Counter Queuing System

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ABSTRACT

This project paper is about the Counter Queuing System, its construction, its theory behind it and the possible outcomes that it can produce. Advantages and disadvantages of this queuing system are included.

The Counter Queuing System consists of two portions: hardware and software. The hardware consists of non-inverting buffer, inverting buffer, priority encoder and multiple buttons. The main responsibility for the hardware is to get input signal from the counters or customers and send the signal to computer through parallel port.

Visual Basic is use in the project. Program is written to read and analyze the input through parallel port. The software will print out the queue number to the customer instantly when it detect input signal from customer. It also displays the current queue number to be served at which counter.

Erlang C formula is included in the software. It is used to calculate the probability that the customer will need to wait for the service. As a result the grade of service can be determined and sufficient counters can be set up to meet the demand.