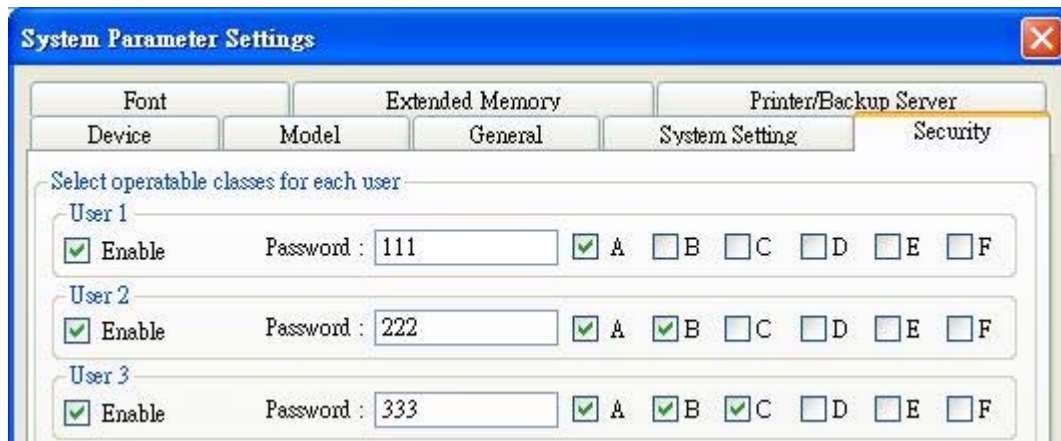


How to use security function

The following is an example to illustrate the steps of security feature:

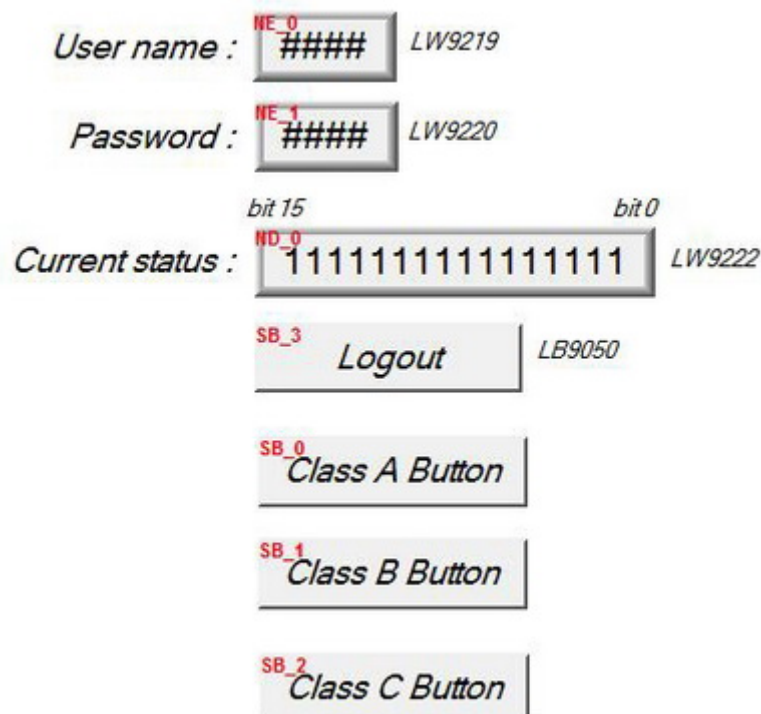
Step 1

First of all, create a new project. Go to System parameter settings / Security, add three users and set different passwords and classes.

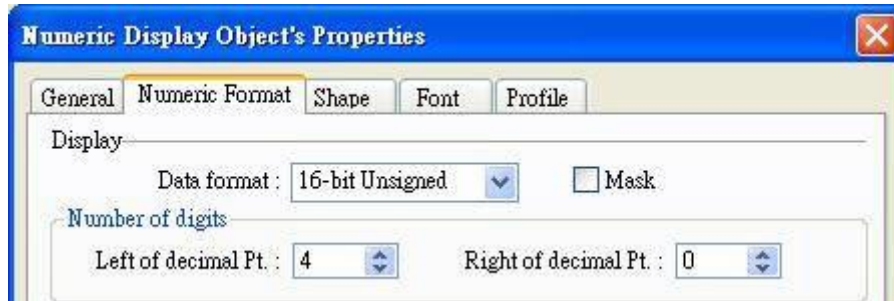


Step 2

Set objects in Window_10 as below:



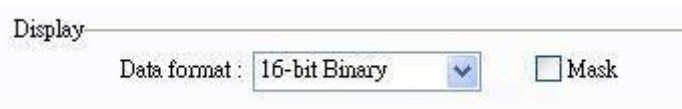
[NE_0] and [NE_1] are Numeric input objects where address are [LW9219] and [LW9220] for inputting user ID and password. [LW9219] is for inputting user ID (1~12), with the length of 1 word, in the form of 16-bit Unsigned as below.



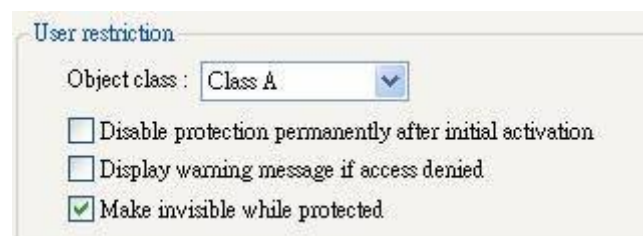
[LW9220] is for inputting user password with the length of 2 words, in the form of 32-bit Unsigned as below.



[ND_0] is Numeric display object with address [LW9222] to indicate user's state. The data is in the form of 16-bit Binary.



[SB_0] ~ [SB_2] are Set Bit objects which are set with different classes but selected "Make invisible while protected". i.e. [SB_0] is class A, [SB_1] is class B, [SB_2] is class C. The setting of [SB_0] object:



[SB_3] is Set Bit object with address [LB9050] for user logout:

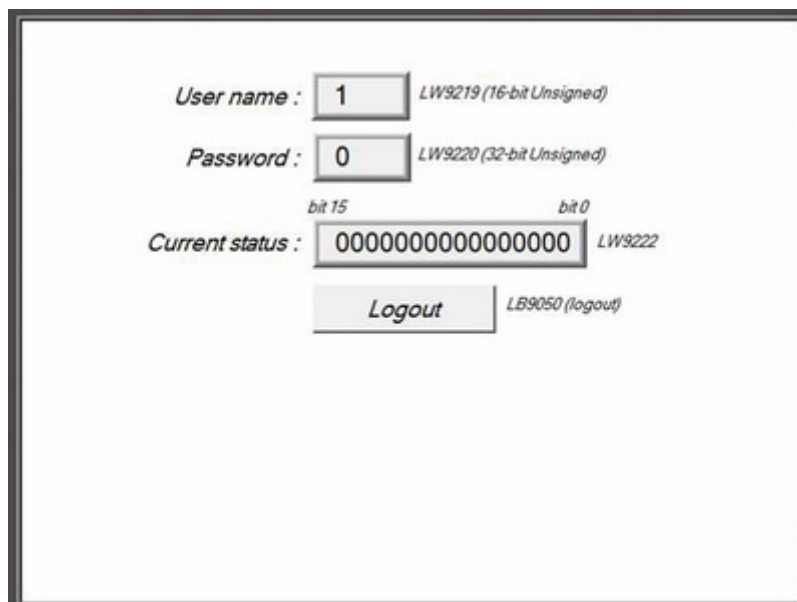


Step 3

After completing the settings of the objects, execute off-line simulation for the project.

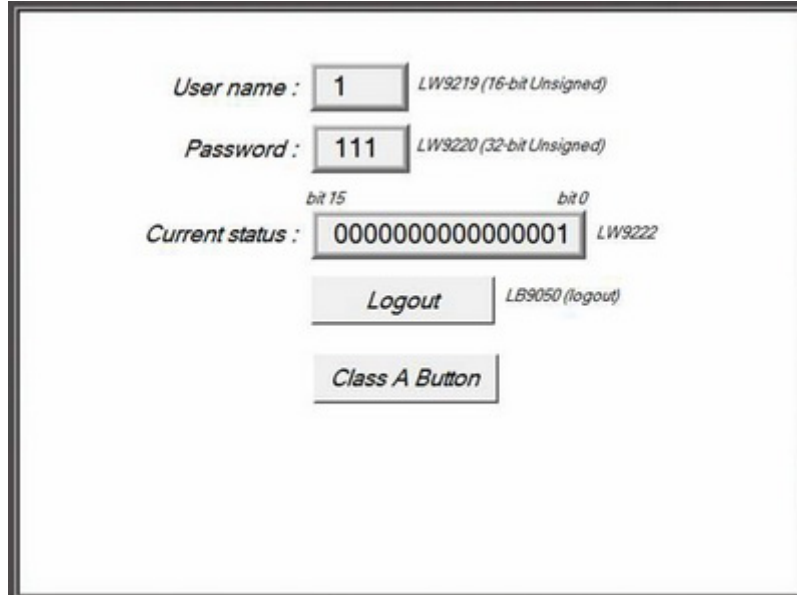
The illustration as below is initial screen of off-line simulation. At this time, no user is entered.

[LW9222] shown "0000000000000000" means current user only can use object with "None" class. Moreover, [SB_0] ~ [SB_2] are the objects with the security levels of class A ~ class C and at the same time "Make invisible while protected" is selected, therefore, [SB_0] ~ [SB_2] objects are hidden by the system.



Step 4

When the user inputs the password “111”, the screen will become:



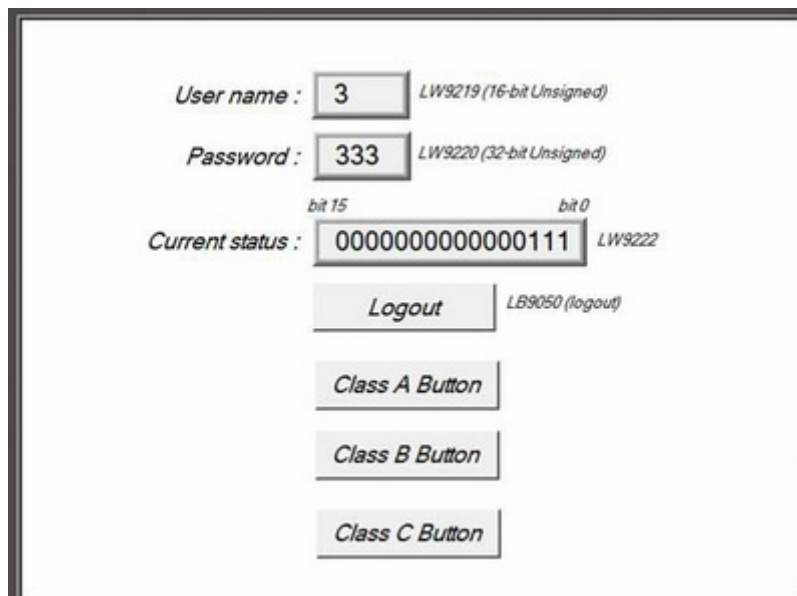
The screenshot shows a user interface with the following elements:

- User name :** LW9219 (16-bit Unsigned)
- Password :** LW9220 (32-bit Unsigned)
- Current status :** LW9222. Above the input, "bit 15" is positioned above the first zero and "bit 0" is positioned above the last one.
- Logout** LB9050 (logout)
- Class A Button**

The user 1 is permitted to use object with class A. Consequently, [SB_0] appears and allows user to operate. Now, bit 0 in [LW9222] becomes 1.

Step 5

Next, when the user inputs the user 3's password (333), the screen will become:



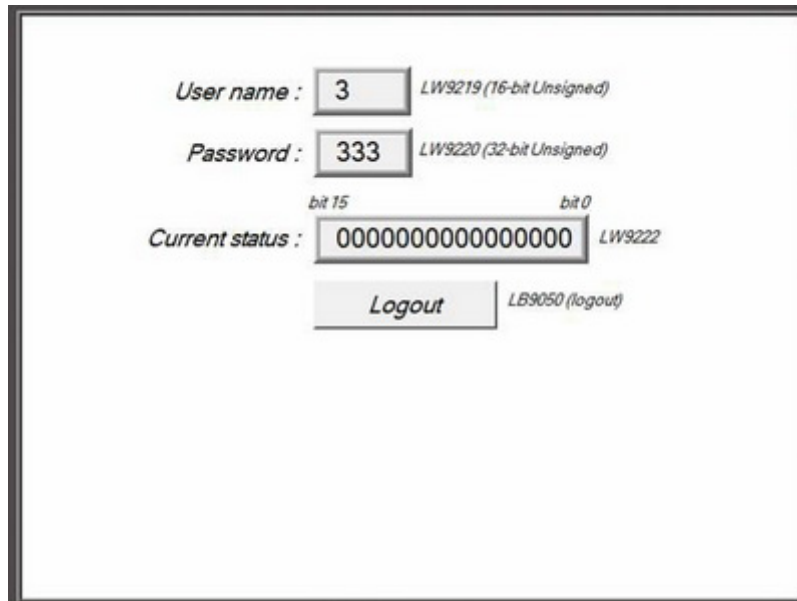
The screenshot shows a user interface with the following elements:

- User name :** LW9219 (16-bit Unsigned)
- Password :** LW9220 (32-bit Unsigned)
- Current status :** LW9222. Above the input, "bit 15" is positioned above the first zero and "bit 0" is positioned above the last one.
- Logout** LB9050 (logout)
- Class A Button**
- Class B Button**
- Class C Button**

The user 3 is permitted to use object with class A, B, C. Now, bit 0 ~ bit 3 in [LW9222] become 1 to confirm the current user is allowed to use objects with class A, B, C.

Step 6

At this time, if [LB9050] is pressed and force current user to logout, the system will return to initial state. In other words, current user only can use object with "None" class.



The screenshot displays a security interface with the following elements:

- User name :** LW9219 (16-bit Unsigned)
- Password :** LW9220 (32-bit Unsigned)
- Current status :** LW9222. Above the input field, "bit 15" is positioned above the 15th digit and "bit 0" is positioned above the 16th digit.
- Logout** LB9050 (logout)