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Working with Scala had an initial learning curve, but once we realized how the syntax worked and what was similar to how Java worked, it proved to be more convenient to use with Akka than Java was. Using actors made creating a concurrent system more straightforward than using Java’s concurrency and allowed for easier control in the flow of the system. The system can be programmed so that an actor will wait for a message before doing the next task.

In the original design we had in mind that creation of actors would be done in a factory method with a hierarchy where the document station would create all the queues which would create their corresponding scanners and security station. Due to the fact that would require the actor system being passed throughout, we decided that all the actors would be instantiated in the system and the references passed to their relevant associated actors.

Additionally, we had over looked messages that are sent between actors. Actor “objects” cannot be passed as such, but must be passed as ActorRef. So we created messages for each actor type that would need to be checked so that we could check the type of the ActorRef.