CLAIMS:

~~1.~~ 1. A queue monitoring system, comprising:

~~at least~~ one ~~sensor~~ or more sensors associated with an entrance of an attraction and configured to generate a sensor signal, wherein the one or more sensors are configured to:

monitor guests in a first queue and a second queue for the attraction, wherein the sensor signal comprises an indication of waiting guests; and

monitor the guests admitted from ~~an~~the first queue via the entrance ~~and generate a~~, wherein the sensor signal comprises a count of admitted guests;

a mechanical gate controlling passage of admitted guests from the first queue and a second queue into the attraction through the entrance; and

a virtual queue controller comprising a processor and communications circuitry, wherein the virtual queue controller is configured to:

communicate ~~guest admittance information to an operator device, the guest admittance information causing the operator device to display~~ a target number of guests to be admitted into the attraction to an operator device to cause the operator device to display the target number of guests to be admitted into the attraction from the first queue or the second queue during a time interval;

generate instructions to open the mechanical gate to admit the guests from the first queue;

determine ~~a~~the count of the guests admitted from the ~~entrance~~first queue during the time interval based on the sensor signal;

determine a remaining number ~~representative~~ of remaining guests to be admitted based on a difference between the target number of guests to be admitted into the attraction and the count of the guests admitted from the entrance; ~~and~~

communicate a standby admit signal to the operator device to cause the operator device to display the remaining number~~.~~ of remaining guests to be admitted; and

determine that there are no waiting guests in the first queue subsequent to admitting the guests from the first queue based on the sensor signal; and

generate instructions to open the mechanical gate to admit the remaining number of guests, wherein the remaining number of guests are admitted from ~~from~~ the second queue only after the time interval is elapsed or mostly elapsed and based on the remaining number being greater than zero and the determining that there are no waiting guests in the first queue.

~~2.~~ 2. The queue monitoring system of claim 1, wherein the ~~at least~~ one ~~sensor comprises~~or more sensors comprise a camera configured to generate image data, and wherein the controller is configured to identify individual guests in the image data to determine the count of guests admitted from the entrance.

~~3.~~ 3. The queue monitoring system of claim 2, wherein the ~~entrance~~first queue is a virtual queue entrance that is fed by guests holding mature return times.

~~4.~~ 4. The queue monitoring system of claim 3, wherein the camera is positioned to further monitor standby guests admitted via ~~a standby queue adjacent to the entrance or sharing the entrance~~the second queue.

~~5.~~ 5. The queue monitoring system of claim 4, wherein the virtual queue controller is configured to update the remaining number ~~based on a number of standby~~after the guests from the second queue are admitted.

~~6.~~ 6. The queue monitoring system of claim 1, wherein virtual queue controller is configured to start a new time interval after the time interval has elapsed, wherein the target number of guests to be admitted during the new time interval is equal to the target number of guests to be admitted during the time interval.

~~7.~~ 7. The queue monitoring system of claim 6, wherein a length of the new time interval is equal to the time interval.

~~8.~~ 8. The queue monitoring system of claim 1, wherein the virtual queue control communicates a control signal to ~~a~~the mechanical gate of the entrance.

~~9.~~ 9. The queue monitoring system of claim 8, wherein mechanical gate is open to admit guests from the first queue or the second queue until the count of guests admitted from the entrance is equal to the target number.

~~10. The queue monitoring system of claim 1, wherein the standby admit signal further~~

~~comprises an indication to wait before admitting guests from a standby queue.~~

~~11. The queue monitoring system of claim 10, wherein the indication to wait is based on a remaining time in the time interval, wherein standby guests are not admitted until a threshold time of the time interval has elapsed.~~

10. ~~12.~~ A queue monitoring method, comprising:

starting a time interval for admittance via an entrance;

providing a target guest admittance of the time interval;

generating a first control signal to open a mechanical gate responsive to starting the time interval;

receiving a first count of guests admitted via ~~the entrance~~a first queue through the mechanical gate;

determining standby admittance information from a second queue based on a difference between the received first count from the first queue and the target guest admittance of the time interval, wherein the standby admittance information comprises a remaining number of admittances that is greater than zero to be admitted via ~~a standby entrance; and~~the mechanical gate;

communicating a standby admit signal to an operator device to cause the operator device to display the remaining number of admittances to be admitted via the ~~standby entrance.~~mechanical gate;

receiving a second count of guests admitted via the second queue through the open mechanical gate; and

generating a second control signal to close the mechanical gate when the second count equals the remaining number.

~~13.~~ 11. The queue monitoring method of claim ~~12~~10, comprising starting a new time interval after the time interval has elapsed.

~~14.~~ 12. The queue monitoring method of claim ~~13~~11, comprising resetting the target guest admittance after the time interval has elapsed.

~~15.~~ 13. The queue monitoring method of claim ~~12~~10, comprising communicating a wait signal upon a determination that the remaining number is greater than zero and that an insufficient portion of the time interval has elapsed.

~~16.~~ 14. The queue monitoring method of claim ~~15~~13, subsequent to communicating the wait signal, communicating the standby admit signal after ~~a sufficient portion of~~ the time interval has elapsed.

~~17.~~ 15. A queue monitoring system, comprising:

a virtual queue controller comprising a processor and communications circuitry, wherein the virtual queue controller is configured to:

communicate guest admittance information comprising a target number of guests to be admitted through an entrance during a time interval;

control opening of a mechanical gate to the entrance;

determine a count of guests admitted ~~from~~through the ~~entrance~~mechanical gate during the time interval based on a generated sensor signal; and

determine standby information, the standby information comprising a remaining number of standby guests to be admitted based on a nonzero difference between the target number of guests to be admitted and the count of guests admitted from the entrance; and

communicate the standby information based on the remaining number; and

an operator device configured to:

receive the guest admittance information and the standby information; ~~display the target number and time interval information comprising time~~

display the target number of guests to be admitted and time interval information comprising time remaining in the time interval;

display the standby information; and

receive an operator input of standby guest admittances during the time interval~~.~~;

wherein the virtual queue controller controls closing of the mechanical gate responsive to the standby guest admittances equaling the remaining number.

~~18.~~ 16. The queue monitoring system of claim ~~17~~15, wherein the operator device is configured to change a displayed admittance status of standby guests based on the time remaining in the time interval.

~~19.~~ 17. The queue monitoring system of claim ~~18~~16, wherein the operator device is configured to change the displayed admittance status of standby guests to indicate permitted entrance up to the remaining number after the time interval has elapsed.

18. The queue monitoring system of claim ~~18~~16, wherein the virtual queue controller is configured to receive controller inputs to set one or more of the target number, a length of the time interval, and a number of time intervals per day.

19. The queue monitoring system of claim 1, wherein the generated instructions cause the mechanical gate to open to the second queue when less than 10% of a total time of the time interval is remaining.

~~20.~~ 20. The queue monitoring system of claim 5, wherein the virtual queue controller is configured to generate instructions to close the mechanical gate to the first queue and the second queue when the updated remaining number is zero.