



# POSeidon® Control System

▶ Cash Register  
Supervision System



*A secure point in the sea of receipts.*



JUSTICE  
SECURITY

*Everything's all right.*

## *The total sum of unexplained inventory loses has gone beyond **100 billion euros** in Europe, in 2013.*

### **INTRODUCTION AND OPERATION OF THE SYSTEM**

The **POSEidon® Control System** is introduced according to the needs of the client. After surveying the characteristics of the stores and finding out the needs of the client, we plan the optimal system. On the basis of the plan we install the required hardware and software. A test system can be installed, as a first step, on the basis of the operation of which the efficiency of the system can be examined in a “life-like” environment. During the installation of the system our experts also perform the harmonization of the existing systems and **POSEidon®**, thus ensuring the trouble-free flow of information.

### **CASE STUDY**

In a test system, during the daily routine investigation task, our colleague directing the investigation ran one of the frequent searches: the selection of transactions involving low amounts paid by bank card. The lowest amount paid by bank card was HUF 34. The viewing of the video recording integrated with text information revealed that the customer left with goods filling four shopping trolleys and amounting to more than HUF 600,000, while the cashier, after making some diversionary manoeuvres, entered only HUF 34 into the cash register for a shopping bag, then swiped the bank card of the customer. A search involving the used card number revealed ten more similar transactions, amounting to HUF 6.5 million in total. On the next working day we managed to catch the whole offender group.

We ensure the successful operation of the system through continuous support. After its introduction we train the internal staff operating the system. We provide a warranty for the hardware elements, and perform all necessary maintenance. We continuously install upgrades of the software. We support the staff in the detections through counselling.

If required, a senior colleague with experience in investigation will perform the overall analysis of the operation of the system, reveal any possible new risk, and detect methods of commission, offenders that are difficult to identify.



### **ANALYSIS OF ECONOMIC DATA**

**POSEidon** is a system developed primarily on the basis of security considerations, however, it offers numerous economic features as well. It can provide up-to-date data, even statistical reports on the shoppings: the value of individual transactions, the turnover of individual article Nos., turnover data for each time-of-day period, for issued invoices the transactions of individual shoppers, the transaction data of individual cash registers. The **POSEidon** system can support the economic analyses, marketing campaigns of the company, or even the efficient contacting of customers.

### **RECOVERY OF THE INVESTMENT**

Starting from statistical data, the expected recovery of the investment in the system is 3 to 6 months, but there was a case where the value of the crimes detected in a week reached the cost of the planned investment. The recovery of the investment is measurable in the short-term on the basis of the detections, and in the medium-term in the reduction of the initial inventory shorts. (If required by the client, the system can be supplemented in the long-term with other modules as well: e.g. control of delivery of goods, home delivery.)

## Scopes

You can use our security system at every commercial, catering unit where the physical movement of the goods is synchronous with the checkout registering or any other data recording but especially in:



*Cash registers or customer services of supermarkets, hypermarkets and stores*

*Gas stations, pharmacies, jewelleries, toy shops, clothing stores*

*Warehouses, discount chains, outlets*

*Do-it-yourself shops, building materials warehouses, furniture stores*

*Sport equipment stores , leisure and sports stores*

*Production line quantity registers*

*Industrial scales*

- Establish actual volume of fuel purchased at refueling stations or own filling stations of large industrial users and immediate comparison with volume marked on receipts.
- Identify volume of finished, semi-finished products and raw materials delivered to or from premises with volume marked on transportation documents (by weighing).
- Control of production line capacities by input and output data (counting number of pieces in the beginning and at the end of the production line).
- Visual control performed at potential reception by barcode upon arrival of products or raw materials. Type, volume of goods and possible deviation from delivery note may be established.

## Advantages

### EFFICIENCY

With the **Poseidon® Control System** a large number of abuses can be detected quickly, with few resources. In addition to real time control, subsequent control is also possible by means of a database.

With the **Poseidon Investigation®** software every suspicious transaction can be identified simply. Upon detection all evidence is also available.

### FLEXIBILITY

Our developer colleagues build up the system according to the needs of the client. **Poseidon®** can be connected to any cash register system, and the software can be programmed to recognize the parameters, characters generated by the given cash register. (The system does not interfere with the operation of the cash register.) The system can be further developed according to the wishes of the client later on.

### EASE OF OPERATION

The operating interface is simple, transparent, the operation of the program can be learnt in a short time, special functions can also be developed: e.g. automatic alarms, control through a transparent graphical groundplan. The cost of the introduction of the system includes training in operation.

### REMOTE ACCESS

A central control computer can be connected to recording machines operating in several different stores, thus searches, investigations can be controlled from a single centre, at a national, or even international level. The data can be stored on additional background machines, the capacity of which can be expanded at will.

### SAFETY

The software applies a unique format, thus the recorded data cannot be manipulated.

### SUPPORT

Our developer colleagues perform the continuous maintenance of the system, thus preventing any failure. In the event of any emergency hardware or software problem, starting from Budapest they can eliminate the breakdown within a short time. We provide a full warranty for the whole system – including its hardware elements as well.

### DEVELOPMENT

The system is continuously further developed, our clients receive the upgrade software versions and the experiences gained in the course of the operation of the system as part of the base package.

### INVESTIGATION

Our colleagues with many years of experience in investigation can detect especially difficult cases, and expertly catch the offenders or offender groups. The investigation support can be purchased as a low flatrate premium service.

### IMAGE

**POSEidon® Control System** can enhance safety, identify crimes in the background, thus the guards, the staff need to act only in the event of real offences, the unnecessary stopping, or the bothering of shoppers by mistake can be avoided.



### QUICK RECOVERY

The cost of the system can be recovered within a short time – within six months – on the basis of experiences gained so far. Recovery is measurable in the short-term on the basis of the detected cases, in the medium-term in the reduction of inventory shorts, and in the long-term the presence of the system has a strong preventive effect.

## AN ANSWER TO THE RISKS IDENTIFIED IN TRADING

The development of the system started during the examination of the possibilities of reducing the security risks often arising in trading. According to some estimates, in domestic retail trading the value of inventory shorts of unknown origin amounts to almost HUF 100 billion at an annual level. On the basis of the analysis of domestic and European case studies, as well as surveys conducted at our domestic clients, 40-60% of inventory shorts is attributable to cash register abuses. Based on the analysis of domestic detections we have established that in Hungary complex methods of commission previously hardly known in Western-Europe can also be observed, and often there are organized offender groups behind the abuses, who commit serial offences at one or more trading units.

## THE CRITICAL POINT IS THE CASH REGISTER

The traditional methods of reducing mistakes and deliberate abuses at the cash register (test shopping, receipt-checking, job instruction, back office monitor) are limited in identifying mistakes, and rarely effective in detecting abuses occurring at the cash register. At the cash register cashiers not having the right attitude can get a considerable "supplementary" income at a low risk of being caught. The main difficulty of detection is the lack of information: the available and storable information is either only image information, or only text information, and on the basis of either one separately it is difficult to establish both the amount actually entered into the cash register by the cashier and the goods really taken by the customer.

## THE SOLUTION – THE INTEGRATION OF THE INFORMATION

The basis of the **POSeidon® Control System** is an informatics development allowing the full integration of the information generated by the cash register on the video recording made by the camera placed at the cash register. The simultaneous display of image and text information allows full and error-free control.

The text information appearing on the screen during the playing of the video recording can be compared to the movement of goods seen in the image, thus any possible mistake, cash register abuse becomes evident. The system can give a (visual, audio) signal to the operator of the central monitor in the event of preset critical transactions – goods of a given article No., cancelling, employee shopping, etc. –, facilitating efficient real-time control.

Information can be stored, thus allowing not only real-time control, but subsequent retrieval as well.

## THE INVESTIGATOR OF THE SYSTEM – POSEIDON INVESTIGATION

The hundreds of hours of video recordings made at the numerous cash registers of a larger store give an amount of information that is almost impossible to process with the traditional methods. The investigation software – **POSeidon Investigation®** – developed for the central computer of the **POSeidon® Control System** allows the identification of every suspicious transaction and the detection of every abuse within a short time and with a low number of staff.

The investigation software can operate on the basis of both preprogrammed – on the basis of case studies – and manually controlled search algorithms. Based on the risk parameters set in the search screen, the software can select the requested transactions in a few minutes. Naturally, the investigation settings include searches suitable for identifying the methods of commission detected so far. (The search options available in the program, adjusted to the needs of the client, can cover all parameters suitable for search at the given trading unit.)

The investigation program is easy to run, its use can be learnt in a short time. We follow the "development" of the methods of commission with continuous investigation counselling and software development. The system can operate in a network as well, combining the information coming from individual stores.

## POSEidon® in Europe

Our partners use the cash register **POSEidon Control System®** successfully and efficiently in various areas of trade, such as:

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*National food discount stores network*

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*National DIY network*

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*Sports equipment stores*

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*National distribution of organic products*

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*Furniture stores*

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## Conventional surveillance system vs. POSeidon®

How does the POSeidon® Cash Register Supervision System offer more comprehensive protection than a conventional system? Here's how:



*"An inventory shortage of unknown origin has arisen in my store. How could I discover the source of the problem?"*

**The solution is the POSeidon® Cash Register Supervision System** – a special cash register control system aimed at reducing inventory shortages of unknown origin in retail units and investigating their causes.

*And this is the difference between the systems:*

### This is what the security camera sees in the store of our store manager during the purchase:



1

The customer takes the item to the cash register.



Hands over the purchase price to the cashier.



Leaves the cash register with the item that has been paid for.

### Things that a cashier can do after the customer has left, and which an average surveillance system cannot detect:



2

The cashier cancels the purchase in the cash register.



Removes the amount paid by the customer from the cash register.

#### Opportunities for abuse at the cash register:

- Issuing unregistered goods
- Opening the cover of the receipt printer
- Stepping back in the cash register system
- Interrupting the invoice printing or other transaction
- Cancelling transactions
- Giving false discounts

### Which is immediately detected by the risk assessment module Investigation of the POSeidon® Cash Register Supervision System:



3

It detects both the cancelled item and the fact that the customer has left with the item.



**Investigation module of POSeidon®** enables the quick and effective investigation of various mistakes, fraud and misuse by personnel.

## POSeidon® Control System

In 2007 our company, **Justice Security Ltd.** has developed a cash register control system called the **POSeidon® Control System.**

Our system offers an overall security and economic solution, tailored to the given company, in the following fields:

- Effective reduction of inventory shorts
- Elimination of cash register abuses
- Identification of security risks
- Analysis of turnover
- Compilation of economic reports



SECURITY  
TECHNICAL SOLUTION  
OF THE YEAR  
2007



# JUSTICE SECURITY

*Everything's all right.*

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