

## STANDARD POLLING

Reader takes responsibility to control access depending on the white list downloaded from HOST. In this situation, Reader works as standalone. HOST gets the oldest event log from Reader by polling through command 0x25. When Host receives the oldest event log, Host will save it and then deletes it by command 0x37. However, when no log in Reader, Reader will still send an ACK command.

### APPLICABLE TO:

SOYAL Enterprise Series, SOYAL Home Series, SOYAL Control Panel Series

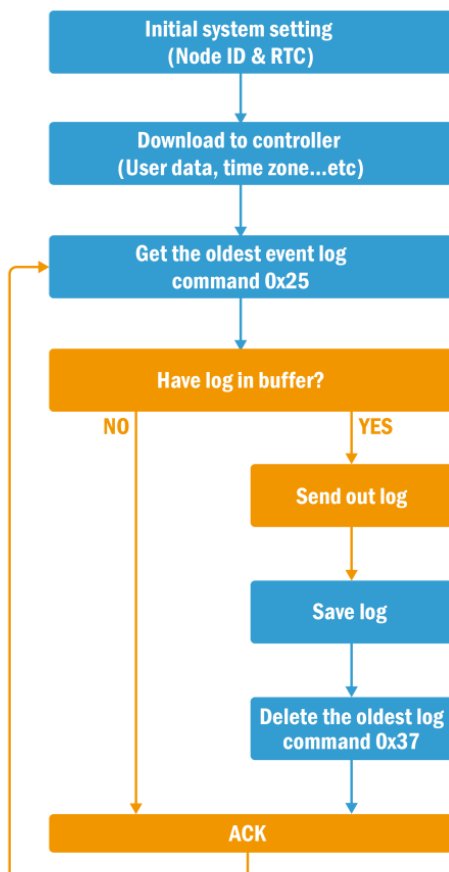
### FUNCTION DESCRIPTION:

- Reader verifies tags and saves event logs working standalone.
- Host only gets event logs from Reader.

### SCHEMATIC DIAGRAM:



### HOW IT WORKS?



## IMPLEMENTATION STEPS:

Through protocol command 25H (Get the oldest event log of device) combined with 37H (Remove the oldest event log of device) after saving the log to third party system. This is to make sure that data is already confirmed well accepted and deleted (send command 37H as confirmation)

### 2.11 25H Get the lasted event Log of Device

Echo	Example Value	Description
Head	7E	Leading Code
Length	04	Data Length Indicates which denotes the length from Destination ID to the end including XOR and SUM
Destination ID	01	Node ID of destination, the node id is 01 here
Command Code	25	Reading events from the device
XOR	DB	$XOR = FF \wedge 01 \wedge 25 = DB$
SUM	01	$SUM = (01 + 25 + DB) \cdot FF = 01(LSB)$

#### 2.11.1 Events

Events	Description	Note
01 H	PIN Error	
03 H	Invalid Card	
04 H	Time Zone Error	No entry at this time zone
0B H	Normal Access	
10 H	Egress	Request to exit
11 H	Alarm Event	
1E H	Anti-pass-back Error	



IO Status 0	AR721W	AR721/321/323D	AR721Q	721H/727H
Bit 7	Relay On/Off (1/0)	Low Battery (1/0)		KBD Locked
Bit 6	Card Present (1/0)	Lock working (1/0)		Door Relay On
Bit 5	DO_1 On/Off (1/0)	n/a		Alarm Relay On
Bit 4	DO_0 On/Off (1/0)			ARMED
Bit 3	DI-3 Status	Internal Locked (1/0)		Alarming
Bit 2	DI-2 Status	Force Open Alarm		Door Relay Manual Latched
Bit 1	DI-1 Status	Lock Sensor		PTE pushed
Bit 0	DI-0 Status	Door Sensor		Door opened
IO Status 1				
Bit7				Force open
Bit6				
Bit5				Editing
Parameters				Command 20*

If there have card inserted on AR721W, the Bit6 will be set and Card UID will followed after status0

## (2)Invalid Cards

Echo	Value	Description		
Head	7E	Leading Code		
Length	1D	Data Length Indicator which denotes the length from Node to the end including XOR and SUM		
Node	00	The value 00 is fixed, the message would be sent to PC from the device		
Event	03	Invalid Cards		
Reader ID	01	Reader ID		
Data Field	01	Data 0	Second	
	35	Data 1	Minute	
	01	Data 2	Hour	
	02	Data 3	Day of a week	
	05	Data 4	Date	
	06	Data 5	Month	
	06	Data 6	Year	
	01	Data 7	Represent the message source ID	
	04	Data 8	Addr Hi	Addr H Addr L=0x400 (01024) User Address : 1024
	00	Data 9	Addr Lo	
	00	Data 10	On Duty	
	00	Data 11	Bit7 : Forced Open Alarm	
	18	Data 12	Bit Selection (20*xxx#)	
	00	Data 13	Represent the message source comes from WG, bit7 sets 1.	

	63	Data 14	Site Hi	Tag ID bit 31~16 = 0x636B
	6B	Data 15	Site Lo	
	01	Data 16	Door Number (Same as Node)	
	14	Data 17	401RO16 Parameter Setting (24*xxx#)	
	B8	Data 18	Card Hi	Tag ID bit15~0 = 0xB8B4
	B4	Data 19	Card Lo	
If SOR money deduct off, then this 4 bytes are meaningless	00	Data 20	Deducted amount	
	00	Data 21		
	00	Data 22	Balance	
	00	Data 23		
XOR	C3	$XOR=FF^{00^{03^{01^{01^{35^{01^{02^{05^{06^{06^{01^{04^{00^{00^{00^{18^{00^{63^{6B^{01^{14^{B8^{B4^{00^{00^{00^{00}}=C3}}$		
SUM	7D	$SUM=(00+03+01+01+35+01+02+05+06+06+01+04+00+00+00+18+00+63+6B+01+14+00+00+00+00+C3) \cdot FF=7D(LSB)$		

### (3)Valid Card

Echo	Value	Description		
Head	7E	Leading Code		
Length	1D	Data Length Indicator which denotes the length from Node to the end including XOR and SUM		
Node	00	The value 00 is fixed, the message would be sent to PC from the device		
Event	0B	valid Cards		
Reader ID	01	Reader ID		
Data Field	36	Data 0	Second	
	21	Data 1	Minute	
	02	Data 2	Hour	
	02	Data 3	Day of a week	
	05	Data 4	Date	
	06	Data 5	Month	
	06	Data 6	Year	
	01	Data 7	Represent the message source ID	
	00	Data 8	Addr H	Addr H Addr L=0x01(00001) User Address : 00001
	01	Data 9	Addr L	
	00	Data 10	On Duty	
	00	Data 11	Bit7 : Forced Open Alarm	
	18	Data 12	Bit Selection (20*xxx#)	
	00	Data 13	Represent the message source comes from WG, bit7 sets 1.	

	63	Data 14	Site Hi	Site Hi Site Lo = 0x636B (25451)
	6B	Data 15	Site Lo	
	01	Data 16	Door Number (Same as Node)	
	14	Data 17	401RO16 Parameter Setting (24*xxx#)	
	B8	Data 18	Card Hi	Card Hi Card Lo = 0XB8B4 (27284)
	B4	Data 19	Card Lo	
If SOR money deduct off, then this 4 bytes are meaningless	00	Data 20	Deducted amount	
	00	Data 21		
	00	Data 22	Balance	
	00	Data 23		
XOR	EE	XOR=FF^00^0B^01^36^21^02^02^05^06^06^01^00^01^00^00^18^00^63^6B^01^14^B8^B4^00^00^00^00 =EE		
SUM	CF	SUM=(00+0B+01+36+21+02+02+05+06+06+01+00+01+00+00+18+00+63+6B+01+14+B8+B4+00+00+00+00+EE) · FF=CF		

## 2.12 37H Delete the lasted transaction

Echo	Example Value	Description
Head	7E	Leading Code
Length	04	Data Length Indicator which denotes the length from Destination ID to the end including XOR and SUM
Destination ID	01	Node ID of destination, the node id is 01 here
Command Code	37	Clearing events from the device
XOR	C9	XOR=FF^01^37 =C9
SUM	01	SUM=(01+37+C9) · FF=01(LSB)

Echo	Value	Description
Head	7E	Leading Code
Length	05	Data Length Indicator which denotes the length from Node to the end including XOR and SUM
Node	00	The value 00 is fixed, the message would be sent to PC from the device
Function	04	Command Acknowledge (ACK)
Reader ID	01	Reader ID
XOR	FA	XOR=FF^00^04^01 =FA
SUM	FF	SUM=00+04+01+FA=FF

## Reference:



Message File  
structure.pdf



MessageFunctionCod  
e.pdf