**Modeling and simulating the flow of Express Delivery Service**

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CSC 8350: Advanced Software Engineering

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Spring, 2014

**Background:**

Express delivery service has been developed maturely for a long time of years. Especially, in recent years, with the prosperity of on-line shopping, Express delivery service eventually plays a more and more critical role in people’s daily lives. Express delivery service is a really complex delivery network contains serials of procedures. For example, the packages should be fetched from the customers firstly; then, when the packages arrive the Express center, they should be assorted into different groups by the address or zip code; finally, the package would be delivered to customers’ places using different vehicles from a larger center to smaller one. The processes may be even more complex for international business. In order to assign and deliver a huge of packages in time, the Express system has to be well modeled and tested.

**Modeling and simulation goals:**

The goal of this project is to model and simulate an Express delivery service system to understand the procedures more deeply. This project would contain Fetching Items System (once there is a requirement from the customer, a new schedule should be created for the available employee), Assignment System in the Express center (The system assorts items into different groups by the address or zip code) and Delivery System (a complex system to make sure that all items would arrive in time). All of the subsystem will be concentrated in the time efficiency.

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