by developing the supply chain entity template as a rapid supply chain simulation modeling tool. An simulation modeler (user), such as industrial/production engineering, business process consultant, academia etc., only focus on supply chain parameters such as inventory and production policies, transportation parameters, supplier lead time, lot/batch size, cost and price etc. The modeler does not need to pay attention to syntax or other related simulation programming skills. As a result, time spending in programming the discrete event simulation program has been eliminated, so the modeler can focus on the evaluation of supply chain scenarios which have different parameters and policies.

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Thesis Advisor's signature