

# Cammegh Pitboss HQ Website User Documentation

## ***Introduction***

The Cammegh Pitboss HQ system collects and presents information about roulette games and financial transactions received from automatic sensors (e.g. Mercury Wheel and Eyeball installations) and manually entered information from keypads attached to display systems or from Intelligent Network Keypads.

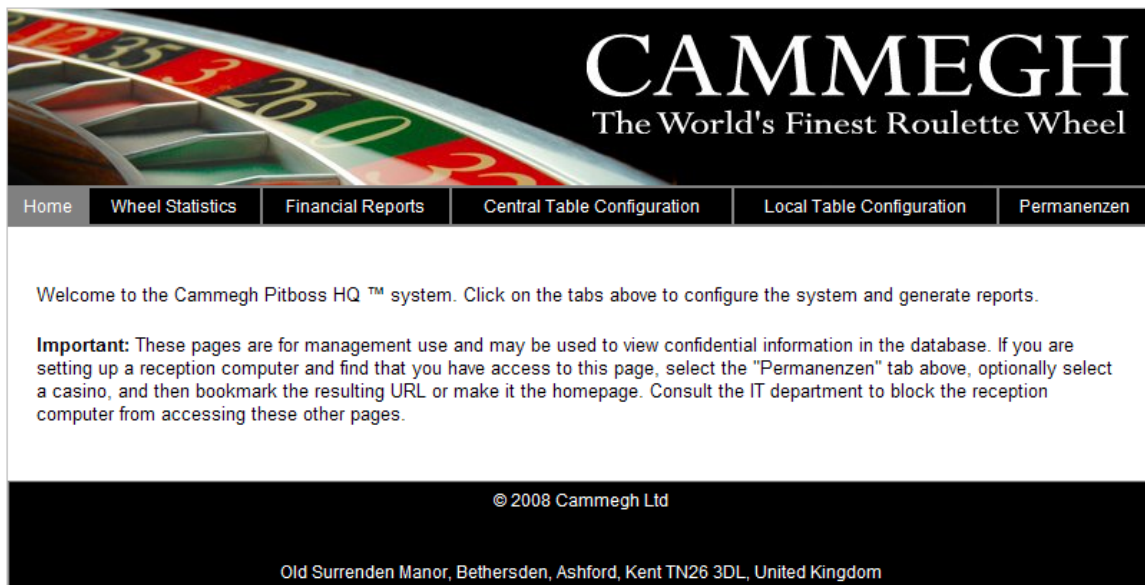
Reports on the stored information can be generated and viewed using any web browser; no other software is required.

The system may be used for monitoring the performance of roulette wheels, individual dealers, table productivity, and can be used to print historical statistical reports for customers (where required by law).

To access the website, use a web browser to go to the Intranet address provided by your IT department.

## ***Website Navigation***

The front page of the website should appear as below.



The top banner, menu bar, and footer are visible on every page (except in the Permanenzen section, which is used on customer-facing computer and branded for your casino). Clicking on the menu bar moves between sections of the website; the current section is highlighted in grey, as in the example above.

The sections are:

- Home: A welcome screen.

- Wheel Statistics: View and generate reports on the outcomes of roulette games and dealer performance, filtered by various criteria.
- Financial Reports: View productivity (drop rate and game rate) of tables in various formats and over time intervals.
- Central Table Configuration: Configure the devices on your network and which casino and table they are installed on. Also allows setting of which wheel (by serial number) is installed on each table. Intended for IT department use only; it is recommended that this tab is made inaccessible to other users by configuration of the web server.
- Local Table Configuration: Allows managers in casinos (without IT knowledge) to change the wheel serial numbers which are installed on each table, so that statics of specific wheels are recorded.
- Permanenzen: Functions for receptionists to print daily reports of wheel results for customers. Can be branded for individual casinos. It is recommended that these pages are the only ones visible to computers in public areas.

## Wheel Statistics

This section contains a form where the casino, table, dealer, time range and wheel direction can be selected, before a report is generated. The top line of the form should be filled in from left to right, because the lists of tables and dealers are filled in automatically as previous selections are made.

**CAMMEGH**  
The World's Finest Roulette Wheel

Home | Wheel Statistics | Financial Reports | Central Table Configuration | Local Table Configuration | Permanenzen

**Casinos**  
Velden  
Wien

**Tables**  
AR01  
AR02  
AR03  
FR01  
Select All Tables

**Dealer (ID#)**  
All  
Bob (3)  
Fred (2)  
John (1)

From: All Past  
To: [Date]

**Wheel Direction**  
Both  
Clockwise  
Anticlockwise

**Raw Results**

View Statistics  
Export Statistics

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Manor, Bethersden, Ashford, Kent TN26 3DL, United Kingdom

Today: 2008-08-08

To select a start and end date for the games in the report, click in the “From” or “To” boxes and a calendar will appear, as above. To select a semi-infinite time range (one without a From or To date) then simply delete the contents of the appropriate date box.

Once the filter selections have been made, you can click on “View Statistics” or “Export Statistics” to produce the report on-screen or save to disk (in a spreadsheet format) respectively. If the “Raw Results” box is ticked, then a report will be generated which lists the individual game events and outcomes, rather than a statistical report.

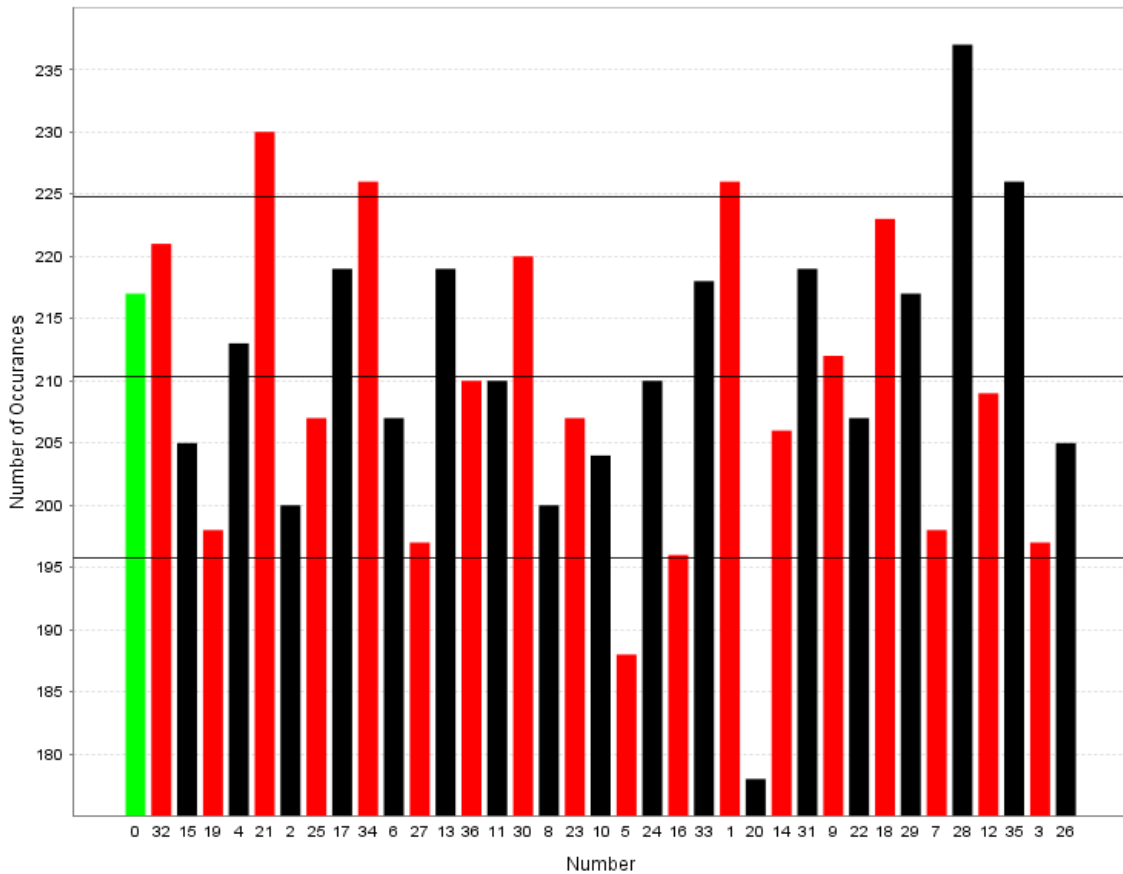
### **Understanding the report**

The report starts with a summary of the number of games falling within the selected ranges and the Chi-Squared value and probability of the distribution of winning numbers in the selection. This gives an indication of the uniformity of randomness of the wheel.

It is never possible to absolutely prove that a roulette wheel is producing non-uniform results (meaning that some numbers come up more or less than they should) because a random wheel can produce any outcome. The Chi-Squared probability indicates *the fraction of the time that a perfect wheel would give a more uniform (flat) distribution of results than the one observed*. Any Chi-Squared probability of under 99 % should be no cause for concern. Even a Chi-Squared probability of above 99 % will be produced by a fair wheel in 1 % of its data-sets, so in these cases the event should be noted and an independent data set analyzed.

Following this is a chart giving the winning number distribution:

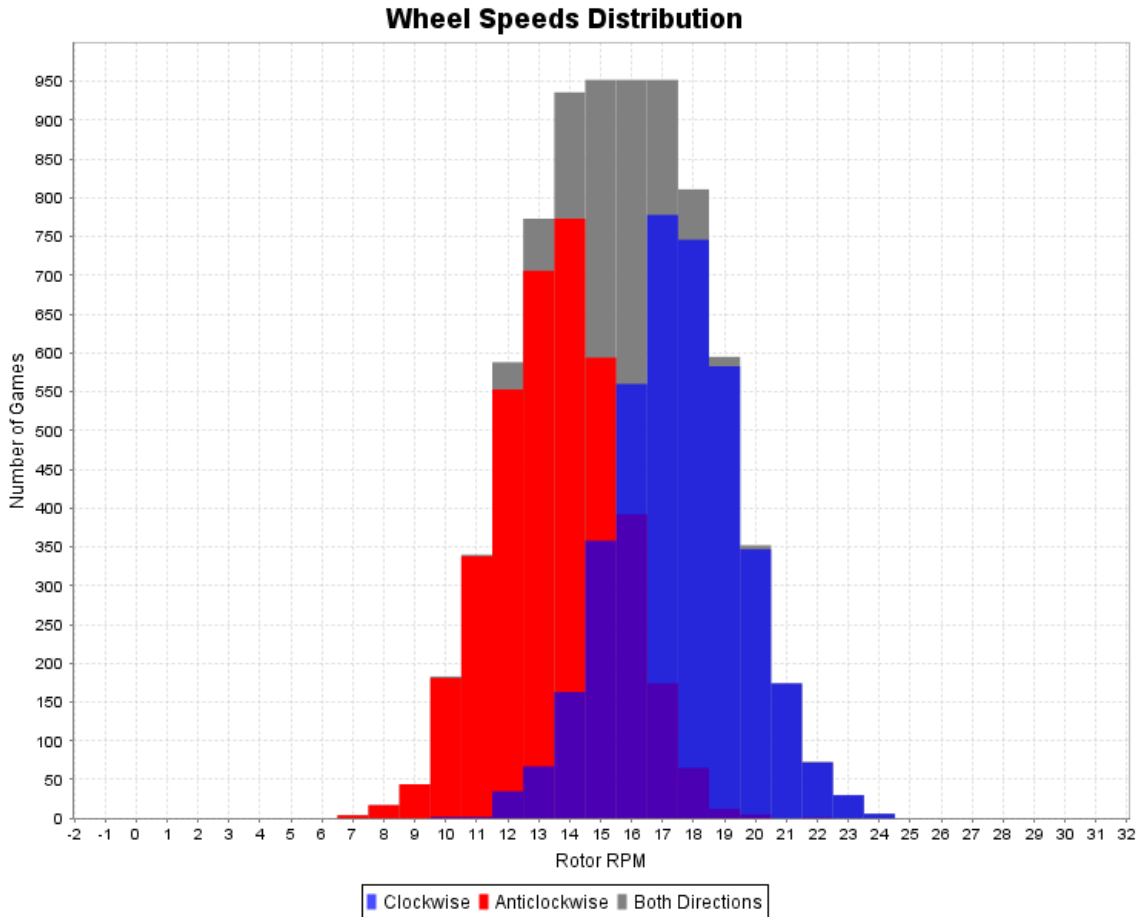
### Winning Numbers Distribution



This shows the number of games resulting in each outcome, ordered and coloured according to the position of the numbers around the wheel. Note that the Y axis is auto-scaled and does not necessarily start at zero. Otherwise, most distributions would appear very flat after a large number of games had been played.

The horizontal black lines overlaid on the chart are the mean expected number of games with a particular result, and the mean plus or minus one standard deviation of the expected number of games with a particular result. Two-thirds of the pocket result frequencies are expected to fall within the upper and lower black lines.

Below this is the wheel speed distribution, showing rotor RPM along the horizontal axis and the number of games played at each RPM on the vertical axis:



The chart above is obtained by selecting “both” as the wheel direction. If only clockwise or anticlockwise directions are selected the only the blue or red series will show.

The chart comprises three series; one blue (clockwise), one red (anticlockwise) and one grey (both directions). The overlapping area of the blue and red is shown as purple.

The chart shows the speed at which the dealer (or all selected dealers) spin the rotor in each direction; this indicates how diverse or robotic the dealer is, and whether there is a difference between left- and right-handed play.

Below these charts are frequency tables giving the raw data for the charts.

### **Central Table Configuration (IT Staff Only)**

This page allows IT staff to configure the IP addresses of devices on the network which report game or financial data to the database. When information is received by the database, the IP address of the originator is used to fill in the casino, table, and wheel serial number (for game results). The copies of this information which are entered on the Billboard displays are for cosmetic purposes only. All devices on the network must be entered on this page; results from unlisted devices will be ignored.

Note that changing a wheel serial number on this page or deleting a table will not delete or change games already in the database; the information about casino, table and wheel serial number are copied from this table into the game results database each time a new game is received.

### **Local Table Configuration**

This is a reduced version of the Central Table Configuration page which does not allow addition, deletion or modification of IP addresses or their mapping to casinos and tables, but solely modification of the wheel serial numbers on each table. This page should be available to staff who move wheels between tables, so that wheels can be tracked and their statistics accumulated correctly.

### **“Permanenzen”**

This section is for producing daily reports of wheel results in a form suitable for customers. This section can be named and cosmetically customized for each casino’s branding. It is called *Permanenzen* because this is a German word for the reports which customers are entitled to request from casinos in Germany and Austria.

After selecting a casino, this section jumps to a friendly customer-facing page which has quick-access buttons to print reports for any table in the selected casino for today or yesterday.



It is recommended that receptionists’ computers have this page as a bookmark (the selected casino is encoded in the URL) and that the web-server is configured to prevent access to other pages.

Clicking on one of the buttons will produce a printable report:

**CASINOS AUSTRIA**  
**Permanenzen**  
 WIEN Tisch FR01  
 16-Jul-2008 11:52:57 - 17-Jul-2008 08:08:06

N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
1															
36															
5															
25															
26															
32															
34															
28															
2															
36															
23															
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14															
24															
34															
12															
29															
36															
4															
32															
++															
++															

Coups 23

0 =	0
1 =	1
2 =	1
3 =	0
4 =	3
5 =	1
6 =	0
7 =	0
8 =	0
9 =	1
10 =	0
11 =	0
12 =	1
13 =	0
14 =	1
15 =	0
16 =	0
17 =	0
18 =	0
19 =	0
20 =	0
21 =	0
22 =	0
23 =	1
24 =	1
25 =	2
26 =	1
27 =	0
28 =	1
29 =	1
30 =	0
31 =	0
32 =	2
33 =	0
34 =	2
35 =	0
36 =	3

Rouge 15  
 Noir 8

Fair 16  
 Impair 7

Manque 9  
 Passe 14

1. DE 8  
 2. DE 3  
 3. DE 12

1. COL 9  
 2. COL 8  
 3. COL 6

OHNE  
 GEWÄHR

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The format of this report can be modified to suit the casino and can be in black and white without graphics to print on pre-printed stationery.