

# Troubleshooting tools

## 1. Introduction:

The aim of this document is to help troubleshooting and diagnose of one problem on an installation. Thanks to our experience, we have tried to collect here the most frequently encountered problems with their solution. However, if a problem arises and its solution is not in this document, please contact our technical support by providing as much information as possible. Also ask them what files are necessary.

Problems can take several forms:

- Hardware,
- Access,
- Alarm,
- Software.

## 2. Hardware:

o A new controller does not communicate:

Controller communication LED are constantly OFF.

→ Check that the controller network is correctly defined on the corresponding screen of the software and the controller address as well.

→ If the controller network is TCP, check that its IP address responds to a 'ping' MSDOS command.

When a card is presented on the reader, controller communication LED are switched OFF.

→ A faulty card reader may disturb the controller operation.

→ There is not enough power supply to feed the readers.

→ Check that the electric strike and the controller don't use the same power supply. If electric strike consumption is more than 24V/1A, use an intermediate relay.

Green communication LED blinks but not the Red one.

→ Check if another controller does not have the same address. Correct the address and press the controller Reset button.

→ Check that controller and system have the same communication speed. A new controller runs at 9600 baud by default.

Green communication LED is constantly ON.

→ Disconnect the controller from its communication bus. If the LED is still ON, remove the communication component (the one marked 'Max3085'). If the LED switches OFF, replace the component as it burned. Do not change the component on powered controller.

→ RS232/RS485 communication jumper may be in the false position.

→ Check Rx and Tx (or Hi and Lo) communication wires are not inverted.

Reset LED blinks non-stop.

→ ROM or CPU may be unsuitable for the controller. 128K RAM controllers (manufactured before 2005) cannot have ROM for 10,000 or more users. Moreover, Flash controllers don't accept EPROM and EPROM controllers don't accept Flash. EPROM has 28 pins and a sticker while Flash has 32 pins. Flash controllers have a component with a 'BOOT' sticker.

# Troubleshooting tools

## **Bad controller communication with the PC:**

Green communication LED is constantly ON.

→ Disconnect the controller from its communication bus. If the LED is still ON, remove the communication component (the one marked 'Max3085'). If the LED switches OFF, replace the component as it burned. Do not change the component on powered controller.

→ Check Rx and Tx (or Hi and Lo) communication wires are not cutted.

## **Communication errors appear on the log sometimes.**

→ EMI can affect the bus. Check the RS485 bus. If the bus length is more than 500m, install 120 ohms resistors at each end of the bus. The maximum distance between controllers and RS485 bus is 3 meters. Link all the RS485 wire shields together and connect them at the RS232/RS485 interface end and NOT at the controllers end. RS232/RS485 interface must be connected to a reliable ground. Cut the welded wire ends and strip the new ends. Check that the screws/nuts are securely fastened. Use a line protection (like SP200) if necessary.

→ Faulty controller can affect communication across the network. In this case, find the faulty controller by disconnecting all the controllers and then progressively connecting back the controllers, one after the other, until the problem appears: the last controller connected is the faulty one.

→ Check that the controller network defined in the corresponding screen of the software has polling settings reasonable for the installation. For example, if the network has a latency and the polling timeout is 50msec, there will be communication errors non-stop. You are invited to contact us to get tips on our recommendations.

## **A reader does not work:**

When passing a card, the reader does not react.

→ Check the card reader wires connection on the controller.

→ Check the necessary voltage for the reader. Reader voltage available on the controller is 5 VDC.

→ Check the 0V of the reader is directly connected to the 0V of the controller.

→ Check that card and reader are compatible.

→ Try to reproduce the problem with another card.

## **When passing a card, the reader reacts but no transaction is recorded in the log events.**

→ Check that the controller communicates (communication LED are blinking).

→ Check on the controller the selection of the card technology dip switch.

→ Two readers of different technologies cannot be plugged on the same controller.

→ Following to the controller type, for Wiegand reader, diode/resistor or jumper or dip switch change is necessary.

→ Try to reproduce the problem with another card.

# Troubleshooting tools

## **Wrong transactions are recorded in the log events.**

- EMI can affect the reader. Check the influence of other cables on the installation. Never pass the electric strike cable near the other cables: it must be at least 10cm from all other cables. Never install a controller or its cables near a high voltage line or heavy-duty electric devices (Motors, transformers, high voltage sources, etc...). Inside the housing, wires must be placed around electronic boards and never above or below. Wires length must be as short as possible and never leave extra length inside or near the housing. Use always a diode if the electric strike is DC powered.
- Check that Data and Clock are not inverted on the controller connector.
- Check on the controller the selection of the card technology dip switch.
- Try to reproduce the problem with another card.
- Try to reproduce the problem with another card reader.

## **3. Access:**

### **Unjustified Access Denied events are recorded in the log events:**

The denied reason is 'Full/Lock/No answer from Door'.

- If the controller is defined as Parking controller on the software, the parking may be full.
- The reader may be defined on 'Door closed' mode on the software.
- The door relay may have a weekly program which is in red period or may be disabled by a global reflex.
- The reader may have the 'Feedback' option and the cardholder has passed his badge without opening the door. Check in the Report Wizard of the software how the access has been denied.
- The reader may be an Alarm Keypad and the cardholder who wishes to access is not defined as 'Supervisor'.

### **The denied reason is 'Supervisor'.**

- This message is generated when transaction codes from 20 to 29 are sent. Check in the Report Wizard of the software how the access has been denied.

The denied reason is 'Access Group'.

- The maximum number of cards may have been reached on the controller. To increase the controller memory capacity, contact your vendor.
- The badge may not have the 'Used' status.
- The cardholder may not have the Validation box checked.
- The cardholder Access group may not include this reader.
- The reader and the card may not have the same defined technology on the software.
- The cardholder may have an exception for not accessing this reader.
- The reader may be defined as Card issue reader (Shift + F12 in the 'Reader/ Badge Format').
- Check that the 'Re-sending card definitions after "denied" event' option is set and try to pass again the card a few seconds after the denied access. If it is not possible, check in the Report Wizard of the software if the cardholder succeeded to access after a second attempt.
- If the problem persists, try to initialize the controller, when the installation is not hard-working.

# Troubleshooting tools

- If the problem persists, try to reproduce this problem with a similar card.
- Check in the Report Wizard when this person accessed to this reader for last time, if that person has been denied on other readers, if other people accessed to the same reader at the same time, if recent changes have been done in the database on this person, on his access group or on this reader and if communication problems have occurred recently on this controller. Display commands on the log events and note which command is sent when this person is downloaded. Send to our technical support all this information with the Journal and the database files, specifying the reader name, the cardholder name and the time and date of the access denied.

## **The denied reason is 'Reader not allowed'.**

- The cardholder Access group may not include this reader.
- If the day is a holiday, the cardholder may have the option "No access during holidays" marked on the cardholders screen.

## **The denied reason is 'Not Authorized at this time'.**

- In the definition of the cardholder Access group, this reader may have a weekly program which is in red period at that time or the crisis level of this reader may be lower than the crisis level of the site.
- Check in the the software if the day is a Holiday or a Special day.
- Check that the 'Re-sending card definitions after "denied" event' option is set and try to pass again the card a few seconds after the denied access. If it is not possible, check in the Report Wizard of the software if the cardholder succeeded to access after a second attempt.
- If the problem persists, try to initialize the controller, when the installation is not hard-working.
- If the problem persists, try to reproduce this problem with a similar card.
- Check in the Report Wizard when this person accessed to this reader for last time, if that person has been denied on other readers, if other people accessed to the same reader at the same time, if recent changes have been done in the database on this person, on his access group or on this reader and if communication problems have occurred recently on this controller. Display commands on the log events and note which command is sent when this person is downloaded. Send to our technical support all this information with the Journal and the database files, specifying the reader name, the cardholder name and the time and date of the access denied.

## **The denied reason is 'Inhibited Cardholder'.**

- In the definition of the cardholder Access group, this reader may have the weekly program "<Use Personal WP>" and this cardholder does not have any Personal weekly program in the Cardholders screen.

# Troubleshooting tools

## **Unjustified Unknown Card events are recorded in the log events:**

Controller does not know these card codes.

- Check that the reader is cabled in the same way as other readers.
- The reader and the card may not have the same defined technology on the software.

## **Access events are recorded with a number instead of the cardholder name in the log events:**

These card codes are unknown in the software database.

- Check that the card has the status 'Used' and belongs to someone. Otherwise, try to initialize the controller when the installation is not hard-working, for synchronizing the controller database with the software one.
- If the problem persists, it means that the maximum number of cards may have been reached on the controller.

## **No access events are recorded in the log events:**

- Check that the controller communicates (communication LED are blinking).
- Check on the controller the selection of the card technology dip switch.
- Check that the reader is working properly and cardholders can access.
- Two readers of different technologies cannot be plugged on the same controller.
- Following to the controller type, for Wiegand reader, diode/resistor or jumper or dip switch change is necessary.
- If the problem persists, try to initialize the controller, when the installation is not hard-working.
- Check in the Report Wizard if recent changes have been done in the database on this reader and if communication problems have occurred recently on this controller.

## **4. Alarm:**

### **Unjustified 'Satellite alarm' events are recorded in the log events for one controller:**

Relays with incorrect number are defined in the software.

- Correct wrong relays, delete unused relays and initialize the controller, when the installation is not hard-working.

### **No alarm events are recorded in the log events:**

- Check that the controller communicates (communication LED are blinking).
- Check the input cabling.
- Check in the software that the alarm is armed and not deactivated.
- If the alarm belongs to an input group, check that it is armed and not deactivated.
- If the problem persists, try to initialize the controller, when the installation is not hard-working.
- Check in the Report Wizard if recent changes have been done in the database on this alarm and if communication problems have occurred recently on this controller.
- Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

# Troubleshooting tools

## 5. Software:

### Error during the software installation:

Windows firewall must allow the process "spread.exe" to send and receive messages through the network.

→ Unblock the spread in Windows firewall options. If this does not help, disable the firewall during the installation and set-up. Once installation is complete, turn on the firewall again.

At startup, the software can not connect to its database:

The database type is Access.

→ Make sure the PC has full control of the database folder.

→ In the \*.ini file, the 'DbsFolder' option must be followed by the network path of the server folder.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

### The database type is SQL.

→ If the database is Native, make sure the SQL Native Client Provider is installed on the PC. If not, install it and retry.

→ If MS-SQL version is 2005, go to the database server and right clic on My Computer>Manage>Services and Applications>SQL Server Configuration>SQL 2005 Network>Protocols and check if the TCP/IP protocol has started. If not, start it and retry.

→ Make sure the PC has access to its database by a single 'udl' file and the database connection path is correct after the 'SQL\_Connect' option of the \*.ini file.

→ With MSDE (free version of SQL server), the database size is limited to 2GB and 5 PC maximum can connect to the database simultaneously.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

At startup, a message says 'the server is down':

### The message appears on one workstation.

→ Make sure the names and/or IP addresses of the server and the workstation are correct in the spread.conf file. Do not modify this file, but correct information in the "Parameter/Computer" screen of the application, then restart all the PC. Also check that the spread.conf file is the same on all PC.

→ Turn off the Windows firewall on both PC and try again.

→ If the installation is in Multi Site mode, make sure that the option 'MyServerName' in the \*.ini file is set with the server name written in all caps.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

# Troubleshooting tools

## **At startup, DEMO configuration is displayed whereas a dongle is present:**

The dongle cannot be read by the application.

→ Remove the dongle and plug it again. The dongle must be inserted into the USB port or parallel port after the end of the complete installation of the software.

→ Sometimes the dongle is not accessible from the Windows Remote Desktop. Check the dongle from the server itself.

→ Reinstall the dongle driver. No need to start the application each time. Check with the UpdatePlug.exe program which is in the application folder.

→ Try to reproduce this problem on another PC with the same database, the same software version and the same \*.ini file.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

The software language has automatically changed to English and some screens have not title:

→ Make sure the current Windows User Account has rights to write in the local folder of the software. If not, change it and try again.

The import cardholders function does not work:

No cardholder is imported.

→ Check the connection with the ODBC file.

→ Try to reproduce this problem on another PC with the same database, the same software version and the same \*.ini file.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

## **Cardholders are imported with incorrect fields.**

→ Make sure the ODBC file contains the right field names and the data are compatible. An empty data may indicate a default value sometimes.

→ Check if there are errors in the 'import.log' file. If so, try to understand which field is concerned.

→ Try to reproduce this problem on another PC with the same database, the same software version and the same \*.ini file.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

→ If the problem persists, please send to our technical support the ODBC file (eg HR.xls), the 'import.log' and the database files.

# Troubleshooting tools

## **Editing a report does not work:**

An 'Error 5000' is displayed; the connection to the Journal has failed.

→ Make sure in the Options screen of each PC, including the server, that the network path of the server folder is specified.

→ Try to reproduce this problem on another PC with the same database, the same software version and the same \*.ini file.

→ Check if there are errors on the AME file at that time. If so, find these errors on Internet to understand the source of the error and try to work around it.

An error is displayed with the message saying that CHAR value that has passed over the limits.

→ Edit the report without Date filter. If the event dates are sorted by a format different from the standard format "day, month, year", that means that MS-SQL has been defined with another date format. To modify it, open the Tools>Options>SQL/Bio screen and change the date format in the field "SQL Server date format" with the relevant format.

## **Editing Roll Call report does not work from the workstation.**

→ Make sure that the workstation can access database files and server folder with full control.

Exception or Schedule Access Group cannot be added or deleted:

→ Edit the report without Date filter. If the event dates are sorted by a format different from the standard format "day, month, year", that means that MS-SQL has been defined with another date format. To modify it, open the Tools>Options>SQL/Bio screen and change the date format in the field "SQL Server date format" with the relevant format.

→ Make sure the current Windows User Account has Administrator rights. If not, change it and try again.

## **An action/process/reflex does not work:**

The action "Play a sound" does not work consistently.

→ Open the Parameters>Computer screen and set the correct PC name and the correct IP address of the relevant PC and try again.

## **6. Diagnostic tools:**

**For analyzing the communication between server and controllers:**

Set "DebugCom =12" in the \*.ini file and restart the application for having the \*.log files every hour, by controller network, in the AME folder.

**For analyzing the software behavior:**

Launch the 'DBMon.exe' program located in the application folder.

To create a file containing the DBMON information, open an MS-DOS command window (Run, "cmd"), enter in the application folder and type "DBMON >> analyse.txt".

**For analyzing the communication between server and workstations:**



## Troubleshooting tools

Launch the 'sptuser.exe' program located in the application folder under SpUtil folder. Join the groups 'gui' or 'op1' to observe the communication on these levels.

For analyzing the communication of one communication bus:

Docklight software, downloaded from: [http://www.docklight.de/download\\_en.htm](http://www.docklight.de/download_en.htm)

For analyzing the communication of one network:

PRTG Traffic Grapher software, downloaded from: <http://www.paessler.com/prtg7/download>

Wireshark software, downloaded from: <http://www.wireshark.org/>

For analyzing SQL database:

SQL Management Studio software, downloaded from: <http://www.microsoft.com/downloads/details.aspx?FamilyId=C243A5AE-4BD1-4E3D-94B8-5A0F62BF7796&displaylang=en>