

The Impact of Using Resources on Waiting Time in the Queueing Model with FlexSim

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Abstract. This paper is part of a sequence of articles by the author. The previous report identified the method and result of using a contradiction matrix and 40 inventive principles to trigger three consecutive resources and alleviate the waiting time measurement error in the general framework. A FlexSim program was executed and the results compared, to show the superiority of our approach in the form of given distributions in incoming customer events and processing times. However, no detailed contrast between the content vs. time plots were made. This paper gives a simple sequence of inter-arrival and process time and shows the intrinsic significance of the dynamic waiting time in five cases. The simulation is run for 25 s, to sketch the influence of the three consecutive resources. Finally, some insights are provided by comparing the waiting time for each customer in five cases.

Keywords: Content vs Time Plot, Dynamic Waiting Time, Resource.