Integrating a Cash-based solution
with SmartSale software.

Transaction packet constructing rules,
transaction flow diagrams.

version 11.3.0

May 2020

Table of contents

Glossary

PIN – clients's Personal Identification Number.

Pinpad – device that is used for one or more of the following operations: card accepting, PIN entry, keys storage, cryptographic operations.

ECR – Electronic cash register.

POS-terminal – device that is used for one or more of the following operations: card accepting, PIN entry, keys storage, cryptographic operations; and additionally has a printer for printing out transaction results.

Transaction – any financial or administrative operation in a payment system.

Host – bank's processing system.

Smart_Sale – software produced «INPAS-SOFT UNIPOS Terminal» intended to work on Verifone and PAX POS-Terminals (Pinpads).

DUAL Connector - software produced by INPAS Company and intended to be used in ECR software (OS Windows, Linux or Android) as the mechanism for providing interaction between ECR and the *Smart_Sale* software.

Common description

This document describes the rules for constructing transaction packets as well the rules of interaction (or integration) between a ECR and the POS-Terminal with *Smart_Sale* software installed. This integration provides an infrastructure for reception of payment cards as a means of payment for goods and services.

The task of the ECR software includes construction of correct request packet, followed by sending the request packet to the POS-Terminal and receiving the response from the POS-Terminal.

The task of the Smart Sale software, installed on Pinpad or POS-Terminal, includes the following routines:
- receiving a request packet from the ECR and parsing the request;
- constructing and sending a request to the Host;
- receiving a response packet from the Host and parsing the response;
- constructing and sending a response packet to the ECR.

Only SA protocol can be used as a communication protocol between the ECR and POS-Terminal.

To facilitate the mating process between the ECR software (based on Windows, Linux or Android) and POS-Terminal software is recommended to use DUAL Connector utility.

Transaction flow diagram for the "Purchase" operation is represented on the picture below:
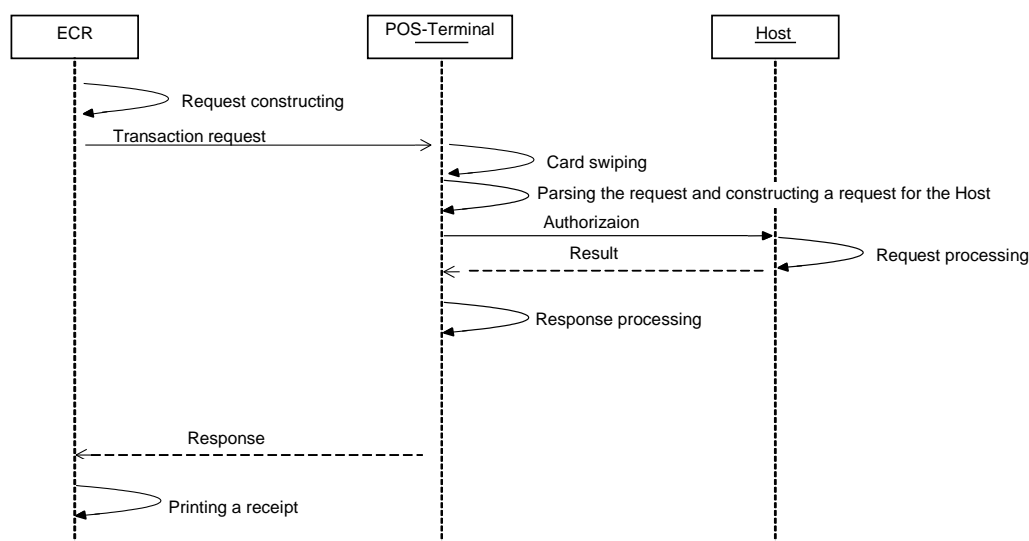
Transaction flow diagram for the "Purchase" operation.

1. Data formats and packets formatting rules

1.1. Fields obligation

This document establishes the following convention to refer to the obligation of certain fields:

M – Mandatory field;

O – Optional field.

Field marked neither with 'M' nor with 'O' should be ignored.

This notation is used in the tables that describe the rules for constructing the transaction packets. The symbols 'M' and 'O' reside in the 'Request' and 'Response' columns.

Note: For some host protocols, the response to individual operations may not contain fields labeled "Mandatory" in this document.

1.2. Data formats

In the tables that describe the rules for constructing the transaction packets the column "Type" designates the field data type in the format «T[[M]..]N», where:

T – one of the following prefixes which determine the type of the symbols in data value:

a – alphabetic only symbols, regardless of the language;

n – numeric only symbols: '0', '1', …, '9';

an – alphabetic or numeric symbols;

z – any symbols, including binaries ('\x00' ÷ '\xFF'), i.e. of value 0 ÷ 255;

[..] – optional dots means that the field is of various length;

M – optional minimal length of the field; can present if and only if there is dots [..];

N – if there is no dots [..] then N specifies the exact field length, otherwise N specifies the maximal length of the field (in bytes).

Field type examples:

Тип поля	Описание
a..5	Alphabetic only symbols; length can not exceeds 5 bytes.
n..7	Numeric only symbols; length can not exceeds 7 bytes.
an12	Alphabetic or numeric symbols; length equal to 12 bytes.
z4	Any symbols, including binaries; length equal to 4 bytes.

1.3. Financial operations fields

The table below provides a description of the fields used to construct SA-packets for the basic financial operations.

Field	Description	Type	Request	Response
0	Transaction amount expressed in minimal units of currency	n..12	M	M
1	Additional transaction amount expressed in minimal units of currency	n..12	O	O
4	Transaction currency code	n3	M	M
6	Original date and time of the transaction at the Host (YYYYMMDDHHMMSS)	n14		M[1]
8	Card entry method	n1	O	
10	PAN card	an13..19		M[2]
13	Authorization code	an..8	O	O
14	Host's reference number	an..18	O	O
15	Host's response code	an..3		M
19	Additional response data	an..99		O
21	Original date and time of the transaction at the POS-Terminal (YYYYMMDDHHMMSS)	n14	O	M
23	Transaction identifier in communication server	n..18[3]		M

25	Operation code	n..2	M	M
26	Unique transaction identifier at the ECR	n..18[3]	O	M[4]
27	Terminal identifier (TerminalID)	an..15	M	M
28	Merchant identifier	an..15		M
39	Transaction processing status	n..3		M
64	Command mode 1	n1	O	O
65	Command mode 2	n..5	O	O
67	Status (result) of executing command	n..5		O
70	Data (cryptogram)	z..	O[5]	O[5]
86	Additional transaction data	z..999		O
89	Model name of the ECR	z..999	M[6]	O
90	Data to be printed on a receipt	z…		O

[1] If there is no time of the transaction on the host, in the field is the current date and time.

[2] Contain symbols '*' - card number mask

[3] When using DUALConnector Type - n..10

[4] If the transaction ID is not present in the request, the response -1.

[5] Used for card data encryption mode

[6] Used to transfer information about the ECR software and the version of the SA protocol.

1.4. Possible values of certain fields

Transaction currency code (Field 4)

The current ruble code – 643 (maybe the old code – 810). This field must be set at the software ECR.

Card entry method (Field 8)

The field can has one values - 3.

Response code from the host (Field 15)

The value of the field is for information only, to print on the slip, and can not be a sign of the result of the transaction. Text interpretation of the code depends on the host protocol used and the bank.

Additional response data (Field 19)

In the case of a status field 39 "1" in the field 19 may contain additional textual information about the state of the transaction. For example, if in the process of authorization by the card holder had entered the correct PIN-code, the field can contain a string of 19 "Approved. The operation is confirmed with a PIN code. "

In the event of an error or refusal of authorization in the description of 19 may cause errors.

Text message in the field of 19, will be printed on the sales receipt. It is recommended to output to the monitor cashier.

Operation code (Field 25)

SmartSale software supports the following operation types:

Value	Description
1	Purchase for goods and services.
4	Reversal of Purchase for goods and services, if original payment was carried out during the current operational day.
26	Test connection
29	Refund of Purchase for goods and services, if original payment was carried out before the current operational day.
53	Emergency Reversal. Used for cancellation the last operation that was completed incorrectly or was not completed at all.
59	Reconciliation. Valid for transactions in the current operational day.
63	Run a custom command: • Request a summary report (user command 20) • Request a full report (user command 21) • Request a copy of the receipt (user command 22)

Unique transaction identifier ECR (Field 26)

Transaction identifier in the ECR (optional). Can be used to further identify the transaction. Some ECR is used as the number slip to search for a transaction in the database.

Terminal identifier (Field 27)

The TerminalID, set in the configuration software POS-terminal. POS-terminal may send your package TerminalID in response to the request. This field must be set to ECR.

Transaction processing status (Field 39)

The transaction processing result must be interpreted by analyzing the field 39:

Value	Description
0	Undefined status. Transaction not completed (not initiated).
1	Approved. Transaction completed successfully (with "positive" decision).
16	Declined. Transaction completed with "negative" decision.
34	No connection.
53	Transaction aborted.

The only transaction approval status is the status of "1" ("Approved"). Any other status value should not be regarded as a success.

Additional transaction data (Field 86)

Depending on the settings and the host protocol used, field 86 may contain additional data about the client's card, product nomenclature, loyalty program and other data.

The field contains data in binary format as a BER-TLV template.

Model name of the ECR (Field 89)

The field can contain information about the ECR software and the SA protocol version. Information about software is transmitted in tags and subtags in text form, as shown in the table:

Tag		Description	Request
EFT:		Defines information about ECR software and exchange protocol. May contain the following data:	
	SW:	- Name of ECR software;	O
		- ECR software version;	O
		- Exchange module version;	O
	SA:	- SA protocol version;	O
		- Multi-packet header version; (value "2")/	M O[1]

[1] Not required if DUALConnector is used.

Data inside the "EFT:" tag must be separated by the ";" character. If not all parameters are transferred in a subtag, then all separator characters of this subtag must be saved.

Example: If the name of the ECR - "KASSA" and the version of the header of the multi package - "2"'.

«EFT:SW:KASSA;;;SA:;2;».

Data to be printed on a receipt (Field 90)

This field is used to transmit information with a view to print in the ECR slip

The field is composite and contains one ore more subfields. Each subfield contains data elements and has the following structure:

Subfield structure

6

1	2	3	4	5	6
Tag	^	Name	^	Value	~

Subfield data elements are described below:

Subfield element		Description	Mandatory/Optional
1	Tag	Data identifier	O
2	^	Delimiter	M
3	Name	Data name for printing	O
4	^	Delimiter	M
5	Value	Data value for printing	O
6	~	Subfield delimiter	M

Field 90 is used to transfer the type of card, or the receipt image (slip), or the settlement report image, for printing on ECR. The data is transmitted in the respective tags of Field 90 ("Print data on the check"). Print width regulated in the Smart Sale. Any special characters for text formatting (bold or italic font, font size, etc.) are not used.

Example of reports is shown in Appendix 1.

In both cases to get transaction report from POS-terminal at any time, it is required to use custom command 63 (see sections 2.6).

Sometimes ECR software may forms slip themselves based on the information provided in the response field. To do this, the Smart Sale could provide transfer of EMV data in the form of tags.

For example:

```
0x95^^0080048000~0x4F^^A0000000031010~
```

The presence or absence of certain subfields, as well as elements of the subfield, is defined by the configuration settings of PIN-pad (POS-terminal).

1.5. Print refusal slip

Refusal slip - slip the information for the client if the operation has been interrupted and ECR has not received a response from the SmartSale (for example, open communication between the ECR and pinpad).

Refusal slip generated ECR software.

If you use the DUALConnector WIN, then you can use the text from the table to output to the check:

"ErrorCode" (Exchange method value)	TEXT
TIMEOUT = 1	The operation timeout has expired
SYSTEM_ERROR = 3	General error
ERROR_CONNECT = 13	Pingpad (POS-terminal) connection failed

2. Transactions description

2.1. Packet constructing rules for «Purchase» operation

	Operation code 1 (Purchase)			
Field	**Description**	**Type**	**Request**	**Response**
0	Transaction amount expressed in minimal units of currency	n..12	M[1]	M
4	Transaction currency code	n3	M	M
6	Original date and time of the transaction at the Host (YYYYMMDDHHMMSS)	n14		M
8	Card entry method	n1	O	
10	PAN	an..13…19		M[2]
13	Authorization code	an..8		O
14	Host's reference number	an..12		O
15	Host's response code	an..3		M
19	Additional response data	an..99		O
21	Original date and time of the transaction at the POS-Terminal (YYYYMMDDHHMMSS)	n14		M
23	Transaction identifier in communication server	n..18[3]		M
25	Operation code	n..2	M	M
26	Unique transaction identifier at the ECR	n..18[3]	O	M
27	Terminal identifier	an..15	M	M
28	MerchantID	an..15		M
39	Transaction processing status	n..3		M
70	Data (cryptogram)	z…	O[4]	O[4]
86	Additional transaction data	z…999		O
89	Model name of the ECR	z..999	M[5]	O
90	Data to be printed on a receipt	z…		O

[1] In the minimum units (kopecks) without a separator (dot) between rubles and kopecks (for example, the amount of 98 rubles 50 kopecks is sent as "9850")

[2] It may contain the characters '*' - mask PAN.

[3] When using DUALConnector Type - n..10

[4] Used for card data encryption mode

[5] Used to transfer information about the ECR software and the version of the SA protocol

2.2. Packet constructing rules for «Reversal» and «Refund» operations

From the bank's perspective, there are two operations for return money to the customer's account - "Reversal" and "Refund". "Reversal" transaction is performed in case of returning goods to the merchant right away, or during the current trading day (the so-called return "In Batch"). When returning goods after closing operational day and perform reconciliations (the so-called return "Out of the Batch"), only "Refund" operation can be performed.

It is recommended to contain field 14 (Reference number), and 13 (Authorization code) both in "Reversal" and "Refund" ECR requests, because in case of described conversion for cashier not to do any additional actions associated with manual input of RRN or Authorization code.

The table below provides the description of the fields for the "Reversal" operation.

	Operation code 4 (Reversal)			
Field	**Description**	**Type**	**Request**	**Response**
0	Transaction amount expressed in minimal units of currency *(in case of Partial Cancellation - the amount to be canceled)*	n..12	M	M

8

Field	Description	Type	Request	Response
1	Additional transaction amount expressed in minimal units of currency *(in case of Partial Cancellation - the total amount of the initial payment)*	n..12	O[1]	O
4	Transaction currency code	n3	M	M
6	Original date and time of the transaction at the Host (YYYYMMDDHHMMSS)	n14		M
8	Card entry method	n1	O	
10	PAN	an..13..19		M[2]
13	Authorization code	an..8	O[3]	O
14	Host's reference number (RRN)	an..18	O[4]	O
15	Host's response code	an..3		M
19	Additional response data	an..99		O
21	Original date and time of the transaction at the POS-Terminal (YYYYMMDDHHMMSS)	n14	O	O
23	Transaction identifier in communication server	n..18[5]		M
25	Operation code	n..2	M	M
26	Unique transaction identifier at the ECR	n..18[5]	O	M
27	Terminal identifier	an..15	M	M
28	MerchantID	an..15		M
39	Transaction processing status	n..3		M
70	Data (cryptogram)	z…	O[6]	O[6]
86	Additional transaction data	z…999		O
90	Data to be printed on a receipt	z…		O

[1] Used in the case of a partial cancellation. Field 0 contains the amount of cancellation while the field 1 contains the full amount of original transaction.

[2] It may contain the characters '*' - mask PAN.

[3] If the Authorization code received during transaction, its presence in a response to "Reversal" transaction is mandatory.

[4] If the Host's reference number (RRN) received during transaction, its presence in a response to "Reversal" transaction is mandatory.

[5] When using DUALConnector Type - n..10

[6] Used for card data encryption mode

The logic of the Smart Sale is designed so that when a request comes from the ECR to do "Reversal" operation (with operation code 4), and pin pad (POS terminal) does not find the original transaction in its database, it converts the request to "Refund" (operation code 29), and executes it.

The table below provides the description of the fields for the "Refund" operation.

Operation code 29 (Refund)				
Field	**Description**	**Type**	**Request**	**Response**
0	Transaction amount expressed in minimal units of currency	n..12	M	M
4	Transaction currency code	n3	M	M
6	Original date and time of the transaction at the Host (YYYYMMDDHHMMSS)	n14		M
8	Card entry method	n1	O	
10	PAN	an..13..19		M[1]
13	Authorization code	an..8	O	O
14	Host's reference number	an..18	O,M[2]	O,M[2]
15	Host's response code	an..3		M
19	Additional response data	an..99		O
21	Original date and time of the transaction at the POS-Terminal (YYYYMMDDHHMMSS)	n14	O	M
23	Transaction identifier in communication server	n..18[3]		M
25	Operation code	n..2	M	M
26	Unique transaction identifier at the ECR	n..18[3]	O	M
27	Terminal identifier	an..15	M	M

9

28	MerchantID	an..15		M
39	Transaction processing status	n..3		M
70	Data (cryptogram)	z…99	O[4]	O[4]
86	Additional transaction data	z…999		O
89	Model name of the ECR	z…999	M[5]	O
90	Data to be printed on a receipt	z…		O

[1] It may contain the characters '*' - mask PAN.

[2] Used to refer to the original transaction. The field is mandatory in both the Request and Response for the Host systems that really use this field.

[3] When using DUALConnector Type - n..10

[4] Used for card data encryption mode

[5] Used to transfer information about the ECR software and the version of the SA protocol

2.3. «Emergency Reversal» operation

Transaction is intended to Reversal the last and Approved (see **Note**) transaction sent from the ECR to the POS-Terminal. The reason for initiating this type of transaction could be the failure in printing of receipt or the denial of the cardholder in completing the transaction (for example, the cardholder did not sign the receipt).

The operation code is 53. The "Emergency Reversal" packet has the same fields (and its values) as the original transaction except of transaction code field (field 25) whose value becomes 53.

> ***Note.***
> - ***The "Emergency Reversal" operation is unacceptable for the cancellation of the not last transaction as soon as it is not acceptable for the cancellation of the "Reversal" operation.***
> - ***The "Emergency Reversal" operation must be carried out only for operations with the "Transaction processing status" (field 39) with a value of "1".***
> - ***The "Emergency Cancel" operation is not available, to cancel the "Cancel" operation***.

2.4. «Reconciliation» operation

Reconciliation operation is usually performed at the end of the trading day, and serves to verify match of the outcome of the PIN-pad (POS-terminal) transactions and a host transactions. After successful Reconciliation terminal internal database becomes clear. Reconciliation can be performed within a trading day, but in this case it' will be impossible to perform "Reversal" for transactions, which were done before Reconciliation. Return the money to the customer's account will only be possible through the operation of "Refund", which would entail a considerable time delay of money return.

For full report (control tape) at any time, for example at shift change cashiers without performing reconciliations, the custom command 63 "Full Report Request" is used (details in sections 2.6.2).

Reconciliation scenario: ECR forms and sends a reconciliation request. POS-terminal initiates Reconciliation with the host, and after it is done, sends to the ECR next status (Field 39):

• 1 ("Approved") - Reconciliation was successful. This means that all protocol procedures specified output reconciliation and unloading has been end correctly.

• 34 ("No Connection") - Reconciliation could not be concluded due to host connection error.

• 53 ("Operation aborted") - Reconciliation was interrupted at the time of execution. Field 19 may contain additional information about the cause of the error.

In case of a negative status (Field 39 value is not equal to 1) ECR can send another reconciliation request. Retry count is determined by settings of ECR software.

During reconciliation is in progress, any retry requests will be ignored by POS-terminal, and only after Reconciliation is done the response will be sent to the ECR.

The table below provides the description of the fields for the "Reconciliation" operation.

Operation code 59 (Reconciliation)				
Field	**Description**	**Type**	**Request**	**Response**
15	Host's response code	an..3		O[1]
19	Additional response data	an..999		O
21	Original date and time of the transaction at the Terminal (YYYYMMDDHHMMSS)	n14	O	M
25	Operation code	n..2	M	M

26	Unique transaction identifier at the ECR	n..18[2]	O	M
27	Terminal identifier	an..15	M	M
39	Transaction processing status	n..3		M
89	Model name of the ECR	z..999	M[3]	O
90	Data to be printed on a receipt	z..9999		O

[1] May not present (for example, if there were only OFFLINE operations).
[2] When using DUALConnector Type - n..10
[3] Used to transfer information about the ECR software and the version of the SA protocol

During the operation "Reconciliation" is possible to get a slip "Full Report". To do this, you must configure the Smart Sale.

It is recommended to implement the operation "Reconciliation" in manual mode, and automatic (when removing the ECR on Z-report).

Some bank hosts, after operation "Reconciliation", carried download (update) parameters POS-Terminal. This download is performed with operation "Reconciliation, so recommended to install a separate timeout for operation "Reconciliation" (10-15 minutes).

2.5. "Test Connection" operation.

Operation is used to check connection between ECR and bank host.

Operation code 26 – Check Connection				
Field	**Description**	**Type**	**Request**	**Response**
19	Additional response data	an..99		O
25	Operation code	n..2	M	M
27	Terminal identifier (TerminalID)	an..15	M[1]	M
39	Transaction processing status	n..3		M
90	Data to be printed on a receipt	z..		O

[1] If there is no Field 27 or TerminalID incorrect in the request, then connection will be checked only between ECR and pinpad (POS-terminal). This pinpad (POS-terminal) transmits an message with information about the correct TerminalID. (At the same time, with some settings of UNIPOS Terminal, an error message may appear).

Note.
- *It is not recommended to run "Test Connection" automatically before any financial transaction, because it will increase transaction execution time*
- *It is* not recommended to make a timeout less than 2 seconds between checkout requests to perform any sequential operations.

2.6. "Custom Command" operation.

2.6.1. Custom command 20 "Summary Report".

Used to get summary report image from PIN-pad (POS-terminal).

Operation code 63 – Custom command				
Field	**Description**	**Type**	**Request**	**Response**
25	Operation code	n..2	M	M
27	TerminalID	an..15	O[1]	O
65	Command mode 2. Command identifier "20" – «Summary Report»	n..5	M	M
67	Status (result) of executing command ('0' – success)	n..5		M[2]
89	Model name of the ECR	z…999	M[3]	O
90	Tag 0xDF, Data to be printed on a receipt	z…		M

[1] Recommended for use when working with multi merchant
[2] In some host assemblies, "1" is received if successful
[3] Used to transfer information about the ECR software and the version of the SA protocol

2.6.2. Custom command 21 "Full Report".

For full report (control tape) at any time, without performing Reconciliation, the custom command 21 "Full Report Request" is used. Image of full report comes in the tag 0xDF of Field 90.

Operation code 63 – Custom command				
Field	**Description**	**Type**	**Request**	**Response**
25	Operation code	n..2	M	M
27	TerminalID[1]	an..15	O[1]	O
65	Command mode 2. Command identifier "21" – «Full Report»	n..5	M	M
67	Status (result) of executing command ('0' – success)	n..5		M[2]
89	Model name of the ECR	z…999	M[3]	O
90	Tag 0xDF, Data to be printed on a receipt	z…		M

[1] Recommended for use when working with multi merchant
[2] In some host assemblies, "1" is received if successful
[3] Used to transfer information about the ECR software and the version of the SA protocol

Example of "Full Report" execution is shown at Appendix 1.

2.6.3. Custom command 22 "Receipt Copy".

Used to get copy of the receipt from PIN-pad (POS-terminal).

Operation code 63 – Custom command				
Field	**Description**	**Type**	**Request**	**Response**
0	Transaction amount expressed in minimal units of currency	n..12		O[2]
1	Additional transaction amount expressed in minimal units of currency	n..12		O[2]
4	Transaction currency code	n3		O[2]
10	PAN card	an13..19		O[2]
13	Authorization code	an..8		O[2]
14	Host's reference number	n..12		O[2]
15	Host's response code	an..3		O[2]
25	Operation code	n..2	M	M
27	Terminal identifier (TerminalID)	an..15		O[2]
39	Transaction processing status	n3		O[2]
64	Command mode. If the value = "1" – «Last Receipt Copy» will be perfomed	n1	O[1]	
65	Command mode 2. Command identifier "22" – «Receipt Copy»	n..5	M	M
67	Status (result) of executing command ('0' – success)	n..5		M
90	Tag 0xDF, Data to be printed on a receipt	z…		M

[1] – If command mode value equals "1", then copy of the last transaction receipt will be sent from PIN-pad (POS terminal). If the value is absent or differs from "1", then receipt number will be asked on the PIN-pad (POS terminal).
[2] In the fields 0, 1, 4, 10, 13, 14, 15, 27, 39, the values corresponding to the terminal's response to the last performed operation are transmitted (The functionality is not supported in all Smart Sale software assemblies).

Appendix 1

Transmission to the ECR card type, slip, and report Reconciliation.

1. Transmission card type.

Name the type of card is passed to the tag **0xDE**. The presence or absence of a tag is determined by the settings of the configuration software Smart Sale.
An example of a package of responses to the checkout. **0xDE** tag and its contents are **selected.**

```
16 Dec 11:27:04.5 ------ Пакет ответа: ------      ID0
16 Dec 11:27:04.5 [0] = '1100'     ID0
16 Dec 11:27:04.5 [4] = '643'      ID0
16 Dec 11:27:04.5 [6] = '20111216104119'      ID0
16 Dec 11:27:04.5 [10] = '5413339000001513'    ID0
16 Dec 11:27:04.5 [11] = '2510'   ID0
16 Dec 11:27:04.5 [13] = '081235'          ID0
16 Dec 11:27:04.5 [14] = '099130081236' ID0
16 Dec 11:27:04.5 [15] = '00'      ID0
16 Dec 11:27:04.5 [19] = 'Одобрено                       ' ID0
16 Dec 11:27:04.5 [21] = '20111216104120'      ID0
16 Dec 11:27:04.5 [23] = '6'       ID0
16 Dec 11:27:04.5 [25] = '29'      ID0
16 Dec 11:27:04.5 [26] = '6'       ID0
16 Dec 11:27:04.5 [27] = '40000031'      ID0
16 Dec 11:27:04.5 [28] = 'TEST   Merchant'      ID0
16 Dec 11:27:04.5 [39] = '1'      ID0
16 Dec 11:27:04.5 [90] = '0xDE^^Master Card~'
```

2. Transmission the slip.

To transfer the image check tag used **0xDF**, and if there is a need to print two checks (check the seller and the buyer a check), the second bill passed in the tag **0xDA**.
Formatting check carried out by the bank-acquirer for patterns in software Smart Sale. The same kind of mask pattern is regulated to display on the check PAN card.
The emergence of a tag **0xDA** can be a sign to activate the cutting mechanism of the printer.
"Abandoned" the check is also transmitted in the tag **0xDF.**

An example of a package of responses to the checkout. The image of the check is **selected**.

```
04 Jun 11:38:54.0 ------ Пакет ответа: ------      ID0
04 Jun 11:38:54.0 [0] = '40000'      ID0
04 Jun 11:38:54.0 [4] = '643' ID0
04 Jun 11:38:54.0 [6] = '20100604115028'      ID0
04 Jun 11:38:54.0 [10] = '4761739001010010'    ID0
04 Jun 11:38:54.0 [11] = '1010'      ID0
04 Jun 11:38:54.0 [13] = '074025'      ID0
04 Jun 11:38:54.0 [14] = '082197074026'      ID0
04 Jun 11:38:54.0 [15] = '00' ID0
04 Jun 11:38:54.0 [19] = 'Одобрено                       ' ID0
04 Jun 11:38:54.0 [21] = '20100604115028'      ID0
04 Jun 11:38:54.0 [23] = '1'   ID0
04 Jun 11:38:54.0 [25] = '29' ID0
04 Jun 11:38:54.0 [26] = '1'   ID0
04 Jun 11:38:54.0 [27] = '40000041'      ID0
04 Jun 11:38:54.0 [28] = 'TEST   Merchant'      ID0
```

```
04 Jun 11:38:54.0 [39] = '1'   ID0
04 Jun 11:38:54.0 [90] = '0xDF^^          ШТРИХ-М          ID0
04 Jun 11:38:54.0          МОСКВА          ID0
04 Jun 11:38:54.0 Кассир:      Administrator ID0
04 Jun 11:38:54.0 ID ТЕРМИНАЛА:      40000041      ID0
04 Jun 11:38:54.0         ЧЕК 0005         ID0
04 Jun 11:38:54.0     ВОЗВРАТ      ID0
04 Jun 11:38:54.0 СУММА:        400.00  RUB       ID0
04 Jun 11:38:54.0     VISA chip    PIN S   ID0
04 Jun 11:38:54.0 4761739001010010         ID0
04 Jun 11:38:54.0 AID:       A0000000031010          ID0
04 Jun 11:38:54.0 Emv:         Visa        ID0
04 Jun 11:38:54.0 CardHolder2          ID0
04 Jun 11:38:54.0         ОДОБРЕНО          ID0
04 Jun 11:38:54.0 КОД ОТВЕТА:        00      ID0
04 Jun 11:38:54.0 КОД АВТОРИЗАЦИИ:      074025 ID0
04 Jun 11:38:54.0 N.ССЫЛКИ RRN:     082197074026  ID0
04 Jun 11:38:54.0 TVR:         0000000000 ID0
04 Jun 11:38:54.0 TSI:         000000      ID0
04 Jun 11:38:54.0 ПОРЯД.НОМЕР:   00000050000005          ID0
04 Jun 11:38:54.0 ХОСТ 04/06/10      11:50:28      ID0
04 Jun 11:38:54.0 ДАТА 04/06/10  ВРЕМЯ 11:50:28    ID0
04 Jun 11:38:54.0 _____      ID0
04 Jun 11:38:54.0       ПОДПИСЬ КЛИЕНТА      ID0
04 Jun 11:38:54.0 _____      ID0
04 Jun 11:38:54.0 ~'       ID0
04 Jun 11:38:54.0 ----------------------- ID0
04 Jun 11:38:54.1 <<< Записано 1 байт по каналу RS232:2      ID0
04 Jun 11:38:54.1 04                          .              ID0
```

3. Transmission the report Reconciliation.

An example of a package with the full report, transmitted when performing Reconciliations results are listed below and **selected**. To transfer the image tag is used **0xDF**

```
04 Jun 12:49:11.7 ------ Пакет ответа: ------     ID0
04 Jun 12:49:11.7 [6] = '20100604130046'      ID0
04 Jun 12:49:11.7 [15] = 'OFF'      ID0
04 Jun 12:49:11.7 [19] = 'Одобрено в режиме offline          '      ID0
04 Jun 12:49:11.7 [21] = '20100604130046'      ID0
04 Jun 12:49:11.7 [25] = '63'      ID0
04 Jun 12:49:11.7 [39] = '1'  ID0
04 Jun 12:49:11.7 [65] = '21'      ID0
04 Jun 12:49:11.7 [67] = '0'  ID0
04 Jun 12:49:11.7 [90] = '0xDF^^ ------------------------------      ID0
04 Jun 12:49:11.7  КОНТРОЛЬНАЯ ЛЕНТА      ID0
04 Jun 12:49:11.7  ДАТА 04/06/10 ВРЕМЯ 13:00:40  ID0
04 Jun 12:49:11.7 ------------------------------      ID0
04 Jun 12:49:11.7         ШТРИХ-М      ID0
04 Jun 12:49:11.7         МОСКВА      ID0
04 Jun 12:49:11.7                     ID0
04 Jun 12:49:11.7  КАССИР: _____Administrator      ID0
04 Jun 12:49:11.7 ------------------------------      ID0
04 Jun 12:49:11.7  КАРТА :     VISA mag      ID0
04 Jun 12:49:11.7  ID терминала: 40000041      ID0
04 Jun 12:49:11.7  ID магазина: TEST  Merchant      ID0
04 Jun 12:49:11.7  ЧЕК 0002  03/06/10 18:03:24      ID0
04 Jun 12:49:11.7    ОПЛАТА ТОВАРА       ****  ID0
04 Jun 12:49:11.7  СУММА :      200.00 RUB      ID0
04 Jun 12:49:11.7  ЧАЕВЫЕ :    2'000.00 RUB      ID0
04 Jun 12:49:11.7  ИТОГО :      200.00 RUB      ID0
04 Jun 12:49:11.7       VISA mag        M ID0
```

```
04 Jun 12:49:11.7  ************0884              ID0
04 Jun 12:49:11.7  КОД ОТВ.: 00 КОД АВТ.: 074008 ID0
04 Jun 12:49:11.7  НОМЕР ССЫЛКИ:   082197074009        ID0
04 Jun 12:49:11.7  ============================   ID0
04 Jun 12:49:11.7  ID терминала: 40000041         ID0
04 Jun 12:49:11.7  ID магазина: TEST  Merchant     ID0
04 Jun 12:49:11.7  ЧЕК 0004   04/06/10 11:49:50        ID0
04 Jun 12:49:11.7    ВОЗВРАТ         ****       ID0
04 Jun 12:49:11.7   СУММА  :       300.00 RUB     ID0
04 Jun 12:49:11.7   ИТОГО  :       300.00 RUB      ID0
04 Jun 12:49:11.7        VISA mag        PIN R ID0
04 Jun 12:49:11.7  ************0884              ID0
04 Jun 12:49:11.7  КОД ОТВ.: 00 КОД АВТ.: 074023 ID0
04 Jun 12:49:11.7  НОМЕР ССЫЛКИ:   082197074024        ID0
04 Jun 12:49:11.7  ============================   ID0
04 Jun 12:49:11.7  КАРТА :      VISA chip          ID0
04 Jun 12:49:11.7  ID терминала: 40000041         ID0
04 Jun 12:49:11.7  ID магазина: TEST  Merchant     ID0
04 Jun 12:49:11.7  ЧЕК 0001   03/06/10 17:17:11        ID0
04 Jun 12:49:11.7    ОПЛАТА ТОВАРА         ****    ID0
04 Jun 12:49:11.7   СУММА  :       200.00 RUB     ID0
04 Jun 12:49:11.7   ИТОГО  :       200.00 RUB      ID0
04 Jun 12:49:11.7        Visa         PIN S     ID0
04 Jun 12:49:11.7  ************0010              ID0
04 Jun 12:49:11.7  AID        A0000000031010         ID0
04 Jun 12:49:11.7  КОД ОТВ.: 00 КОД АВТ.: 012004 ID0
04 Jun 12:49:11.7  НОМЕР ССЫЛКИ:   073230012005        ID0
04 Jun 12:49:11.7  ============================   ID0
04 Jun 12:49:11.7    ОТЧЕТ ЗАКОНЧЕН      ID0
04 Jun 12:49:11.7  ----------------------------   ID0
04 Jun 12:49:11.7  ~'         ID0
04 Jun 12:49:11.7  -----------------------        ID0
04 Jun 12:49:11.8 <<< Записано 1 байт по каналу RS232:2      ID0
04 Jun 12:49:11.8 04
```

15