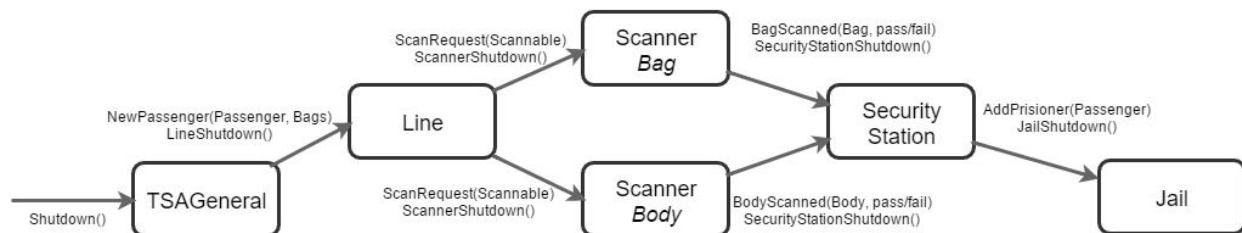


TSA Airport Screening - 342 Project 2

Design Document

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Actor Based Design



The actor-based design model allowed us to pass messages in a safe and organized fashion, implementing akka as a framework for passing messages forward down the line of the components. The actor-based model allows each actor component (listed as TSAGeneral, Line, Scanner, etc...) has the functionality to send and receive messages, and in essence control the flow of the "Passenger" down the line of the application as they would in an Airport. These messages are objects that contain any information and functionality required for the next step of the application to perform accurately and efficiently. In this way each component is independent and can work concurrently with each other.

Revisions from Initial Design

For the most part, our initial design and our final design are the same. The largest addition to the design was introducing an "Init" message that is sent to each actor at startup to give it necessary information such as references to other actors in the system. Another minor change was splitting the ScanRequest into two messages, one for scanning bags and one for scanning passengers.