

System for safety analysis of slot machines raw data

CaSec*Live* helps to safeguard the machine gaming floor. Slot machine counters are constantly monitored for consistency. Configurable safety checks determine abnormalities in terms of deposits, payouts and winnings. Malfunctions and indications of manipulation can be quickly detected and visually assigned to single gaming devices.

Gaming devices and slots generate data which are directly recorded by the floor server. This data can be used for an independent, cost-efficient and prompt monitoring of the casino's slot machine gaming with the help of CaSec*Live*.

Meter consistency checks and other security checks allow identification of unexpected malfunctions or indications of potential manipulation scenarios at an early stage.

Objective: Continuous security monitoring

Analysis of slot data is carried out on short, continuous intervals (usually every 10 minutes). Conspicuous slots can be allocated directly to their positions at the floor (base). Thanks to that these slots can be checked promptly regarding counter inconsistency.

The visualisation of the floor, slots, jackpot clusters and other objects is realised by using a graphical information system (Localizer). Noticeable or inconsistent gaming machines are visualised by a flashing warning icon. Detailed slot meter reading is presented by an additional warning dialogue. This warning dialogue contains furthermore results of the consistency check in the corresponding local currency.

In addition to the comprehensive consistency check, slot machine deposits and payouts are tested with respect to defined thresholds. Ongoing monitoring and investigation of possible deviations of the payout rate and ongoing statistical and mathematical calculations of the expectancy range (usually every 10 minutes) enrich the security monitoring as well.

All results are stored in 'Red log' for immediate or later analysis. Thereby user can disable alarms without losing any information. Results are preserved and the system's monitoring remains active at all times.

Based on raw data, CaSecLive creates in the end of a reporting day daily values of all slots. Using these values a 2-day consistency test is performed in the beginning of the new day of operation. As a result of this test, changes in the data (e.g. occured by maintenance or test bills and coins) can be identified easily and hence this information is available for closer examination.

Furthermore, the daily increment of raw data builds the basis for the CaSec*Live* Inconsistency Report. The validation process can be handled faster and more transparent.

Individual security parameter per slot

CaSecLive uses several parameters for the implemented tests and checks. These parameters can be adjusted on the one hand on a global level for all slots of the gaming floor. On the other hand it is possible to adjust these parameters per single slot or per a group of slots. Such a flexible parameter setting allows the consideration of special circumstances per slot and increases the informative value of the security checks.

EGM-Tracking

The optional module 'EGM-Tracking' supports the realisation of Responsible Gaming and measures in the context of social concepts. EGM-Tracking enables a monitoring of single gaming machines for a flexible time period. Monitoring of meters (e.g. deposits, payouts, profit determination, ratio) for one or even more gaming machines can be started at a simple push on the button. Upon completion of tracking session, user can generate a summary report and initiate further actions.

Flexible floor plan designer / Localizer

The floor plan designer enables a simple and quick illustration of the gaming floor. All kind of objects like slots, jackpots and arbitrary fitments can be illustrated by using simple drag-and-drop. CaSec*Live* uses the created map to display warning notices in the correct spot of the floor plan. The floor plan can be easily adjusted at any time to reality.

CaSecLive – the link to CaSecReporting

CaSecLive processes slot machine data in a way that it can be used directly by CaSecReporting to generate additional reports. CaSecReporting is a reporting system providing clearly arranged and daily updated reports for the entire floor, for group of slots (clusters) and for single slot machines.

Features at a glance

CaSecLive 1

- Monitoring of the floor by means of prompt slot meter data analyses
- Clearly arranged graphical user interface
- ☐ Tabs for a quick change of views
- Warning notices by means of warning dialogues and sounds (can be switched off)
- Preparation and export of data (e.g. Excel) for further usage
- CaSecLive Inconsistency Report (non-validated raw data)

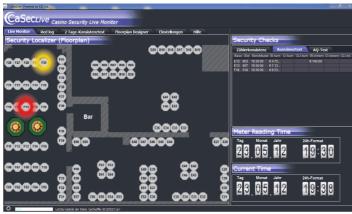


Fig.: CaSecLive - Live Monitor: Security Localizer, Security Checks

Live Monitor

- Display of the floor
- Slots, jackpots, fitments and other objects are visualised
- Warning notices for errors, abnormal slot machine behaviour and indications of potential manipulations
- Flashing warning notices directly above affected slot machines
- Tool tips show base-/slot assignments and additional data of the machine

Red log

- The table contains a complete set of the meter data of those slots which have shown abnormal behaviour during their operation time
- Serves identification of malfunctioning or potentially manipulated slots
- Analysis results are kept for later examination

2-day-consistency test

- A daily meter increment is calculated at the end of each day
- ☐ In the beginning of a new day a 2-day-consistency test is conducted
- Meter rollovers and unwanted increments can be identified
- Interface to CaSecReporting

Security Checks

- Slot meter consistency check extending over the whole monitoring period (cumulative, generally of the day of gaming) and per monitoring interval (incremental)
- Critical value checks (noticeable high increase of meter at coins, bills and cashless)
- PR-Check, continuous incremental statistical-mathematical monitoring of profit determination

Settings

- Global and individual application settings
- Configuration of the test method sensitivities for a single gaming device or a gaming device group
- Parameterisation of the statistical-mathematical analyses for a single gaming device or a gaming device group
- Adjustment of alert thresholds for a single gaming device or a gaming device group
- □ Switching on/off warning notices

Floor plan designer

- Creation and customising of the floor plan
- ☐ Size of the floor plan is variable at will
- Various objects can be illustrated using drag-anddrop:
 - Bases in different sizes
 - Text labels
 - Areas of variable size to illustrate walls, rooms, etc.
 - ☐ Further default elements (jackpots, etc.)
- Objects can be arranged, edited or removed within the floor plan
- Non-assigned bases can be selected from a drop-down-menu
- The corresponding slot meter data is linked to each object automatically

Help

- Description of the settings
- Description of the warning notices
- Advice of the security measures dependant on the detected abnormal behaviour

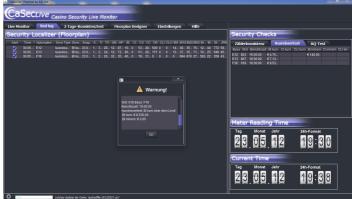


Fig.: CaSecLive – Red log, Warning notice