

PC Simulator for Semi-integrated Solution (WINTSI)

USER'S GUIDE 0120-08180-0302

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1. Introduction

This document describes the installation steps and the use of Window Telium Semi-Integrated Application.

In this document, the «WINTSI» abbreviation will be used to designate Window Telium Semi-Integrated Application.

WINTSI application is a PC application that is used as Electronic Cash Register (ECR) simulator.

To install and use this application follow the different steps described below:

- Software installation
- Connecting a terminal to your PC.
- Using WINTSI

2. Environment requirement

In order to work correctly, WINTSI Application requires .NET framework 2.0 SP2 to be installed in your computer.

WINTSI application is Windows 7 and Windows 10 compatible.

3. How to install WINTSI

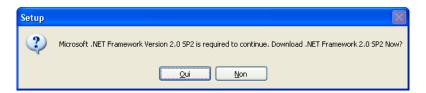
You must have administrative privileges to install and uninstall this program. This includes having administrative privileges the first time you start your computer after installing or uninstalling.

Before installing WINTSI application, make sure that all WINTSI applications are closed.

Once you have completed the setup process, you can launch WINTSI by double-clicking on WINTSI icon or from Start button Choose: Programs >> WINTSI >> Run WINTSIxx.yy.

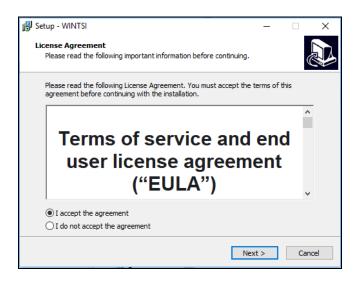
• Double-click on the setup executable file "setup.exe":

If .Net Framework 2.0 SP2 is not installed on the machine, WINTSI installation will be canceled and a message will appear asking user to download and install .Net Framework 2.0 SP2.



Click « Yes » button to download the required Framework. Your PC must be connected to the INTERNET.

Once .Net Framework is installed, you can proceed with the installation of WINTSI application.

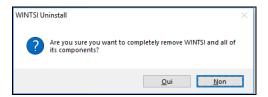


Follow setup steps until getting WINTSI installed on the PC.



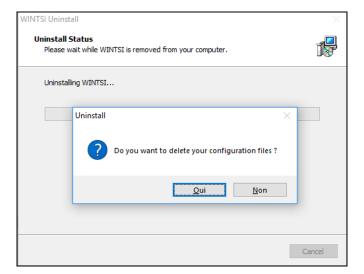
4. How to uninstall WINTSI

From task bar, click Start and choose Programs -> WINTSI-> Uninstall WINTSI xx.yy.



Click "yes" to uninstall WINTSI application or "No" to abort.

When "yes" is chosen, you are asked about deleting your configuration files. Click "yes" to delete configuration files or "No" to abort.

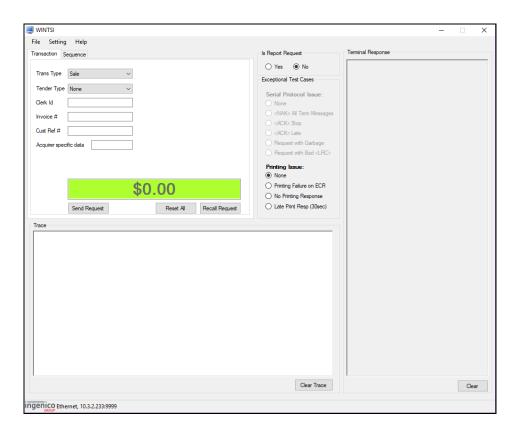


5. Using WINTSI

5.1. WINTSI main view

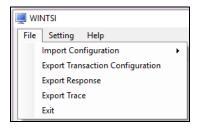
When WINTSI application is started, the main view appears and it is composed of:

- File menu: allows importing/exporting configuration and exporting Traces and Terminal Responses into a file.
- Setting menu: allows the modification of the communication settings, configuration of Tender and transaction type and enabling/disabling trace area.
- Help menu: gives the access to user help.
- Transaction Request: contains the required ECR transaction inputs.
- Sequence Commands: allows selecting a list of commands that will be send sequentially by ECR
- Terminal Response: allows displaying receipt/Transaction Response incoming from terminal.
- Trace area: trace all transmitted and received messages.
- Exceptional Test Cases



The file menu gives the access to:

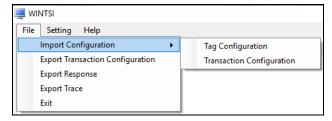
- Import configuration files.
- Export transaction Configuration in XML file format.
- Export the Trace in text file format.
- Export the Transaction/Receipt response in text file format.
- Exit WINTSI Application.



5.2.1. Import Configuration

This submenu allows importing the configuration files:

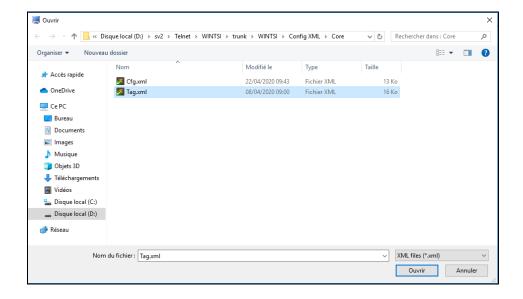
- Tag Configuration file: this file contains the List of tags that will be used by WINTSI application.
- Transaction Configuration file: this file contains the list of transaction and tender type that will be used by WINTSI application.



5.2.1.1. Tag Configuration

To import Tag configuration file:

- Select File >> Import Configuration>>Tag Configuration
- Choose the Tag file you want to import
- Press "Open" button



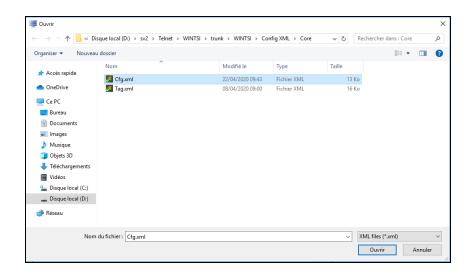
If the selected file has an invalid format, the following warning message will be displayed.



5.2.1.2. Transaction Configuration

To import Transaction configuration file:

- Select File >> Import Configuration>>Transaction Configuration
- Choose the transaction configuration file
- Press "Open" button



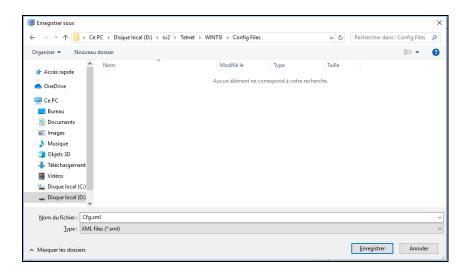
If the selected file has an invalid format, the following warning message will be displayed.



5.2.2. Export Transaction Configuration

To save the transaction configuration settings:

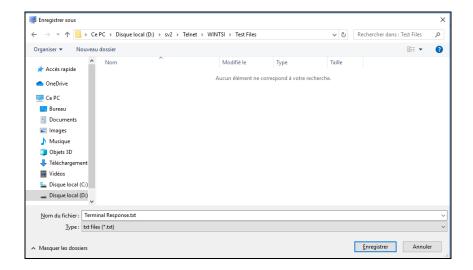
- Select File >> Export Transaction Configuration>>
- Choose the repository
- Enter the file name
- Press "Save" button



5.2.3. Export Response

To save Transaction/Receipt response data in text file format:

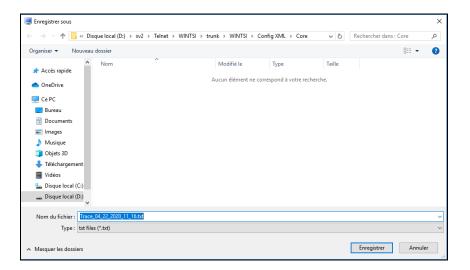
- Select File >> Export Response>>
- Choose the repository
- Enter the file name
- Press "Save" button



5.2.4. Export Trace

To save trace:

- Select File >> Export Trace>>
- Choose the repository to save in file
- Enter the file name
- Press "Save" button



5.3. Setting Menu

5.3.1. Communication

WINTSI application supports the configuration of communication settings that can be either Serial (RS232/USB) or Ethernet.

ingenico~

If the communication is correctly configured, the communication settings will be saved in configuration file. Thus, when user opens the Communication Menu again the old communication settings will displayed.

5.3.1.1. Serial (RS232/USB)

If terminal is connected to PC through Serial link RS232/USB, you might:

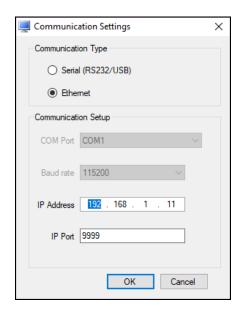
- Select "Serial (RS232/USB)" communication type.
 - → The application displays all ports available on your machine.
- Select the COM Port.
- Select the baud rate.
- Press "OK" button.



5.3.1.2. Ethernet

If the terminal is connected to PC through Ethernet, you might:

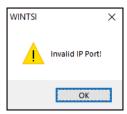
- Select "Ethernet".
- Enter terminal "IP address" (it's a mandatory field).
- Enter the listening "IP Port" (it's a mandatory field).
- Press "OK"



When "IP Adress" field is not set, WINTSI will display the following warning message:



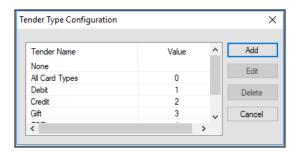
When "IP Port" field is not set, WINTSI will display the following warning message:



5.3.2. Tender

WINTSI application supports Tender type configuration. The Tender configuration window allows:

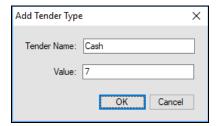
- Adding a Tender
- Editing an existing Tender
- Deleting an existing Tender



5.3.2.1. Adding Tender

To add new Tender, you should:

• Click "Add" button, the below dialog window will be displayed

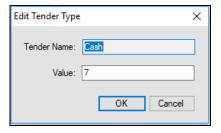


- Enter tender name (duplicate tender Names are not allowed)
- Enter Value (the value must be numeric and one character long)
- Click "OK"
 - → After adding new Tender, the Tender list is updated.

5.3.2.2. Editing Tender

To edit an existing Tender, you might:

- Select the Tender you wish to modify
- Click "Edit" button or double click on the active line, the below dialog will be opened.



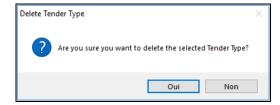
- Modify tender Value
- Click "OK"
 - → The selected Tender is updated in the Tender list.

5.3.2.3. Deleting Tender

To delete an existing Tender, you might:

Select the Tender line you wish to delete

- Click "Delete" button
 - → A message is displayed to confirm the Tender deletion.



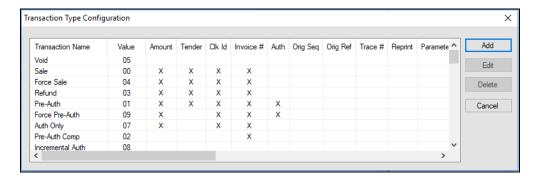
- Click "yes" to confirm
 - → The selected tender is removed from the tender list.

5.3.3. Transaction

WINTSI application supports Transaction configuration.

This includes:

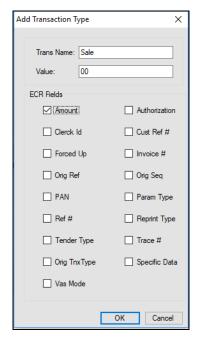
- Adding a Transaction
- Editing a Transaction
- Deleting a Transaction



5.3.3.1. Adding Transaction

To add new Transaction, you might:

• Click "Add" button, the below dialog will be opened



- Enter the Transaction name (duplicate Transaction Names are not allowed)
- Enter the Transaction ID (it must be numeric and two characters long)
- Check the required ECR fields that should be active when this Transaction type in WINTSI Transaction is selected.
- Click "OK"
 - → After adding the new transaction, the transaction list will be updated.

5.3.3.2. Editing Transaction

To edit an existing Transaction, you might:

- Select the transaction you wish to modify
- Click "Edit" button or double click on this line, the below dialog will be opened.

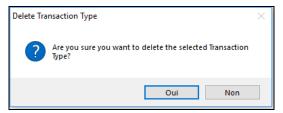


- Modify the Value or the required ECR fields
- Click "OK"
 - → The selected Transaction is up dated in the Transaction list.

5.3.3. Deleting Transaction

To delete an existing Transaction, you might:

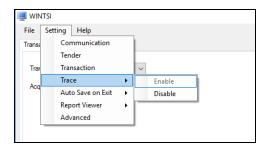
- Select the Transaction line you wish to delete
- Click "Delete" button
 - → A message is displayed asking to confirm the deletion



- Click "yes" to confirm
 - → The selected Transaction is removed from the Transaction list.

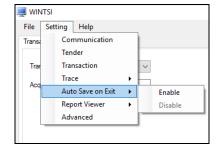
5.3.4. Trace

This submenu contains menu serves to enable or disable the trace.



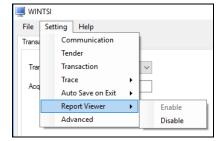
5.3.5. Auto Save on Exit

If "Auto Save on Exit" setting is selected, traces are automatically saved when user exits the WINTSI. The trace files are automatically saved in AutoSaveTrace folder under the installation directory of WINTSI.



5.3.6. Report Viewer

By default the "Report Viewer" option is enabled. So, if a report response is received from terminal a window appears to display the details of report. "Report Viewer" can be disabled by selecting "Disable" in the sub-menu.



5.4. Help Menu

This menu allows user to access to "User Manual" and see the version of WINTSI application.



5.5. Transaction Request

This section allows user to fill all transaction inputs in order to transmit request to terminal device. It contains:

- Transaction request fields
- "Send Request" button
- "Reset All" button
- "Recall Request" button

5.5.1. Transaction request fields

The possible transaction fields are:

- Transaction type
- Amount (ECR Transaction Amount : 001)
- Tender type (ECR Tender Type: 002)
- Clerk Id (ECR Clerk ID: 003)
- Invoice # (ECR Invoice #: 004)
- Authorization # (ECR Auth. Code: 005)



- Original Sequence # (ECR Orig Seq #: 112)
- Original Reference # (ECR Orig Ref #: 006)
- Close Batch (ECR Close Bartch: 007)
- Forced Up (ECR Forced Up #: 008)
- DCC (ECR DCC:009)
- Customer Reference # (ECR Customer Reference #: 010)
- Ref # (ECR Reference #: 011)
- PAN (ECR PAN Last 4: 012)
- Orig Tnx Type (ECR Tran Type: 013)
- Acquirer specific data (ECR Acquirer specific data: 014)
- Formatted Rcpt (ECR Receipt Type: 015)
- Final Amout (ECR Final Amount: 016)
- Trace # (ECR Trace #: 020)
- Merch URL (ECR Vas merch URL: 030)
- Merch ID (ECR Vas merch ID: 031)
- Filter Categ (ECR Vas Filter Categ: 032)
- Encrypt Req (ECR Vas Encrypt Req: 033)
- Vas Mode (ECR Vas Mode: 034)
- Merch index (ECR Vas merch index: 035)
- ECC Key (ECR Vas ECC Key: 036)
- Reprint (ECR Reprint Type: 050)
- Parameter (ECR Parameter Type: 051)
- Rcpt Name(ECR Receipt Name: 052)

Depending on the configuration of transaction, the request fields appear in the main window. Example:



The available fields are:

- Transaction type
- Tender type

- Clerk Id
- Amount



Notice that only fields that appear in the "cfg.xml" file are displayed on the 'Transaction Type Configuration' window.

5.5.2. "Send Request" button

After entering the required transaction request fields, Click "Send request" button to send the ECR request to terminal.

5.5.3. "Reset all" button

"Reset all" button resets all transaction request fields.

5.5.1. "Recall Request" button

"Recall Request" button is used to request the last Transaction response to be sent to ECR again.

5.6. Sequence

This section allows user to choose a text file that contains a sequence of commands. Once the file is selected, each command inputs will be filled automatically from the file data then all selected command requests will be send one by one to the terminal device.



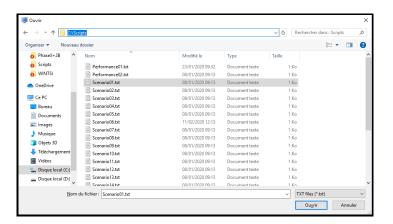
The sequence tab contains:

- "Select File" button
- List of commands
- "Start" button
- "Stop" button
- "Continue" button

5.6.1. "Select File" button

This button is used to select the text file that contains the list of commands. To select a file:

- 1. Click on "Select File" button
- 2. Choose the text file you want to import
- 3. Press "Open" button



The format of text file should be as follow:

Template	Example
remplace	

Loop:x Loop:1 [Command1] [Clear merchants] Param1 "aaaaaaaaaaaa" Param2 "bbbbbbbb" [Add Merchant] Param3 "cccccc" MerchURL "https://www.examples.com/passes/" MerchID "pass.com.ingenico.us.vas.test" ; Comment FilterCateg "0100000000" [Command2] ; Sale transaction Param4 "xxxxxx" [Sale] Amount "50" Param5 "yyyyy" VasMode "1"

After selecting the file, the file path is displayed besides the "Select file" button and the list of commands will be displayed ordered.

5.6.2. List of commands

If the selected file contains at least one command, the list of commands will be displayed as shown in the figure below.



The command is executed only if the command is checked and it will be colored in blue when it is in progress.

5.6.3. "Start" button

"Start" button allows user to start sending the ECR commands to the terminal.

To start the execution of commands:

- 1. Select file to retrieve the commands sequence
- 2. Check the list of commands that will be sent to terminal
- 3. Click "Start" button to start sending the ECR commands

When the execution of commands starts, the "Start" button is disabled and the commands can't be checked / unchecked.

When it is finished, the "Start" button is enabled again and the commands become checkable.

5.6.4. "Stop" button

"Stop" button stops the execution of commands. If "Stop" button is pressed, "Start" button, "Continue" button and the commands become activated.

5.6.5. "Continue" button

"Continue" button is enabled only if the "Stop" button is clicked. It allows the user to continue the execution of the commands.

5.7. Trace

WINTSI application supports tracing all the exchanged messages between WINTSI and terminal.

The Trace window includes:

- Connection status: connected or disconnected
- Messages transmitted to the terminal with:
 - "=>" arrow
 - Date and time of the message
 - The Message data
- Received messages:
 - "<=" arrow</p>
 - Date and time of the reception
 - The received message data

5.8. Terminal response

WINTSI application shows all transaction response and receipt messages incoming from the terminal. The Transaction Response window includes:

- Receipt message data: This section contains all received data field and record field information. It contains:
 - Data Fields:
 - Tag value
 - Tag description

- The field data
- Record Fields:
 - Record index
 - Tag value
 - Tag description
 - The field data
- ECR Printing response (Printing Accepted, Printing Rejected, etc.)

```
==== Receipt Data =====
100 Trans Type: 00
101 Trans Status: 00
102 Trans Date : 200422
103 Trans Time : 070757
104 Trans Amount: 100
109 Total Amount: 100
110 Invoice # : 2
112 Reference # : 2
113 Seq # : 9999999990
300 Customer Card Type : 01
301 Customer Card Desc : Visa
302 Customer Account # : *********
7022
304 Customer Name : VISA SGD CC
306 Customer Card Entry Mode : 0
312 CVM result : 2
400 Auth # : 999999
401 Host Response Code : 000
402 Host Resp Text : APPROVED
404 Retrieval Reference # : 9999999990
500 Batch # : 1
600 Demo indicator: 1
601 TID : DESK50001006
602 MID : 20000024
700 Headerl : INGENICO STNDALONE P2P
701 Header2 : 3381 STEELES AVE E
M1E2B9
702 Header3 : TORONTO ONT ON
714 Endorl : I agree to pay the above
total
715 Endor2 : amount according to the
card
716 Endor3 : issuer agreement.
718 Endor5 : Retain this copy for your
719 Endor6 : records
733 RCPT Transaction Status: 000
APPROVED
>>> ECR:Printing Accepted
```

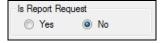
- Transaction Result data: This section contains all received Tag data field and record field information. It contains:
 - Multi Transaction Flag value(o or 1)
 - Data Fields:
 - Tag value
 - Tag description
 - The field data
 - Record Fields:

- Record index
- Tag value
- Tag description
- The field data

```
== Transaction Result ==
***Multi Trans Flag : 0
101 Trans Status: 00
100 Trans Type : 00
102 Trans Date : 200422
103 Trans Time : 070757
104 Trans Amount: 100
109 Total Amount: 100
110 Invoice # : 2
112 Reference # : 2
113 Seq # : 9999999990
300 Customer Card Type : 01
306 Customer Card Entry Mode : 0
400 Auth # : 999999
401 Host Response Code : 000
402 Host Resp Text : APPROVED
601 TID : DESK50001006
600 Demo indicator: 1
```

5.9. Is report Request

User is asked to check "Yes" or "No" to indicate the kind of the ECR request: is it a report request or not?



5.10. Reports Viewer

Depending on the xml configuration, the WINTSI application may supports generating several reports (Detail report, Summary report...) incoming from the terminal.

Below is an example of a generated rapport (Summary report).



5.11. Pre-formatted Receipt Viewer (HTML)

The pre-formatted receipt can be received from terminal when ECR requests pre-formatted receipt and this feature if activated on terminal.

To request pre-formatted receipt, ECR can send financial transaction request that contains "ECR formatted receipt" tag in order to get pre-formatted receipt during transaction or launch "Get Pre-Formatted Receipt" command with the pre-formatted file name.

• Get Pre-Formatted Receipt during transaction:

To request pre-formatted receipt during transaction, "Formatted receipt" should be checked before sending transaction request.

Formatted receipt

If this field is checked, terminal can provide pre-formatted receipt data of merchant copy or customer copy or both included on receipt responses and pre-formatted receipt file names on the transaction responses.

If one or more transaction responsess include pre-formatted receipt file name in HTML format, "HTML Viewer" will be displayed.

"HTML Viewer" contains one or two tabs based on transaction responses:

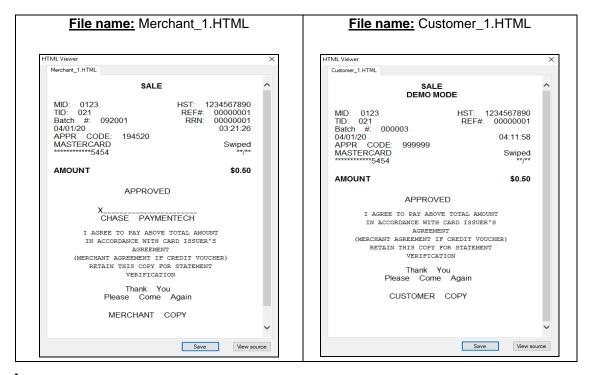
- Merchant copy: it contains all HTML merchant copies. If more than one copy exists, press "Next" and "Previous" to display each copy.
- Customer copy: it contains all HTML customer copies. If more than one copy exists, press "Next" and "Previous" to display each copy.



• Get Pre-Formatted Receipt request:

ECR can request pre-formatted receipt by starting "Get pre-Formatted Receipt" request with the correct file name. If the name of the formatted receipt file is a HTML file name and terminal sends valid HTML data then the ECR will display "HTML Viewer".

In this case, "HTML Viewer" contains only one tab (the requested receipt file name)

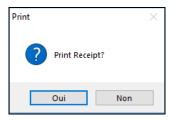


5.12. Exceptional Test Cases

WINTSI application allows doing some exceptional tests in order to test the terminal behavior when some issues are occurred.

The Exceptional Test Cases are composed of:

- Serial Protocol Issues:
 - None
 - <NACK> All Term Messages: WINTSI applications will NACK all Terminal responses.
 - <ACK> Stop: WINTSI application stops acknowledging Terminal responses.
 - <ACK> Late: WINTSI application acknowledges lately the Terminal responses.
 - Request with Garbage: WINTSI application sends the messages with garbage data to the terminal.
 - Request with bad <LRC>: WINTSI application sends the messages with incorrect <LRC>.
- Printing Issues:
 - None: When WINTSI receives a receipt response, the user is asked to accept or refuse printing on ECR.



- Printing Failure on ECR: WINTSI application will refuse the terminal receipt response by sending "Printing NOK".
- NO Printing Response: WINTSI application will not send a printing response to the terminal.
- Late Print Resp (30s): WINTSI application will send accepting printing response lately (After 30 sec of receiving receipt data).

5.13. Error Messages

This section describes the different error messages that can be displayed by WINTSI Application during various operations.

Message text	Description	Action
		- a ingonico

Invalid file format	When the imported configuration file is not conform to the allowed XML format.	Click Ok
Invalid Tender Name!	This message is displayed if the entered tender Name is invalid.	Click Ok
Invalid Tender Value!	This message is displayed if the entered Tender Value is invalid.	Click Ok
Tender Type already used!	This message is displayed if the entered Tender Name already exists in configuration file.	Click Ok
Invalid Transaction Type!	This message is displayed if the entered Transaction type is invalid.	Click Ok
Invalid Transaction value Format!	This message is displayed if the entered Transaction value is invalid.	Click Ok
Transaction Name arleady used!	This message is displayed if the entered transaction type already exists in configuration file.	Click Ok
Invalid IP Adress!	This message is displayed if the IP Address field contains blank.	Click Ok
Invalid IP Port!	This message is displayed if the IP Port field is empty.	Click Ok
An error was occured, check your PDF reader!	This message is displayed if user guide cannot be read.	Click Ok
Connection failed: Terminal not found!	This message is displayed when: -Terminal not Connected to the pcCommunication Settings are incorrect	Click Ok
COM port not Found	This message is displayed if COM Port is no more available.	Click Ok
Error occurs when writing in log file!	This message is displayed when an error in writing log file was occurred.	Click Ok
Select Script File First	This message is displayed when no script file is chosen.	Click Ok
Your list is empty. Check your script file	This message is displayed when the script file does not contain any commands.	Click Ok