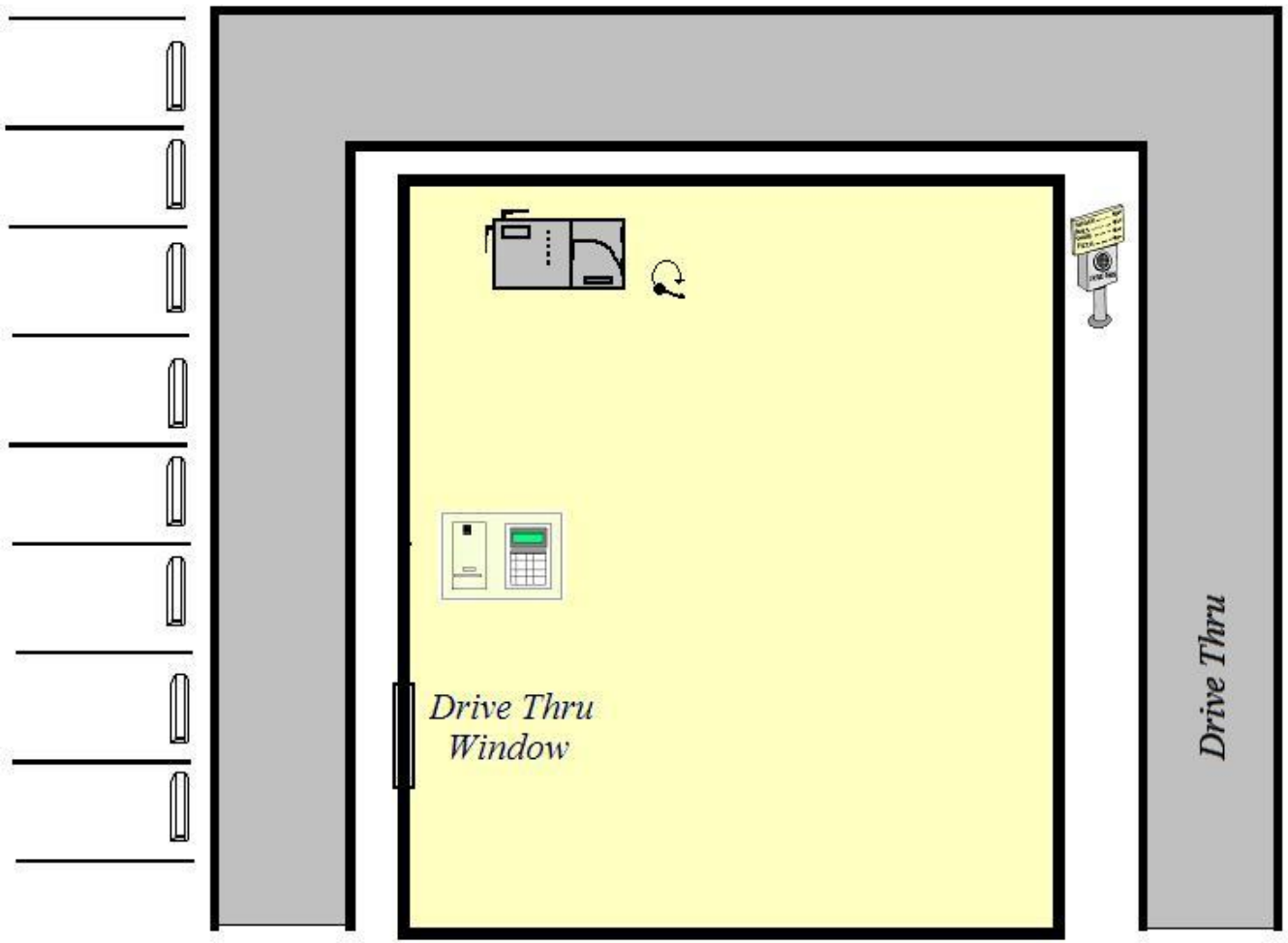
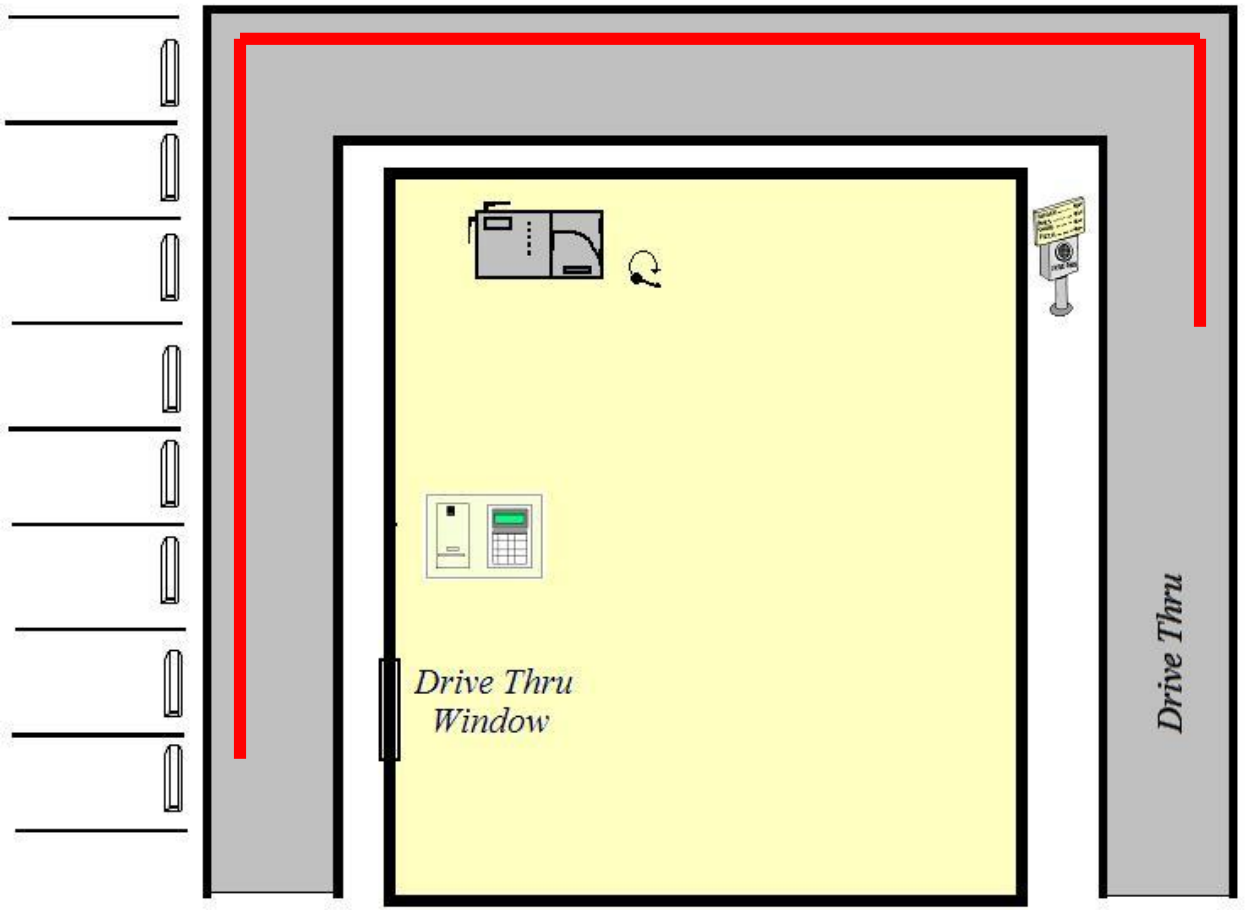

DASHBOARD
Menu
EXAMPLE
DASHBOARD
3:32
2:59
2:29
2:16
Service
1:28
Menu
3:32
Service
Menu
1:28
Total

ZOOM™


Drive Thru
Window
Drive Thru

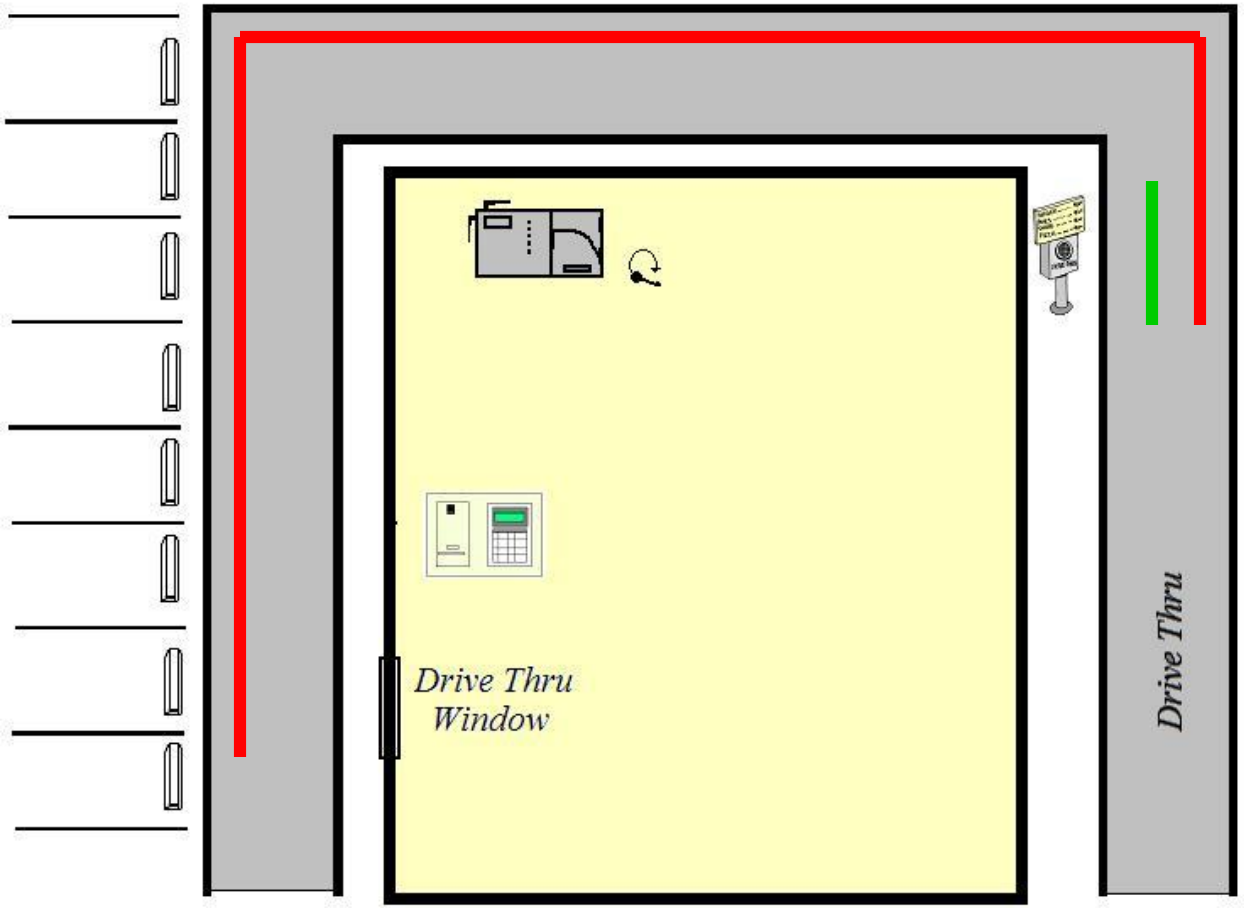
What Is Counted?



Total Time

How long it takes for the car to enter and leave the drive thru with their food.

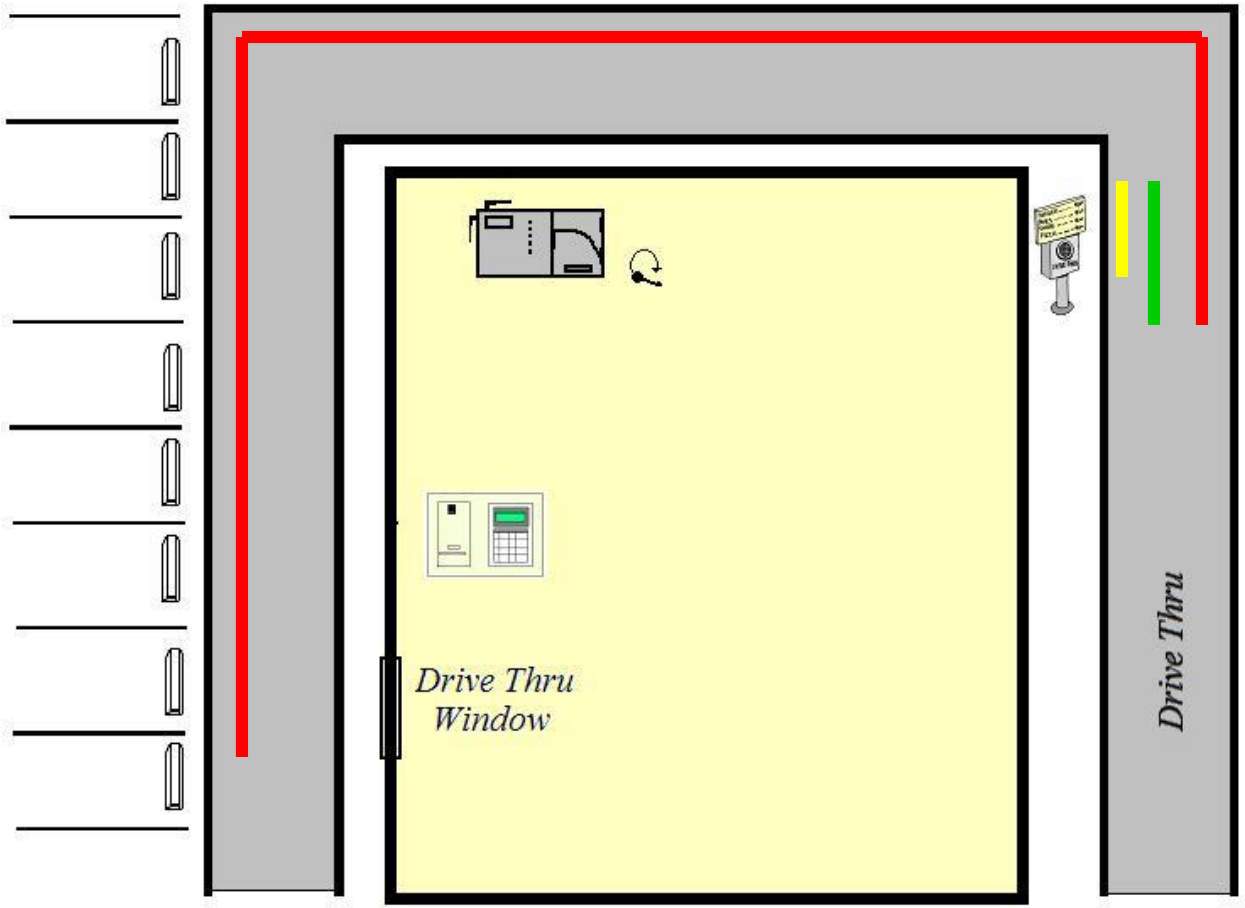
What Is Counted?



Menu time

The time that a car spends at the menu board.

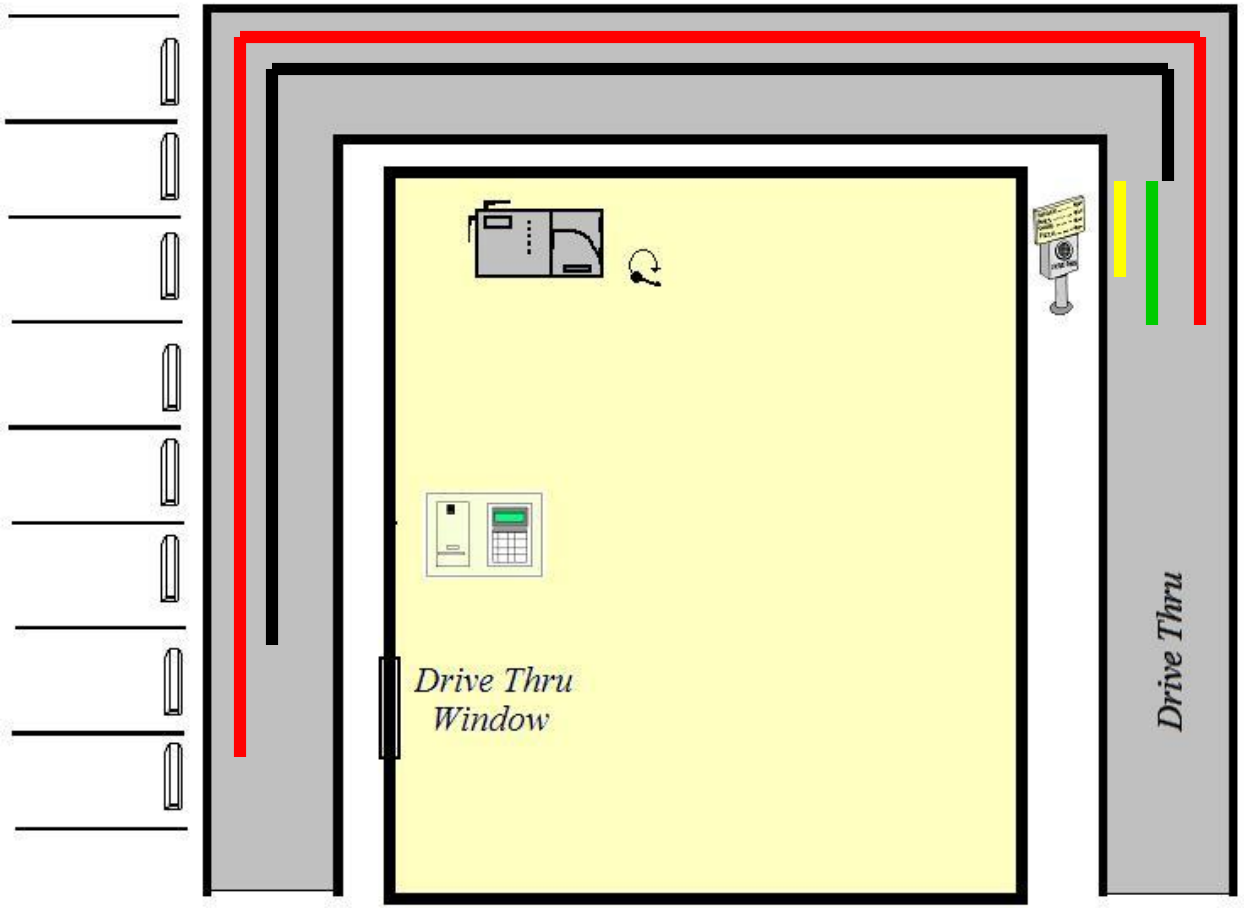
What Is Counted?



Greet time

How long it takes for the employee to greet the customer at the menu board outside

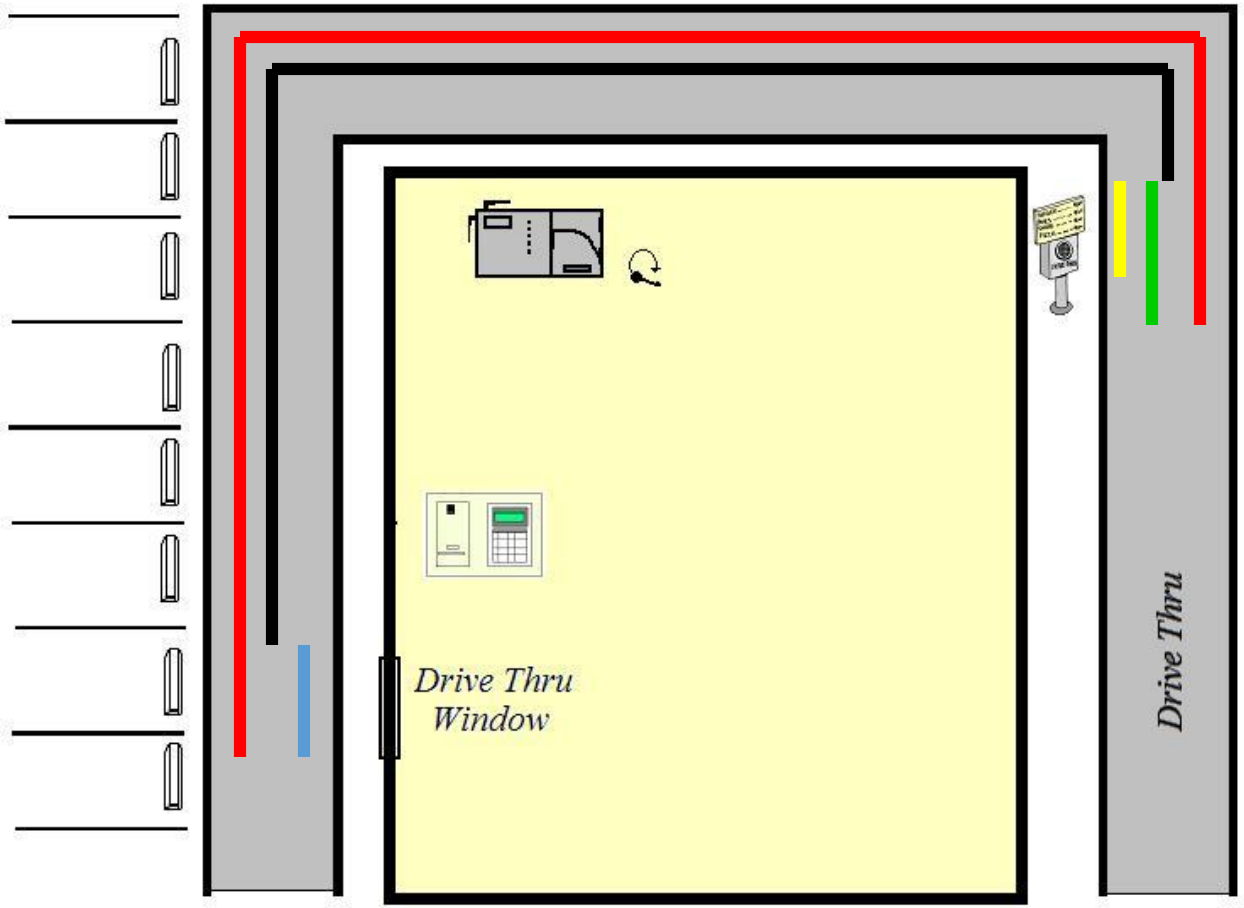
What Is Counted?



Queue time
The time a car spends between detection points.

If the store has a “live” Cashier Detection Point, the time spent at the Cashier Window will be included in the Avg Queue Time.

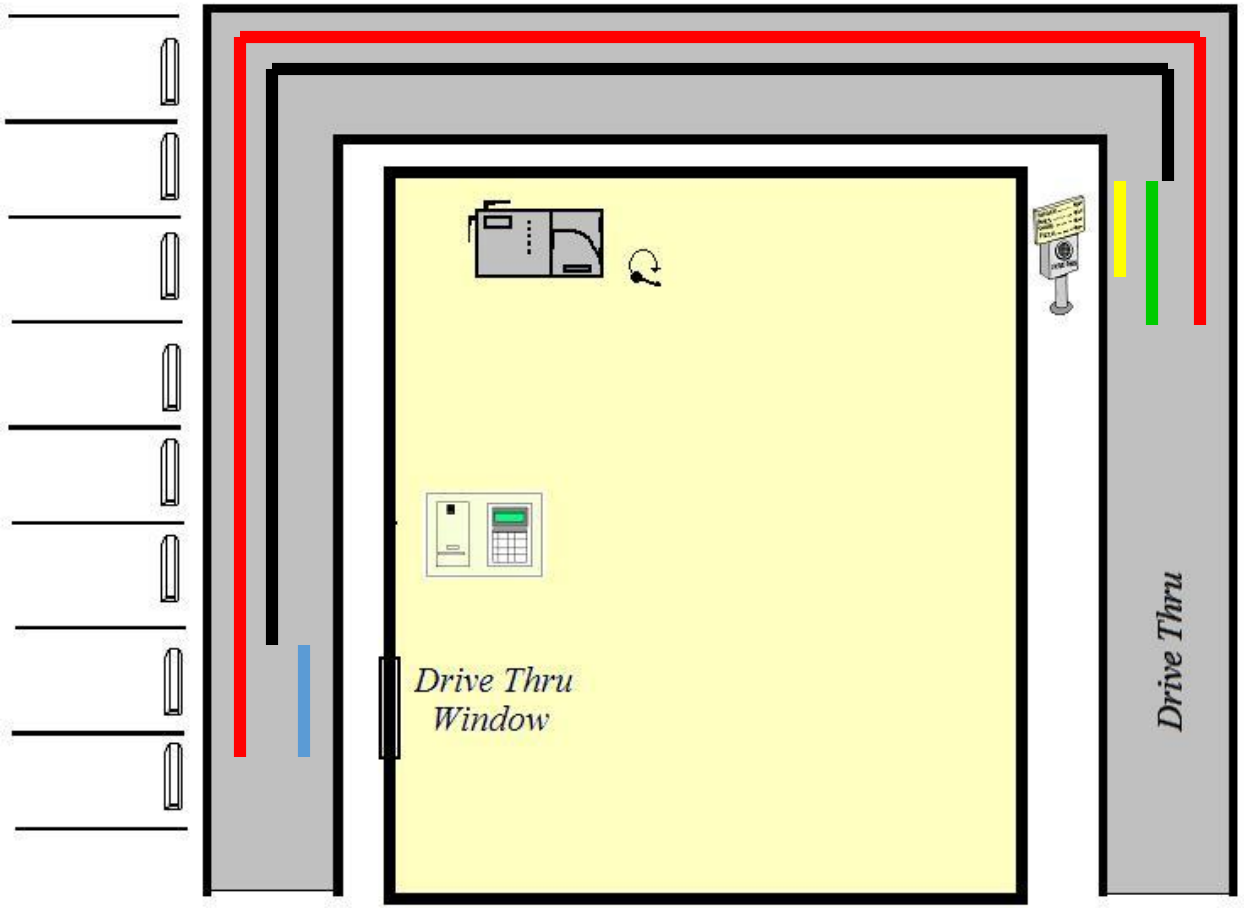
What Is Counted?



Window Time

The time a car spends at the window

What Is Counted



Menu time

Greet time

Queue time

Window Time

Total Time

Managing Expectations

- ***What is Accuracy in a timer?***
  - If a vehicle spends 3 minutes in a drive thru, the timer reports 3 minutes.
  - If 1100 vehicles go through the drive thru lane, the timer reports times for 1100 vehicles.
  - There will ***NEVER*** be an exception to this.

Managing Expectations

- ***All*** timers are 100% exception free under controlled conditions.
- A laboratory environment offers controlled conditions – an actual store does ***NOT***.
- ***NO*** Drive-Thru timer is 100% exception free when installed in actual stores.

Managing Expectations

- Timers cannot just be thrown up on the wall and walked away from.
- Success requires planning and Observation.
- Planning and observation require an understanding of traffic flow, timer capabilities, and detection capabilities.
- Followed by correct configuration of timer settings.

Timing Basics

Example Timing Scenario:

- Two Window Store
- Typical Detection Points:
  - Menu, Greet, Cashier, Service
- As the vehicle approaches the menu detector, it is not yet being tracked by the timer.

Timing Basics

Example Timing Scenario:

- When the vehicle triggers the Menu detector, the timer begins counting the TOTAL time for the vehicle in the lane.

- The timer is also now recording time spent at the Menu detector.

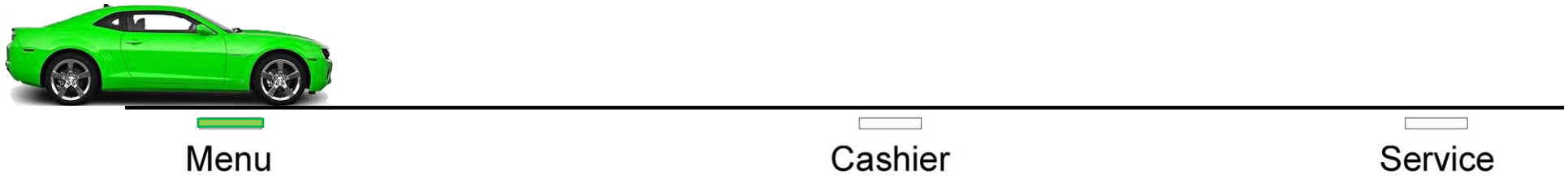
- Note: This detection signal is usually routed to the intercom system first for the purpose of facilitating communication with the customer – and the intercom system then sends this detection signal to the timer.

Timing Basics

Example Timing Scenario:

- As the employee responds via the audio system, the timer records the time between the initial Menu detection and the 1st outbound audio signal as the GREET time.

Timing Basics

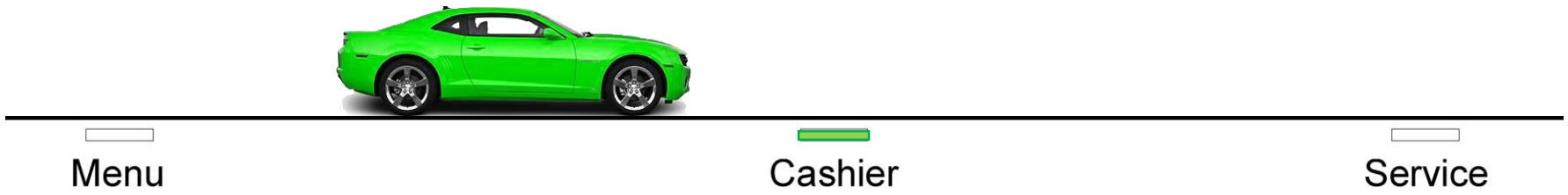


Example Timing Scenario:

- When the vehicle leaves the Menu detector, but before it reaches the next (Cashier) detector, the timer stops recording Menu time.

- The timer is now recording time spent in the Menu Queue.

Timing Basics



Example Timing Scenario:

- When the vehicle reaches the next (Cashier) detector, the timer stops recording Menu Queue time.

- The timer is now recording the time spent at the Cashier detector.

Timing Basics

Example Timing Scenario:

- When the vehicle leaves the Cashier detector, but before it reaches the next (Service) detector, the timer stops recording Cashier time.

- The timer is now recording time spent in the Cashier Queue.

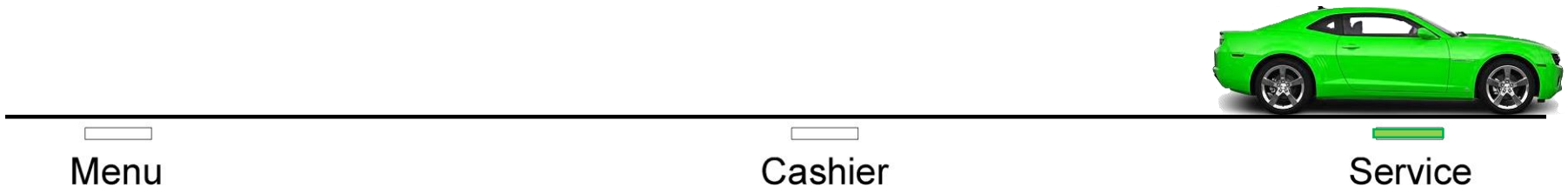
Timing Basics

Example Timing Scenario:

- When the vehicle reaches the next (Service) detector, the timer stops recording Cashier Queue time.

- The timer is now recording the time spent at the Service detector.

Timing Basics



Example Timing Scenario:

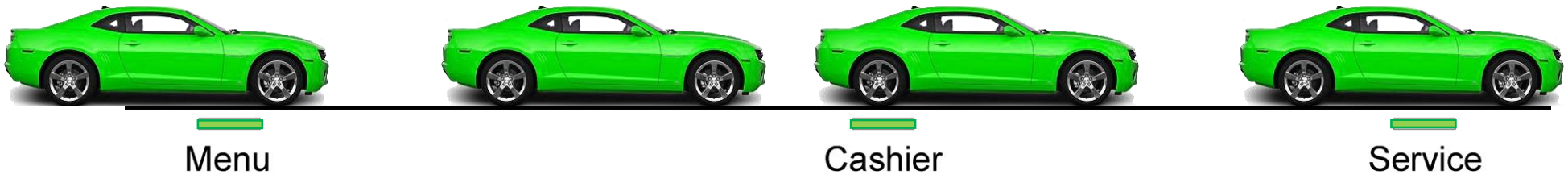
- When the vehicle leaves the Service detector, the timer stops recording Service time.

- This completes the time tracking through the lane, and the timer also stops recording the TOTAL time for the vehicle.
  - In this case, TOTAL time =

  Menu + Average Queue time (Menu Queue + Cashier Queue) + Service.

  Remember: Cashier time is called out on report, but also factored into Ave. Queue time.

Timing Basics

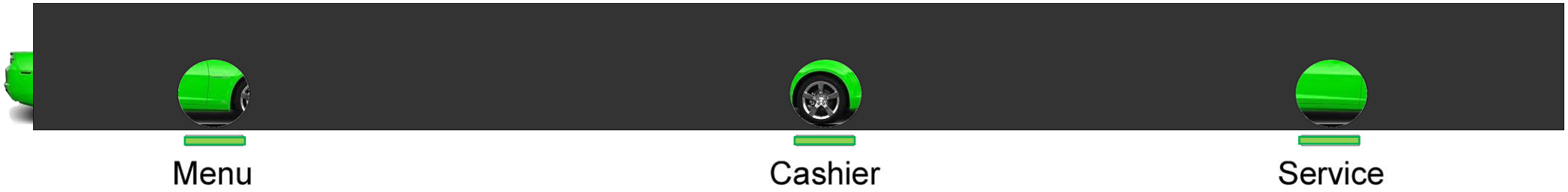


Keeping track of vehicles:

- The timer is able to track this process even when there are several vehicles in the drive thru lane.

- The timer's ability to track cars is primarily dependent on the correct operation of the detectors, but also the well ordered, sequential progression of the vehicles through the lane.

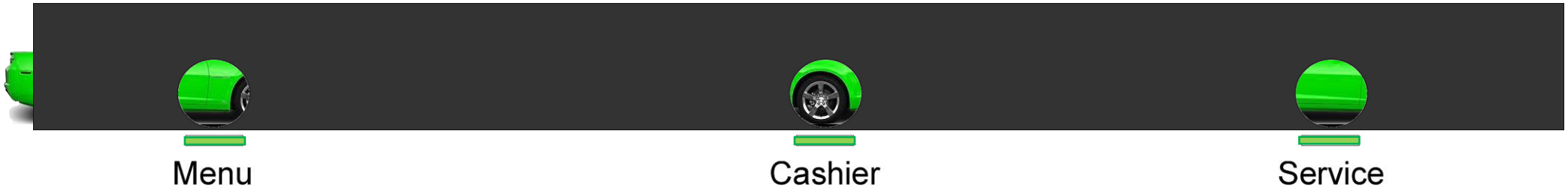
Timing Basics



Keeping track of vehicles:

- The timer's view of the lane is restricted to the information supplied by the detectors, so the timer has tunnel vision...

Timing Basics



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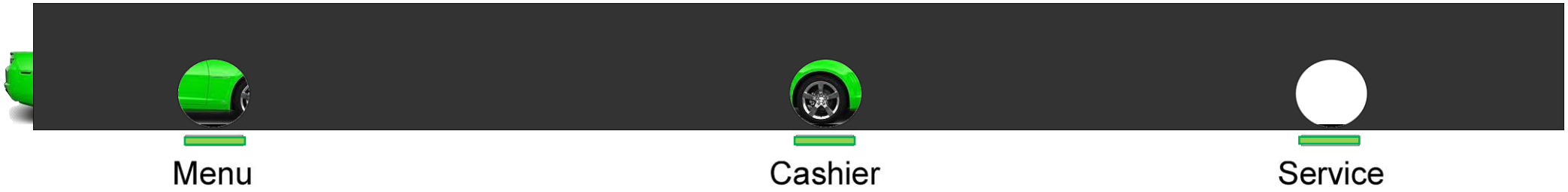

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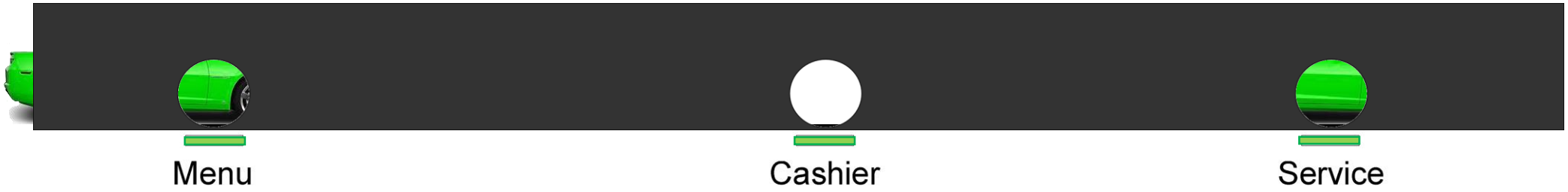

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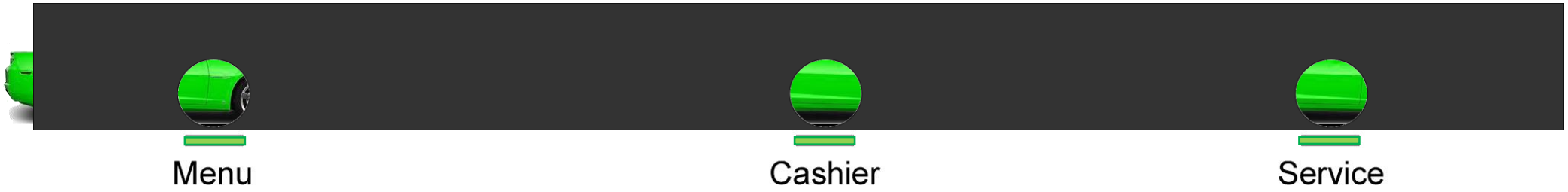
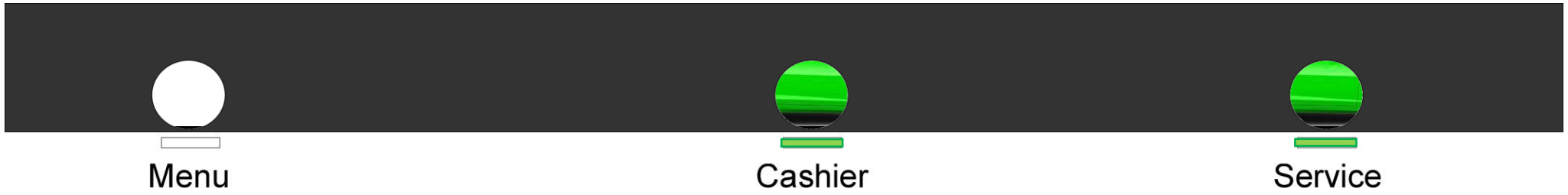


Keeping track of vehicles:

- The timer's view of the lane is restricted to the information supplied by the detectors, so the timer has tunnel vision...

Timing Exceptions



Keeping track of vehicles:

- For example, the timer knows the yellow vehicle is in the drive-thru lane because it has left the Menu detector, and not yet arrived at the Cashier Detector.

Timing Exceptions

Keeping track of vehicles:

- The timer has no way to immediately recognize if this yellow vehicle leaves the drive-thru lane early.

- The timer requires particular lane conditions to recognize that this has happened.
  - In this case, the timer must wait for the Cashier detector to clear, and then wait to see if the vehicle arrives at the Cashier.

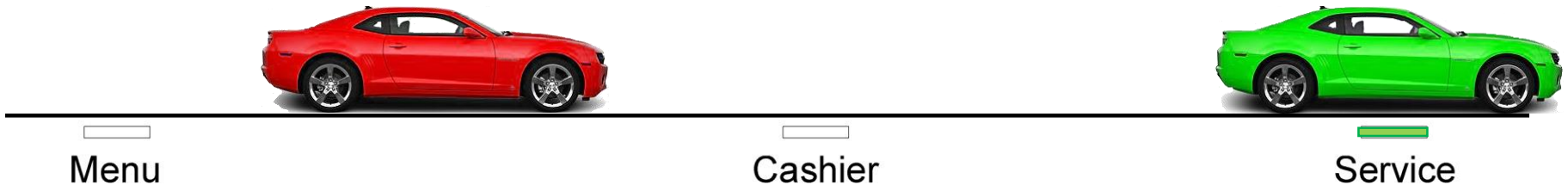
Timing Exceptions

Keeping track of vehicles:

- The timer has no way to immediately recognize if this yellow vehicle leaves the drive-thru lane early.

- The timer requires particular lane conditions to recognize that this has happened.
  - In this case, the timer must wait for the Cashier detector to clear, and then wait to see if the vehicle arrives at the Cashier.

Timing Exceptions



Keeping track of vehicles:

- This will increase average times until the timer is able to make an adjustment.
- For a busy drive-thru this can take considerable time.
- The amount of time to wait can be reduced to allow the timer to make a correction more quickly – at the risk of deleting real vehicles – which will reduce average times.
- An enclosed lane can prevent vehicles from leaving before the last detector, reducing these errors.
- Even with an enclosed lane, distances between detectors or misbehaving detectors will still lead to some exceptions.

Timing Exceptions

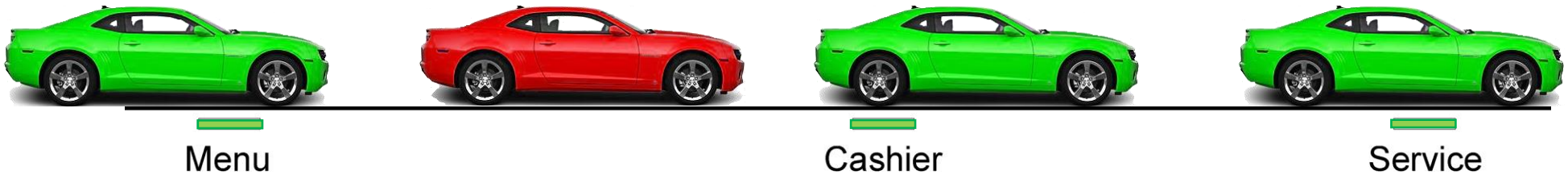
Keeping track of vehicles:

- The timer makes corrections based on lane conditions by throwing out a car (called a PULLOUT), or adding in a car (called a PULLIN).

- PULLOUTs and PULLINs are not necessarily a bad thing – it is just an indication that the timer made a correction for something unexpected in the lane.

- Generally, PULLOUTs and PULLINs less than 3% of total cars is normal behavior.
  - If exceeding 5% - there may be a detector issue.

Timing Exceptions



Keeping track of vehicles:

- If a car pulls off a detector and backs back onto it, the timer will process this as a new vehicle arrival at that detector.

- The timer will be “out of sync” until lane conditions allow for the timer to make a correction.

Timing Exceptions

Keeping track of vehicles:

- Tailgating cars could cause the detector to miss where one car ends and the next begins, so the timer sees these two cars as one – at this detector.

- Improperly sized, low quality or poorly placed detectors can contribute to this problem.

Timing Exceptions

Keeping track of vehicles:

- If using a Cashier window, but not using a detector at that window – requires waiting longer to see if the car in queue is going to arrive at the next detector.

- This increases the time it takes the timer to correct for errors, and will inflate average total times as a result.

•**Enhanced Pullout Detection** applies the Service Idle Time to ***each*** ON detector, not just the last one. In **Enhanced Pullout Detection** mode, ZOOM™ determines a vehicle to be a pullout IF any vehicle has been between ANY two ON detection
• points in excess of the Max Delay Time AND the next ON detection point has been vacant in excess of the Max Service Idle Time.

Ins
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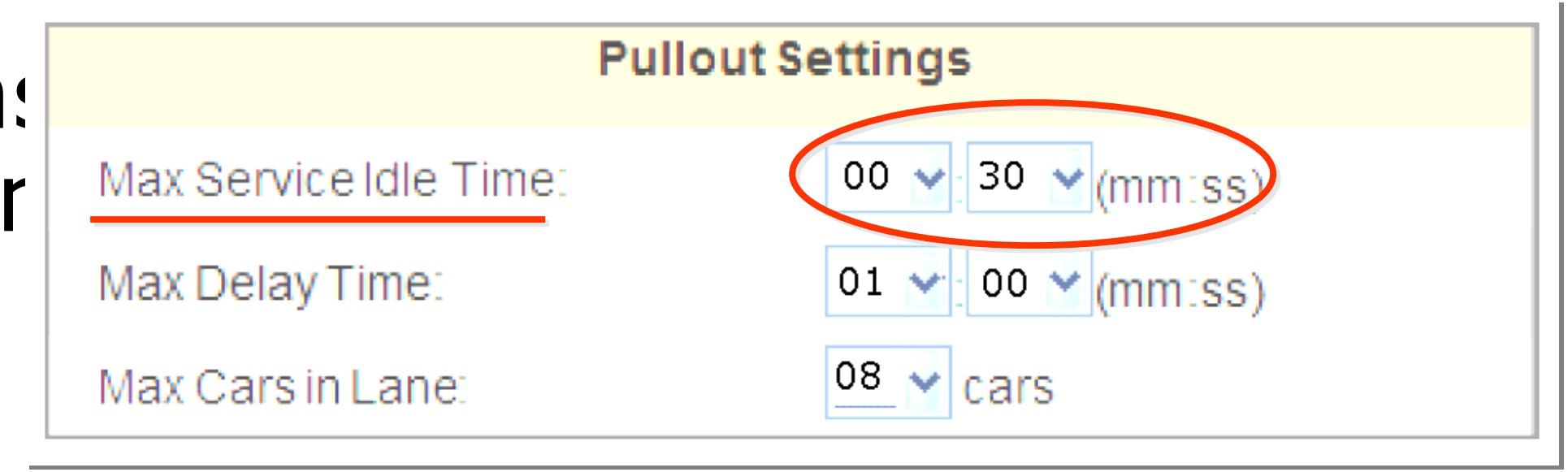
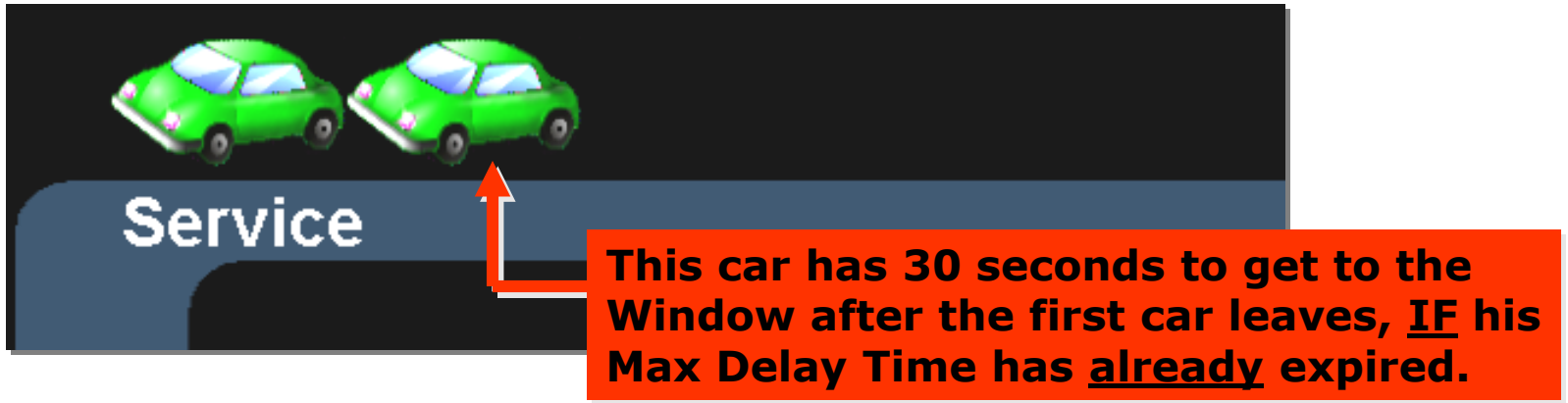


Max Service Idle Time is the maximum time that the last **ON** detection point can be vacant with cars between locations. The range is from 00:01 (one second) to 10:00 (10 minutes).



Ins

Pullout Settings

Max Service Idle Time:	00 : 30 (mm:ss)
Max Delay Time:	01 : 00 (mm:ss)
Max Cars in Lane:	08 cars

Max Delay Time for the maximum time allowed for a vehicle to leave one ON detection point and arrive at the next **ON** detection point before the ZOOM™ system will discard the record. The range is 00:01 (one second) to 10:00 (10 minutes).

This car has left the Menu with nobody at the Window, it has one minute to get there.

Timing Exceptions

Keeping track of vehicles:

- Maximum cars in lane settings can help the timer make a correction more quickly if it appears too many cars are present in the drive-thru lane.

- This lane holds 4 cars.

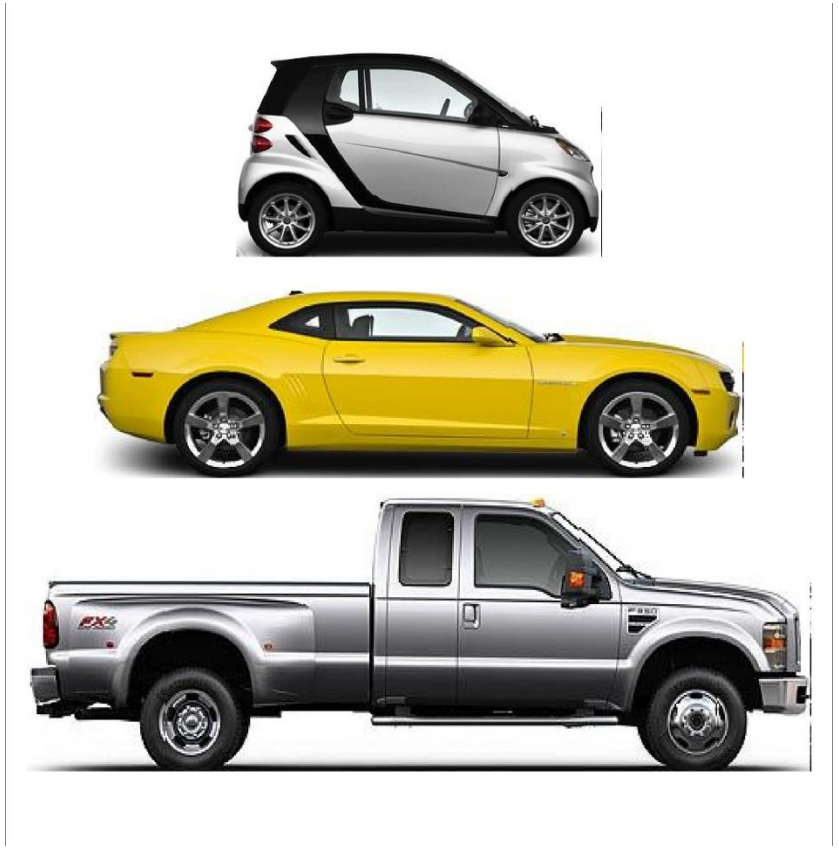
- Or is it 6 cars?

Timing Exceptions

Keeping track of vehicles:

- Maximum cars in lane settings can help the timer make a correction more quickly if it appears too many cars are present in the drive-thru lane.
- This lane holds 4 cars.
- Or is it 6 cars?
- Or is it 3?

Timing Exceptions



9 feet

17 feet

20 feet

Review

- ***NO*** Drive thru timer is 100% exception free, ***WHY***?
  - Varying Drive thru lane construction
    - Un-captured
    - Partially captured
    - Fully captured
    - Different distances between detection points
  - Varying types of detectors/capabilities
    - Magnetic anomaly
    - Ultrasonic
    - Radar
    - Video
    - Loops
    - Varying types of vehicles and their construction materials

Summary

- All timers are 100% exception free in controlled conditions.
- In real stores, conditions are ***NOT*** controlled
- Best results come from proper design, construction, installation and a timer capable of identifying errors and correcting quickly (like HME timers!)
- When an exception occurs but before corrections are made, there will be inaccurate or missing data.
- With quick corrections, impact to data averages over time is minimal.