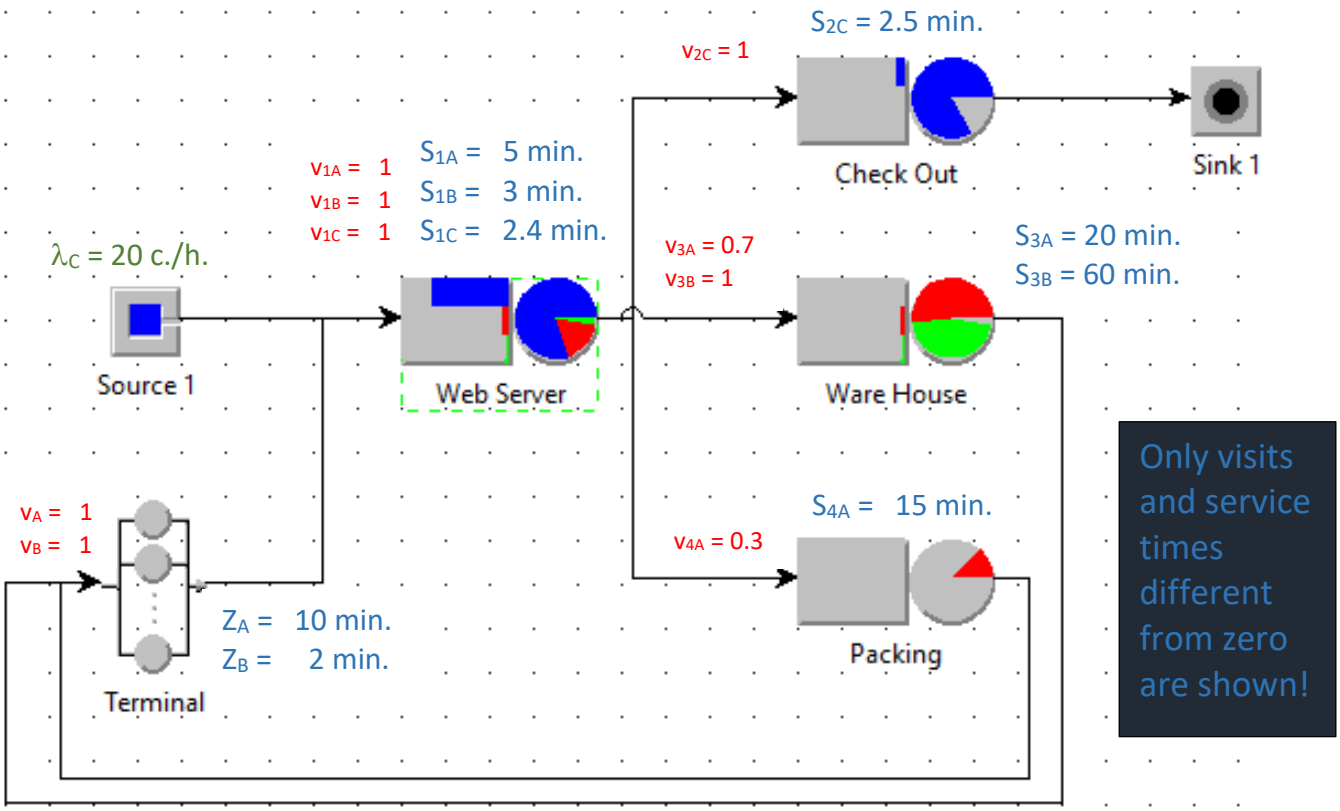
Multi-class Mixed models' solution

A warehouse management system, accepts orders from costumers on-line, coming at a rate of 20 costumers per hour. Every customer uses the web-server for 5 minutes, then the check-out service for 2.5 minutes. The web server is also used by employees and maintainers. There are $N_A = 20$ employees, each one with a think time of 10 minutes, using the web server for 3 minutes, and then choosing to enter the warehouse for 20 minutes 70% of the times, or going to the packing facility for 15 minutes the remaining 30% of the times. Maintainers are only $N_B = 3$, they never visit the packing, they have a think time of 2 minutes, and they spend 2.4 minutes using the web server, and one hour in the warehouse.



Determine (using the **JMVA** component of the **JMT** tool):

1. The utilization of the four stations (excluding the terminals)
2. The average number of customers in the system for customers, employees and maintainers.
3. The average number of customers in the web server.
4. The average system response time for customers, employees and maintainers
5. The throughput of the Warehouse
6. The class-independent average number of jobs in the system (N)
7. The class-independent average system response time (R), excluding the think-time