CQS Use Cases

1. Customer accesses kiosk and enters in preferred checkout requirements

To enter the CQS, the customer will access the kiosk at the front of the checkout area. This kiosk will be running the CQS on a Windows operating system. There they will be able to choose their payment method, whether they have few enough items to use the express lanes, and whether they want to use self-checkout. Once the kiosk receives all of the required information, it will direct the customer to the appropriate POS.

2. Customer plans to pay card and wants to go to self-checkout

If the customer chooses to pay with a card, and selects self-checkout, the customer will be directed to the SCO with the least amount of customers queued. If all of the SCOs have the same number of customers, and they are not full, one will be selected at random. If all of the SCOs are at their maximum capacity, the customer will be recommended via the kiosk to use a different checkout type.

3. Customer can pay cash or card and wants to checkout express

If the customer has chosen to pay with either cash or card, and selects that they are purchasing few enough items, they will be presented with the option to use an express lane. The express lane will function similarly to a regular checkout lane, however it will only be used by customers with a limited number of items. By default they will be configured to use cash or card, however this can be changed by store managers in the future.

4. Customer is recommended a cashier POS because all SCOs are occupied

The customer will access the kiosk to enter in their desired checkout conditions. If the customer has entered in their desired checkout condition of SCO, and the CQS detects that all the SCOs are currently occupied, the customer will be recommended a cashier POS to go to instead. This recommendation will keep the desired payment type entered by the customer in mind so no payment issue occurs.

5. Store manager configures cashier registers to the store

The store manager will access the kiosk to configure the cashier registers of the store for the CQS. The store manager will declare the number of cashier POSs as well as each POS's acceptable payment types. The store manager will also be able to declare if the POS is an express lane or not. Reconfiguration of the cashier registers of the store for CQS will be available upon opening the kiosk for the day should there need to be an adjustment for the number, payment, and/or express acceptability of the POS.

6. Store manager configures SCOs registers to the store

The store manager will access the kiosk to configure the SCO registers of the store for the CQS. The store manager will declare the number of SCO POSs as well as each POS's acceptable payment types. Reconfiguration of the SCO registers of the store for CQS will be available upon opening the kiosk for the day should there need to be an adjustment for the number and/or payment of the POS.

7. Store staff are notified POSs are full and new ones may need to be opened

A customer accesses the kiosk and enters their desired checkout requirements. The CQS checks the available POSs and determines that there is no space at POSs that can fulfill these requirements currently. Store staff will be notified of the checkout condition(s) that are preoccupied and recommended to open up a new POS to satisfy customers.

8. Customer is notified of delay affecting their preferred checkout requirements

A customer accesses the kiosk and enters their desired checkout requirements. The CQS checks the available POSs and determines that there is no space at POSs that can fulfill these requirements currently. The customer will then be notified of this situation at the kiosk.

9. Store staff collects checkout data

Store staff closed the CQS kiosk for the day. Upon closing the kiosk, the store staff will be presented with the checkout data collected while the CQS was running. Information about how many customers opted for what checkout types, payment types, and if they checked out express will be available. Store staff will be responsible for recording the data as it will not be saved by the system.

10. Customer removed from queue after checkout complete

A customer performs their transaction at a designated POS. Once the transaction has ended at a POS, the CQS will take the customer out of the queue for that POS. Space and an open slot for a new customer will be adjusted and accounted for within the CQS.

CQS Use Case Diagram