



Modeling and Simulation of Textile Supply Chain through Colored Petri Nets

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ABSTRACT

The purpose of this paper is to describe the business process modeling and simulation of a textile supply chain using Colored Petri nets. Our model takes into account both the source process and delivery logistics that exist between any two members of supply chain; moreover, we model other activities performed by the company such as manufacturing clothing. The model has been built to acquire a better understanding about the behavior of a textile company in the fulfillment of requests from costumers. The model has been built using CPN Tools. This model was built with modules for activities of the supply chain textile, e.g. receiving orders of customers, determination of production plan, procurement raw material, transportation of raw material, production and delivering products to customers. This modularized model offers some advantages to represent complex supply chains according to their structure and requirements. Thus, we can add modules easily depending on the necessary activities.

KEYWORDS

Supply Chain; Business Process; Business Process Modeling Techniques; Colored Petri Nets

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