

**BE THE FIRST TO KNOW!**

**5 MUST-TRACK  
ROULETTE WHEEL  
ANALYTICS THAT  
PROTECT & OPTIMISE  
YOUR CASINO**



**TCSJOHNHUXLEY**



## *Build your Own Platform*

**Build your own table management platform using varying combinations of the seven GFL modules. Like building blocks, you can add as many modules as you desire onto the base platform, in order to suit your unique needs.**

**The flexibility of the system means you can:**

- Quickly or gradually build a platform to suit your requirements
- Stay within budget and plan finances for future integrations
- Expand and grow the platform when suitable for the casino

Use your mouse to hover over an icon for a detailed description

# Strength In Numbers: Roulette Wheel Analytics

Maintaining Roulette wheels at peak efficiency is an imperative part of operating secure, reliable and unbiased Roulette tables. Prior to the integration of technology onto the casino floor, Operators were forced to rely on their best judgment to determine when to further investigate Roulette wheel integrity. While proactive maintenance checks were conducted regularly, casinos lacked the ability to capture real-time statistics and monitor concurrent wheel security. This left room between scheduled checks for possible inaccuracies due to incorrect levelling of the wheel, temperature drift, table movement or fraudulent wheel manipulation.

## Always Be The First To Know

Today, with the help of more sophisticated technology, Operators are able to access more detailed and accurate insights about their wheel's performance – 24 hours a day, 7 days a week. This information not only aids in ensuring wheels and Dealers are operating at their best, but it also helps to immediately highlight and detect any wheel bias or other issues that may pose a security risk.

If you're the first to know, you can also be the first to act. Pay attention to these top 5 Roulette wheel analytics to protect your casino and optimise operations.

*Saturn Roulette Wheel*



# The Key Analytics

1. Drop Zone Reports ..... pg. 5
2. Wheel Bias Reports & Alerts ..... pg. 6
3. Wheel Maintenance History ..... pg. 8
4. Spins Per Hour ..... pg. 9
5. Speed of Cylinder ..... pg. 10

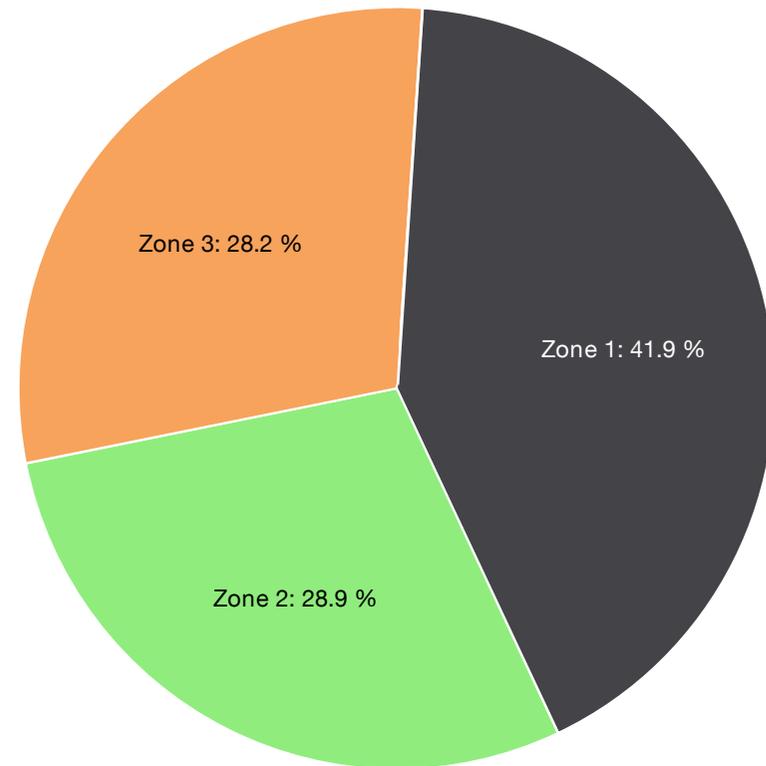
**‘ The price of light is less than  
the cost of darkness. ’**

*Arthur C. Nielsen*

# #1 Drop Zone Reports

For the purposes of monitoring wheel security and performance, a Roulette Wheel is divided into three imaginary Drop Zones – these can be visualized using the GFL Optimisation Wheel Analysis feature. If the ball shows a noticeable tendency to leave the ball track in one of these zones more often than any other, there is likely a bigger issue that needs to be addressed.

With Drop Zone Reporting, a greater percent of frequency of the ball leaving the rim in a particular zone is a strong indication that the wheel is either dirty, imbalanced or that there has been some table or wheel tampering. Operators who pay attention to their Drop Zone reports have the advantage of knowing immediately when to look into a wheel's integrity. This allows them to either action immediate wheel maintenance or address suspicious game behaviour.



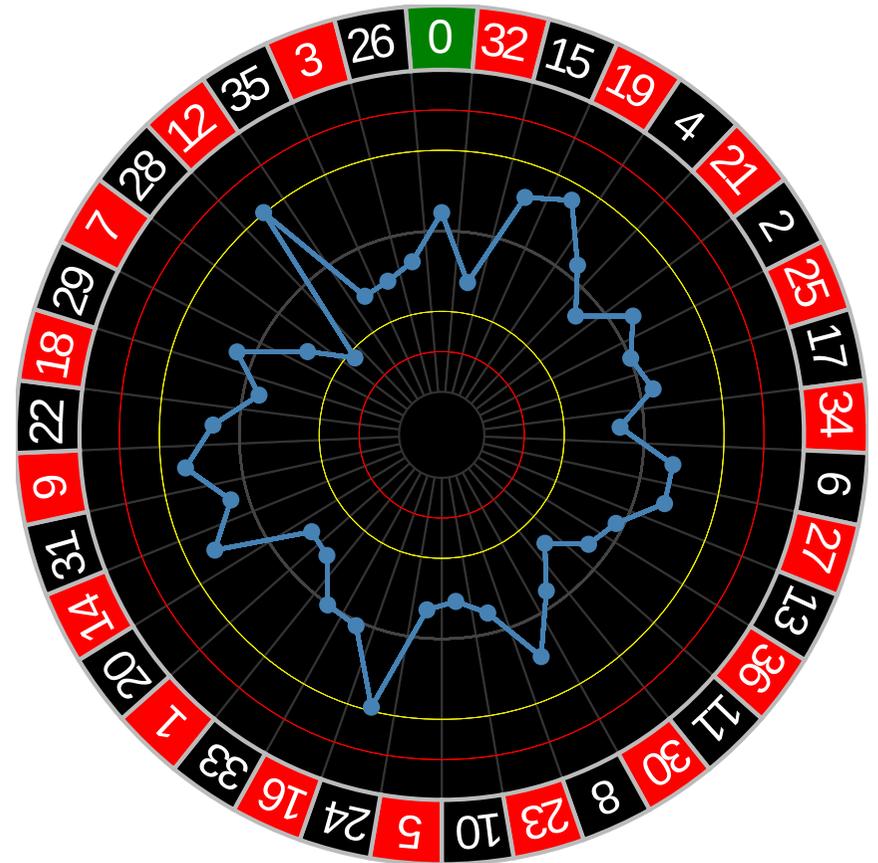
*Dropzone Example*

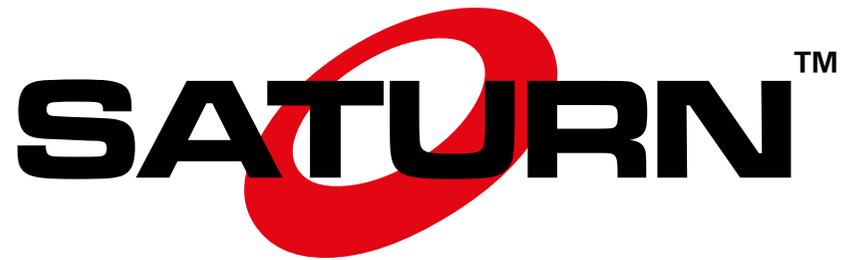
*TCSJOHNHUXLEY'S Saturn wheels come equipped with built-in Drop Zone detection. [Learn More](#) >>*

## #2 Wheel Bias Reports & Alerts

A wheel bias is similar to, but different than, a Drop Zone. The benefit of knowing both is that you can quickly determine what sort of issue your wheel is having, and where it's located on the wheel, according to which metric is abnormal. A wheel bias is determined by the frequency of where the ball lands, and a Drop Zone is determined by the frequency of where the ball leaves the rim. If a particular number, or group of numbers, is winning more than average, you have a wheel bias.

Dead pockets or other wheel-related issues – often related to improper wheel maintenance – are the main causes of wheel bias. A Casino Operator who can quickly identify that their wheel is experiencing a bias can immediately close the table or monitor it more closely to determine what further course of action to take. A wheel bias alert, which notifies a casino operator that the system has identified a potential issue, helps to secure the game in real-time, while the detailed information provided by the wheel bias report, makes it easier for the casino to identify where the problem resides on the wheel.





## *World's Most Advanced Roulette Wheels*

The integration of high quality craftsmanship with advanced innovation makes Saturn™ wheels the most technically advanced wheels in gaming today.

*Saturn Auto Roulette Wheel*

### **Saturn™ 2**

- 3 reading devices embedded in the wheel
- Built in diagnostics and error indicators
- Drop Zone Detection and ball track inclinometer
- Saturn™ Data Logger

### **Saturn™ Auto**

- Compact, tabletop, automated Roulette wheel
- All the benefits of Saturn™ reading technology
- 3 modes: full-automatic, automatic & semi-automatic



## #3 Wheel Maintenance History

Wheel Maintenance is an extremely important part of ensuring a wheel is operating at peak efficiency. Equally important, is knowing when your wheel was last serviced, cleaned or levelled.

For example, imagine if your system was indicating a higher percent of frequency in a particular Drop Zone. This would potentially signify that the wheel or table has been tampered with, there is an issue with the levelling of the wheel or the wheel needs to be cleaned. By referencing your Wheel Maintenance History reports and identifying when the wheel was last serviced, you can quickly identify if the issue is likely to be related to cleanliness or not.

**With TCSJOHNHUXLEY's GFL Optimisation's Wheel Analysis module, Wheel Maintenance History is tracked based on the wheel itself – according to its unique serial number. This means that when a Roulette Wheel is rotated to another table, you can still easily identify and track its individual maintenance history. [Learn More](#) >>**

### Why Clean & Rotate Roulette Wheels?

Constant human contact can cause Roulette wheels to develop a layer of oil that can only be detected with close inspection. Due to a Dealer's reach pattern, this layer will build-up in a particular spot on the wheel, affecting where and how the ball leaves the rim over time. This is why it is standard practice to rotate your wheels on the table, in order to stop ingrained dirt and wear patterns from appearing on the wheel.

Should someone attempt to 'clock' the wheel, this build-up can result in an increased pattern of ball behaviour, making it easier for them to make predictions. Dust, fluff and debris from false nails can also result in similar problems. A simple clean and maintenance check will eradicate each of these issues.

## #4 Spins Per Hour

In combination with your hourly results, understanding your wheel's number of spins per hour can quickly tell you exactly how well your table, and by extension your Dealer, is doing.

Since one spin equals one game, you can identify how quickly your Dealer is operating the table and how players are responding to that speed. Too fast and your players might hesitate to play; too slow and you might be losing out on revenue opportunities.

*When connected to other enabled equipment on the gaming table, the GFL Optimisation module can pull more statistics. Additional information from your chipper, for example, can indicate how many players are present, allowing you to draw further conclusions about your spins per hour wheel data. [Learn More >>](#)*



MK7 Roulette Wheel

## #5 Speed of Cylinder

Tracking how fast your Dealers are spinning the Roulette Wheel cylinder is crucial to game security.

If a cylinder is spun too slowly, it becomes increasingly easy for someone to 'clock' the wheel. On the other hand, if the Dealer spins the wheel too fast, there is an increased risk of producing an invalid spin if the ball bounces outside of the wheel. Monitoring the speed of the cylinder at each table helps to ensure that your wheels are operating at the ideal speed to avoid player tracking and spin errors.

*With GFL Optimisation's Wheel Analysis, an alarm will indicate when Dealers spin outside of the ideal cylinder speed – be that too fast or too slow. [Learn More](#) >>*



*Blaze Surface Technology - Roulette*



## OPTIMISATION

### *Complete Visibility Into All 5 Analytics, And More!*

Wheel Analysis is a real-time Roulette optimisation tool designed to maximise key performance areas and profitability. A module of GFL Optimisation.

- Complete visibility of wheel data and statistics
- Highlights and detects any wheel bias
- User-authority specific analytics & reports viewable via web dashboard
- Easy-to-read diagrams illustrate acceptable & unacceptable performance
- Filter reports by date, table, game speed & other selections
- Alarms indicate if the wheel is spun too fast or too slow & any drop zone or winning number anomaly
- Records all maintenance activity on wheels
- Can integrate with other manufacturers' wheels



# TCSJOHNHUXLEY

TCSJOHNHUXLEY is the world's leading manufacturer and supplier of end-to-end live gaming solutions and services. With an emphasis on leading edge technology, our product portfolio underpins our commitment to business partnerships, innovation and growth.

## **UK - London**

(t) +44 (0)20 7840 0000

(f) +44 (0)20 7735 6658

## **Australia**

(t) +61 (0)2 9640 1333

(f) +61 (0)2 9906 2488

## **Latin America**

(t) +54 237 4665 888

(f) +54 237 4627 957

## **UK - Stoke**

(t) +44 (0)1782 260 220

(f) +44 (0)1782 213 070

## **South Africa**

(t) +27 (11) 315 7910

(f) +27 (11) 315 7912

## **Macau**

(t) +853 2870 1311

(f) +853 2870 5326

## **USA**

(t) +1 702 798 0500

(f) +1 702 798 0545

## **Spain**

(t) +34 (0)95 286 3957

(f) +34 (0)95 282 8643

## **Singapore**

(t) +65 6536 6230

(f) +65 6536 6031

