



Sagem Défense Sécurité
SAFRAN Group

MorphoAccess™ 100 Series

RS485 Monitor User Guide

Produced by SAGEM Défense Sécurité

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MA1XX RS485 Monitor User Guide
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INTRODUCTION

This document describes the **MA1XX RS485 Monitor** application. This tool allows monitoring the RS485 port of your terminal and retrieving the biometric identification messages received on this port.

To perform this operation, you need to link a RS485 converter to your terminal and then connect this converter on a COM port of your PC.

SETTING THE CONNECTION

Before using the *MA1XX RS485 Monitor* application, you need to configure the RS485 connection.

Hardware configuration

You need to achieve the following steps :

- connect a RS485 converter to the *TR-* and *TR+* pins of your terminal,
- connect the previous RS485 converter on a COM port of your PC.

Software configuration

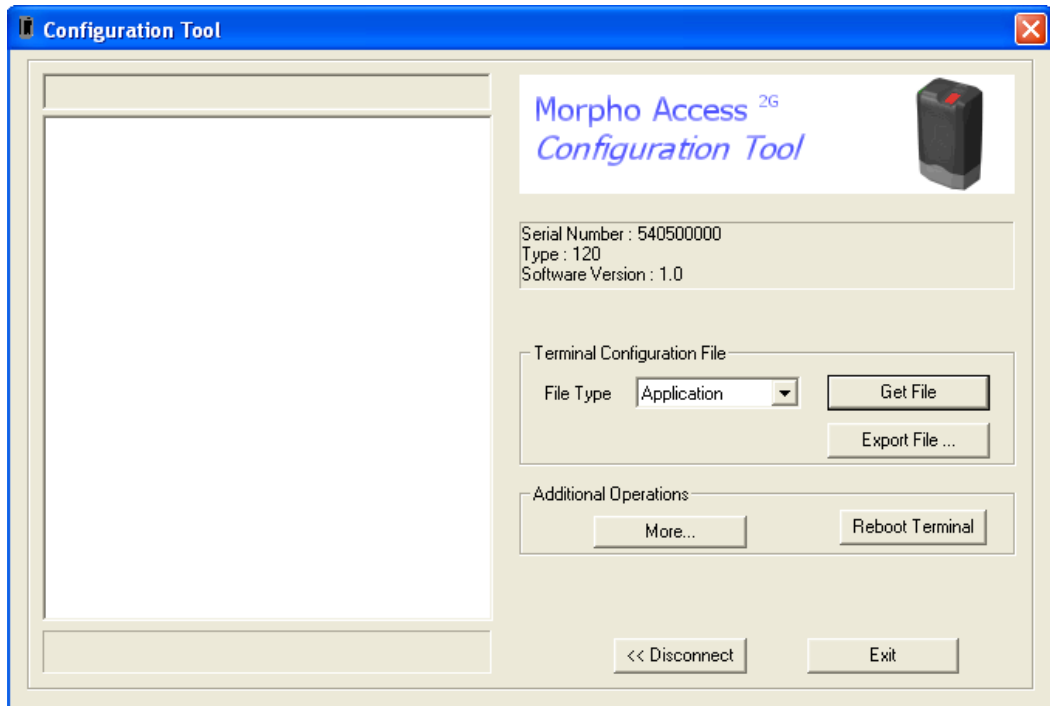
This will be performed by the *MA1XX Configuration Tool* application. To more details on this application, please refer to the *MA1xx Configuration Tool User Guide*.

Launch the *MA1XX Configuration Tool.exe* application. The *MA2G Connection* dialog window displays :



Then, connect physically your terminal on a network, set your network parameters and finally click on the *Connect >>* button.

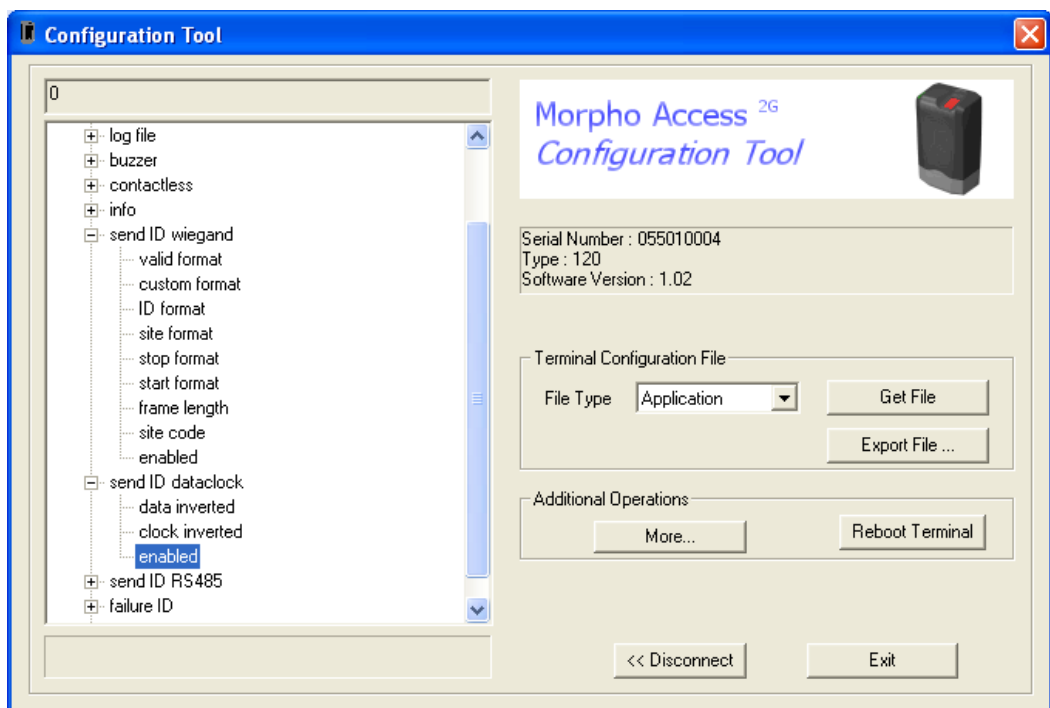
If the process succeeds, the *Configuration Tool* main dialog window appears on your screen :



Under the *Terminal Configuration File* group box, select *Application* as *File Type* and then click on the *Get File* button.

Now, ensure that :

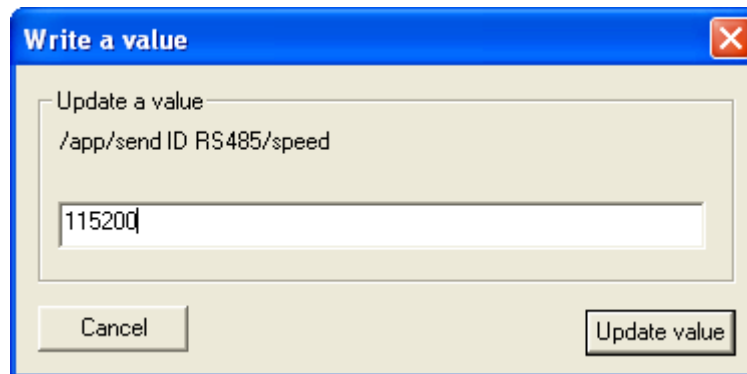
- the value of the "*app/send ID wiegand/enabled*" parameter is '0',
- the value of the "*app/send ID dataclock/enabled*" parameter is '0'.



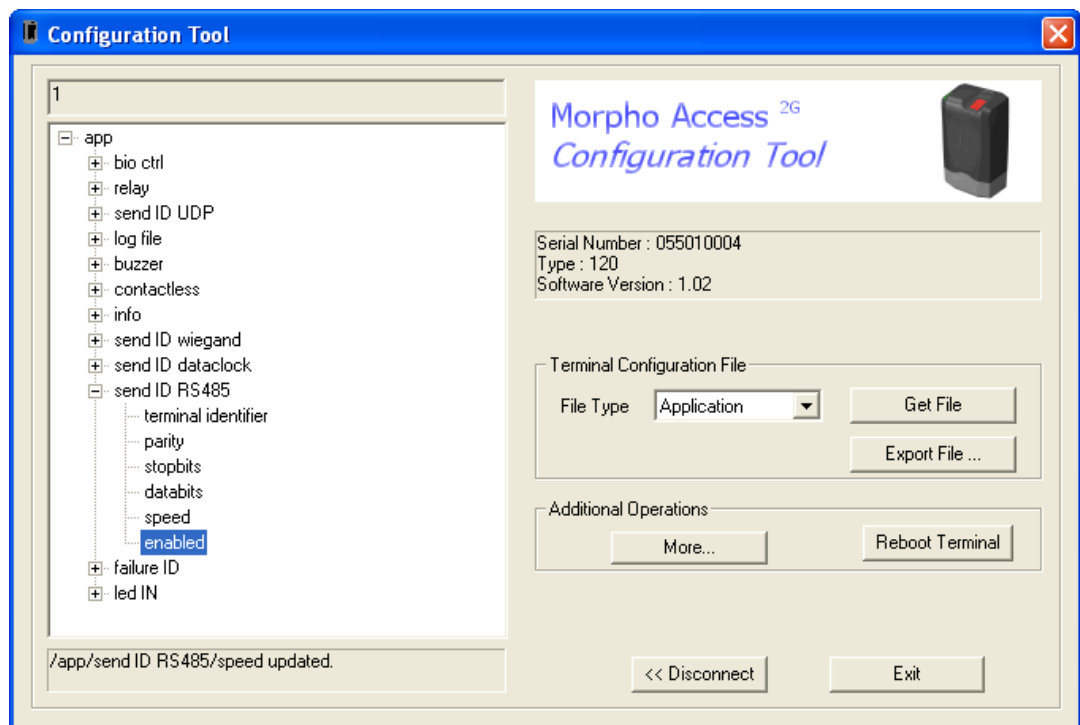
If you want to do some identifications against PKs present in a contactless card, ensure the “*app/bio ctrl/authent PK contactless*” parameter value is ‘1’.

Finally, set the “*app/send ID RS485*” section.

- Set the terminal ID by updating the “*app/send ID RS485/terminal identifier*” parameter value.
- Set the baud rate by updating the “*app/send ID RS485/speed*” parameter value.



- Check that :
 - o the value of “*app/send ID RS485/parity*” parameter is ‘0’,
 - o the value of “*app/send ID RS485/stopbits*” parameter is ‘1’,
 - o the value of “*app/send ID RS485/databits*” parameter is ‘8’.
 - o the value of “*app/send ID RS485/enabled*” parameter is ‘1’.

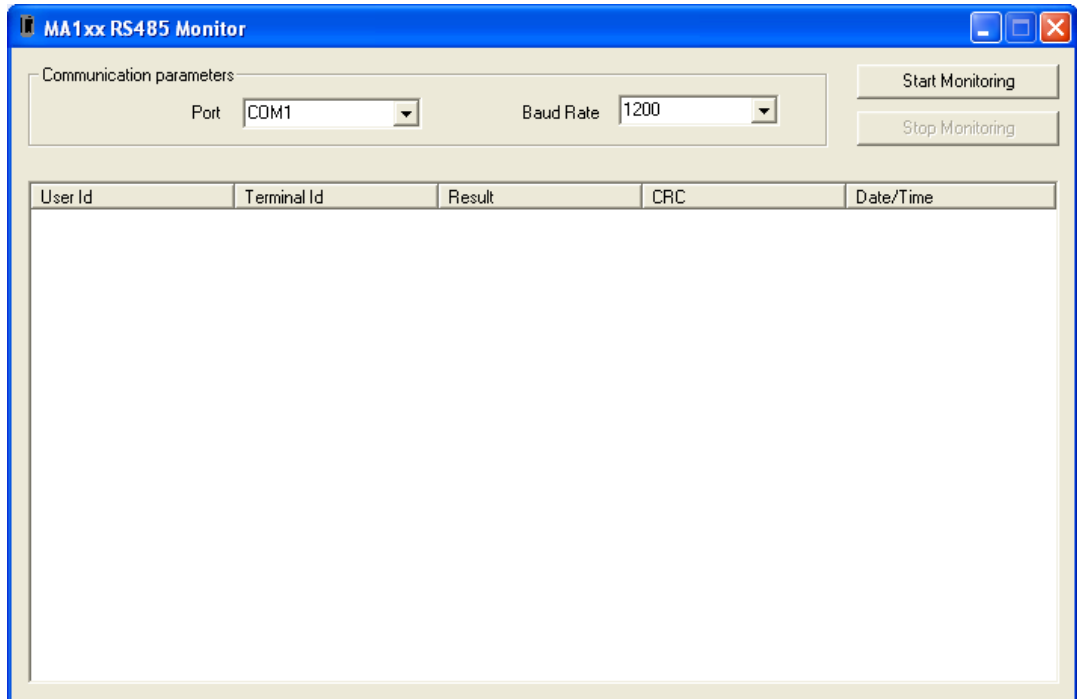


You can now quit this application by clicking on the *Exit* button. Reboot terminal is not required.

STARTING THE APPLICATION

Connection

Launch the *MA1xx_RS485Monitor.exe* application. The main dialog window displays :



The first step consists in setting your communication parameters. Under the *Communication parameters* group box, select the COM port where your terminal is connected, and the baud rate that you have previously defined in the “Setting configuration” part.

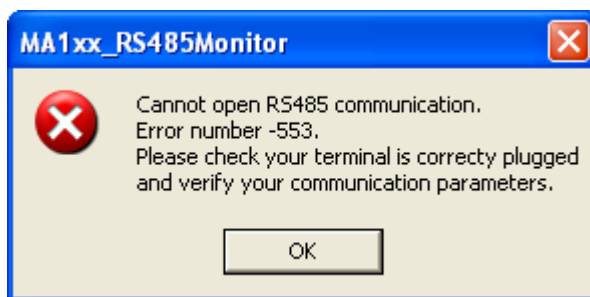
Once, this step is done, you can begin the RS485 port monitoring by clicking on the *Start Monitoring* button.

You can now perform an operation described in this document.

Connection issues note

The communication can be established even the set baud rate is different than the baud rate defined in the “Setting configuration” part. But you cannot receive any message from the RS485 port.

If the RS485 software configuration is invalid or if the terminal is not correctly plugged, the communication cannot be established and you obtain the following message :



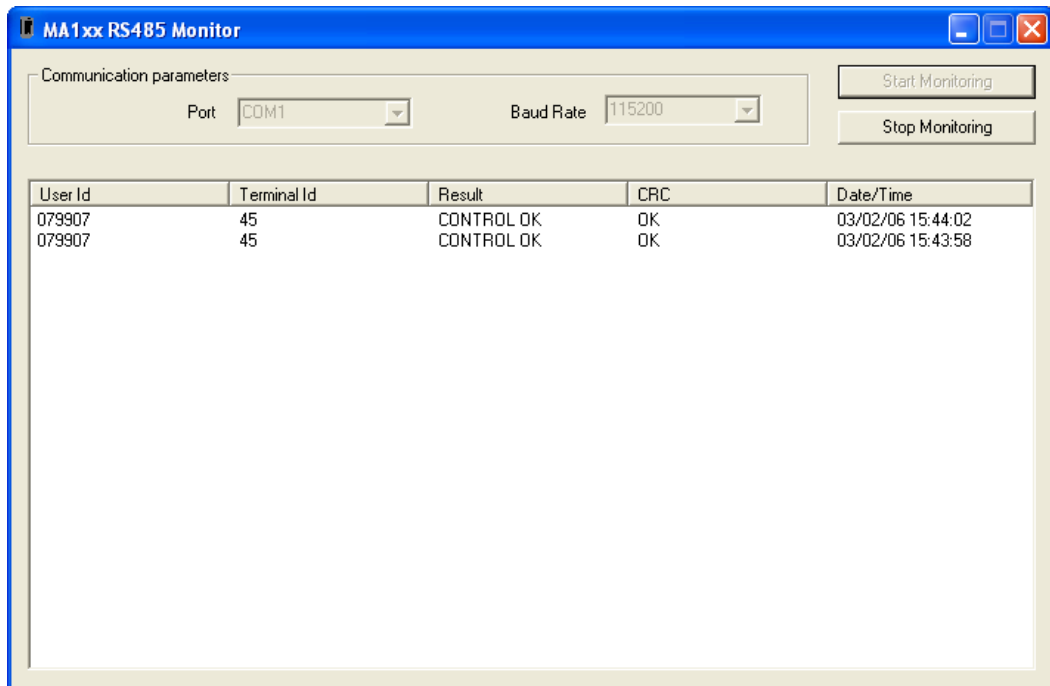
In this case, the application is still active and you can try to change the configuration parameters. You can also reset the RS485 software configuration or reconnect your terminal on the RS485 port. But the RS485 monitoring is not running.

Monitoring process

The RS485 monitoring is now running. You can perform every identification operation on your terminal : against PKs present in the terminal or in a contactless card. The identification results are present in five columns :

- **User Id** : it corresponds to the User Id against that your present finger should match,
- **Terminal Id** : it is the terminal identifier of the RS485 terminal port,
- **Result** : it contains a message corresponding to the identification operation,
- **CRC** : it corresponds to the CRC compute result,
- **Date/Time** : that are the date and the time of the identification operation.

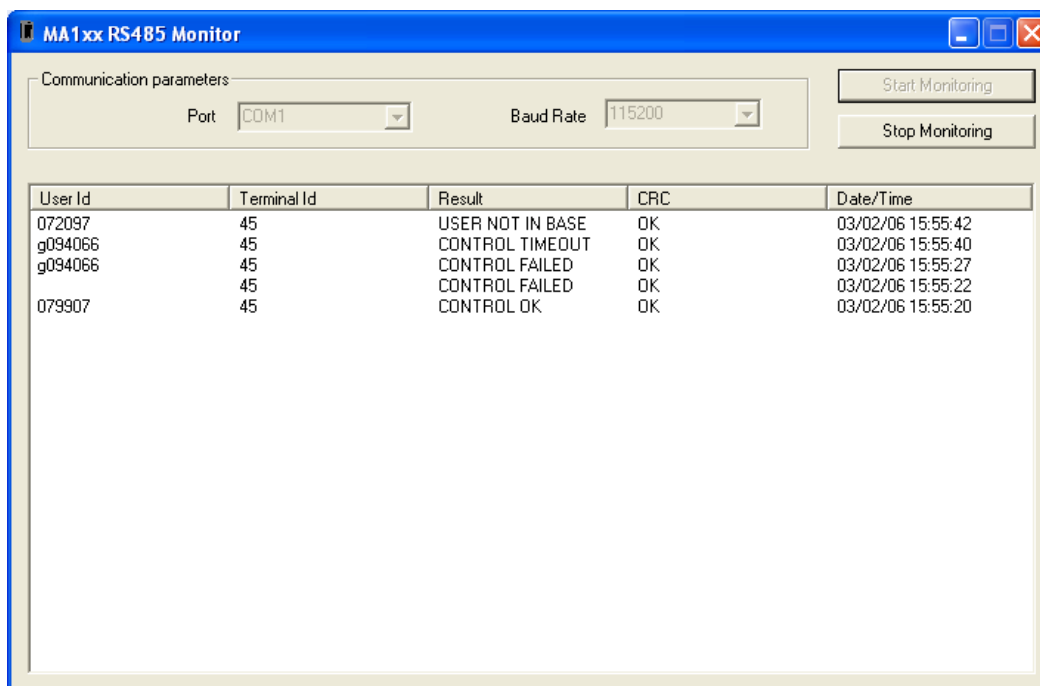
If the identification process succeeds, you obtain a “**CONTROL OK**” message in the *Result* column :



Identification failures

If the identification failed you can receive some different messages :

- **“CONTROL FAILED”** : if the User Id corresponding to the presented finger is not in the terminal database. If you use a contactless card, the same message is sent if the User Id corresponding to the presented finger does not match with the User Id present in the card. But in this second case, the expected User Id is returned.
- **“CONTROL TIMEOUT”** : if the time between the moment where you have presented the contactless card and the moment where you present your finger is too long.
- **“USER NOT IN BASE”** : if the User Id present in the contactless card does not exist in the terminal base.
- **“LOG IDENT ERROR”** : other identification errors.



Monitoring process issues note

- It can occur that no message is sent to the application main window. It may be due to a wrong RS485 configuration, and often due to an invalid baud rate. In this case, you can change the communication parameters by clicking on the *Stop Monitoring* button. This will close the RS485 connection, and also stop the RS485 monitoring process.

Then, you can change the communication parameters (communication port and baud rate) and after restart the monitoring process by clicking on the *Start Monitoring* button.

- If the transmission failed, for example if the RS485 software configuration is invalid, you obtain the **“TRANSMISSION FAILED”** message. In this case, you need to change the RS485 settings with the *Configuration Tool* application.

Log file

While the RS485 monitoring run, the returned messages are also recorded in a log file named **“MA1xx_Rs485Monitor.csv”**. This file contains the hexadecimal values corresponding to the messages displayed in the application main window.

Microsoft Excel - MA1xx_Rs485Monitor.csv

Fichier Edition Affichage Insertion Format Outils Données Fenêtre ?

A1 = (null)

A	B	C	D	E	F	G	H	I
1	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:02				
2	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:02				
3	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:02				
4	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
5	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
6	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
7	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
8	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
9	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
10	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
11	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
12	(null)	TRANSMISSION FAIL	(null)	28/02/2006 17:15				
13	(null)	20 0x01	0x00	28/02/2006 17:20				
14	(null)	20 0x01	0x00	28/02/2006 17:20				
15	79907	20 0x00	0x00	28/02/2006 17:20				
16	79907	20 0x00	0x00	28/02/2006 17:20				
17	g092817	20 0x19	0x00	28/02/2006 17:20				
18	72097	20 0x12	0x00	28/02/2006 17:20				
19	79907	20 0x00	0x00	28/02/2006 17:38				
20	242992624501089	20 0x00	0x00	28/02/2006 17:38				
21	(null)	20 0x01	0x00	28/02/2006 17:38				
22	(null)	20 0x01	0x00	28/02/2006 17:38				
23	(null)	20 0x01	0x00	28/02/2006 17:38				
24	53698	20 0x00	0x00	28/02/2006 17:38				
25	(null)	20 0x01	0x00	28/02/2006 17:38				
26	242992624501089	20 0x00	0x00	28/02/2006 17:38				
27	732400	20 0x00	0x00	28/02/2006 17:38				
28	321465	20 0x00	0x00	28/02/2006 17:38				
29	62487	20 0x00	0x00	28/02/2006 17:38				
30	229799542015587	20 0x00	0x00	28/02/2006 17:38				
31	242992624501089	20 0x00	0x00	28/02/2006 17:38				
32	229799542015587	20 0x00	0x00	28/02/2006 17:38				
33	(null)	20 0x01	0x00	28/02/2006 17:38				
34	229799542015587	20 0x00	0x00	28/02/2006 17:38				
35	229799542015587	20 0x00	0x00	28/02/2006 17:38				

Prêt

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