

Demo Project for Security



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1. Overview and Operation

Overview

This demo project introduces the security function, which includes two parts: "user security and operable classes" and "object security".

Demo Project - Security					
User no. 1	User no. User 1 : PW = 111, Authority = Class A User 2 : PW = 222, Authority = Class B				
Password *	Password * Fill in new password for each user and press update button				
User logout	User1 password				
Password error	User2 password	Update password			
Closs A Button In	Class A Button Interlock				
Display when Gray	yed label n interlock disabled	Display warning message			
More	in the lock disubled	Editor: Nicolas			



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2. Setting up the screen

[In window10]

1. Users have to set up the Security in system parameter settings. Then create two numeric input objects and set addresses to LW9219_user no. and LW9220_password.

Num	ieric	Input Obje	ct's Properties						X
Ge	neral	Data Entry	Numeric Format	Security	Shape	Font	Profile)	
	1	Description :							
		_							
I F	Read a	address ——							-11
11		PLC name :	Local HMI					*	
н.	Ι	Device type :	LW-9219 (16bit)	: user no. (1~12)			*	
H		Address :	LW9219		System ta	g			
	Add	ress format :	ddddd [range : O ~	10500]					

Numeric l	lnput Objec	t's Properties	X
General	Data Entry	Numeric Format Security Shape Font Profile	
Г	Description :	1	
-Read a	ddress —		
	PLC name :	Local HMI	~
Г)evice type :	LW-9220 (32bit) : password	~
	Address :	L W9220 System tag	

2. Create set bit object for user logout.

Set Bit Object's Properties
General Security Shape Label Profile
Description :
PLC name : Local HMI
Write address
Device type : LB-9050 : user logout
Address : LB9050 System tag
Address format : ddddd [range : 0 ~ 11999]
🗌 Index register
Write after button is released
Attribute
Set style : Set ON



3. Create bit lamp for indicating when password error occurs.

Bit Lamp Object's Properties	×
General Security Shape Label Profile	_
Description :	
- Read address	
PLC name : Local HMI	
Device type : LB-9060 : password error 🛛 🗸 🗸	
Address : LB9060 System tag	
Address format : ddddd [range : 0 ~ 11999]	
🗌 Index register	

4. Create two numeric input objects for user to change password on-line.

Numeric Input Obje	ct's Properties	×
General Data Entry	Numeric Format Security Shape Font Profile	_
Description :		
-Read address		
PLC name :	Local HMI 💌	
Device type :	L W-9500 (32bit) : user 1's password 💌	
Address :	L W9500 System tag	
Address format :	ddddd [range : 0 ~ 10500]	
Numeric Input Obje	ct's Properties	×
Numeric Input Obje General Data Entry	ct's Properties	×
Numeric Input Obje General Data Entry Description :	Ct's Properties	×
Numeric Input Obje General Data Entry Description :	Ct's Properties	×
Numeric Input Obje General Data Entry Description :	ct's Properties	×
Numeric Input Obje General Data Entry Description : Read address PLC name :	Ct's Properties	×
Numeric Input Obje General Data Entry Description : - Read address PLC name : Device type :	Ct's Properties Font Profile Numeric Format Security Shape Font Profile Local HMI LW-9502 (32bit) : user 2's password	×
Mumeric Input Obje General Data Entry Description : - Read address PLC name : Device type : Address :	ct's Properties Numeric Format Security I Local HMI LW-9502 (32bit) : user 2's password LW9502 System tag	×

5. Create set bit object for user to update password.



Set Bit Object's Properties 🛛 🔀		
General Security Shape Label Profile		
Description :		
PLC name : Local HMI		
- Write address		
Device type : LB-9061 : update password (set ON)		
Address : LB9061 System tag		
Address format : ddddd [range : 0 ~ 11999]		
🗌 Index register		
Write after button is released		
- Attribute		
Set style : Set ON		

6. Create two toggle switch objects, and set different object classes.

Toggle Switch Object's Properties			
General Security Shape Label Profile			
Safety control			
Min. press time (sec) : 1			
1. Display confirmation request Max. waiting time (sec) : 10			
~ Interlock			
✓ Use interlock function			
Hide when disabled			
🗹 Grayed label when disabled			
• Enable when Bit is ON • Enable when Bit is OFF			
PLC name : Local HMI			
Device type : LB			
Address : 2 System tag			
Address format : ddddd [range : 0 ~ 11999]			
2. Index register			
-User restriction			
Object class : Class A			
Disable protection permanently after initial activation			
Display warning message if access denied			
Make invisible while protected			



[In windoow11]

7. Create two set bit objects and set different interlock protections.

Set Bit Object's Properties	<
General Security Shape Label Profile	
Safety control	
Min. press time (sec) : 📘	
Display confirmation request Max. waiting time (sec) : 10	
Interlock	
Use interlock function	
Hide when disabled	
Grayed label when disabled	
<u>© Enable when Bit is ON</u> O Enable when Bit is OFF	
PLC name : Local HMI	
Device type : LB	
Address : 20 System tag	
Address format : ddddd [range : 0 ~ 11999]	
Set Bit Object's Properties	<

et Bit Object's Properties	
General Security Shape Label	Profile
~ Safety control	Min. press time (sec) : 📘
Display confirmation request	Max. waiting time (sec) : 10
Interlock Use interlock function	
Hide when disabled Grayed label when disabled	
○ Enable when Bit is ON	Senable when Bit is OFF
PLC name : Local HMI	~
Device type : LB	
Address : 20	System tag

- 8. Create toggle switch object (LB20) as interlock button.
- 9. Create two toggle switch objects and set different "min. press time".

General Security Shape Label Pro	ofile
- Safety control	Min. press time (sec) : 1
Display confirmation request	Max. waiting time (sec) : 3
_ Interlock	
Use interlock function	

10. Create two toggle switch objects and set different "waiting time".

Toggle Switch Object's Properties	
General Security Shape Label Profile	
Safety control	
	Min. press time (sec) : 0
Display confirmation request	Max. waiting time (sec) : 2
_ Interlock	
Use interlock function	



3. Addresses

The addresses used in this demo project are listed below. Please change these addresses according to your system.

Object	Address	Object ID	Detail
Window10			
Numeric	LW9219	NE_0	User no.
input			
	LW9220	NE_1	Password
	LW9500	NE_2	User1 password
	LW9502	NE_3	User2 password
Set bit	LB9050	SB_0	User logout
	LB9061	SB_1	Update password
Bit lamp	LB9060	BL_0	Password error
Toggle	LB1	TS_0	Class B button
switch			
	LB0	TS_1	Class A button
	LB2	TS_2	Interlock
Function key		FK_0	Change full-screen window to no.11
Window11			
Set bit	LB10	SB_0	Button
	LB10	SB_1	Button
Toggle	LB20	TS_0	Interlock
switch			
	LB5	TS_1	Button (min. press time)
	LB6	TS_2	Button (min. press time)
	LB8	TS_3	Button (display confirmation request)
	LB9	TS_4	Button (display confirmation request)
Bit lamp	LB20	BL_0	Display text
	LB20	BL_1	Display text
Function key		FK_0	Change full-screen window to no.10