

# PN Trading System

## (Version 1.0.0.0)

### Product Description

Version 4

Last Edition: 21.12.2017

PN Trading Systems Asia Sdn. Bhd.

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# 1 Product Summary

## *1.1 Introduction of the PN Trading System (V1.0.0.0)*

Our newest product offering provides an innovative and fun way for customers to try their hand at financial trading other than forex systems and binary options.

The main idea of our innovation lies within the issuing of and trading in of low value privately issued discounted promissory notes, over a secure innovative and entertaining platform. It provides an attractive business opportunity for prospective owners looking to enter or expand in the sectors of small to medium businesses. Our product requires no previous experience in the field as all training is provided. Our format also means that a business can be operational in a very short time dependant on specific design and renovation of a trading outlet.

In most markets, for these styles of businesses there exists a complex process of obtaining licenses. This, coupled with their mostly limited validity, high taxation and other fees which are imposed on intended operators, results in a high barrier to entry in most cases. The situation is a never-ending cycle.

Our software is designed to provide real-time trading for our customers by making promissory notes transactions on the secondary OTC market via our electronic system. The basis is the issuing of real and legal promissory notes issued by private organizations or banks, which are then traded in agency halls for a discounted nominal value. Fees do not apply. The client may also obtain the actual promissory note if desired. It is an economical and, graphically enriched product featuring various entertainment visualization modes including those which resemble slots games with free-spins, expanding symbols and other engaging gaming characteristics.

Our trading systems key ability is to provide business owners with a guaranteed opportunity to legally operate in regulated markets worldwide without the need for lengthy and difficult licensing processes. The system contains a fully-integrated set of software tools and services for each team member to help carry out successful business operations, which is an important requirement for managers and owners. All our current partners and clients may testify to the fact that it is a perfectly designed system with a customer-friendly interface, which strives to provide a simple, clean and best experience in every aspect.

Our on-line multi-platform trading system is customizable to meet the needs of the customers who are becoming more selective with each day. The primary target of our partners and clients' is to expand their businesses to a greater number of operations which lead to greater price variations for the end clients. We have also developed a wide range of entertainment visualizations that are functionally and graphically rich. One of the keys to obtaining the best result lies in the observation and research of client's needs, its analysis, and our willingness to adjust to their needs is essential

for keeping the customers engaged.

The trade market strategies used are automatically applied by a trading robot to achieve a significant increase in sales. With a wide range of game visualizations available, operators have immediate access to an exciting, regularly updated and expanded content. It is a tool that currently allows anyone in the world to be a global market player

#### **Scope of the document:**

The document contains general information on the *PN Trading System v.1.0.0.0* application and is intended to give assistance to cashiers and managers, terminal users. It describes emergency actions when failure occurs, backup procedures, training for the personal and technical support methods.

#### **Advantages:**

- The purpose of the system is facilitate the buying and selling of promissory notes via a software trading platform and the overall organization of a secondary OTC market for bills of exchange.
- It is based on real promissory notes.
- There is an opportunity to buy the actual promissory note.
- There is an opportunity to make arbitrage transactions. Purchases/sales
- Accounting for bills in the depository.
- Uses a trading robot.

#### **MSTB Quality Software (QS) Product Certification**

PN Trading System Version 1.0.0.0, consists of the following subsystem:

- ManagerCashier version 1.0.0.0
- Terminal version 1.0.0.0

is certified to **QS** based on the ISO/IEC TR 9126-2:2003

#### **Mechanism of buying promissory notes:**

- On entering the trading hall, the client familiarizes himself with the general agreement between the Agent and the Client, in accordance with which the Agent provides the service for the concluding of transactions for the purchasing of the notes from the Seller and deals with the Buyer on the cession of rights for receiving the notes.
- Attendant provides a testing session to show the client how the trading system works. The client can also read instructions how to trade and how to use the trading system. The instructions are in open access in the hall.
- The client registers an account and receives an identification card
- The desired cash balance is credited to the card through the cash desk program
- The client chooses a terminal and places his card on the card reader in order to start the process and confirms compliance with the "Public Offer", by clicking on the "AGREE" button.

He then selects the company of the promisor, denomination and face value of the promissory note series with which he wishes to trade.

A promissory note of chosen face value is displayed on the terminal with its relevant serial number. If the client accepts the number of the promissory note he starts making transactions.

- At any time during the session, the client may receive any profits in the cash desk, by presenting the card to the cashier
- If required, the Client may ask to print a report on the completed trading transactions.
- If so desired, the Client may decide not to assign the right a claim of promissory note, but instead to receive the actual promissory note in his hands from the Agent. A service fee is charged for delivering the Promissory note.

## ***1.2 Configuration List***

- PN Trading System 1.0.0.0 – Hall server
- PN Trading System 1.0.0.0 - Terminal (mouse, card-reader, keyboard, sound dynamics)
- PN Trading System 1.0.0.0 – Workstation for manager\cashier (HM/CD programm)
- PN Trading System 1.0.0.0– Installation flash media for the terminal
- PN Trading System 1.0.0.0 – Installation flash carrier for cashier and manager program (HM/CD program)
- PN Trading System 1.0.0.0– ID- card for manager( activated)
- PN Trading System 1.0.0.0– ID-Card for user (empty)
- PN Trading System 1.0.0.0– Terminal Software Promissory Notes Trading system User Guide
- PN Trading System 1.0.0.0 – Hall Manager – Cash Desk User Guide
- PN Trading System 1.0.0.0 Instruction Manual for initialization of the Trade Hall
- PN Trading System 1.0.0.0 – Troubleshooter
- PN Trading System 1.0.0.0 – Fault Handling procedures for trade halls
- PN Trading System 1.0.0.0 – Training plan
- PN Trading System 1.0.0.0 - Trading Hall System Testing Report

Test result can be presented to the customer upon request.

## ***1.3 Release Date***

- Completion of first version in February 2015
- Completion of final version in March 2017

## **2 Pre Installation & Safety instructions**

### ***2.1 Pre Installation***

For Agents or Distributors the product will be provided and installed after:

1. The Client has signed the relevant agreements
2. The Client has installed a local network with internet from 2 mb/sec in the shop

PN Trading Systems Asia Sdn Bhd:

- Has carried out installation of the system, connected trading terminals, server, cashbox and Firewall.
- Has provided training for staff, and tested working capacity of the whole shop.
- Has launched the system.
- has signed a technical support agreement in accordance with license

### ***2.2 Safety Instructions during Installation and Operation***

- Avoid liquids getting into the terminal.
- Do not use a damaged or frayed power chord.
- Never overload an extension chord by plugging in devices that together will exceed the maximum current rating stated for the extension lead. This could cause the plug in the wall socket to overheat and possibly cause a fire.
- Handle with care: use and operate the terminal with care to prevent the screen from being damaged.
- Always ensure the internet connection is working and secure
- Always adhere to the specific operational and care instructions manuals of all computer terminal equipment.

Immediately contact PN Trading Systems Asia Sdn Bhd for the following cases:

- A terminal does not operate normally or terminal performance deteriorates significantly.
- The HM/CD program does not operate normally or performance deteriorates significantly.

### ***2.3 Security Notice***

- Always Log on to the system using special crypto keys only.
- Remote connection to the system should be carried out from authorized jump servers only.
- Configure the firewall to the prescribed IP addresses only

Hall servers may only be turned on/off after obtaining authorization from technical support service.

- Information keys may only be stored in the server's RAM.
- A/The Data encryption system is used

**For the terminal ensure:**

- There is no possibility of access to the Internet;
- The installation flash drive works in the "read only" mode only;

- There is no way to install third-party programs.
- That it is working with the client's ID card
- There is a secure connection with the server of the hall

**For the manager/cashier terminal ensure:**

- There is no possibility of access to the Internet, or installation of third-party programs;
- There is no unauthorized access to the applications.

**For the server ensure:**

- Only authorized access entry for the user of the system;
- It works through a Firewall – i.e. the server is designed for protection against unauthorized access to the server.
- Using encrypted channels of SSL data transfer, disk encryption
- Introduction of a security certificate for data exchange
- There is no possibility to record to the main partition of the disc

## ***2.4 System Limitations***

- It is not possible to buy and sell more than one promissory note simultaneously on one terminal.
- The maximum amount of terminals able to be connected in one hall is 240.
- The software operates in real time mode and response time is 0.002 sec.
- Users should not be allowed to perform other operations or tasks at the terminals other than that of the PN Trading System.
- Terminals should not be used for any other purpose except the sale and purchase of notes. (PN Trading Systems Asia Sdn Bhd is not liable for OS or any virus problems caused as a result of Internet surfing etc.)
- The use of unauthorized access/authorization cards is prohibited and PN Trading Systems Asia Sdn Bhd is not liable for any losses, faults, or damages caused by the usage of counterfeit or illegally duplicated cards (usage history and trail will be stored in the server)
- Only Intel family motherboards are used

The optimal expected response times to generate the following reports are:

Section Name	Time for Generation
<b>Report Generation</b>	
Client Report	Max 8 sec
Cash Desk Report	Max 8 sec
POS-transactions	Max 8 sec

Terminals Report	Max 8 sec
Card Balance	Max 8 sec

Major functions response time: 2 sec.

Major functions turnaround time: 80 sec.

Message list limitations in the Hall Manager - Cash-Desk software:

No.	Input field location (function name)			Input field name	Valid input value range
	Large category	Middle category	Small category		
1	Hallmanager	Manage Cash Desks	Cash Desk List - Add	Name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
2	Hallmanager	Manage Cash Desks	Cash Desk List - Add	IP	A-Z, a-z, 0-9 (Mandatory) - MAX: 20 Characters
3	Hallmanager	Manage Cash Desks	Cash Desk List - Add	MAC	A-Z, a-z, 0-9 (Mandatory) - MAX: 30 Characters
4	Hallmanager	Manage Cash Desks	Cash Desk List - Change	Name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
5	Hallmanager	Manage Cash Desks	Cash Desk List - Change	IP	A-Z, a-z, 0-9 (Mandatory) - MAX: 20 Characters
6	Hallmanager	Manage Cash Desks	Cash Desk List - Change	MAC	A-Z, a-z, 0-9 (Mandatory) - MAX: 30 Characters
9	Hallmanager	Manage Cash Desks	Cashiers List - Add	Last name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
10	Hallmanager	Manage Cash Desks	Cashiers List - Add	Middle name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
11	Hallmanager	Manage Cash Desks	Cashiers List - Add	First name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
12	Hallmanager	Manage Cash Desks	Cashiers List - Add	E-mail	A-Z, a-z, 0-9 (Mandatory) - MAX: 250 Characters
13	Hallmanager	Manage Cash Desks	Cashiers List - Add	Adress	A-Z, a-z, 0-9 (Mandatory) - MAX: 250 Characters
14	Hallmanager	Manage Cash Desks	Cashiers List - Add	Phone number	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
15	Hallmanager	Manage Cash Desks	Cashiers List - Change	Last name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
16	Hallmanager	Manage Cash Desks	Cashiers List - Change	Middle name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
17	Hallmanager	Manage Cash Desks	Cashiers List - Change	First name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
18	Hallmanager	Manage Cash Desks	Cashiers List - Change	E-mail	A-Z, a-z, 0-9 (Mandatory) - MAX: 250 Characters
19	Hallmanager	Manage Cash Desks	Cashiers List - Change	Adress	A-Z, a-z, 0-9 (Mandatory) - MAX: 250 Characters
20	Hallmanager	Manage Cash Desks	Cashiers List - Change	Phone number	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
21	Hallmanager	Manage Terminals	Add	Name	A-Z, a-z, 0-9 (Mandatory) - MAX: 100 Characters
22	Hallmanager	Manage Terminals	Add	Code	0-9, MAX: 4 Characters

23	Hallmanager	Manage Terminals	Change	Name	A-Z, a-z, 0-9 (Mandatory) - MAX: 100 Characters
24	Hallmanager	Manage Terminals	Change	Code	0-9, MAX: 4 Characters
25	CashDesk	Manage cards	Creating - Register a card	Last name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
26	CashDesk	Manage cards	Creating - Register a card	First name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
27	CashDesk	Manage cards	Creating - Register a card	Middle name	A-Z, a-z, 0-9 (Mandatory) - MAX: 50 Characters
28	CashDesk	Manage cards	Creating - Register a card	Phone	A-Z, a-z, 0-9 (Mandatory) - MAX: 20 Characters
29	CashDesk	Manage cards	Creating - Register a card	E-mail	A-Z, a-z, 0-9 (Mandatory) - MAX: 250 Characters
30	CashDesk	Manage cards	Deposit	Deposit to client's card	0-9, MAX: 10 Characters
31	CashDesk	Manage cards	Withdrawal	Pay out the amount	0-9, MAX: 10 Characters
32	CashDesk	Manage cards	Activation	Activation code	0-9, MAX: 4 Characters
33	CashDesk	Extra cash desk	Cash desk sessions - Add	Cashier PIN	0-9, MAX: 4 Characters
34	CashDesk	Extra cash desk	Cash desk sessions - Add	Extra cashier PIN	0-9, MAX: 4 Characters
35	CashDesk	Extra cash desk	Cash desk sessions - Add	Amount	0-9, MAX: 10 Characters
36	CashDesk	Extra cash desk	Cash desk sessions- Deposit	Deposit extra cash desk	0-9, MAX: 10 Characters
37	CashDesk	Extra cash desk	Cash desk sessions- Deposit	Extra cashier PIN	0-9, MAX: 4 Characters
38	CashDesk	Extra cash desk	Cash desk sessions- Close	Cashier PIN	0-9, MAX: 4 Characters
39	CashDesk	Extra cash desk	Cash desk sessions- Close	Extra cashier PIN	0-9, MAX: 4 Characters
40	CashDesk	Cash desk operations	Debit operation - debit transaction	Amount	0-9, MAX: 10 Characters
41	CashDesk	Cash desk operations	Debit operation - debit transaction	Comment	A-Z, a-z, 0-9 (Mandatory) - MAX: 500 Characters
42	CashDesk	Cash desk operations	Credit operation - operation type - Funds movement to the BackOffice Cash	Amount	0-9, MAX: 10 Characters
43	CashDesk	Cash desk operations	Credit operation - credit transaction	Comment	A-Z, a-z, 0-9 (Mandatory) - MAX: 500 Characters
44	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - Funds movement to another hall	Amount	0-9, MAX: 10 Characters
45	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - encashment to bank - nominal 100	The amount of banknotes and coins submitted (in pcs)	0-9, MAX: 8 Characters
46	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - encashment to bank - nominal 50	The amount of banknotes and coins submitted (in pcs)	0-9, MAX: 8 Characters



47	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - encashment to bank - nominal 20	The amount of banknotes and coins submitted (in pcs)	0-9, MAX: 8 Characters
48	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - encashment to bank - nominal 10	The amount of banknotes and coins submitted (in pcs)	0-9, MAX: 8 Characters
49	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - encashment to bank - nominal 5	The amount of banknotes and coins submitted (in pcs)	0-9, MAX: 8 Characters
50	CashDesk	Cash desk operations	Credit operation - credit transaction - operation type - encashment to bank - nominal 1	The amount of banknotes and coins submitted (in pcs)	0-9, MAX: 8 Characters

### 3 Product Configuration and Operating Environment

#### 3.1 Product Appearance & Configuration

##### 3.1.1 Terminal



Image 1. Terminal

Technical characteristics of each of the terminals:

<b>Appearance</b>	Size	35mm(W) x 179mm(D) x 182mm(H)
	Power	100-240V / 50 ~ 60Hz
	Color	BLACK
	Material	Steel
<b>Configuration</b>	System	I5 4570T / 4G DDR3
	Monitor	22" AOC S2216 H
	Card reader	SL-500

	Mouse	Any
	loudspeakers	Any

The terminal block does not require a hard drive. For the software installation, operational memory of minimum 4 GB is required.

### 3.1.2 Server



Image 2. Server

<b>Appearance</b>	Size	180mm(W) x 401mm(D) x 425mm(H)
	Power	100-240V / 50 ~ 60Hz
	Color	Black
	Material	Steel
<b>Configuration</b>	System	I5 4460/HDD 120GB

Minimum disk space needed for installation is 120 GB.

Maximum disk space needed for installation is 240 GB.

### 3.1.3 Equipment for Manager / Cashier program



Image 3. Equipment for manager / cashier program

<b>Appearance</b>	Size	35mm(W) x 179mm(D) x 182mm(H)
	Power	100-240V / 50 ~ 60Hz
	Color	BLACK
	Material	Steel
<b>Configuration</b>	System	I5 4570T / 4G DDR3/ 500 GB
	Monitor	22" AOC S2216 H
	Card reader	SL-500
	Mouse	Any
	Loudspeakers	Any

Minimum disk space needed for installation is 50 GB.

Maximum disk space needed for installation is 500 GB.

### 3.2 Product Part Name

#### 3.2.1 Client Terminal



Image 4. Client terminal

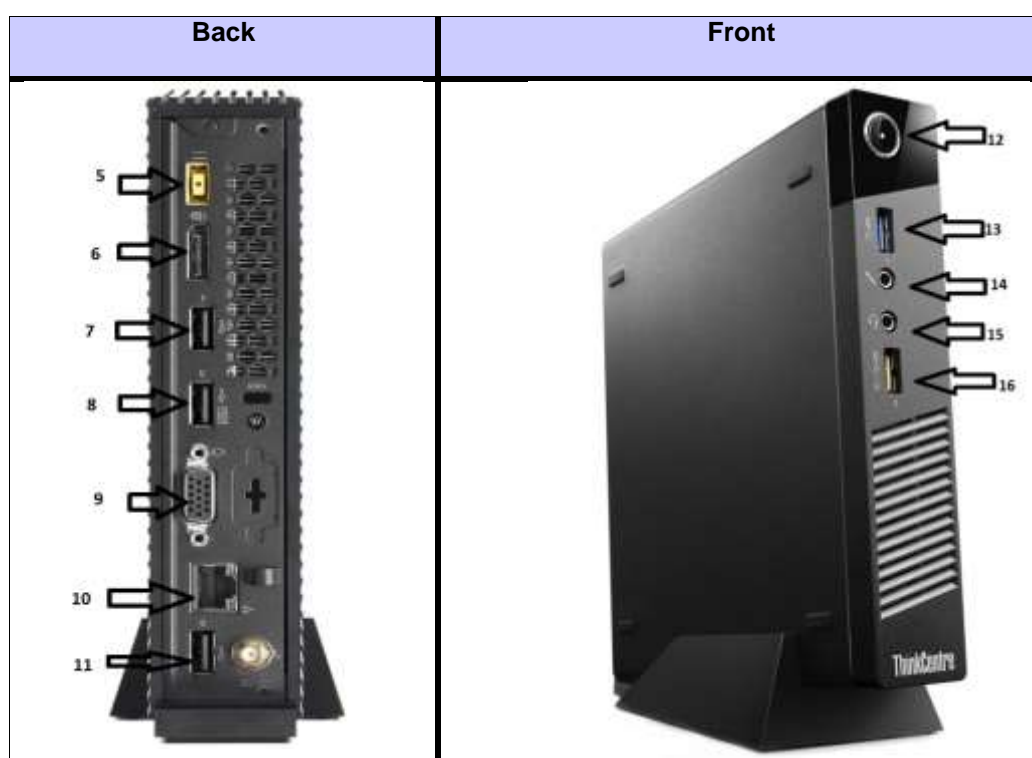


Image 5. System block

1. Monitor
2. System block

3. Card Reader
4. USB Mouse
5. Power input port
6. External hard drive port
7. USB Port
8. USB Port
9. VGA, connector
10. Ethernet Port, input for network connection
11. USB Port
12. Power on/off button
13. USB Port
14. Microphone port
15. Headphone port
16. USB port

There is a possibility to connect a functional key:

- 1) QWERTY-keyboard



Image 6. QWERTY-keyboard

- 2) Keypad keyboard

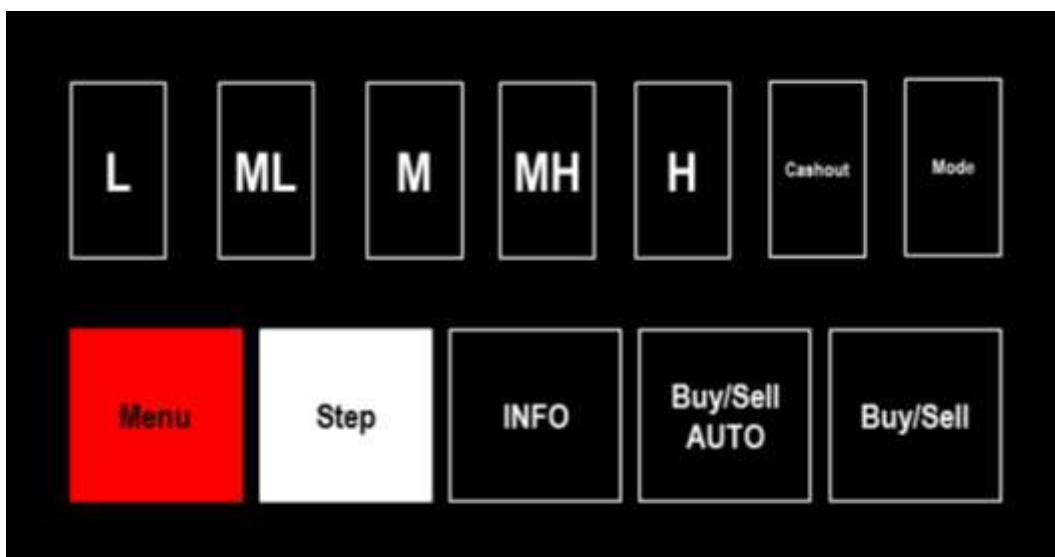


Image 7. Keypad keyboard scheme

Function	The keys on the keypad keyboard	The keys on the qwerty-keyboard
To Purchase and for Confirmation of the offer to Purchase if higher than stop offer.	BUY/SELL In the mode «Confirmation of the offer» the button BUY/SELL equals the button “ACCEPT”.	Space
Scrolling through the list of promisors	L, H	1, 9
Selecting the promisor	BUY/SELL	Space
Selecting the Denomination (0,01, 0,02, 0,05, 0,1 )	L, ML, M, MH	1, 3, 5, 7
Selecting the promissory note par value (5,25, 10,5, 52,5, 105)	L, ML, M, MH	1, 3, 5, 7
Purchasing promissory notes/assignment of the claim of the transferred promissory note	BUY/SELL.BUY.	Space
Purchasing promissory notes/assignment of the claim of the transferred promissory note in auto mode.	BUY/SELL /AUTO	Shift left, Shift right
Selection of parameters for the field of the “Step”	STEP	Ctrl left, Ctrl right
Selecting values for volatility	L-ML-M-MH-H	1, 3, 5, 7, 9
Selecting the video mode	MODE	Tab
Accept/Deny the entering of video mode		1,9
Exit current mode and return to list of promisors	CASHOUT. In the promissory note mode and visual interface mode of the transaction, the button CASHOUT will return to the selection mode of the promisor.	Esc

<b>If available, the cartoon modes:</b>		
To enter cartoon mode and change between top and bottom rows of visualization themes.	MENU	Alt left, Alt right
To scroll the set of themes left or right	L, H	1, 9
To select a theme on bottom row	ML, M, MH	3,5,7
To select volatility range displayed as lines	MENU	Alt left, Alt right
<b>At the display mode of the promissory note:</b>		
To select the number of the promissory note	MENU	Alt left, Alt right
<b>When pressing INFO/F1 in the display mode of the promissory note to enter (or exit) INFO mode, the following modes will appear:</b>		
To scroll backwards, and forwards through the display history of the recent promissory note transactions.	L, ML	1, 3
To open the graph display or return to the history list display.	MH	7
To flip between the front and reverse side of the promissory note	H	9
On/Off. To display the extra screen mode of confirmation of deal at the offered price. (automatic confirmation)	STEP	Ctrl left, Ctrl right
<b><i>Purchasing the actual promissory note (after pressing the INFO/F1 in the display mode of the promissory note)</i></b>		
To enter the mode of purchasing the actual promissory note.	BUY/SELL	Space
To purchase the promissory note	BUY/SELL	Space
To cancel the purchase process and exit from <b>INFO</b> mode	CASHOUT	Esc
<b>In disabling the mode of automatic confirmation of deal at the offered price</b>		
Non confirmation of the stop price. (Does not agree with the proposed price)	H	9
Confirmation of the proposed price. (Agrees with the proposed price)	L	1
<b><i>The offer to participate in the next trade session upon the disconnecting mode of automatic confirmation of deal at the offered price</i></b>		
Grant of right to claim the promissory note negotiation of the current trading session price.	MENU or BUY/SELL	Alt left, Alt right or Space,
Continued participation in the trading session	STEP	Ctrl left, Ctrl right
<b>In enabling the mode of automatic confirmation of deal at the offered price to display extra confirmation screen.</b>		
To access the mode of the current price of transaction, or the price of the next trading session (if the	BUY/SELL.AUTO	Shift left, Shift right



proposed price is above the client's stop price.)		
Selling the promissory note at the price of the trading session	BUY/SELL	Alt left, Alt right or Space
Further participation in the trading session	STEP	Ctrl left, Ctrl right
<b>In the visual mode (theme) other than displaying the promissory note</b>		
To return to promissory note display	INFO	F1

### 3.2.2 Server

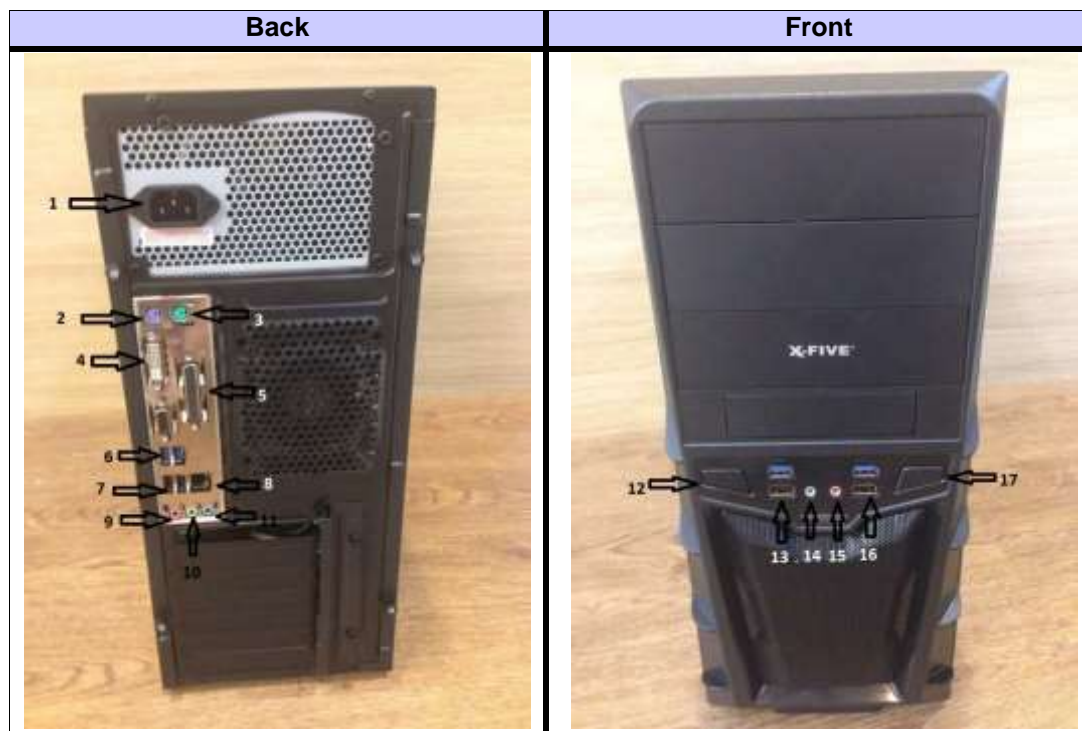


Image 8. Server back/front

1. Pin power cable connector.
2. PS/2 keyboard connection port
3. PS/2 mouse connection port
4. DVI monitor connection port
5. LTP port for printer connection
6. USB Port
7. USB Port
8. Ethernet Port
9. Microphone port
10. Headphones or speakers output port
11. Headphone or speaker input port
12. Power on/off Button
13. USB ports
14. Headphones or speakers port

- 15. Microphone port
- 16. USB ports
- 17. Reset button

### 3.2.3 Equipment for Cashier / Manager Workplace



Image 9. Equipment for cashier/manager workplace 1

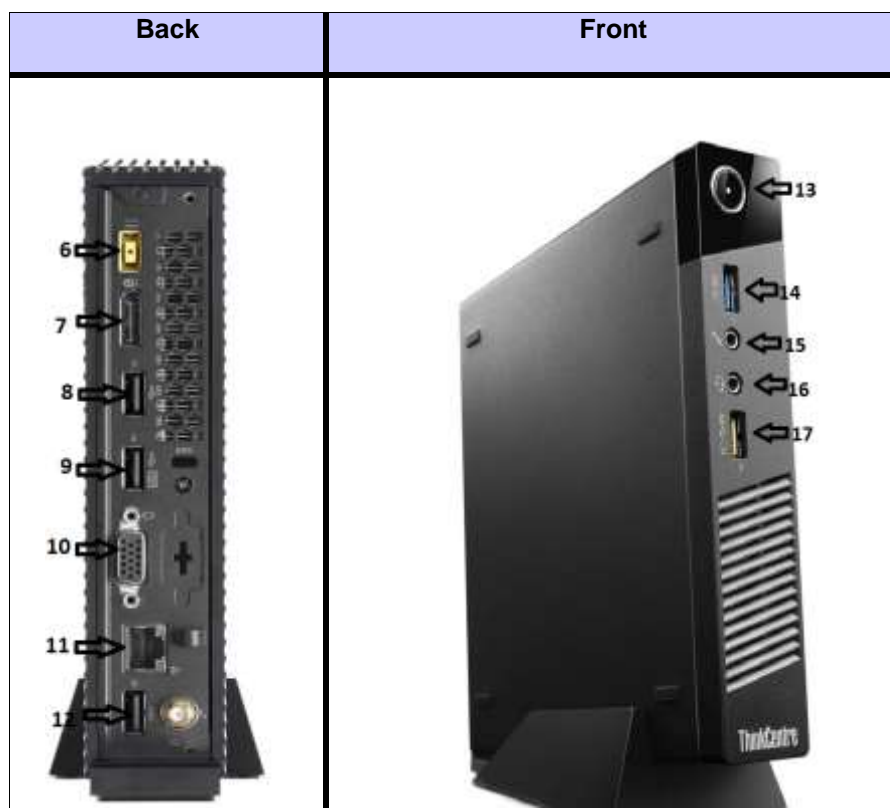


Image 10. Equipment for cashier/manager workplace 2

1. Monitor
2. Card Reader
3. Mouse
4. Keyboard
5. System block
6. Power input
7. External hard drive port
8. USB Port
9. USB port
10. VGA, connector
11. Ethernet, port
12. USB port
13. Power on/off button
14. USB port
15. Microphone port
16. Headphone port
17. USB port

### ***3.3 Operating Environment***

<b>Type</b>	<b>Server</b>	<b>Terminal</b>	<b>Equipment for manager / cashier program</b>
OS	Cent OS 6.5x86_64	Ubuntu linux 16.04	Windows 7
DBMS	Oracle XE 11.2	Connected to server	Connected to server
Service	Web server Apache 2.2.26, php, app. server	No service	No service

## 4 Software Installation and Setup

### 4.1 Software Installation

After all equipment is prepared, follow the steps listed below for the system software installation:

- ✓ Register the terminals in the Hall Manager program (Hall Manager-Cash Desk user guide).
- ✓ Start the client application of the terminal by:
  1. Inserting the provided flash-drive with the software in any free USB-slot.
  2. Connect a mouse and keyboard or keypad.
  3. Push the power button to turn on the terminal.
  4. The procedure of software initialization will be started.
  5. In some time (usually less than 1 minute) a screen will appear for the procedure of entering the terminal parameters.

**Terminal registration**  
**DO NOT REMOVE USB-FLASH**

Terminal code  
H0016T0002

Registration date  
08.11.2017

☐ QWERTY Keyboard

☒ Show bill    ☒ All modes  
☒ Sound

Visualisation  
A

Visualisation Set  
☒ classic  
☒ mystic  
☒ extra\_line  
☒ hot  
☒ lucky  
☒ fresh  
☒ magnifique  
☒ exclusive  
☒ famous  
☒ fantastic

Denominations  
☐ 0.01 RM  
☐ 0.02 RM  
☐ 0.05 RM  
☒ 0.10 RM

Audio  
[0,3] HDMI 0  
[0,7] HDMI 1  
[0,8] HDMI 2  
**[1,0] ALC887-VD Analog**  
[1,1] ALC887-VD Digital

Test audio

OK

Version: 1.0.0.0 Build: 5.0.1.2 07.11.2017 7974

Image 11. Terminal registration

6. Set the following parameters as such:

- Enter a terminal code. The terminal codes should match the codes, registered in the manager/cashier program (refer to the HM/CD user guide). You should enter the code using following format: H0000T0000.
- Enter the date of registration. (If different to the date shown automatically)
- Select 'QWERTY keyboard' if connected. (If a "keypad" is connected, do not select this box)
- Select 'Show Bill' to display promissory note in the background
- Select 'All Modes' if all to use all visualization modes
- Select 'Sound' if to work with sound devices
- Select Type of entertainment visualization A
- Selecting the number entertainment visualizations to be displayed
- Select Denominations
- Then press the ENTER button on the keyboard or click on OK

For some time a message will appear warning you not to remove the flash drive. Once this message disappears, **remove** the flash drive and press Enter or click on OK

This will download and install the software on the terminal, whereupon completion the terminal will be ready for operation.

When running the terminal its initialization starts according to the codes that were written in the server database. A terminal starts a session on the server and if the software installation is successful, it will be accepted for work. If the software downloading is correct, then the screen saver screen will be displayed on the terminal.

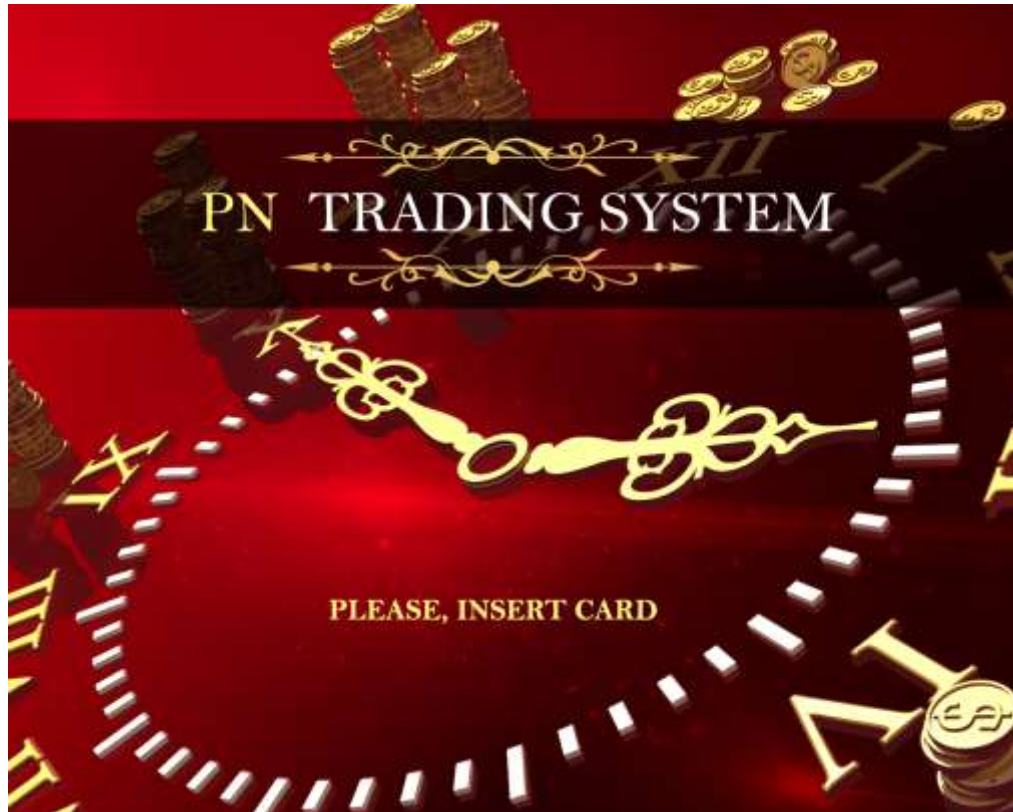


Image 12. Screen saver

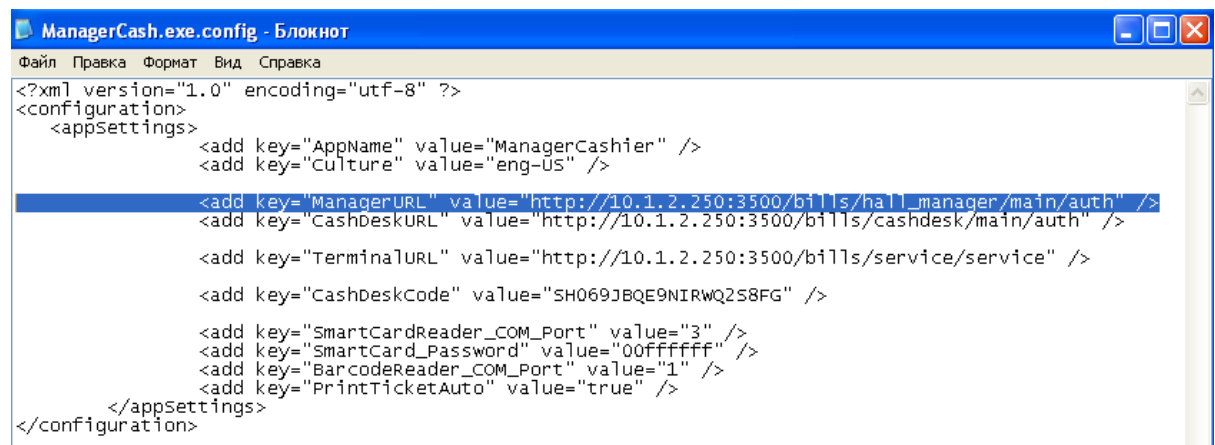
#### ***4.2 Installing the Program for the Manager Software Application***

The Hall manager and Cash Desk workstation must be provided with the following equipment:

- computer
- mouse
- monitor
- keyboard
- power supply network
- Card reader for work with contactless cards

The workstation should be set up as follows:

1. Switch on the computer, connect it to a network and make sure that the operating system is installed on it.
2. Install the drivers for the computer, printer and the card reader.
3. Install the NET Framework Version 3 platform (if it haven't installed yet)
4. Copy the "Hall Manager" program to the computer (from the USB).
5. Go to the configuration file (ManagerCash.exe.config) located in the "ManagerCash" program root directory and check if the server's IP address and the URL are correct:

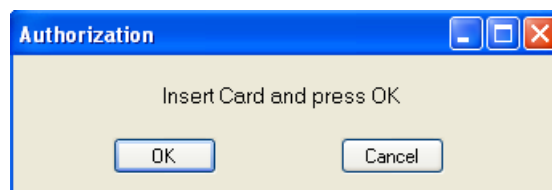


**Image 13. Hall Manager Configuration file**

6. Connect a "Card reader" for working with contactless cards
7. Connect a printer

In order to test if the workstation is ready to work with the Hall Manager and Cash Desk application, complete the test as described below. To run the software, you need to run the ManagerCash.exe file located in the ManagerCash folder.

After running the application you need to log in, which means to place the card on the contact base of the card reader. The following window will appear:



**Image 14. Program start**

Click on OK, then, enter the PIN-code in the window which appears and press OK button in order to enter the application:



**Image 15. PIN-code entry**

If authorization was successful, then the main menu interface will be displayed on the screen:

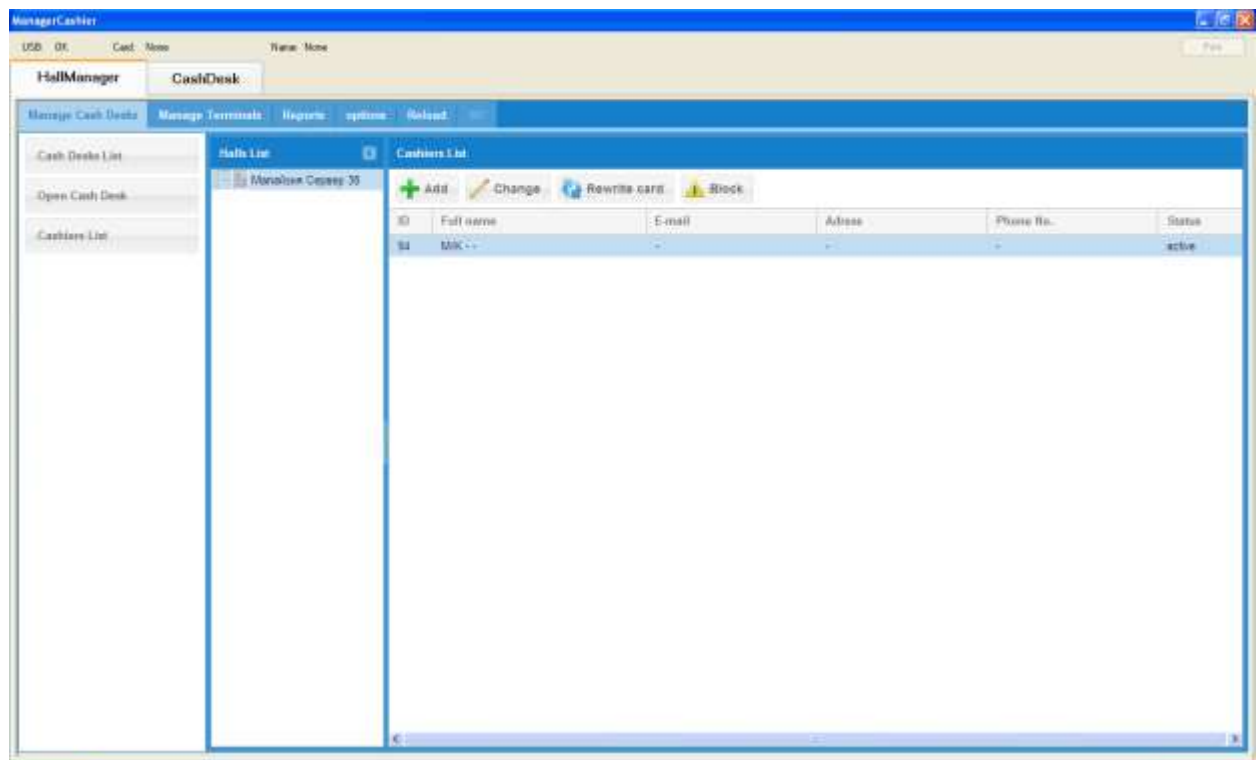


Image 16. Hall Manager program main menu

It is also required to configure some settings in the browser in order to start working with the program. This information is described in the HM-CD user guide document.

For the correct printing of reports without labels in the headers and footers, you should configure the browser. To do this, open the Internet Explorer browser on the manager/cashier computer and click the settings icon in the upper right corner.



Image 17. Browser settings

Select "Print" and "Print Preview" from the list. A new window will appear where you should select the "settings" icon on the toolbar. A new window will appear, and in the "Headers" and "Footers" sections all the drop-down lists should be set to "Empty". Click the "OK" button.



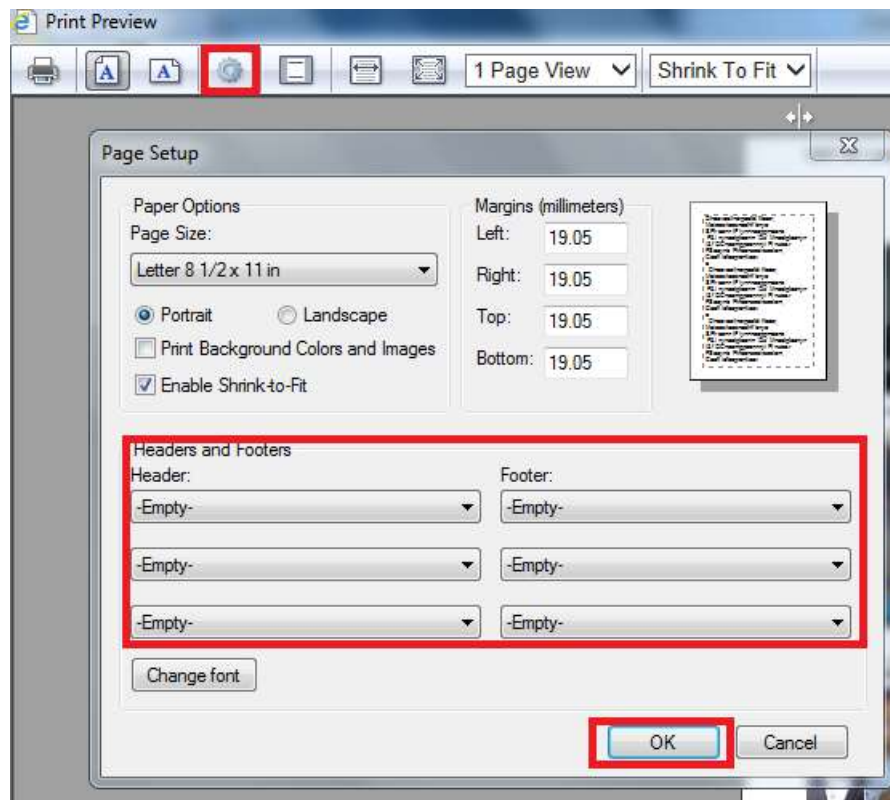


Image 18. Browser configuration 2

Attention! In order to complete the settings correctly, print the page.

### 4.3 Installation and Configuration of Server

The hall Server is prepared at the provider company level and no extra configurations of installed software or extra software installations are required. It is only necessary to connect the server with the power supply and local network.



## 5 Function List

### 5.1 Function List for Terminal

No.	Function Name	Functional Description	Remarks
1	denomination button	The System displays the denomination selection menu. The client can select from the denominations displayed.	
2	Buy/Sell button	The Buy/Sell button facilitates the buying and selling process of the promissory note.	
3	sell from the cart button	To use the cart function, you should press the “in the cart” button. This function lets the user to book a promissory note by adding it to the cart. To sell a promissory note from the cart, you should go to the mode of selling from the cart by pressing the button “sell from cart” button and then the buy/sell button.	
4	BUY button	This function allows to buy the actual material copy of the promissory note, which is available from the info mode (press “info” button and after press “buy” button).	

5	VIDEO MODE button	This function allows to turn on/off the mode of automatic confirmation of a price in the INFO mode.	
6	Button for selecting a visualization	Selection of an entertainment visualization designs available by clicking on the cartoon mode buttons.	
7	“BUY/SELL AUTO”	When the buying price is bigger than stop offer (after pressing BUY SELL), press BUY SELL AUTO button to come into the mode where you can confirm the current offer or make a request to buy at the next price offer.	
8	AGREE button	When a Client is proposed to assign a claim to transfer a promissory note at a price higher than the stop-offer set by Client, the Client may accept the offer by clicking the AGREE button.	
9	DENY button	When a Client is proposed to assign a claim to transfer a promissory note at a price higher than the stop-offer set by Client, the Client may cancel the offer by clicking the DENY button.	
10	ACCEPT button	When pressing the Video mode button before the 1 <sup>st</sup> and 8 <sup>th</sup> visualization mode the informational window appears. To confirm press the ACCEPT button.	
11	BACK button	When pressing the Video mode button before the 1 <sup>st</sup> and 8 <sup>th</sup> visualization mode the informational window appears. To cancel press the BACK button.	

## ***5.2 Function List for Manager***

<b>No.</b>	<b>Function name</b>	<b>Functional Description</b>	<b>Remarks</b>
1	Manage cash desks	To Register new cash desks, manage existing cash desks, create cashiers cards, open/close an operational day, cash collection and account correction.	
2	Manage terminals	This section allows manager to add details for a terminal edit information and block an existing terminal.	
3	Reports	This section contains the final report for transaction days.	
4	Options	This section has information about software version and dumps downloading.	
5	Reload	For renewing information on the screen.	

### ***5.3 Function List for Cashier***

No	Function name	Functional Description	Remarks
1	Manage cards	Allows the cashier to register/create a new Client card (Creating), check Client's card balance, and review Client's details (Balance), deposit and withdraw funds to and from the card account (Withdrawal), activate a Client's card (Activation), and create reports for clients.	
2	Extra Cash Desk	This section serves to open/close additional cash desks and to deposit funds into additional cash desk account.	
3	Cash Desk Operations	This section serves to manage cash-in and cash-out transactions and to register funds collected from terminals.	
4	Reports	This section contains reports on cash desk and terminals, funds in each terminal, active client sessions on each terminal and current terminal balance.	
5	Reload	For renewing information on the screen.	

## 6 System Configuration

The structural scheme of the hall is shown in the schematic below:

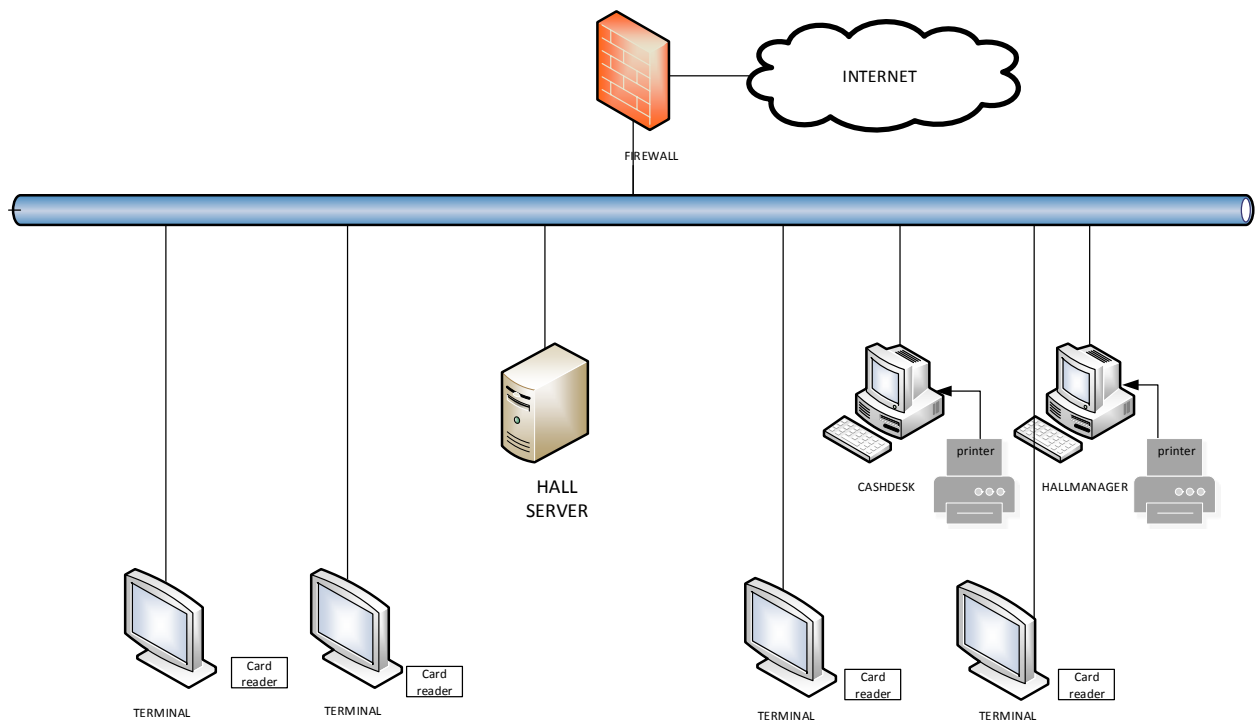


Image 19. Hall architecture

**Firewall** – is a server, consigned for protection from unauthorized access to the hall server.

**Hall server** – is a server, consigned for the purchase/sale functions of promissory notes and hall working statistics collecting.

**Cash Desk** – is an application for a cashier.

**Hall manager** – is an application for a manager.

**Terminal** – is a terminal for promissory notes purchase/sale operations.

**Printer** – for printing reports and receipts.

**Card reader** – for reading ID cards.

## 7 System Service flow

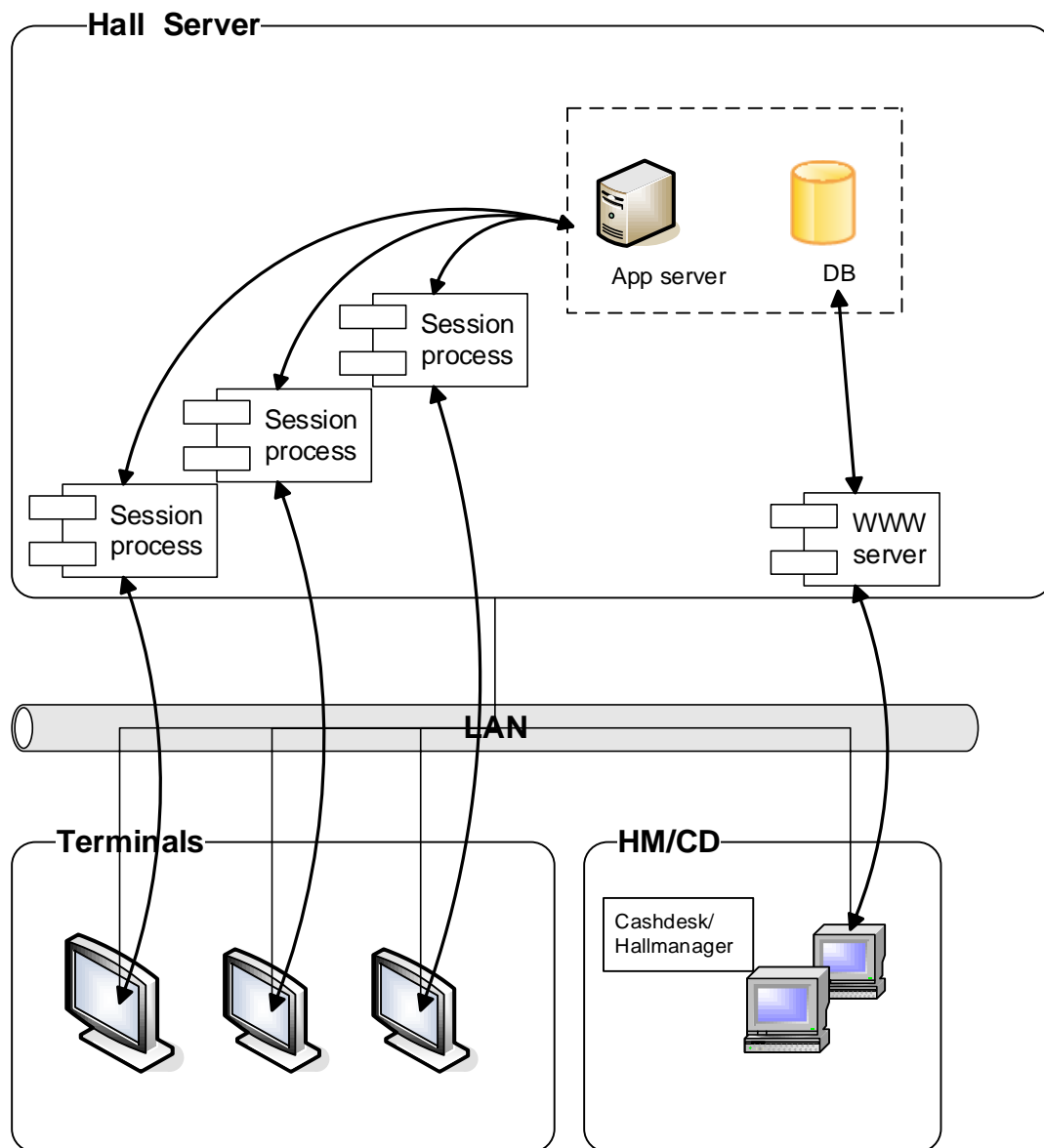


Image 20. System service flow

### 7.1 Principles of the System Service Flow

The hall has systems, combined in a local network:

- Hall Server
- Hall Manager/Cash Desk applications, engineering workstations for a manager and a cashier.
- Terminals

The data exchange interface between the client, server and data base is XML 1.0.

### 7.2 Hall Server Subsystem

The «Hall Server» subsystem is system consisting of a hardware server. The server provides for the concurrent functioning of the following components on the hardware server:

- Application server – provides middle layer processes of the three-level system architecture realization, such as session process. When connecting a terminal to the server, its own "Session" process is created for each client application. The tasks of "Session" process are:
  - Connecting a server with the database
  - Sending a request to the database
  - information exchange with the client application
- Database - accumulating information about system configuration (for example, registered in a system terminals description), terminal equipment events, purchase/sale of promissory notes events, terminal and client sessions, and information needed for terminal recovery in case of emergency, and also performs processing of the financial transactions, generated by events in purchase/sale promissory notes system, managing client's balance. The calculate function has precision of up to 4 decimal points.
- WWW server – provides interaction of service components, such as "Cash Desk" and "Hall Manager" engineering workstations with the database and provides reports generating and monitoring functions.

### ***7.3 Hall Manager – Cash Desk Subsystem***

HALL MANAGER - CASH DESK subsystem is a set of external client applications, having an access to a server using the web-server. The subsystem is designed to perform service functions and collect statistics. The subsystem consists of "Cash Desk" and "Hall Manager" workstations.

There are two kinds of workstations:

- Cash Desk
- Hall Manager

All the workstations have a common development concept And consist of the following components, connected with each other:

- Program
- Forms
- Devices
- HttpManager

### ***7.4 Terminals Subsystem***

Terminals subsystem is a set of external devices. The devices are designed to sell promissory notes. On every terminal a client application is installed which interacts with the hall server according to developed protocols. There are some protocols in the system for interaction between the server and the client application. The service protocols, interacting with terminal devices protocols and selling promissory notes protocols are provided.

## 8 Work Flow Chart

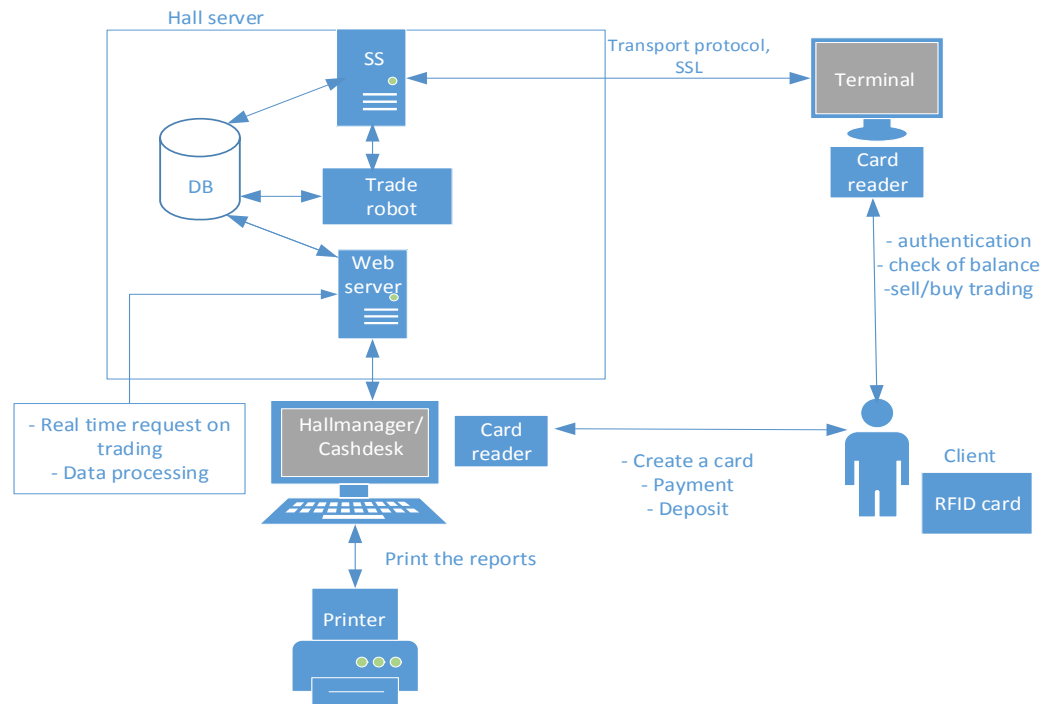


Image 21. Work flow chart

### Mechanism of buying promissory notes

- The client comes to the trading floor. The General Agreement between the Agent and the Client is concluded in accordance with which the Agent secures the conclusion of transactions for the purchase of bills of exchange from the Seller and transactions with the Purchaser on the assignment of rights of demand for receipt of bills in kind
- The client receives an identification card
- Cash is credited to the card through the cash program
- The client sits at the terminal, confirms compliance with the "Public Offer", by clicking on the "AGREE" button, selects the company of the drawer, selects the face value of the bill, the bill number and concludes the transaction.
- The client can receive profit in the cash desk, presenting the card to the cashier
- If necessary, the Client can print a report on the completed sales transactions.
- If desired, the Client may not give in to the right to claim a bill, but receive a bill on his hands through the Agent. Bills delivery service is paid.
- Trade robot formulates a price of the next trading session or confirms the current price. There are several strategies in the trading robot mechanism. If you input the same historical data, then the trading robot will count and offer the same trading price. Trading robot waiting time is 0,002 sec.

Communication between product modules is encrypted with the protocol of creating an encrypted SSL channel to prevent MITM attacks.



## 9 User Terminal Screen Layouts

### *9.1 Getting started with the terminal*

#### **9.1.1 Getting started**

In standby mode, the “Insert Card” screen saver is enabled. The Client should insert the identification card into the terminal card reader.



Image 22. Screen Saver

To start the trading session you should do the following (see the next chapters).

#### **9.1.2 Public Offer**

To start a trading session, the client is required to read the “Public Offer” and confirm this by clicking the “ACCEPT” button, otherwise starting the trading session is impossible.

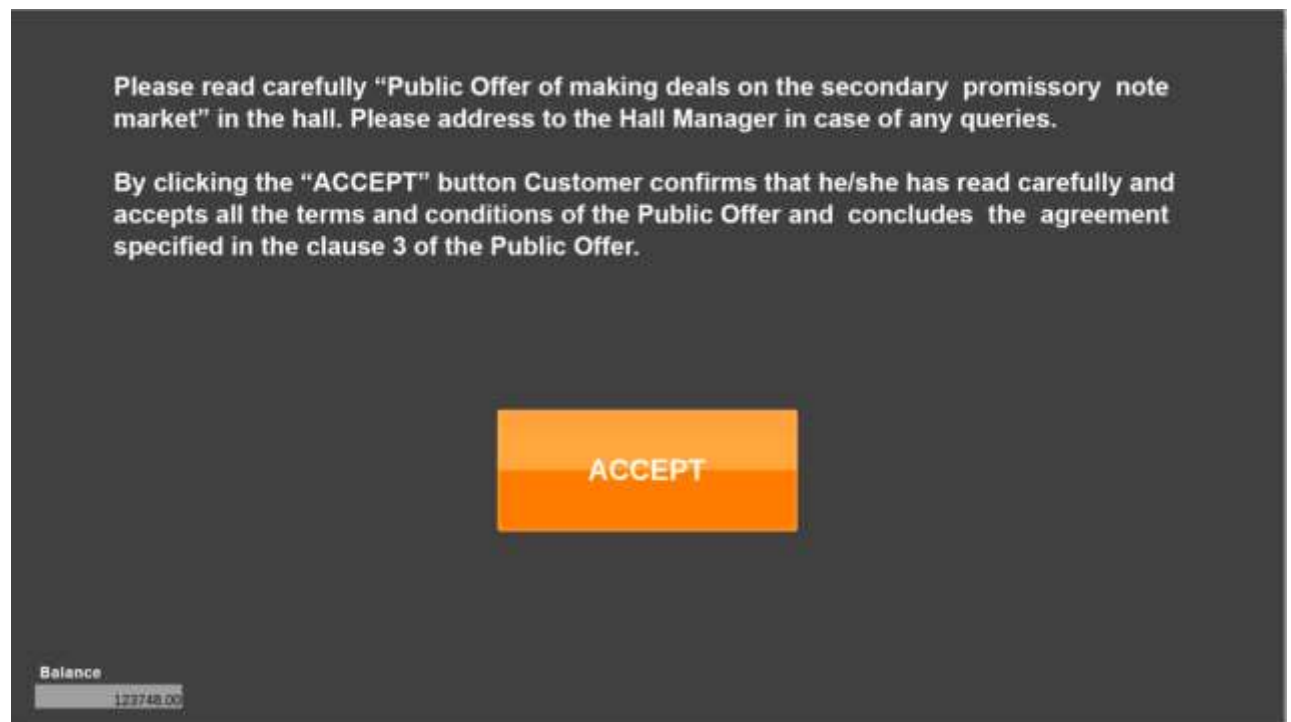


Image 23. Public Offer Confirmation

### 9.1.3 Selecting Promissor

After the Client has inserted his RFID card into the card reader and accepted the terms and conditions of the "Public Offer," he/she gets to the "Promissor" selection mode.



Image 24. Promissor Selection Mode

Green arrows help to navigate through Promissors. To choose a Promissor, the Client clicks on the button with the Promisor's name on it.

The identification card balance is displayed in the «*Balance*» field in the left part of the screen.

#### 9.1.4 Selecting Denomination

The System displays the denomination selection menu. The Client can select from the displayed denominations.

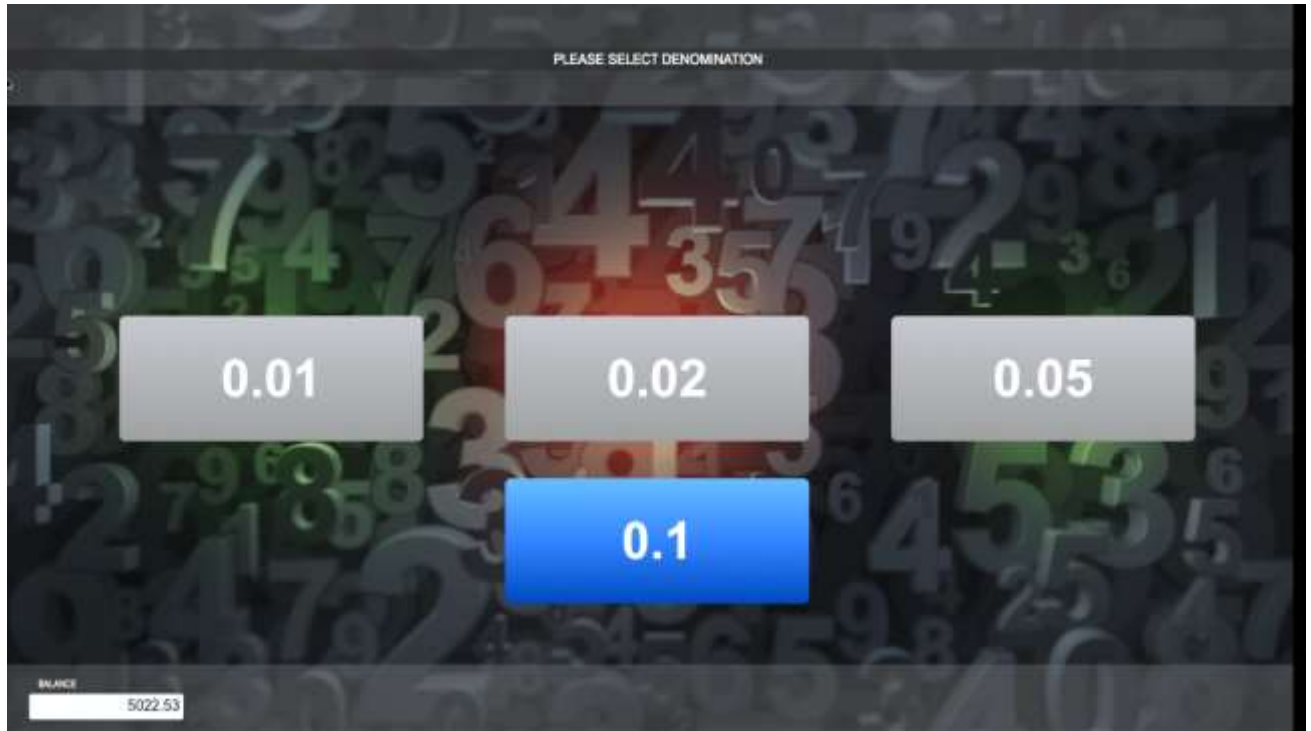


Image 25. Selection Menu: Denomination

### 9.1.5 Selecting the Promissory Note Par Value

The System displays the promissory note par value selection menu. There are several options of promissory note values. The value shown, (par value) is the amount the client can receive for the promissory note, but not earlier than the date which is written on the promissory note (this date is specified on the front of the promissory note). Promissory notes are purchased at discounted prices.



Image 26. Selection Menu: Price



## 9.1.6 Interface for Promissory Notes Trading

This is the main mode for making promissory notes transactions.



Image 27. 1 Interface for Promissory Notes Trading

### Fields Explanation:

**Balance** – total amount of Client's money

**Selling Price** – the price at which the Client purchases the right of claim of the promissory note.

**BUYING Price** – the offer price for cession of rights of claim of the promissory note

**Stop offer** – the minimum price at which the Client is ready to transfer the right of claim of the promissory note.

**STEP** – the maximum loss allowed within the selected volatility

**Volatility** – The Price limit deviation of the cession: L, ML, M, MH, H.

### Buttons Functions:

**BUY/SELL** – purchase and sale of promissory notes with the following cession.

**BUY/SELL. AUTO.** – Automatically buy and sell the promissory note with the following cession. To exit the auto mode, press the button again.

**MENU** – takes the Client to the Promissor selection mode.

**INFO** – To purchase the promissory note and receive it in accordance with Transfer and Acceptance Act, one should enter the INFO mode (INFO button) and click on the "BUY" Button. Also, to turn off the automatic confirmation of the quoted prices, you shall go to "INFO" and press the button, "VIDEO MODE." To enable the mode, you shall also press the button "VIDEO MODE."

**VIDEO MODE** –selects one of the available modes

**CARTOON MODE** – selects the visualization of the video mode for the transactions

**IN THE CART** - adds the promissory note to your cart

**SELL FROM THE CART** – sells the promissory note from the cart

## 9.1.7 The Main Promissory Note Area

This image shows all the required details of the promissory note. In the upper right corner, there is a **“NUMBER”** button. This button allows the Client to select another number of a promissory note.

If you press the half-opened area on the bottom right corner of the paper, it opens the reverse side of the promissory note.



Image 28. The Reverse Side of the Promissory Note



Image 29. Info Mode

**BUY** – button allows the purchasing of promissory notes and delivering the notes to the Client according to the Transfer and Acceptance Act (available in the info mode).

### 9.1.8 History Table

There is a “History” table in the left part of the screen. The table displays the most recent transaction in the system. The transactions are broken down by promissory notes par value. The table shows the promissory notes numbers and sale prices. To display the history of a specific promissory note per value, click on the required value at the left upper corner of the screen.



Image 30. History Table

If you press the half-opened area in the lower right corner of the table, the diagram of the last committed transaction will be displayed.



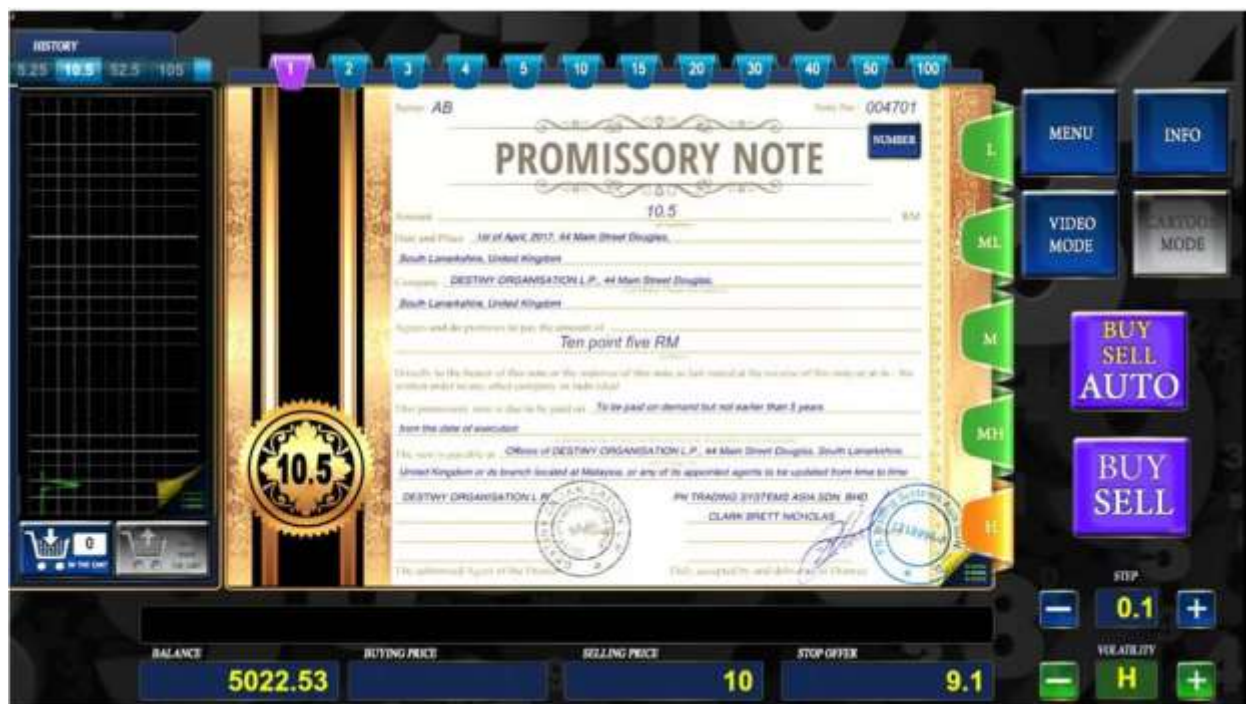


Image 31. Diagram

To make the promissory notes transactions, select the step, the volatility, and the Promissory note number and press the **BUY/SELL**.

In the case when a Client is proposed to assign a claim to transfer the promissory note at price higher than the stop-offer quoted by Client, the Client can make a deal either at the current price or at the price of forthcoming trading session that will follow. In AUTO mode it is considered that Client has confirmed the current price and cession will be made at the current price.

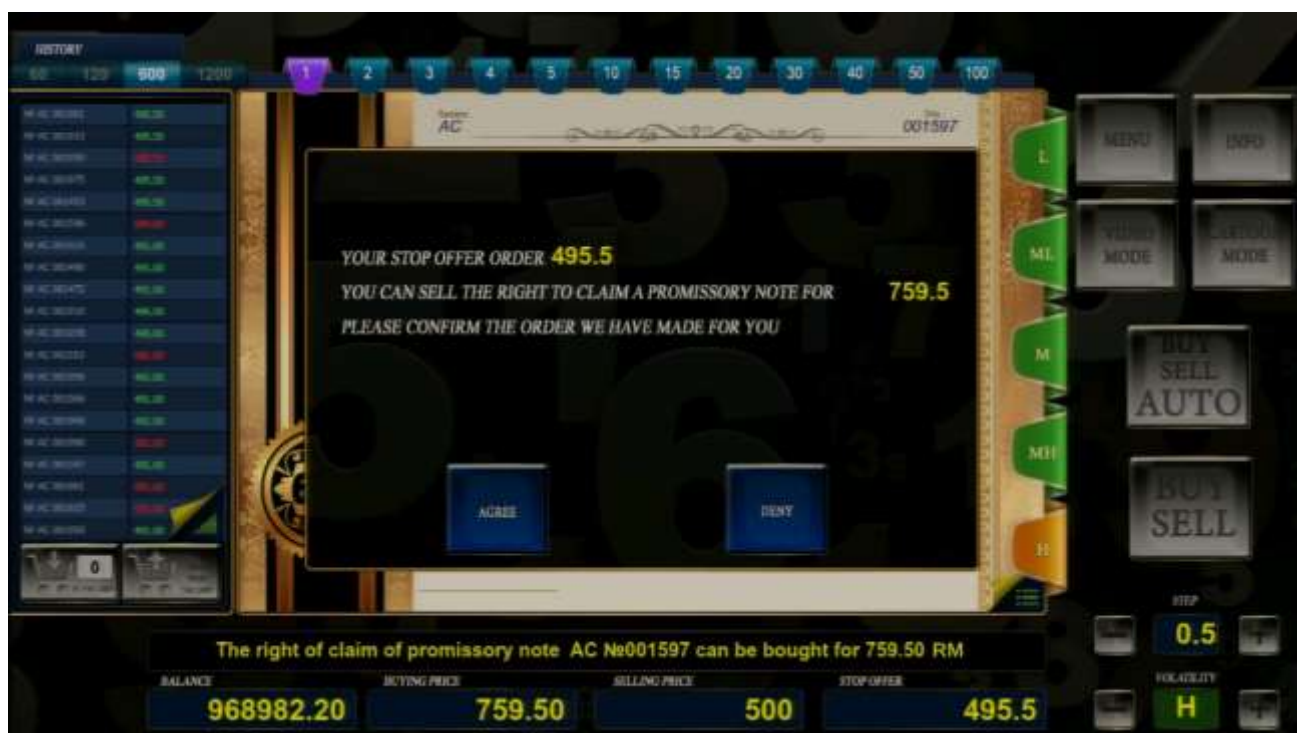


Image 32. Price Confirmation Window



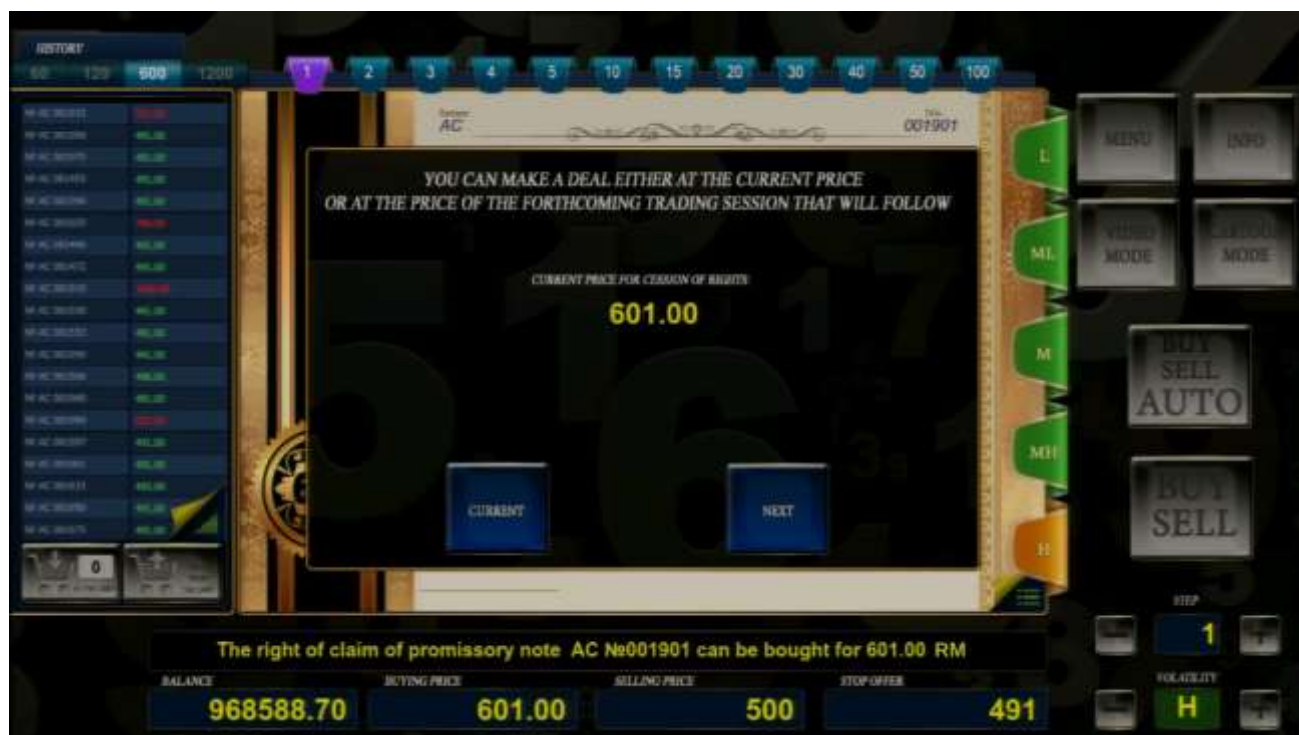


Image 33. Transaction Made at the Price of the Following Trading Session 1



Image 34. Transaction Made at the Price of the Following Trading Session 3

Clicking the “Current” button will cause the Client to make a transaction at the current price. By clicking “Next,” the client may make the transaction at the price of the following trading session. This price can be both lower and higher than the current price. This price determination process can have up to five iterations, if the following price will be greater than the current price.

## 9.2 Selection of Video Modes

**VIDEO MODE** allows a Client to navigate through the following additional visualization modes:

1. Interface for Promissory Notes Trading 1
2. Interface for Promissory Notes Trading 2
3. Interface for Promissory Notes Trading 3
4. Interface for Promissory Notes Trading 4
5. Interface for Promissory Notes Trading 5

The visualization mode displays the promissory note in the left upper corner. Clicking on the “INFO” button returns the Client to the main mode of transactions of the promissory notes.

### 9.2.1 Interface for Promissory Notes Trading 1



Image 35. Promissory Notes Trading System 1



### 9.2.2 Interface for Promissory Notes Trading 2



Image 36. Promissory Notes Trading System 2

### 9.2.3 Interface for Promissory Notes Trading 3



Image 37. Promissory Notes Trading System 3



## 9.2.4 Interface for Promissory Notes Trading 4



Image 38. Promissory Notes Trading System 4

## 9.2.5 Interface for Promissory Notes Trading 5



Image 39. Promissory Notes Trading System 5

By clicking **CARTOON MODE**, the Client enters the mode of selecting different themes of the visualization modes of the transactions.



Image 40. Selecting Visualization

The green arrows allow one to navigate through the different visualization theme options for making transactions. To select the theme, click on the chosen icon.

### 9.3 Purchasing the Promissory Note

A Client can buy the promissory note with the subsequent transfer of the actual promissory note to the Client. To do this, click on "INFO." After clicking on "INFO," click on "BUY". The client goes to the mode of purchasing of the promissory note. In this mode, the Client can cancel the purchase by clicking "CANCEL" or agree to the purchase by clicking "PURCHASE." After clicking "CANCEL," the Client will be redirected to the main interface of the purchase and sale of the promissory notes. After clicking on "PURCHASE," the Client will be redirected to the page where he/she has the opportunity to once again confirm or cancel the promissory note purchase.

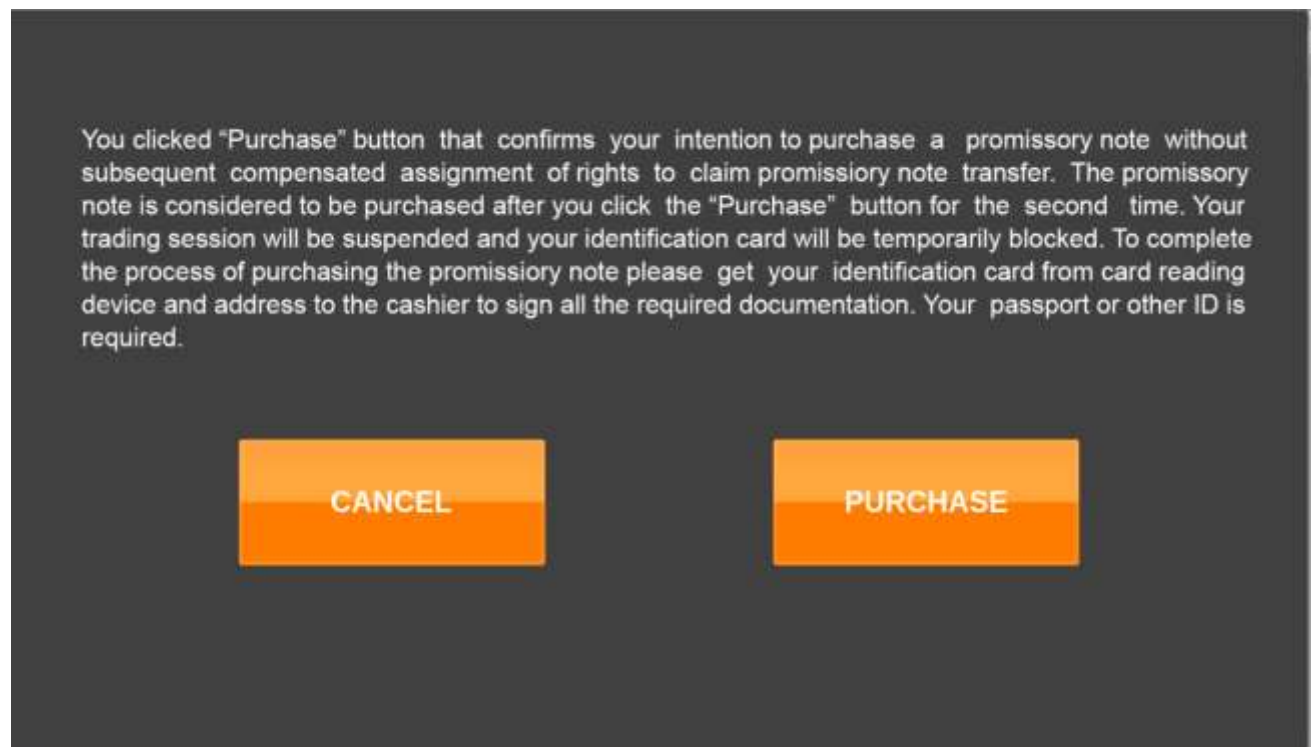


Image 41. Mode of Purchased Promissory Notes 1

When clicking "PURCHASE," the client's card will be blocked and the terminal screen saver will be enabled. The card will be unblocked after all the required procedures for purchasing the promissory will be completed.

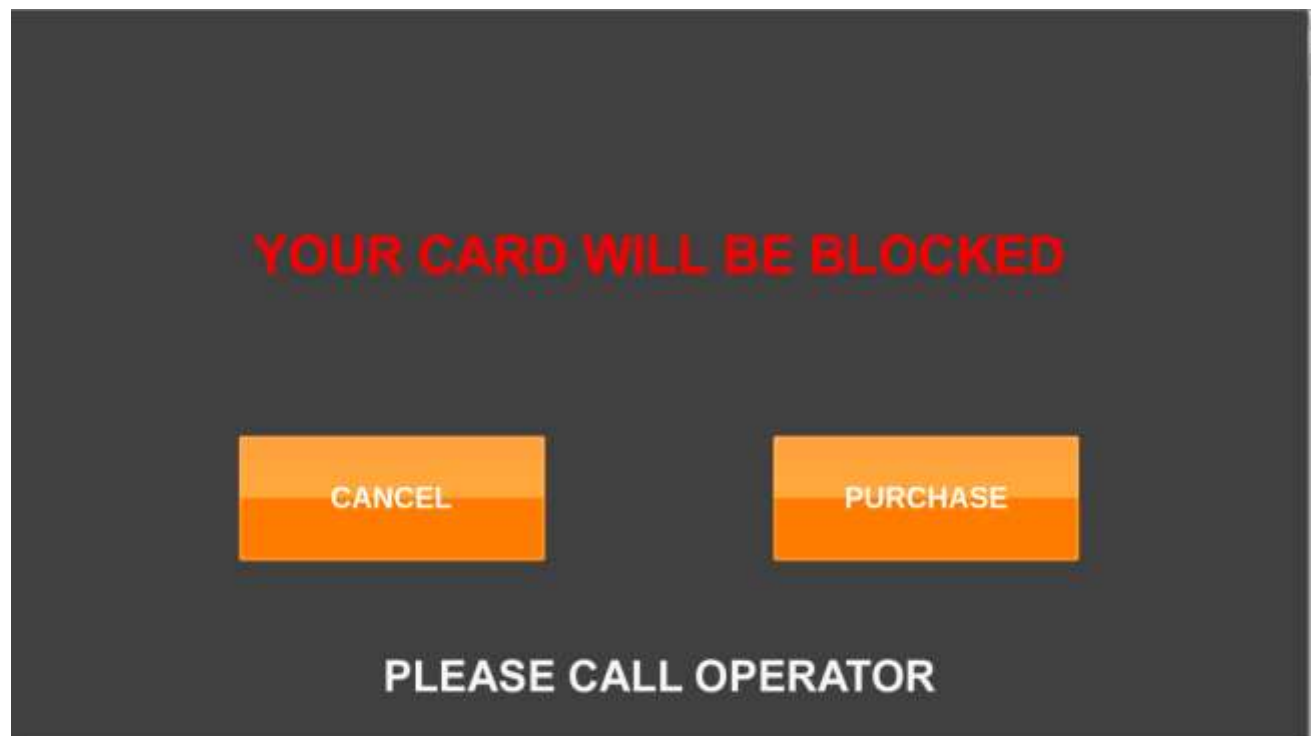


Image 42. Mode of Purchase of Promissory Note 2



## 9.4 Informational Windows

When switching from the promissory note mode to entertainment modes, a pop up window will appear with a pertaining to the transition to entertaining modes and the client's agreement that he has read the terms of the General Agreement and the documents on the information stand. By clicking on the "Accept" button, the client confirms their consent and continues to the next mode. When you click on the "Back" button, the client stays in the mode in which it was located. This window appears before the first entertainment modes.

Also, there are an informational messages system (help system), that helps a user to use a software product. For example: "Info mode is turned on", "The mode of automatic confirmation of deal at the offered price is ON", "Your stop offer order xxxx You can sell the right to claim a promissory note for xxxx please confirm the order we have made for you".



Image 43. Informational windows 1

After a certain number of trading sessions, the client will be shown a window with information that he can make arbitrage transactions, i.e. buy the actual promissory note and having it issued by a transaction through the cashier. After reading the information, you need to click the "Remind me later" button.





## 10 Hall Manager

### 10.1 Select the Hall to Operate (Hall List)

The Menu in the left part of the page contains the list of halls assigned to the manager logged into the System.

*This user has one hall assigned in this list.*

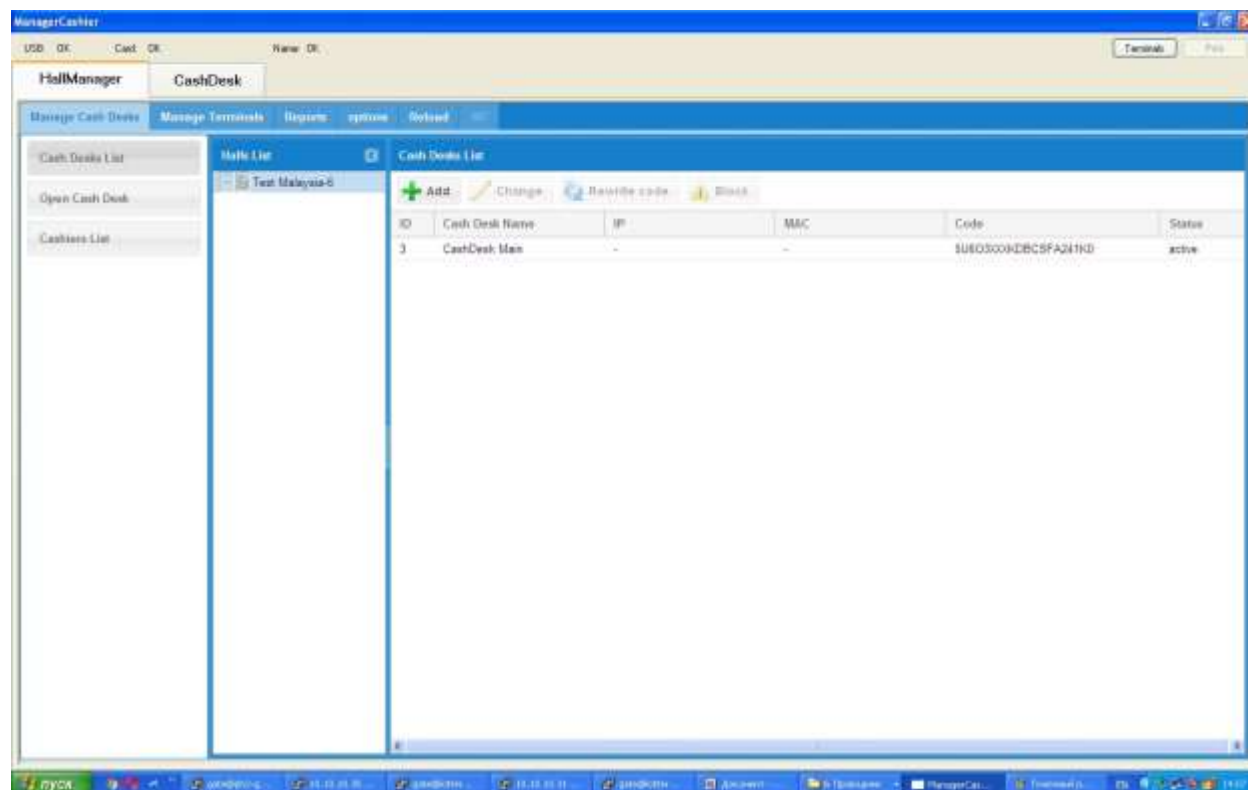


Image 45. Hall list

Please click the left mouse button on the hall name to select a hall and continue working with it. The information displayed on the page covers only the selected hall and all actions carried out are for this hall only. Hall selection can be made from any section of the application.

### 10.2 Manage Cash Desks

This section allows a manager to review and to edit all the hall cash desks details, change the cash desk activation code, open/close transaction day for the selected cash desk and add and edit the cashier profile.

Please select the relevant section in the left menu to select a required operation.

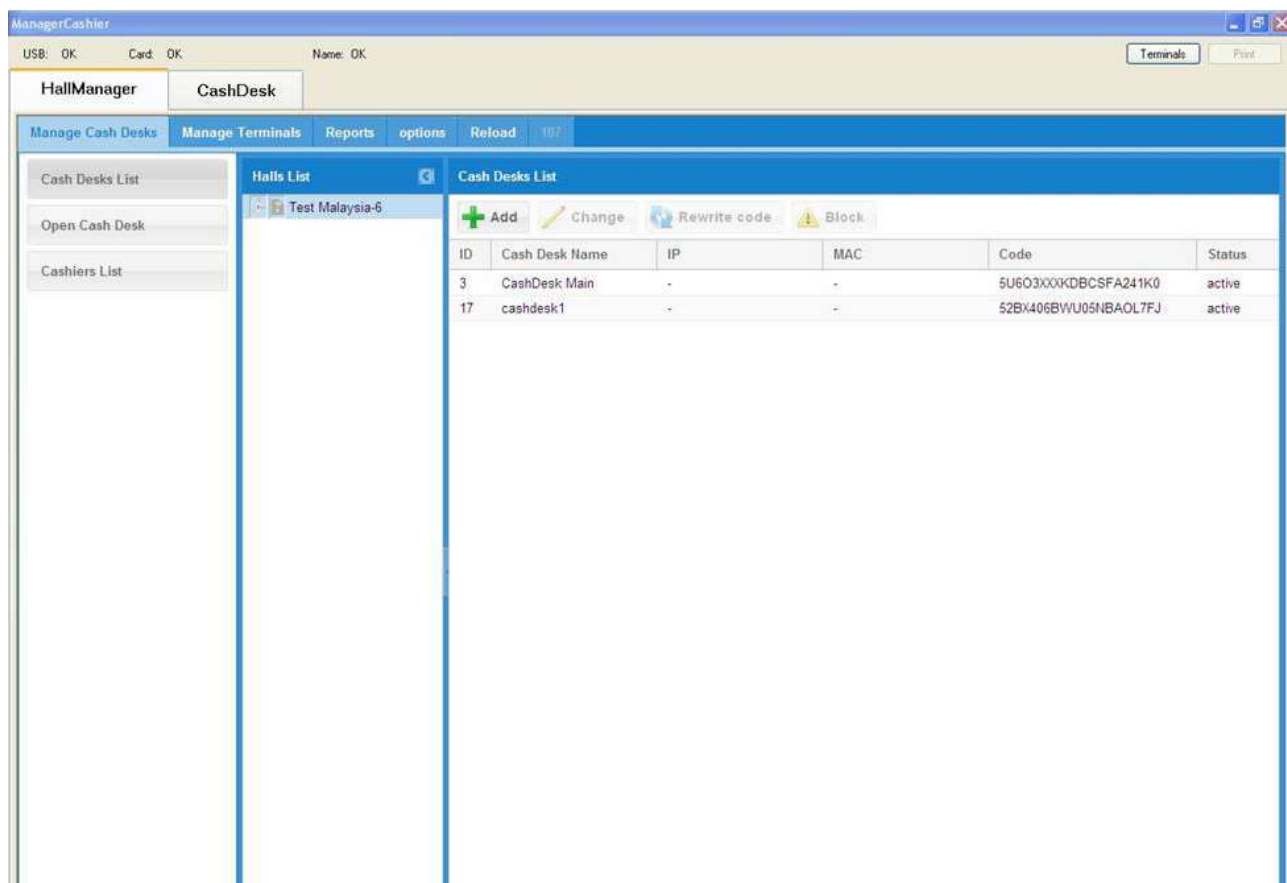


Image 46. Manage Cash Desks

### 10.3 Cashiers List

This section allows a user to register a cashier card and to overview and change information on all the hall cashiers.

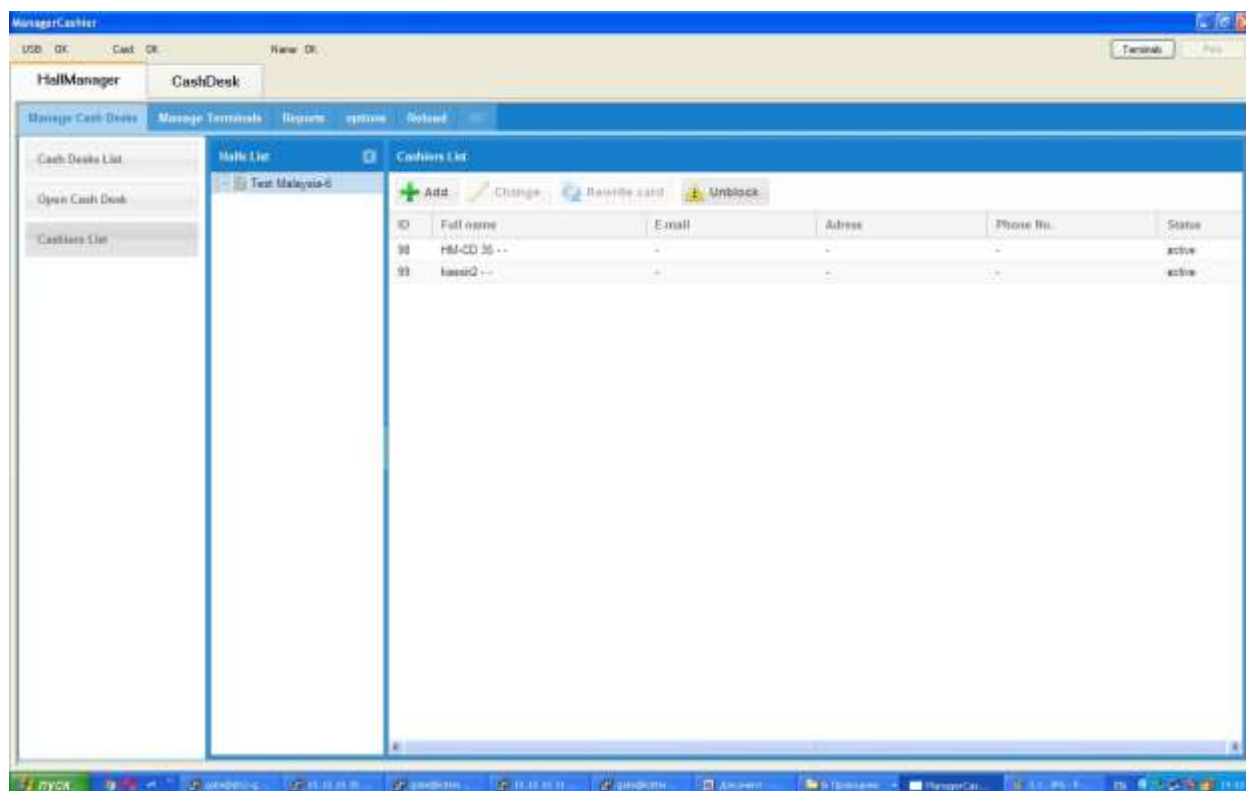


Image 47 Cashiers list

The table contains the following information:

***Id*** – user’s identifier.

***Full Name*** – hall cashier’s name.

***E-mail*** – cashier’s e-mail address

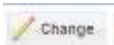
***Address*** – cashier’s home address

***Phone No*** – cashier’s telephone number

***Status*** – user’s status in the system (active, not active, locked).

### 10.3.1 Edit Cashier Information

You can edit information on all cashiers, block a cashier and rewrite a cashier card.

Select the cashier and click the  button to edit the cashier’s details. The edit form will be displayed on the screen.

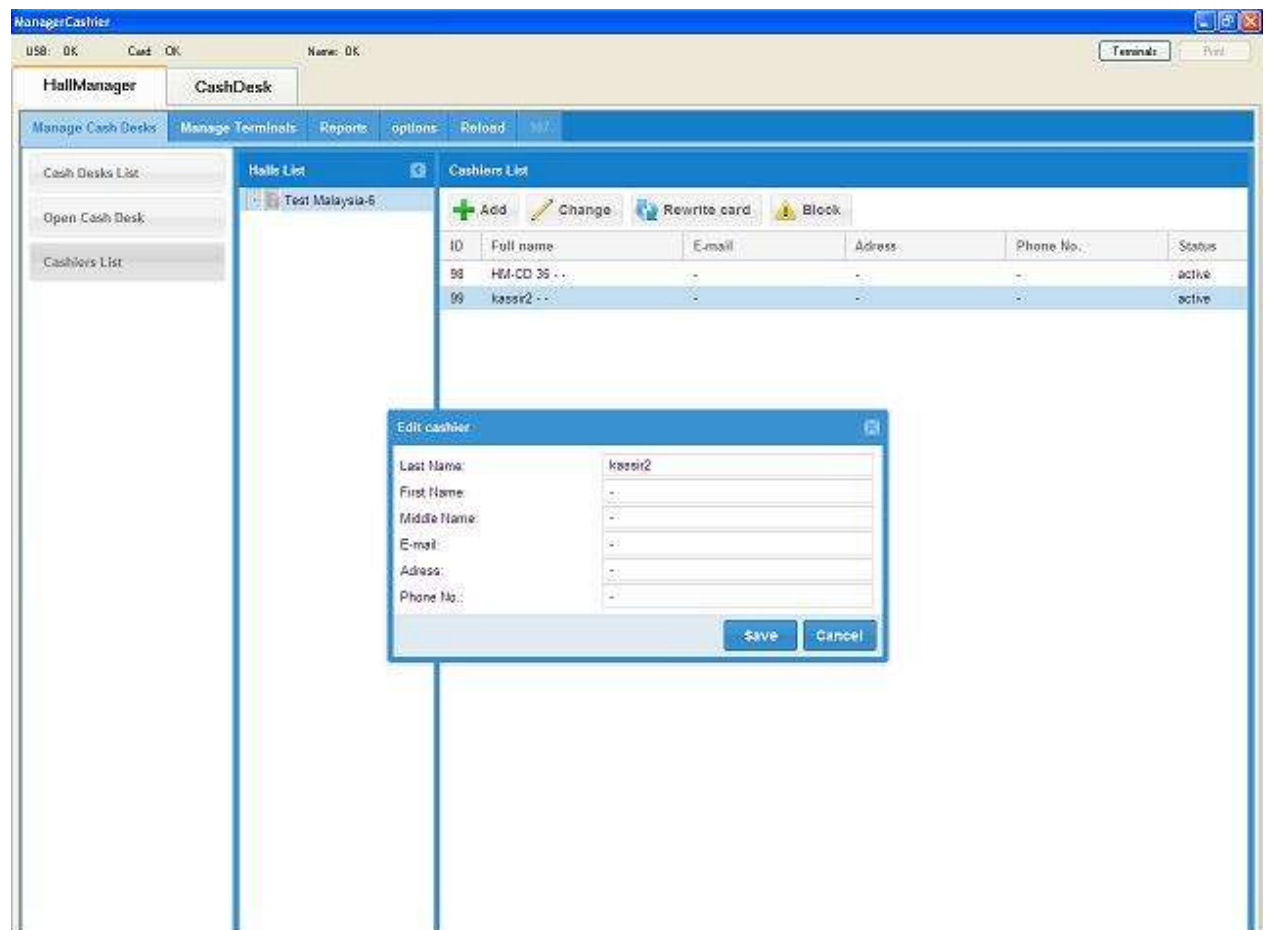


Image 48. Edit Cashier's Details


The following fields are available to be changed:

**Full/First/Middle Name** –name of the hall cashier.


**E-mail** – cashier's e-mail address

**Address** – cashier's home address


**Phone No** – cashier's telephone number

Change the information in the required field, and click the  button to save the changes.

### 10.3.2 Rewrite Cashier Card

Select the cashier and click the  button. Put the card into the relevant slot of the card reader and click "OK" when prompted to rewrite the card. The user will get a new PIN for his card. This option is used in case when a cashier card is lost, rewritten or the PIN for this card is lost. If a cashier card is lost, please put a new RFID-card on the card reader to write it for the cashier, in other cases the previously owned cashier card can be used.


### 10.3.3 Block Cashier Card

Select the cashier and click the  button. The Card will be blocked and access to the **Cashier** application will be forbidden.

It is impossible to rewrite a cashier's card if it was blocked, it is also impossible to edit a cashier's profile if it is blocked.

### 10.3.4 Registering a New Cashier



Click on the  button. Fill out the required data in the appropriate fields in the “Add cashier” window, and then click the “Add” button.

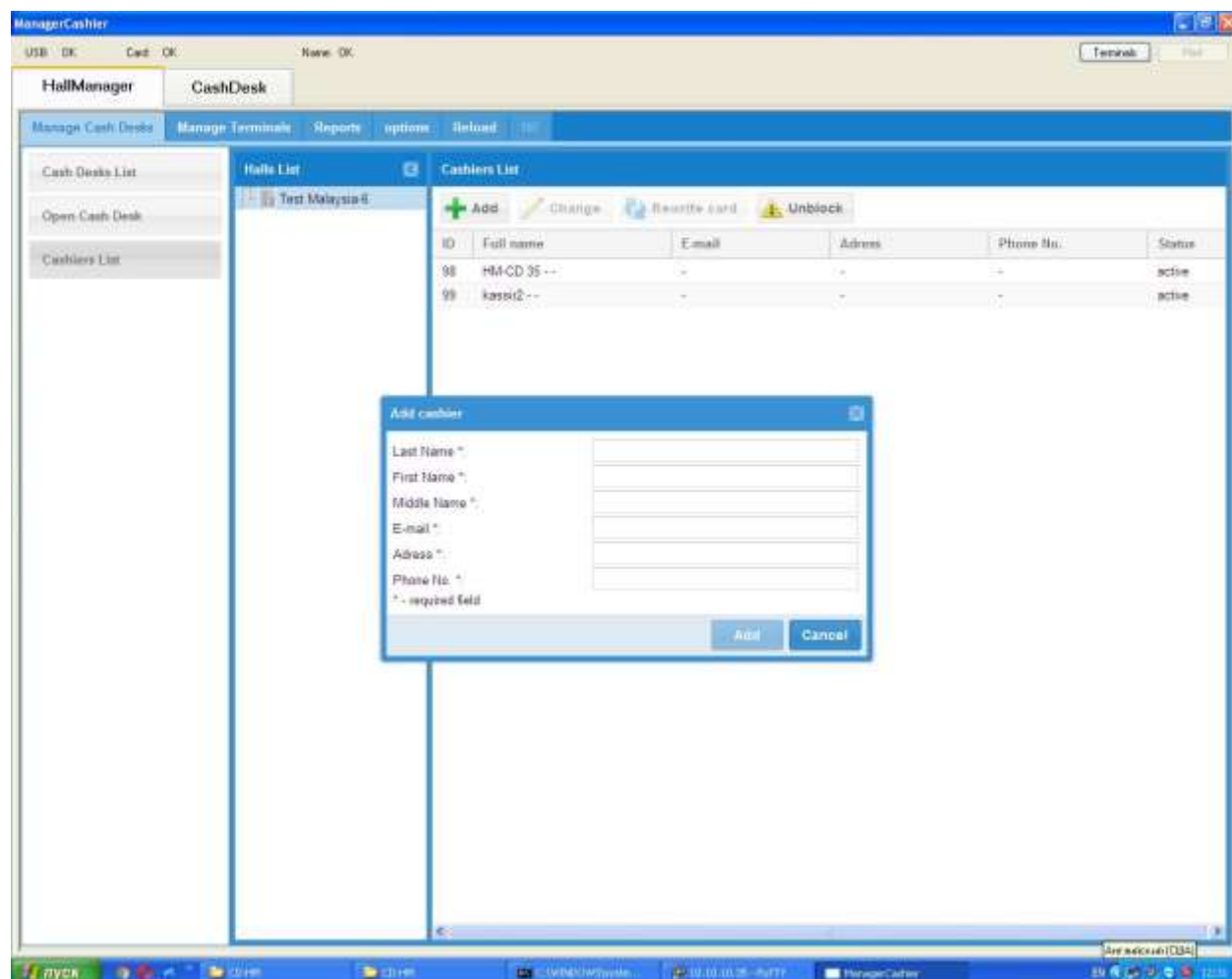


Image 49. Register a New Cashier

Put the RFID- card into the relevant slot of the card reader and click “Ok” when prompted to write all data (last name, first name, middle name, e-mail, address, phone number) of the card holder to it.

The PIN for the new card will be displayed on the screen. This data is saved in the database on a disk encrypted with Crypted Disk Partitions technology.

### 10.3.5 Cash Desks List

This section allows a hall manager to register a new cash desk, review and change hall cash desk details and also provides the option to block a cash desk and change the cash desk code.

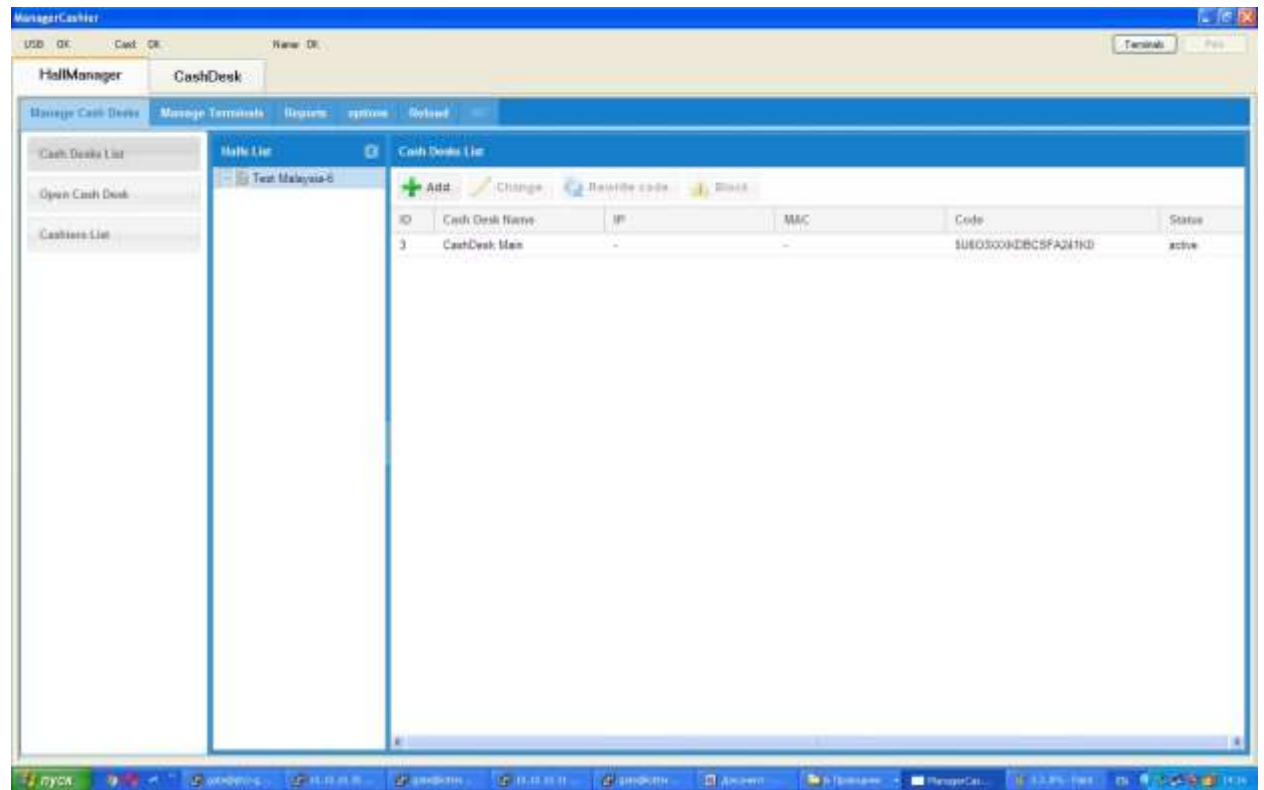


Image 50 List of Cash Desks

The table contains the following information:

**ID** – cash desk identifier.

**Name** – cash desk name in the System.

**IP** – cash desk IP – address.

**Mac** – cash desk Mac – address

**Code** – cash desk access code

**Status** – cash desk status in the System (active, not active, blocked).

#### 10.3.5.1 Edit Cash Desk Information

Select the cash desk and click the



button to edit the cash desk details. The edit form will be displayed.

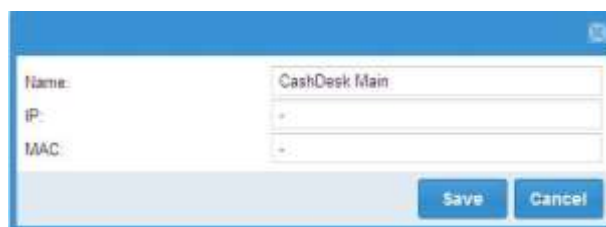


Image 51 Edit Cash Desk Details

The following fields are available to edit:

**Name** – name of cash desk in the System.

**IP** – ip-address of the computer on which the cash desk application is installed

**Mac** – mac- address of the computer on which the cash desk application is installed



Edit the entry in the relevant field and click **Save** button to save the changes.

### 10.3.5.2 Change a Cash Desk Code



Click the **Rewrite code** button to change the cash desk code. The cash desk code will be changed and it will be displayed in the “Code” field.

(NB: ensure the Cash Desk code in the config file of the HM-CD software application is also changed to reflect the new cash desk code)

### 10.3.5.3 Block Cash Desk



Select and click the **Block** button to block the cash desk. The Cash desk will be locked and access to **Cash Desk** will be forbidden.

### 10.3.5.4 Registering a New Cash Desk



Click the **Add** button. Fill in the required data in the relevant fields in the add window and then click the “Add” button.

Image 52 Registering New Cash Desk

The New cash desk entry will be displayed in the table. A New cash desk code is assigned to a new cash desk and displayed in the “Code” field. Copy this code to the “ManagerCash.exe.config” file in the cashdeskcode line. Next, close the Cash Desk application and open it again.

IP and Mac addresses are registered by the IP administer while the cash desk is being registered in accordance with instructions.

### 10.3.6 Open Cash Desk

This section shows the list of active or “open” cash desks. The option of main cash desk opening and closing is also available in this section. The process of transaction day closure can be carried out either by a hall manager or by a cashier with a HALL MANAGER - CASH DESK card. This card is supplied with the equipment and the software by the software provider company. This card provides access to both the cashier and manager applications. Control of this card is defined by the internal regulations of the hall.

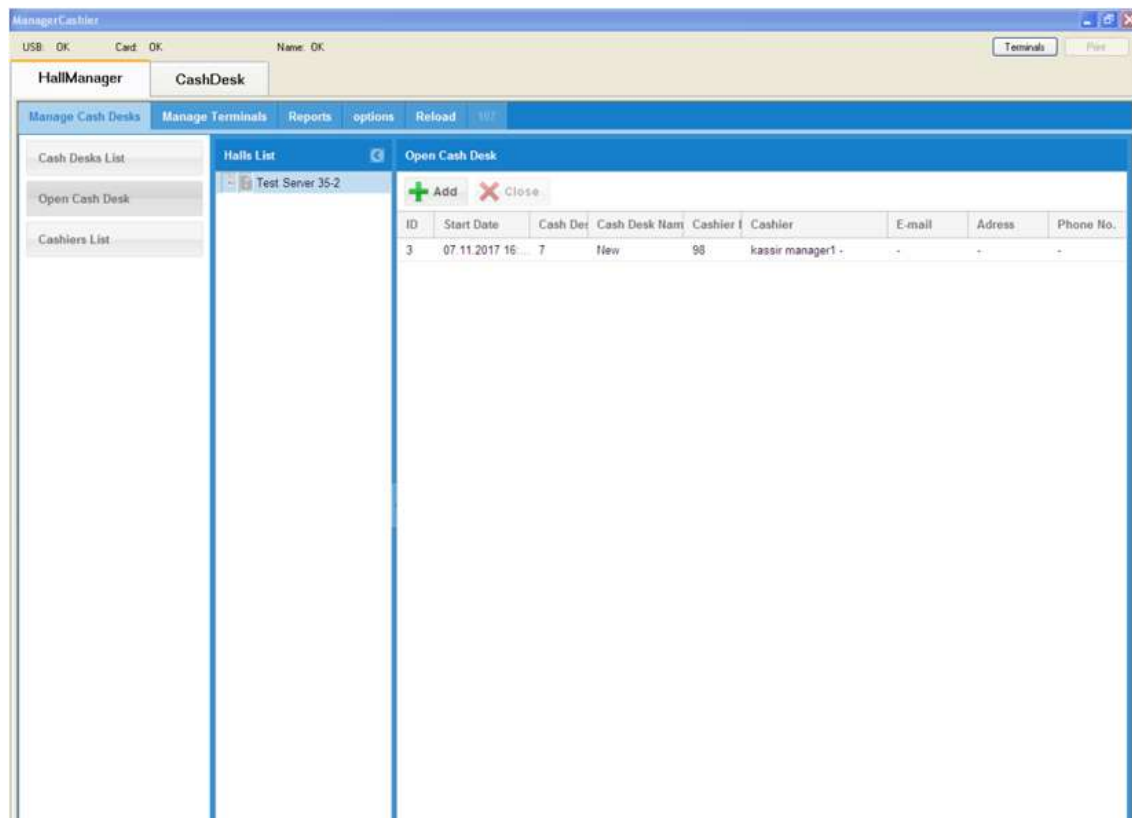


Image 53 Active Cash Desk

The table contains the following information on open cash desk:

***Id*** – transaction day identifier

***Start Date*** – date and time of transaction day opening

***Cash Desk Id***– cash desk identification number.

***Cash Desk Name*** – cash desk name.

***Cashier Id*** – cashier identification number

***Cashier*** – Cashier’s name.

***E-mail*** – cashier’s e-mail address


***Address*** – hall address

***Phone No*** – hall telephone number



### 10.3.6.1 Cash Desk Opening



Click the  button to open a new transaction day. Select a cash desk and cashier in the window, and press the “Add” button.

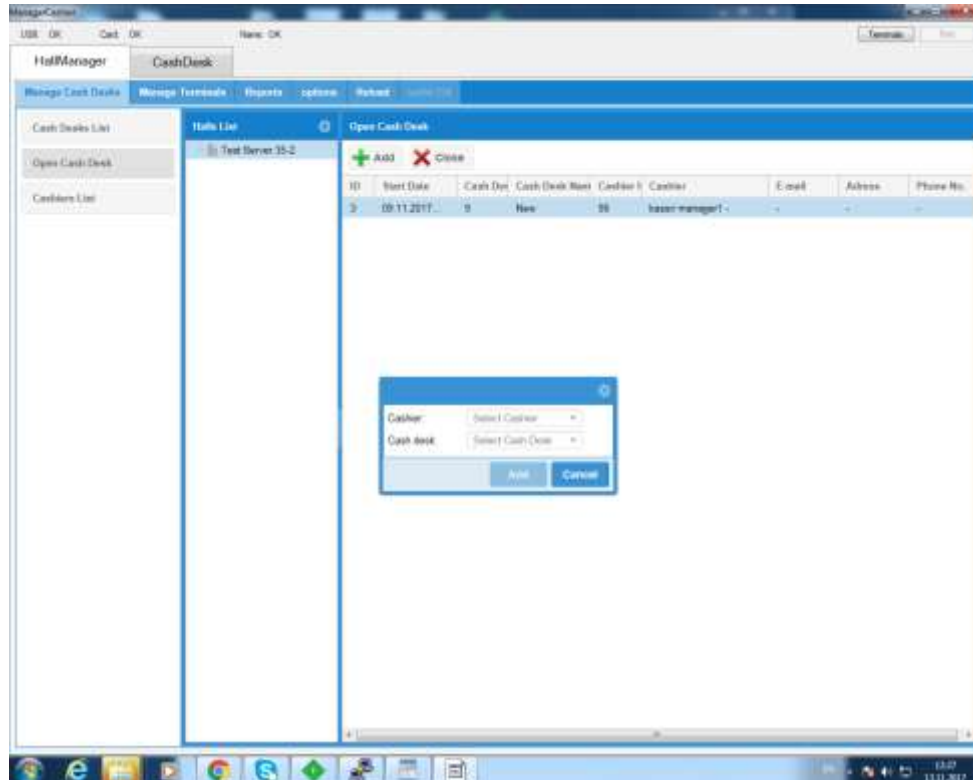



Image 54 Cash Desk opening

The transaction day of the main cash desk is open from this moment.

### 10.3.6.2 Cash Desk Closure

Click on the required cash desk to highlight it, and then click on  to close the cash desk transaction day.

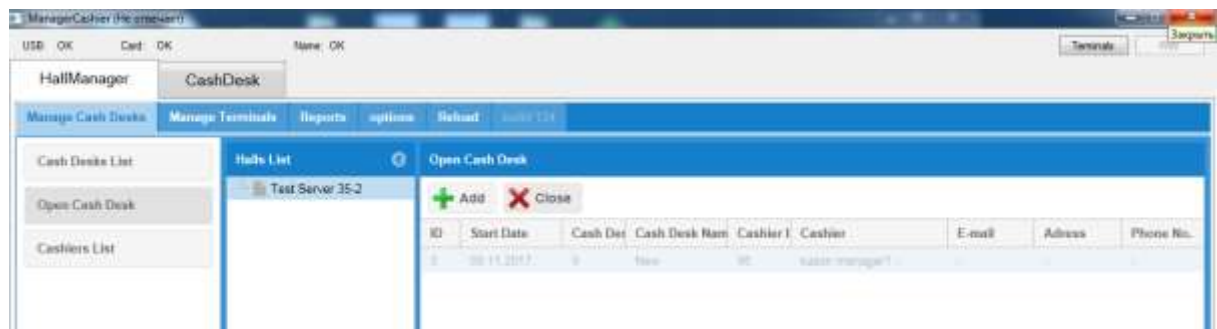


Image 55 Cash Desk Closure

**Attention!** Main Cash desk transaction day can be closed if the following conditions are satisfied: zero collection balance, all additional cash desks are closed, and there are no client cards

inserted in the terminals. If cash desk transaction day is closed, it is impossible to open trading sessions on terminals before the next transaction day is open.

## 10.4 Manage Terminals

This section allows a manager to add details for a terminal, edit information and block an existing terminal.

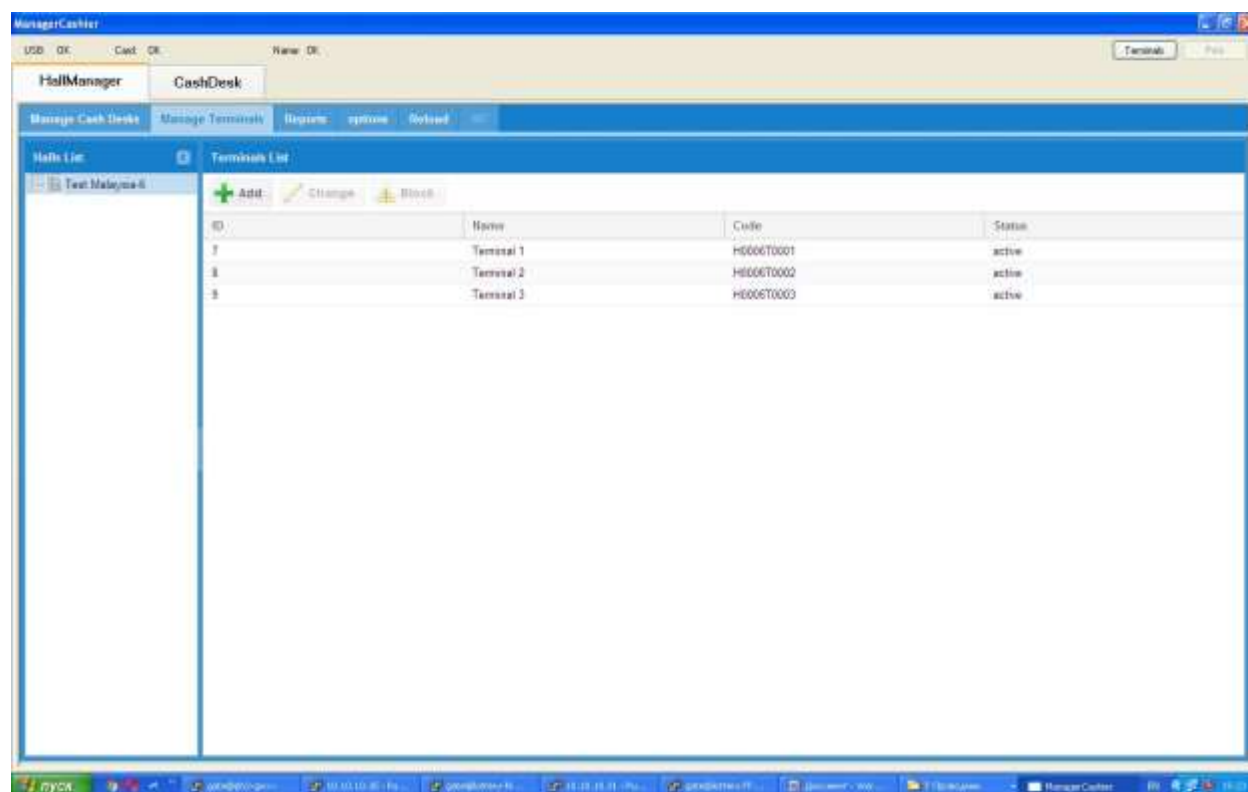


Image 56 Terminals Management

Table contains the following information:


**ID** – terminal identifier

**Name** – terminal name.

**Code** – terminal code.

**Status** – cash desk status in the system (active, not active, blocked).

Click on the  button to edit a terminal's information or  to block it.

Click on the  button and enter a terminal name and code in the “Add” window to add a new terminal.

A Terminal code is a 4-digit number. Once the code is entered a full terminal code is formed and displayed in the “Code” column in H000T0000 format. This full code is required to register a terminal in the System when starting the terminal initialization process.

## 10.5 Reports

This section contains the final report for the transaction day and connected bills. All of the reports can be printed by pressing "Print" button.

### 10.5.1 Final Report

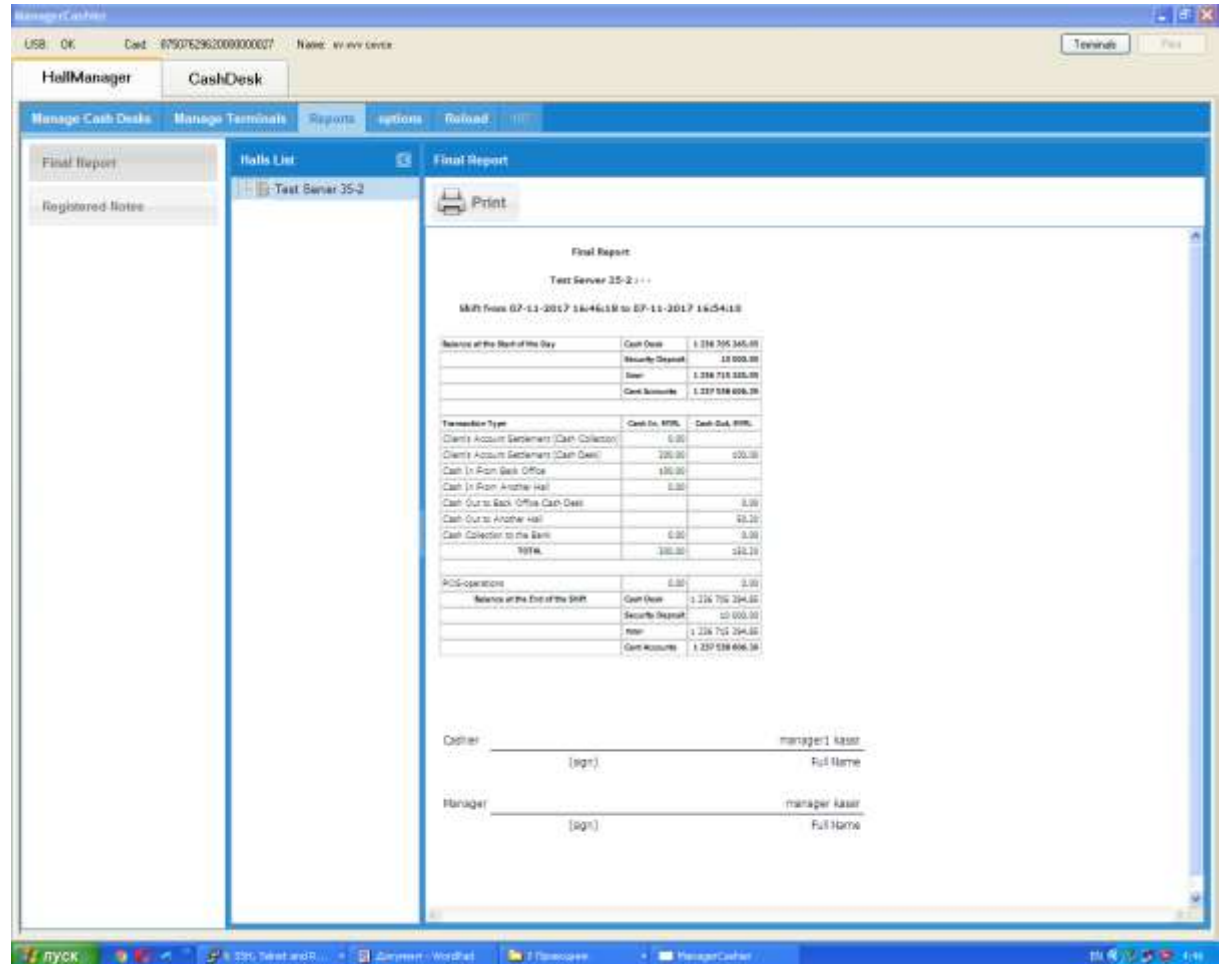


Image 57 Final Report

The final report collects information during all the day, and shows online information.

**Balance at the Start of the Day** – cash desk balance at the start of the day. This account balance comprises:

- **Cash Desk** – balance on the cash desk account at the start of the day
- **Security Deposit** - cash desk reserves
- **Card Accounts** – total money amount on client cards

**Client's Account Settlement (Cash Collection)** – the table shows the total amount of money credited to the client cards, debit column displays the total of all money paid to clients

**Client's Account Settlement (cash desk)** – the table shows the total amount of money credited to the client cards, debit in the table displays the total amount of money paid from the cash desk

**Cash In from Back Office** – Incomes from back office

**Cash In from Another Hall** – incomes from another hall

**Cash out to Back Office Cash Desk**– funds to be transferred to the back office cash desk

**Cash out to another Hall** – funds to be transferred to another hall

**Collection to the Bank** – funds to be collected to Bank

**Total** – total amount of all transactions registered for the specified period of time

**POS-operations** – operations conducted through POS-terminal.

**Balance at the End of the Shift** – funds in cash desk at the end of the cashier's shift, including:

- **Cash Desk** – balance on the cash desk account at the end of the day
- **Security Deposit** - cash desk reserves
- **Card Accounts** – total money amount on client cards

**Total** – cash desk funds at the end of the day

## 10.5.2 Registered Bills

Series and Number of Promissory Note	Date of Issue	Place of Issue	Promisor	Time of Payment	Place of Payment	Par
1. A. 000001	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	5.25
2. A. 000041	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	5.25
3. A. 000088	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	5.25
4. A. 000136	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	5.25
5. A. 000189	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	5.25
6. A. 000217	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
7. A. 000266	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
8. A. 000293	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
9. A. 000397	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
10. A. 004402	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
11. A. 000399	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
12. A. 000812	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
13. A. 000971	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
14. A. 000884	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
15. A. 000545	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0
16. A. 000546	11.04.2017	44 High Street Douglas, South Lanarkshire, United Kingdom	DESTINY ORGANIZATION L.R.	To be paid on demand but not earlier than 5 years from the date of execution	Office of DESTINY ORGANIZATION L.R., 44 High Street Douglas, South Lanarkshire, United Kingdom or its branch located at Malakula, or any of its appointed agents to be located from time to time	10.0

Image 58 Registered bills

In this report, the manager can view the entire list of promissory notes available for making transactions in the hall during a transaction day.

This report contains the following information about a promissory note: series and number of promissory note, date of issue, place of issue, promisor, time of payment, place of payment, par value.

## 10.6 Options

### 10.6.1 Dumps

In this section, you can download data dump files of an operating day if the dump was not automatically sent to the technical support database.

Information about the current installation number of the server of the hall is also available here. This information is needed when contacting with technical support.

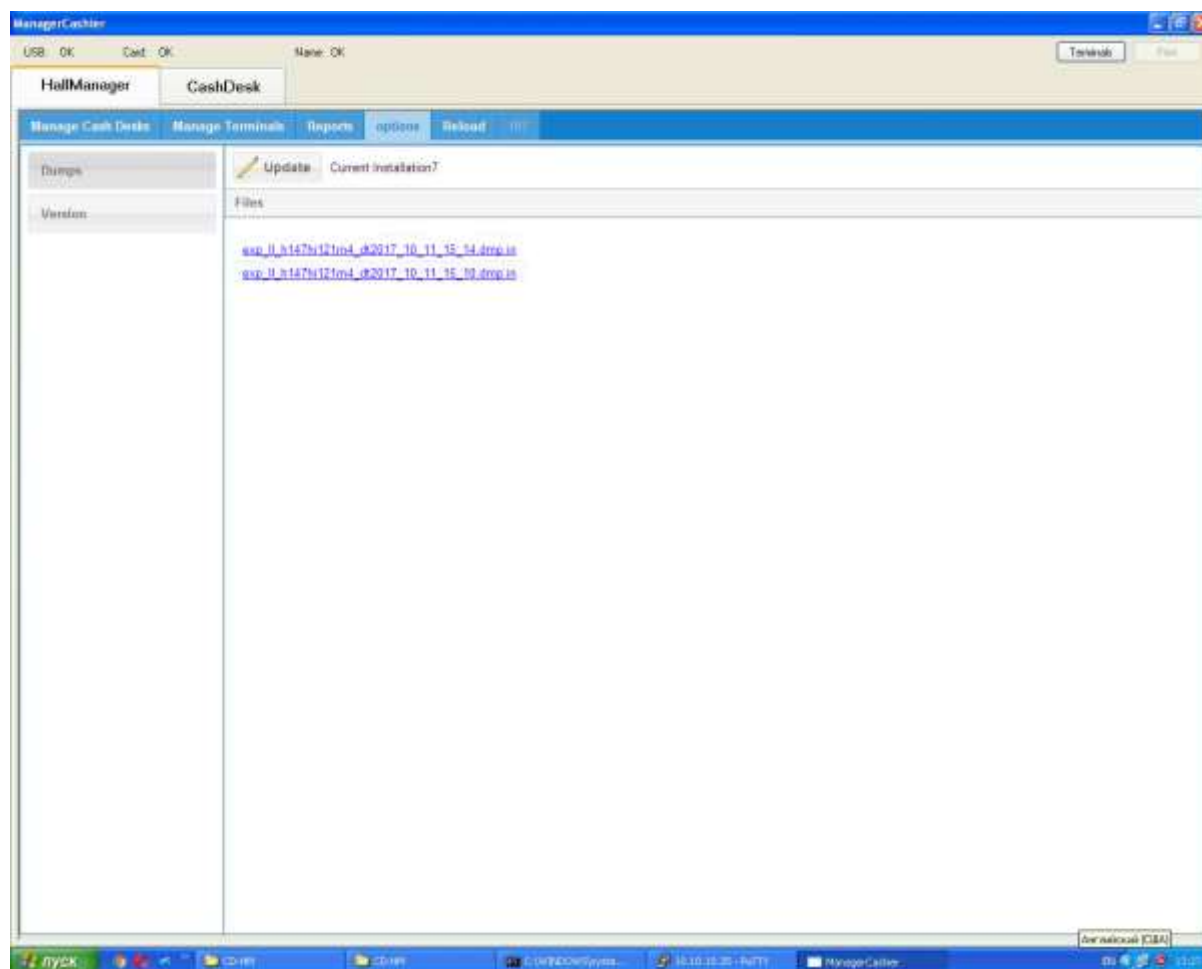


Image 59 Dumps

## 10.6.2 Version

This section contains information about the system name, version and digital signature of the server module.

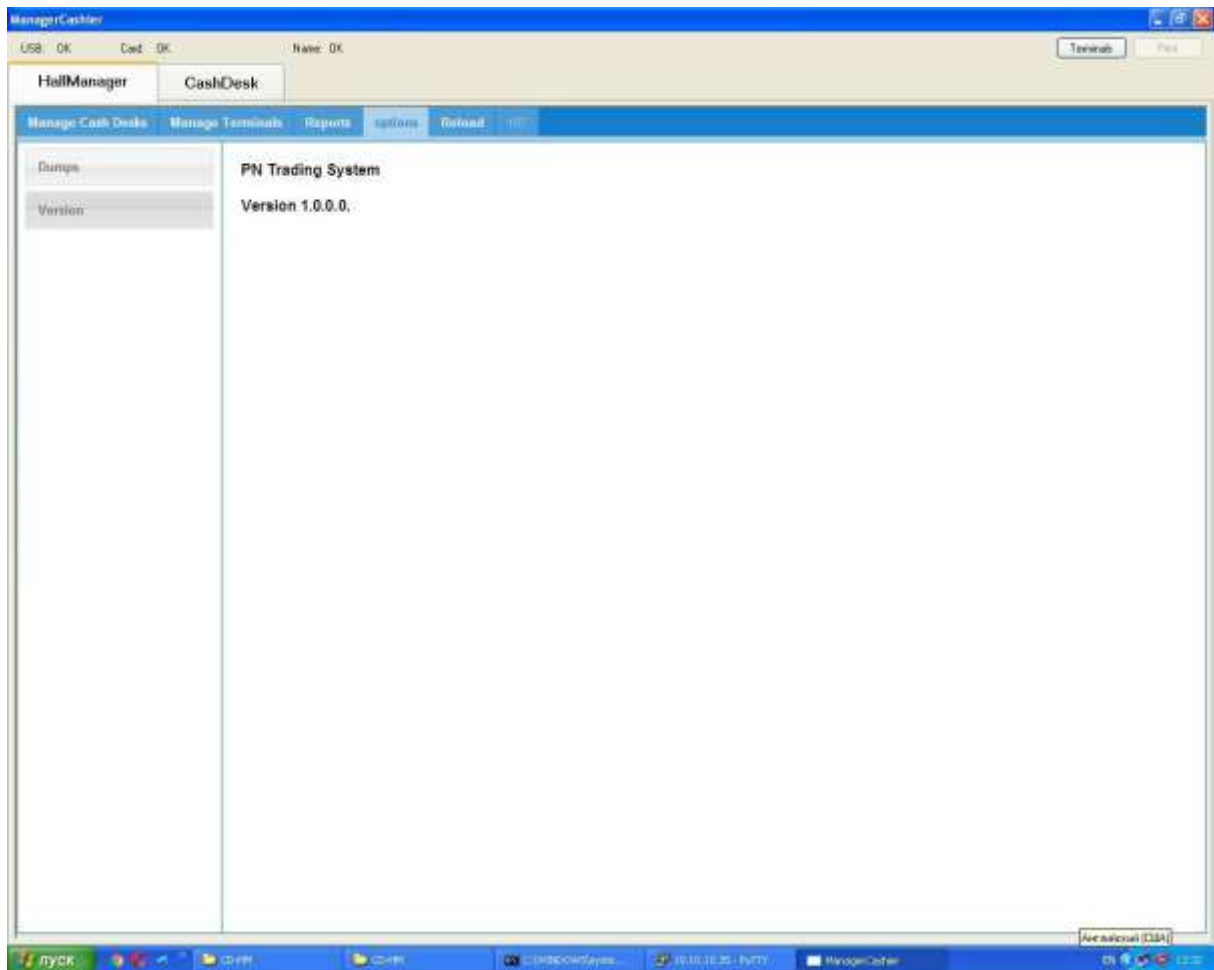


Image 60 Server version

### 10.6.3 Reload

Reload section is to refresh a page.

# 11 Cash Desk

## 11.1 Manage Cards

This section allows a cashier to register a new Client card (Creating), check a Client's card balance and review a Client's details (Balance), deposit funds into the card account (Deposit), make a payout (Withdrawal), activate a Client's card (Activation) and create reports for clients.

Please choose the relevant section in the left menu to select a required operation.

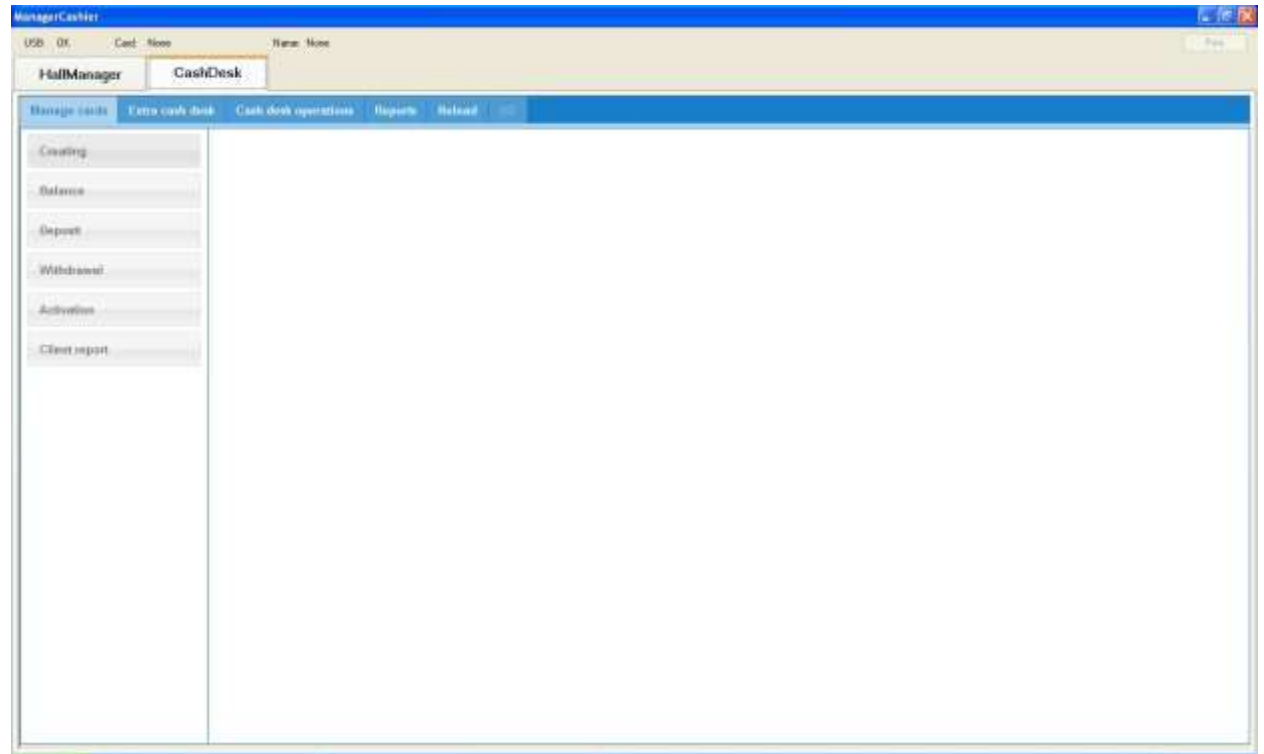


Image 61 Manage Cards

### 11.1.1 Client Card Creating

This section allows registering a new Client Card:

1. Click "**Creating**" and insert a new card into the card reader. Enter all the required information for the Client and click "Create":

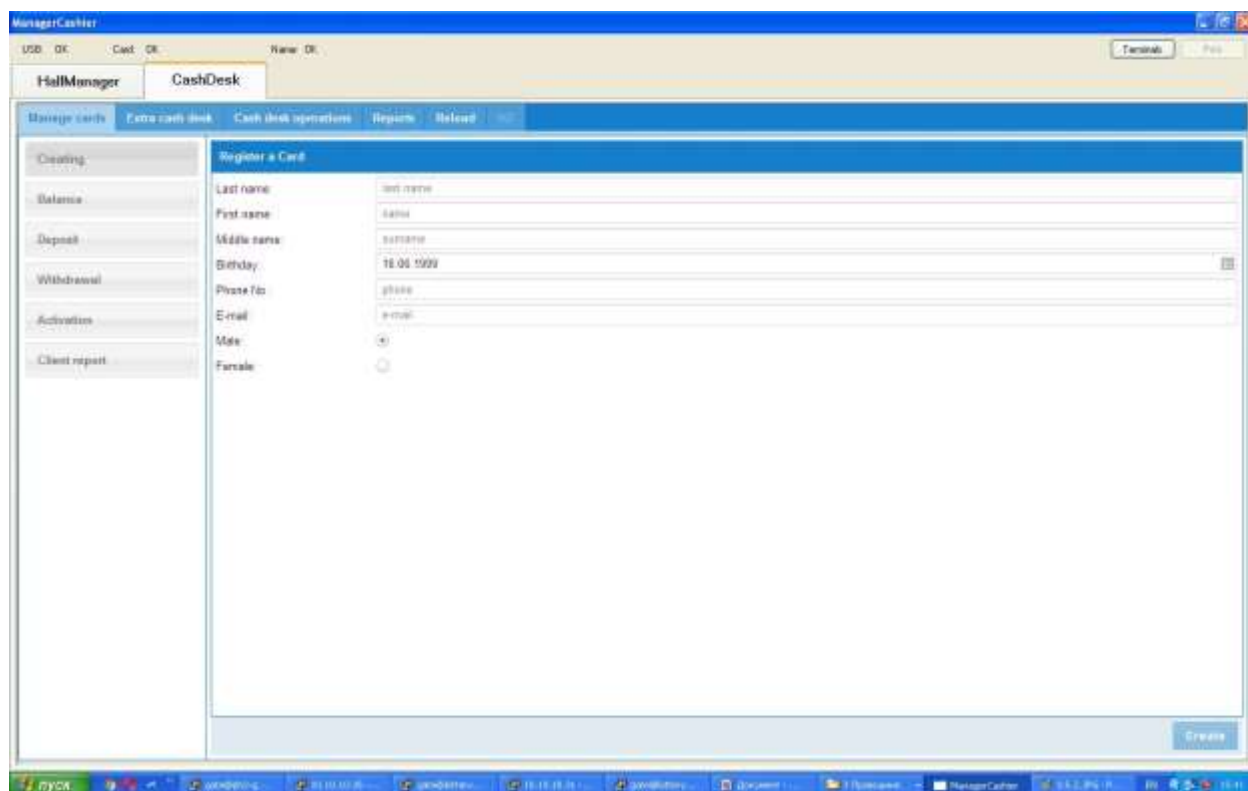


Image 62 Client Card Registering

Once the card is registered, a notification window pops up on the screen. The number is registered to the card and is unique to the client. It can be used as a number for the general contract to sign with a client.

### 11.1.2 Checking Up a Client Card Balance

Insert the client's card in the card reading device and click the "Balance" button to read the card.



Image 63 Checking Up a Client Card Balance

The Client Card information will be displayed as follows:





Image 64 Client Card Information

The Client card number is displayed in the upper left side of the screen.

Balance section: current card balance.

Client Info Section: registered Client's name, birth date, balance, withdrawal balance and status (active/blocked).

### 11.1.3 Deposit Funds into Client Card

This section serves to deposit funds into a Client Card via the cash desk. Insert the Client Card into the card reader, click on "**Deposit**" in the left menu, enter the required sum and click "Deposit"

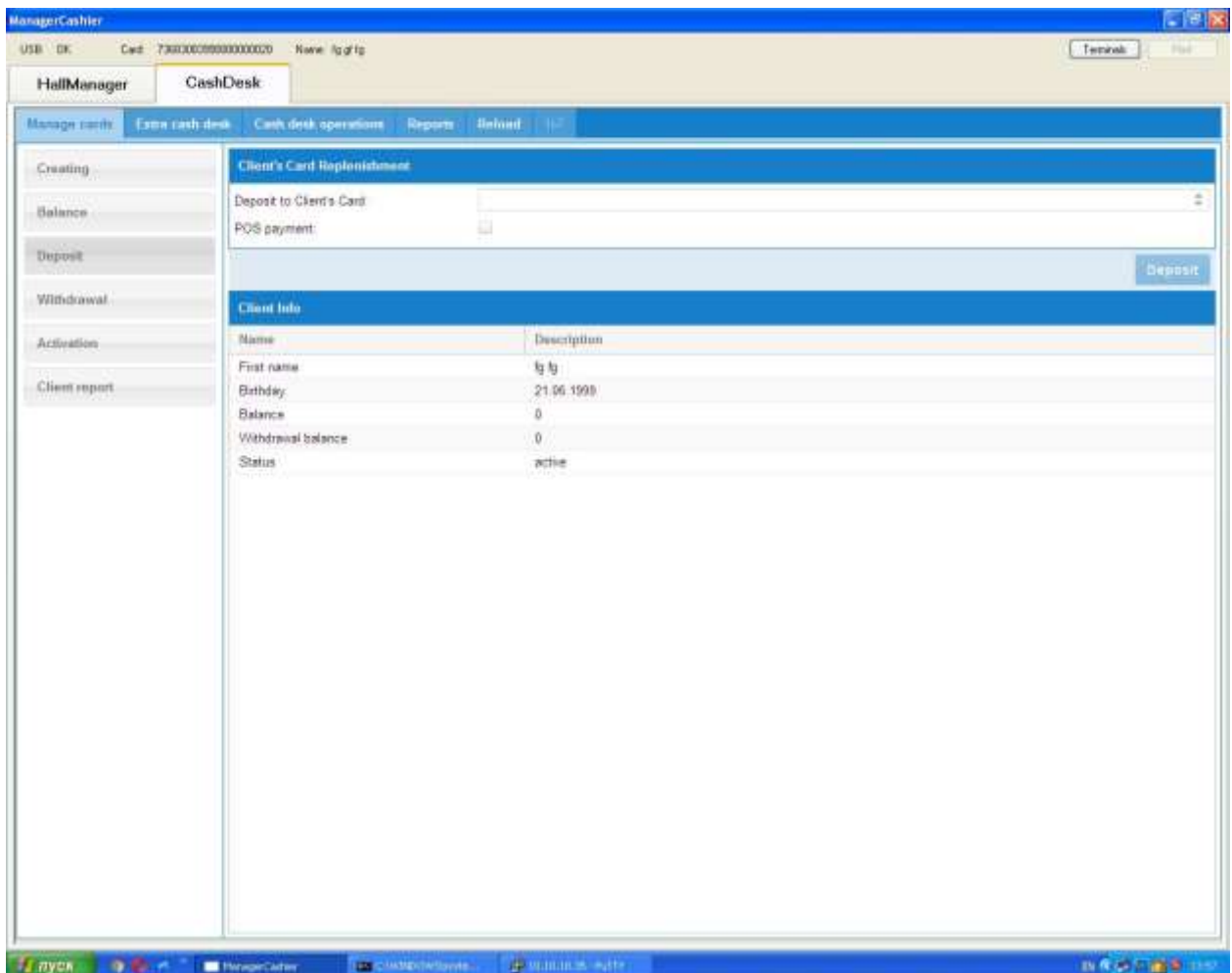


Image 65 Deposit Funds into Client Card



ManagerCashier

USB: OK    Card: OK    Name: OK

Terminals    Print

**HallManager**    **CashDesk**

Manage cards    Extra cash desk    Cash desk operations    Reports    Reload    16/7

Creating

Balance

Deposit

Withdrawal

Activation

Client report

**Pay out to Client**

Withdrawal Amount:

POS payment: ☐

Withdrawal

**Client Info**

Name	Description
------	-------------

Image 67 Card Withdrawal





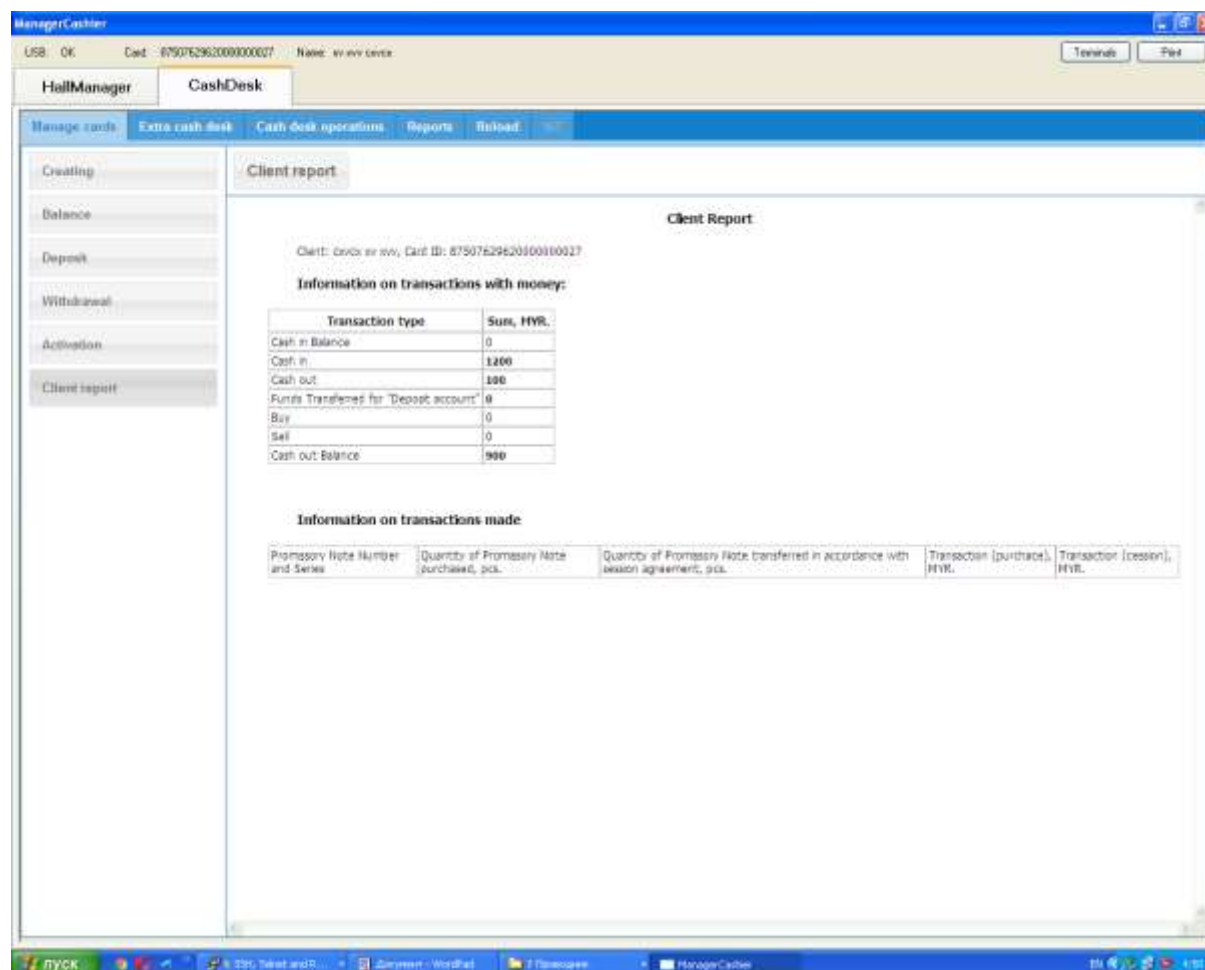


Image 70 Client report

Cash in Balance – client's starting balance

Cash in – clients debit transaction

Cash out - clients credit transaction

Fund transferred for "Deposit account" – money premium, given for special amount of trading transactions

Buy – money amount, spent on PN purchasing

Sell – money amount from PN selling

Cash out balance – balance, left on the card after transactions

Information on transactions made – contains full information about buy/sell transaction.

### 11.1.7 Purchasing Promissory Notes without Rights Assignment

In the case when a client has made a transaction on a promissory note without assignment of rights (promissory note purchasing), the client's card is blocked, after which there are 2 options:

Option 1: Unblocking of the client's card from a promissory note purchase (due to the customer's mistake) and returning funds to the card balance and returning of a promissory note. To do this, the cashier must click on the "cancel the purchase" button when checking the card in the "Balance", "I" or "Withdrawal" sections.

Option 2: If a client confirms the purchasing of a promissory note without rights assignment, then unblock the card without money return and promissory note reversing. The client must sign the agreement and complete the promissory note acceptance form. A cashier will unblock the card by

clicking the “Unblock” button when checking the card in the "Balance", "Refill" or "Withdrawal" sections.

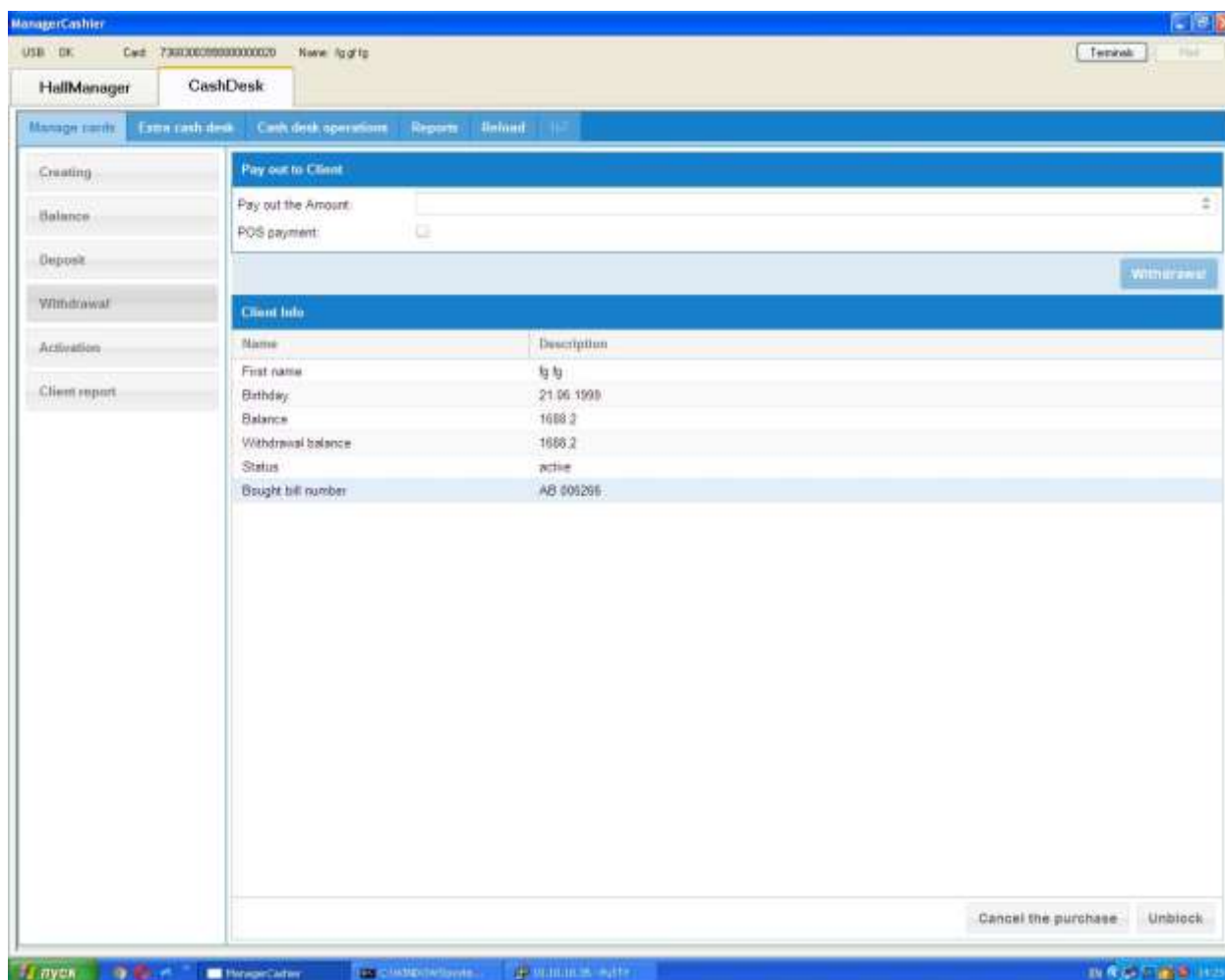


Image 71 purchasing promissory notes without rights assignment

In this case, if the cashier did not unlock a client card which was used to purchase a promissory note without right assignment before an operational day is finished; all such transactions are canceled after the transaction day is closed.

## 11.2 Extra Cash Desk

This section serves to open/close additional cash desks and to deposit funds into additional cash desk account.

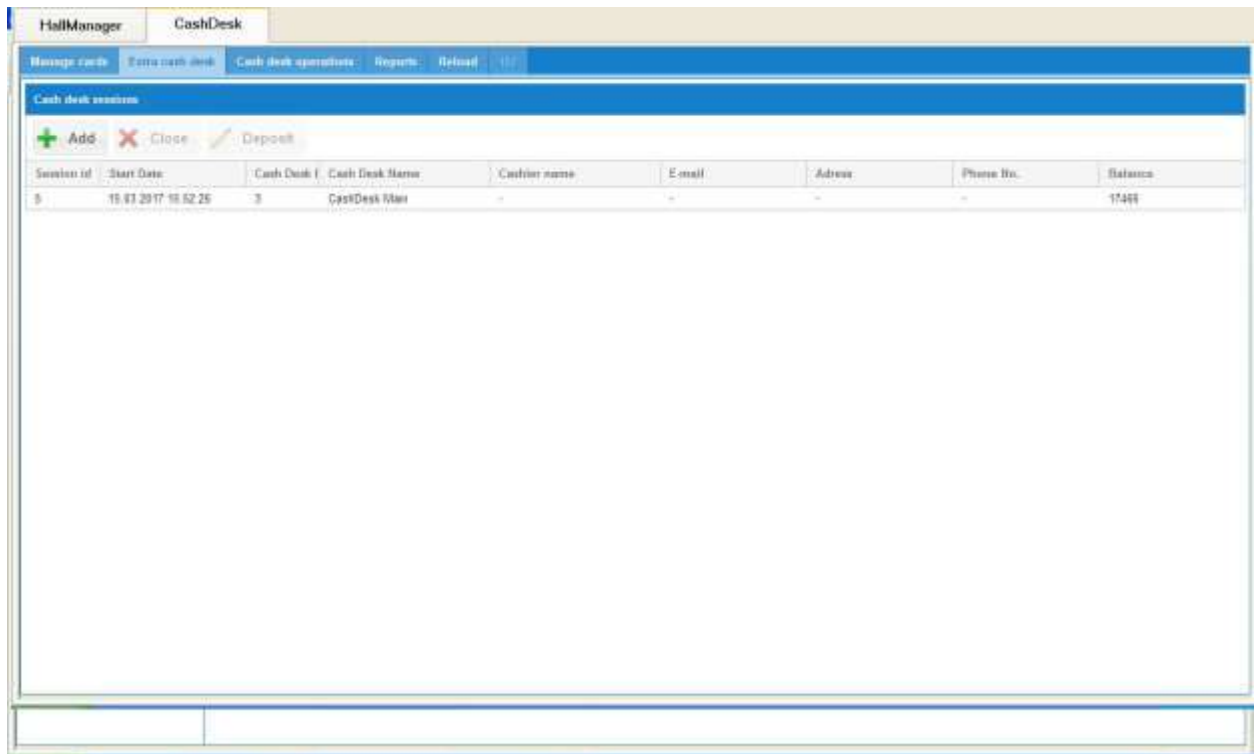


Image 72 Extra cash Desk

**Cash Desk** – the list of available cash desks is displayed in a drop down menu

**Cashier** – the list of available cashiers is displayed in a drop down menu

**Current Cashier's PIN** – the field to enter chief cashier's PIN for the transaction day

**Additional Cash Desk Cashier PIN**– the field to enter the cashier's PIN who will operate in the additional cash desk

**Total** – total funds amount to be transferred to additional cash desk account after it is activated.

To open extra cash desks in a hall please complete the following actions:

Select an available cash desk

Select available cashier

Enter the current cashier's PIN

Enter the extra cash desk cashier's PIN



Enter opening extra cash desk and click on the button.

The notification on the successful operation will be shown in a new line.



Open operation day extra cash desk

Cash desk:

Cashier:

Cashier PIN:

Extra cashier PIN:

Amount:

Image 73 Extra Cash Desk Opening 1

Manage/Cashier TASK

USB: OK Card: None Name: None

HallManager CashDesk

Manage cards Extra cash desk Cash desk operations Reports Reload

Cash desk sessions

+ Add - Close / Deposit

Session Id	Start Date	Cash Desk	Cash Desk Name	Cashier name	E-mail	Address	Phone No.	Balance
7	18.04.2014 09:42:20	28	Cash Desk Casino 1	-	-	-	-	15119.7

Open operation day extra cash desk

Cash desk: Extra Cash Desk

Cashier: Kassir2

Cashier PIN: \*\*\*\*

Extra cashier PIN: \*\*\*\*

Amount: 100

Image 74 Extra Cash Desk Opening 2

Manage/Cashier TASK

USB: OK Card: None Name: None

HallManager CashDesk

Manage cards Extra cash desk Cash desk operations Reports Reload

Cash desk sessions

+ Add - Close / Deposit

Session Id	Start Date	Cash Desk	Cash Desk Name	Cashier name	E-mail	Address	Phone No.	Balance
7	18.04.2014 09:42:20	28	Cash Desk Casino 1	-	-	-	-	151616.7
8	21.04.2014 16:51:08	38	Extra Cash Desk	-	-	-	-	100


Image 75 Edit extra Cash Desk

Enter deposit amount in the “Deposit” field, enter the extra cash desk cashier’s PIN and click on the “Change” button.

Deposit extra cash desk:

Extra cashier PIN:

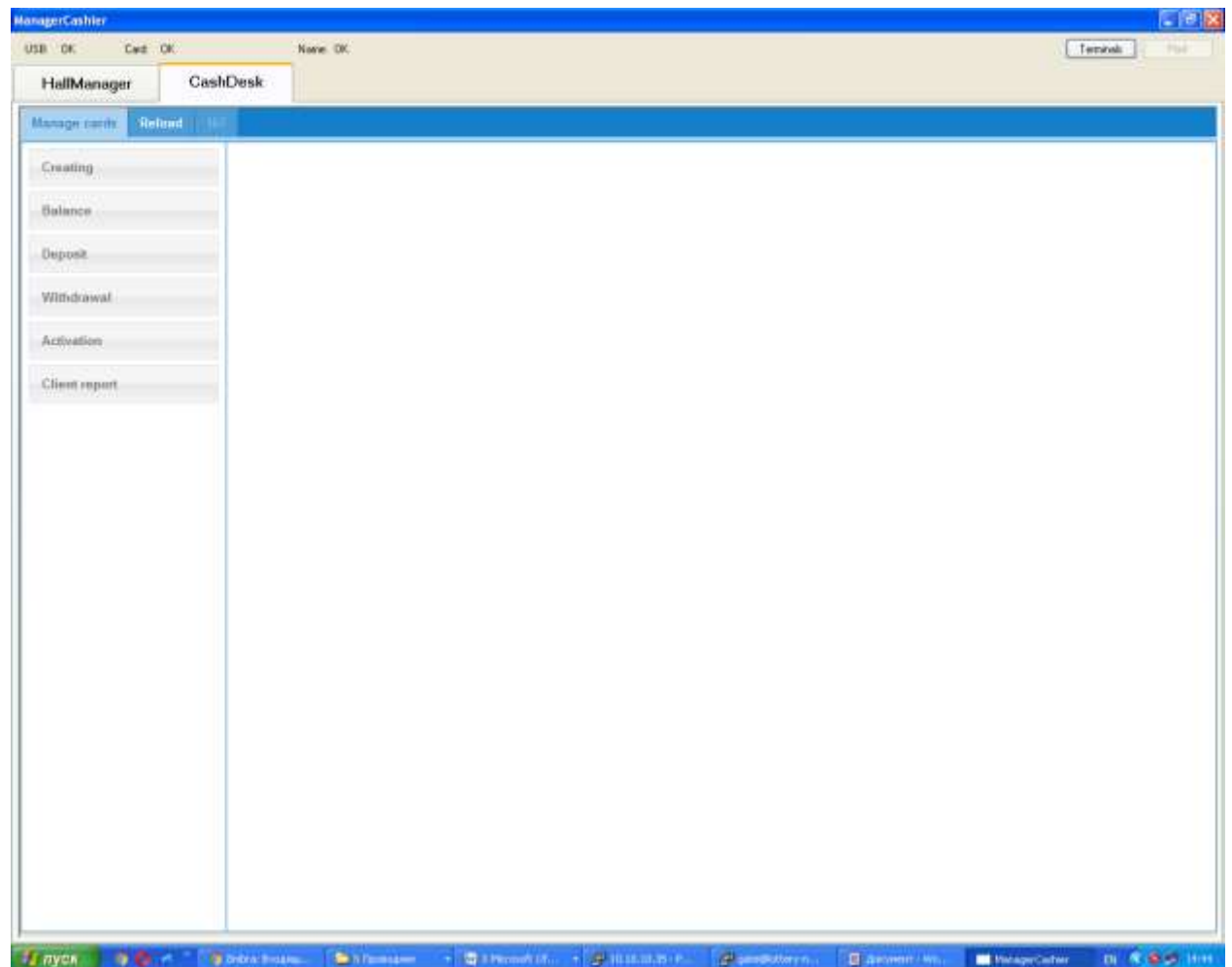
**Image 76 Extra Cash Desk Deposit**

Extra cash desk also requires the entering of the extra cash desk cashier's PIN. After that, check the "Close" checkbox and click on the  Close button.

The functions of extra cash desk are minimized. There are only "manage cards" and "reload" sections.

The section "manage cards" allows the cashier to register a new Client card (Creating), check a Client's card balance and review a Client's details (Balance), deposit funds into the card account (Deposit), make payouts (Withdrawal), activate the Client's card (Activation) and create reports for clients. For detailed information see the chapter 3.1.

Reload section refreshes the page.



**Image 77 Extra Cash Desk functional**

### ***11.3 Cash Desk Operations***

This section serves to manage debit and credit transactions. Debit and credit reports can be printed by pressing "Print" button.

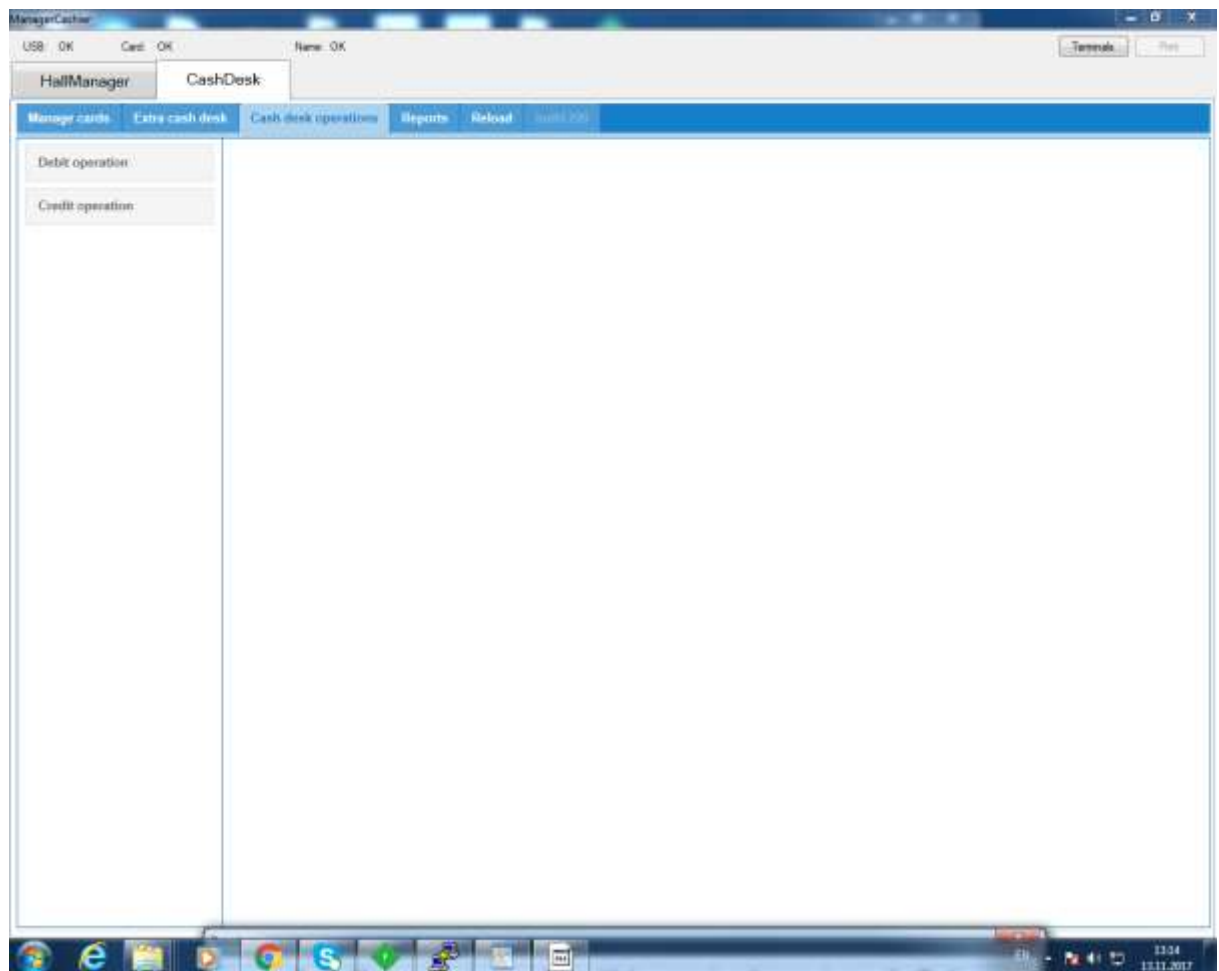


Image 78 Cash Desk Operations

### 11.3.1 Debit Operation

The Cashier clicks “Debit operation” to register a positive cash flow, selects a transaction description from a drop down menu, enters the amount and comment, and then clicks on “Add”.

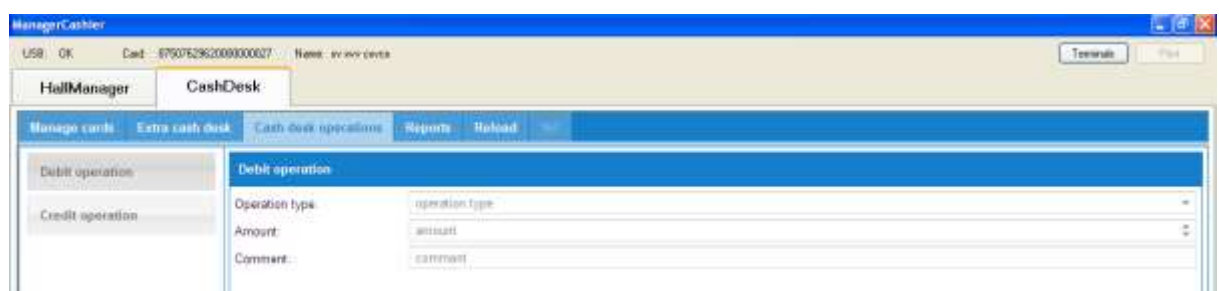


Image 79 Debit operation





## 11.4.1 Cash Desk Report

This report shows the information on cash desk transactions for the current transaction day.

ManagerCashier

USB: OK Card: 87507629620000000027 Name: IV XIV Centre

Terminals Print

HallManager CashDesk

Manage cards Extra cash desk Cash desk operations Reports Reload

Cash desk report

POS operations

Terminals Report

Cards Balance

Cash desk report

Print

Cash desk report

from 07-11-2017 16:46:18 to 07-11-2017 16:58:21

Balance at the Start of the Day				1 126 715 243.05			
Date	#	Transaction Type	Comment	Deposit	Withdrawal	Card Number	Client Name
07.11.2017 16:48:33	300	Card deposit		200.00	0.00	87507629620000000027	Ольга IV XIV
07.11.2017 16:48:45	301	Card payment		0.00	100.00	87507629620000000027	Ольга IV XIV
07.11.2017 16:58:51	206	Funds from BackOffice		100.00	0.00		
07.11.2017 16:51:08	299	Funds movement to another hall	grg	0.00	50.20		
07.11.2017 16:57:33	308	Card deposit		1 000.00	0.00	87507629620000000027	Ольга IV XIV
Total:				1 300.00	150.20		
Current Balance:				1 236 716 394.85			

Image 84 Cash Desk Report

**Start Balance** -field displays funds in the cash desk at the moment of the transaction day opening.

**Date** – date and time of cash desk transaction

**#** - transaction number

**Transaction Type** – type of transaction

**Comment** – cashier's comment added while performing the transaction

**Deposit** – cash-in transaction amount

**Withdrawal**– cash-out amount

**Card Number** – Client's card number transaction was made for

**Client Name** - Client's card name transaction was made for

**Total** – field shows the sum of all cash-in transactions, Cash **out** – shows the sum of all cash out transactions.

**Current balance** – cash amount in cash desk for a current moment.

## 11.4.2 POS-Operations

This report shows the deposit and withdrawal operations made through the POS-terminal.



Image 85 POS-operations

**Start Balance** -field displays the funds in the cash desk at the moment of the transaction day opening.

**Date** – date and time of cash desk transaction

**#** - transaction number

**Transaction Type** – type of transaction

**Comment** – cashier's comment added while performing the transaction

**Deposit** – cash-in transaction amount

**Withdrawal**– cash-out amount

**Card Number** – Client's card number transaction was made for

**Client Name** - Client's card name transaction was made for

**Total** – field shows the sum of all cash-in transactions, Cash **out** – shows the sum of all cash out transactions.

**Current balance**– cash amount in cash desk for the current moment.

### 11.4.3 Terminals Report

This report shows the funds in each terminal, active client sessions on each terminal and current terminal balance.

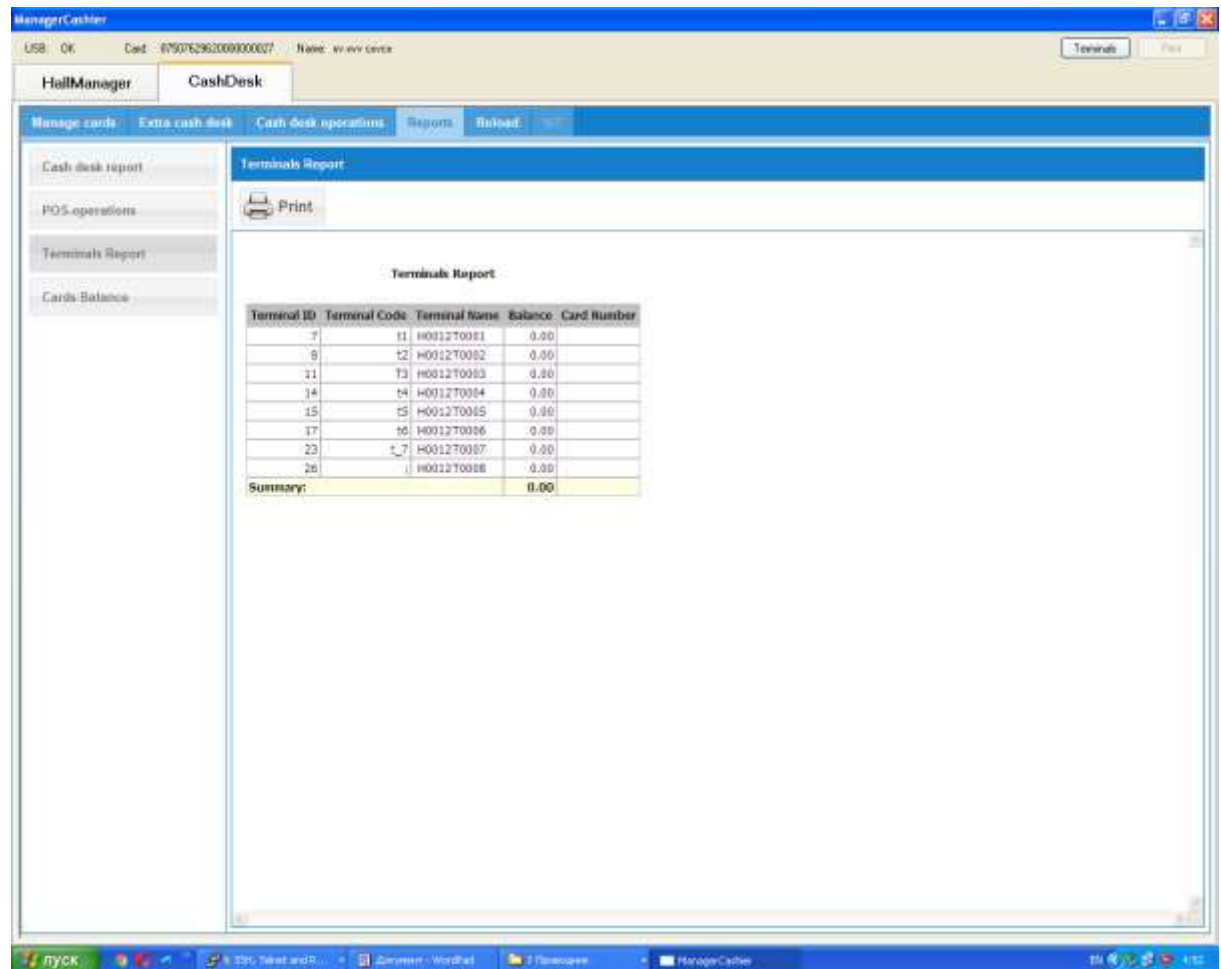


Image 86 Terminal Report

**Terminal Id** – terminal ID number

**Terminal Code** – terminal code registered during terminal installation

**Terminal Name** – terminal name registered in the System

**Balance** – funds on Client card inserted in terminal

**Card Number** – The Number of the Client card inserted in the terminal at the moment.



## 11.4.4 Card Balance

This report shows the information about cards created in the system.

Card Number	Card Name	Status	Balance	Date
6466075430000000020	th thh	active	19998.2	01.11.2017 16:39:43
8750762962000000027	cccccccc	active	960	07.11.2017 16:48:14
4398160810000000024	al asda	active	1300	02.11.2017 16:39:05
8958768249000000016	tyty tyty	active	81125.46	27.08.2017 17:12:49
25404627520000000021	EV eVeV	active	20005	02.11.2017 14:36:27
6844887092000000013	jh th	active	58789.54	22.09.2017 14:45:19
24923647210000000018	td tytyty	active	1236547884.32	11.10.2017 19:49:36
53975361190000000010	--	active	13323.08	18.08.2017 14:06:48
93390717290000000012	g tyty	active	756186.69	30.08.2017 16:32:58

Image 87 Card Balance

**Card Number** – Client card number

**Card name** – first, middle, second name of a client

**Balance** – funds amount on Client Card

**Status** – active or blocked

**Date** – date and time of creating a card

## 11.4.5 Reload

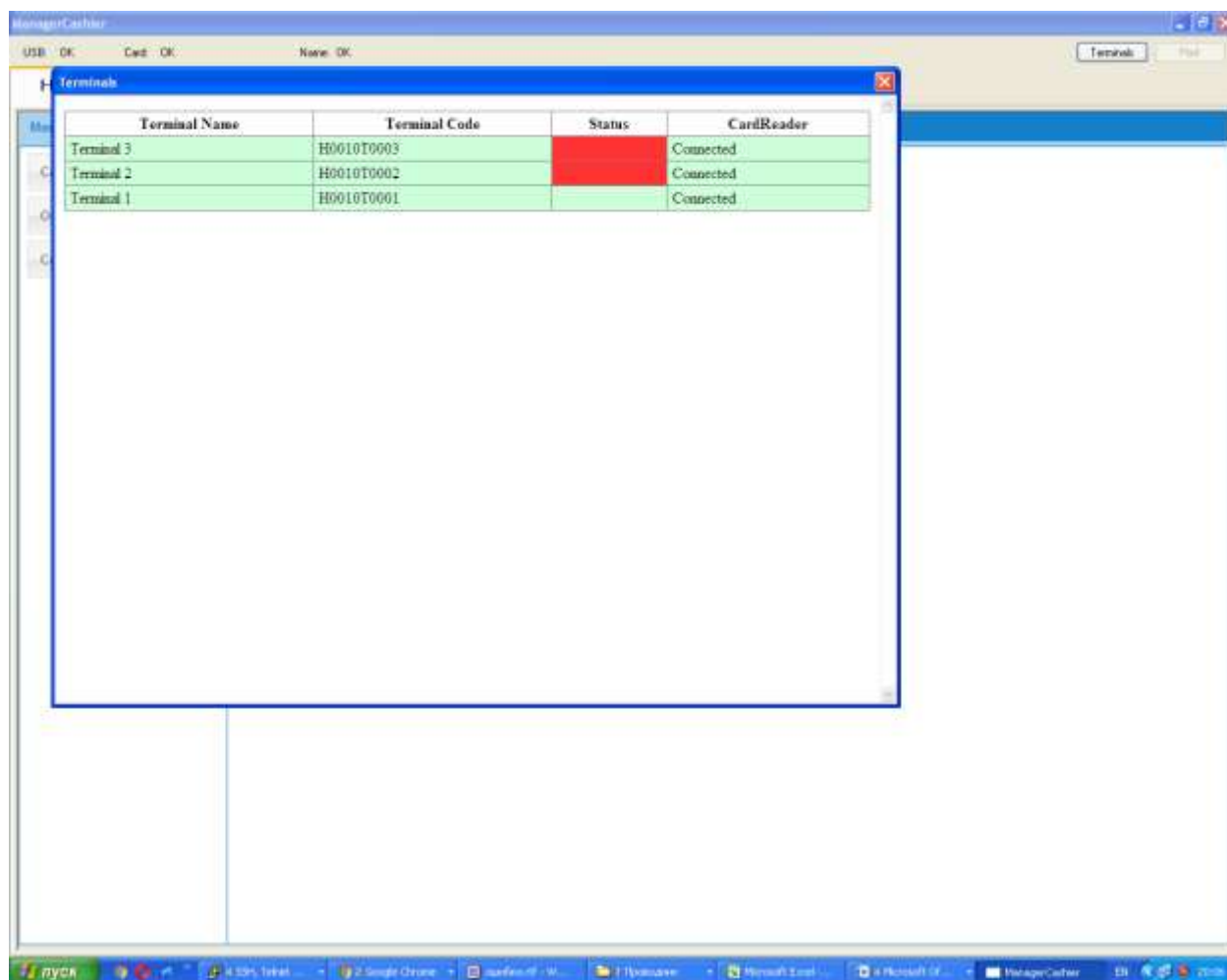
Reload section refreshes the page.

## 11.5 Working with the Notification System

In order to open the notification system window, you need to click on the Terminals button at the top right of the function panel of the Hall Manager - Cash Desk application. To close the list of terminals, use the cross in the upper right corner of the terminals window.

The terminal list window opens automatically if a problem in the operation of one of the terminals has been detected. Also, if the window was inactive, it appears in the foreground of the cashier's workstation, when a problem occurs.

After the problem is solved the red section is removed and the line with the terminal moves down.



**Image 88 Notification window**

Terminal name - terminal name in the terminal list

Terminal code - terminal code in the terminal list

Status - the status of the terminal:

- Red indication - if there are problems with a terminal, they are marked with red color in the corresponding column;
- Green indication - all the equipment of the terminal is functioning in correctly.

Card reader - the condition of a card reader

## ***11.6 RFID – Cards***

RFID-cards are used as cards for Clients, managers and cashiers. Cards with a non-zero balance are impossible to re-write in the Cash Desk application. Only cards with a zero balance can be re-written.

All terms and conditions of the storage and usage of all cards must be documented in the hall instructions. When creating the hall manager and cashier card, 4-digit (XXXX) password is given. When creating a client card, user ID is saved on it, and card ID is saved in database. These two parameters are read and used to enter the system, when card is in the card reader. The password and ID are saved in database on disk, encrypted with the Crypted Disk Partitions technology.

## ***11.7 Reports and Sections Update***

All data in the System is compiled in real time mode. Nevertheless, Users should reload pages to see current accurate data.

## ***11.8 Security***

At the moment of registering a new hall, managers are registered in the Administrator application. Each manager has an assigned hall. A Manager also has a personal card with a PIN. All terms and conditions of storage and usage of all cards must be documented in the hall instructions. The running of the Hall Manager application is impossible without this card.

A special cash desk code is generated in the hall manager application which should be written in the cash desk software xml file. Every cash desk must open a transaction day with an assigned cashier. Each cashier has a personal card protected with a PIN. The actions described above are obligatory. It is impossible to open a cash desk without a card with cashier's function.

The direct requests to a database don't exist; software uses only stored procedures, which exclude SQL injection.

Communication between product modules is encrypted with the protocol of creating an encrypted SSL channel to prevent MITM attacks.

All the personal information, saved and processed by the software is stored in database on disk, encrypted with the Crypted Disk Partitions technology. A client balance is encrypted with AES block encryption.

A software product doesn't allow several users to work in the one account. Cashier's and hall manager's modules work from the allotted IP-address. A client session on terminal starts after user's identification by unique user ID and a card. If the card is lost, the possibility of data recovery from an old card exists. After the data recovery process an old card is blocked.

If there is no activity on a Hall Manager or Cashier terminal for a continuous time of 10 minutes, the terminal will then go in to timeout mode and show the error message "Session Timeout". After clicking on "OK", the application will close and the user should reopen it again using their card and PIN identification number.

## ***11.9 Data Backup Procedure***

When the trading day is closed, dumps are generated, which include complete information on financial transactions done in the hall, personal data, technical operations and operational information. These backups allow you to analyze emergency situations that have occurred in the hall and allow you to perform a data recovery procedure if necessary.

System has high level of reliability, with minimum probability of system breakdown/failure. If system breakdown/failure occurs contact the technical service department for assistance and recovery.

SSD discs (120 GB) are used on server; Oracle XE is used as data base. The product has data corruption prevention functions. In event of the product executable or critical components become corrupted, a relevant message will be prompted to user, and the user should not proceed to use the system, to prevent further corruption to the data. Contact with Technical support.

## 12 Emergency Action when failure occurs

### 12.1 Fault Handling Procedures for Trade Halls

Role participants of the process:

CEO – chief executive officer

CTO - chief technology officer

CFO – chief financial officer

Technical support service

Incident	Delay/Wait Time	Actions	Delay	If there is no answer
No electrical power	1 min	Contact manager Hall	10 min	CTO
No internet	5 min	Contact manager Hall	10 min	CTO
Emergency (fire, earthquake, etc.)	-	Contact manager Hall	-	CTO CEO
All the terminals went to "Not connected"	5 min	Check Availability of 1) Internet connection 2) electrical power to the servers and switches  If the above components are normal, wait for a call from the technical support (within 10 minutes). Follow the instructions of the technical support service. Inform the hall manager.	10 min	Contact Technical support service
If part of the terminals are "Not connected"	-	Checks switch connections to the terminals. Wait 20 minutes  Call the hall manager	20 min	Technical support service

Problems with financial transactions	25 min	Call the hall manager. Call Technical Support	8 hours	CTO CFO CEO
If this message is displayed on the terminal monitor  "The card cannot be read"	10 min	<ul style="list-style-type: none"> <li>- a card not of our system is inserted</li> <li>-The card is damaged</li> <li>- the opera is not open</li> <li>- card is locked</li> </ul> Check the card on the cash desk terminal.	30 min	Technical support service
The message "DB Error" in the manager / cashier program	1 min	<ul style="list-style-type: none"> <li>- Check the LAN cable behind the Local Server</li> <li>- Ensure that Local Server is switched on</li> <li>- Check Internet connection.</li> <li>- Call the hall manager</li> <li>- Call Technical Support</li> </ul>	1 hour	CTO

## 12.2 Troubleshooter

### Terminal on trade in promissory notes

DESCRIPTION OF THE PROBLEM	POSSIBLE REASONS	PROBLEM SOLVING
<p>If this message is displayed on the terminal monitor</p> <p>«Not Connected»</p>	<p>Possible breaks in the connection of the terminal with the server of the hall. Possible reasons:</p> <ul style="list-style-type: none"><li>- problems with the Internet provider</li><li>- the Internet cable is faulty or pulled out of the terminal</li><li>- problems with switches between the server and the terminal</li><li>- software error</li><li>- terminal number entered incorrectly</li></ul>	<p>Check working of Internet Provider connection and eliminate the causes of possible terminal connection breaks, check the integrity of the cable, and the serviceability of the outlets.</p> <p>If there are no breaks, try restarting the terminal and re-enter the terminal number again.</p> <p>If the situation recurs, write down all the terminal data (terminal number, message appearance time, customer card number, if it happened during the client session) and send this data to the technical support.</p>
<p>If this message is displayed on the terminal monitor</p> <p>"Please call operator. Connection with a card- reader is lost »</p>	<p>There is a break in the cable connection to the card reader.</p>	<p>Eliminate the cause of connection breaks, check the integrity of or change the cable and make sure it is plugged into both the terminal system unit on one side and the card reader on the other side.</p> <p>Change the card reader</p> <p>If the card reader is connected to the terminal, but the message on the terminal monitor remains, call the technical support.</p>
<p>If this message is displayed on</p>		<p>Make sure that the operation day is open (whether there is a line</p>

<p><b>the terminal monitor</b></p> <p><b>"you card cannot be read"</b></p>	<p>1)- an incorrect card is inserted, e.g. The manager or the cashier's card or a foreign card</p> <p>2)-The card is damaged</p> <p>3) the operation day is not open</p> <p>4) An actual promissory note was bought. In this case the card is blocked until the moment of registration of the purchase at the cash desk.</p>	<p>about an open day in the Hall Manager program, whether trading sessions are conducted on other terminals).</p> <p>Check the card at the cash desk. When you insert a card on the card reader of the cash desk terminal, the card number will be displayed in the line above the program tabs. If the card number coincides with the number when it was created (it should be specified in the master agreement), you need to enter the payout or replenishment section and check whether a note was bought. This information will be displayed in the line number of the note purchased. If there is no such line, then the card is damaged and it is necessary to replace it with a new one, at the same time it is necessary to transfer the data from the damaged card to a new one. To do this, send a request to the technical support service and wait for the activation code.</p>
<p><b>If this message is displayed on the terminal monitor</b></p> <p><b>« Please wait. No promissory notes available. »</b></p>	<p>- There are not enough bills in the hall</p> <p>- Software error</p>	<p>- Wait for 1 minute, if bills do not appear then call technical support.</p>
<p><b>If this message is displayed on the terminal monitor</b></p> <p><b>"Balance not enough"</b></p>	<p>The balance of the card is less than the value of the selected bill.</p>	<p>- Choose another denomination of a promissory note</p> <p>- Top up the balance at the cash desk</p>

## Program for cashier/manager “Hall Manager -Cash Desk”

DESCRIPTION OF THE PROBLEM	POSSIBLE REASONS	PROBLEM SOLVING
----------------------------	------------------	-----------------

<p><b>The User cannot get into the program. The system gives an error "Initialization error. Card reader not found»</b></p>	<p>There was a break in the cable connection to the card reader.</p>	<p>Eliminate the cause of connection breaks, check the integrity of or change the cable and make sure it is plugged into both the terminal system unit on one side and the card reader on the other side.</p> <p>Change the card reader</p> <p>If the card reader is connected to the terminal, but the message on the terminal monitor remains, call the technical support.</p>
<p><b>I cannot get into the program. The system gives an error "Incorrect PIN »</b></p>	<p>- The PIN you entered is incorrect.</p>	<p>Remove all the other cards away from a card reader. It could catch the signal of any other card.</p> <p>Try entering the program again by typing your PIN carefully.</p> <p>If the above does not help, call Technical Support.</p>
<p><b>I cannot get into the program. The system gives an error "Incorrect card »</b></p>	<p>You are using another card.</p>	<p>Remove all the other cards away from a card reader. It could pick up the signal of another card.</p> <p>Try entering the program again by using your card.</p> <p>If the above does not help, call Technical Support.</p>
<p><b>Session timeout</b></p>	<p>Session closed due to inactivity</p>	<p>Close and restart to re-enter the programme</p>



<p><b>A user cannot create a client's card. Returns an error "Please remove Hall Manager's card"</b></p>	<p>The user has inserted or not removed from the card reader the manager / cashier card</p>	<p>Check the card you want to create in the "Balance" section of the cash desk application.</p> <p>Remove other cards from the vicinity of the card reader as it may pick up the signal from another card.</p>
<p><b>A user cannot create a client's card. It produces an error "Card balance is not 0!"</b></p>	<p>There is money on the card.</p>	<p>Check the card information in the Balance section of the cashier application</p>
<p><b>"This field is required"</b></p>	<p>The necessary field is empty.</p>	<p>Fill in the field</p>
<p><b>"Activation code is not found"</b></p>	<p>The invalid activation code is written</p> <p>The used activation code is written</p>	<p>Write the correct activation code.</p> <p>If it doesn't work. Then connect with a technical support.</p>

## 13 Product Education & Training for Operation Technique

Training is done for managers, cashiers, line and technical Training plan

Purpose of training:

Training is made for managers, line and technical staff of the hall. The purpose of the training is to get acquainted with the principles of the system operation. In the process of learning it is supposed to get acquainted:

- With software for the cashier and the hall manager (Cash desk and Hall manager);
- With the main procedures in the hall;
- With the main errors that occur when working with the system;
- With the basic rules of the terminal for buying / selling promissory notes;
- With the basics of installing the system in the hall.

Training includes the following documents:

PN Trading System 1.0.0.0– Promissory Notes Trading system Terminal Software User Guide

PN Trading System 1.0.0.0 – Hall Manager – Cash Desk User Guide

PN Trading System 1.0.0.0 - Instruction Manual for initialization of the Trade Hall

PN Trading System 1.0.0.0 – Troubleshooter

PN Trading System 1.0.0.0 – Fault Handling procedures for trade halls

During the training user can get an access to demo balance and try to use all the functions of the software.

First day:

Training for managers and cashier of the hall:

1. Introduction to the system.
2. Introduction to the software for the cashier and manager.
3. Introduction to the main procedures of the hall
4. Answers to the raised questions on software for work of the manager and the cashier of a hall
5. Assessment of knowledge

Second day:

Training for line staff:

1. Introduction to the basic principles of working with the terminal.
2. Answers to the questions that have arisen.
3. Assessment of knowledge

Third day:

Training for technical staff:

1. Introduction to the basic principles of the system.
2. Training of installation of the system
3. Answers to questions that have arisen.
4. Assessment of knowledge

## 14 Copyright & After Sales service

### *14.1 Copyright*

ACADEMY CORPORATE SOLUTIONS L.P. owns the copyright for PN Trading Systems Asia Sdn. Bhd. and any unauthorized distribution is prohibited.

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<http://academy-corporate-solutions.com/>

Information on MSTB QS Certificate certification test results of PN Trading Systems may be supplied upon official request.

### *14.2 Product Operating Support*

After installation of the system in the hall, technical support of the product is carried out, and the personnel's training is conducted.

Technical support consists of the following departments:

1. Technical Support
2. Support for financial matters

Financial support is available from 10 to 20 hours every day except Sunday, technical support is available in 24 / 7 format.

Along with the equipment and installation of the system, the following documentation is provided:

- PN Trading System 1.0.0.0– Promissory Notes Trading system Terminal Software User Guide
- PN Trading System 1.0.0.0 – Hall Manager – Cash Desk User Guide
- PN Trading System 1.0.0.0 - Instruction Manual for initialization of the Trade Hall
- PN Trading System 1.0.0.0 – Troubleshooter
- PN Trading System 1.0.0.0 – Fault Handling procedures for trade halls

In case of software failure, please contact Technical support. A maintainer can change the software to resolve failure in 1 day to 1 week period.

Terminal can be restored from any point. Full restore of the server can be done when restarted (only the last transaction can be lost contact the fixation manager).

If the problem cannot be solved with the help of the listed documents, please call Technical Support, see - Technical Support.

## 14.3 Guide for Technical Support & Maintenance

### 14.3.1 Maintenance

The first initialization of the hall is carried out by technical specialists of PN Trading Systems Asia Sdn. Bhd.

Update of the product and database information occurs:

- Upon the request of the client, signing a contract for changes
- If critical errors occur in the software
- If the software is outdated or the legislation has changed.
- The contract will be automatically renewed upon the expiration
- The technical support for the system is via a contract for the entire period of the system. The company provides a White Label license.

### 14.3.2 Technical Support

If you encountered any problem, difficulties or have any suggestion while using the PN Trading System, please contact us anytime at following address in writing, telephone, fax or via our website.

A user may request technical support by sending a request to the request system via e-mail ([info@tradehouseasia.com](mailto:info@tradehouseasia.com)). After processing the request is sent to an error-tracking system, getting a number, priority, an admin is determined and request is taken to work on it.

Requests status: open, closed

Priority: low, normal, high, urgent, and immediate.

Failure classification: minor (a type of error, that doesn't cause breakdown, for example visualization or sound errors) , normal , major, blocker.

PN Trading Systems Asia Sdn. Bhd.

**Physical & Mailing**: Level 7, Unit 1, Wisma Genting (New Wing), Jalan Sultan Ismail, 50250, Kuala Lumpur.

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Fax: [+60 327 247214](tel:+60327247214)

**Website** : <http://tradehouseasia.com/>

## 15 Glossary

No.	Glossary	Explanation
1	DB(Database)	A set of integrated and managed shared data used by many people.
2	Card-reader	A device for reading ID-cards
3	OS	Computer program that control the hardware and software of the computer so that user can use the computer.
4	Terminal	A device for buy/sell natural promissory notes
5	Port	Data path that can send and receive data between the modem and the computer
6	ID Card	Cards for user identification in the system
7	Cash desk	The place in a shop where you can pay for the things that you buy
8	Promissory note	A financial instrument, through which a promisor has to pay a note holder named in the promissory note a specified amount.
9	Transaction	The transfer of money from one account to another
10	Promisor	An issuer of promissory note
11	Public offer	The offering of securities of a company to the public
12	Denomination	The value of a promissory note
13	Client	A customer using the services
14	Stop offer	The minimum price at which Client is ready to assign the right of claim to transfer promissory note.
15	STEP	The maximum loss allowed within the selected volatility
16	Volatility	Price limit deviation of the session: L, ML, M, MH, H.
17	POS-operations	Operations conducted through POS-terminal.
18	Engineering workstation	Automatic workplace

19	Terminal	A device for buy/sell natural promissory notes
20	Report	Summarized information
21	Back-up	A copy of computer data
22	Balance	Amount available in an account for withdrawal or use
23	Withdrawal	An act of taking money out of an account.
24	Deposit	To put (money) in an account
25	General agreement	A negotiated and typically legally binding arrangement between parties as to a course of action.
26	Recovery point	Different location for recovery function