**CD++ Model Data Form**

**Title:** Factory in a Supply Chain Management

**Type:** DEVS Model

**Acronym/Short name:** Factory

**Purpose for which Developed:** This model is implemented in order to assist various companies to perform what-if analyses. This in turn can help them evaluate various operational alternatives which in turn can increase their profitability.

**Other Applications for which it is Suitable:** Logistics, Supplier, Manufacturing, Retailing, etc.

**Date Developed/Implemented:**  2011 October 15

**Domain:** Artificial systems

**Current Version:**

**URL:**

**Description (including characteristics):** The FSCM model consists of three components: the *Administrator* that simulates a logistics department that oversees the factory’s processes, the *Warehouse* that simulates a warehouse that stores both raw materials and finished products with certain capacities for each, and the *Pharmaceutical Manufacturing Plant(PMP)* that simulates the process of production of pills/tablets. In addition, an internal scheduling mechanism is implemented as part of the *PMP* to ensure that the entire production process operates smoothly.

# Links to Related Documents

**Short Title:** FSCM DEVS Model Report

**URL:** Factory in a Supply Chain Management DEVS model report.pdf

**Description:** Report for SYSC 5104 Assignment #1. It includes the conceptual model, DEVS formal specifications, tests and analysis.

**Keywords**: Supply Chain Management, Administrator, Warehouse, Pharmaceutical Manufacturing Plant, Factory

**Developer:**

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**Comments:** This model can be extended further to include components such as supplier, distributor and retailer to simulate the whole supply chain management. The behavior of all components of the model were tested and verified.