

22



Using Passwords for Screens

This chapter explains how to add password security to screens in GP-Pro EX and the basic operations for changing the settings.

Please start by reading “22.1 Settings Menu” (page 22-2) and then turn to the corresponding page.

22.1	Settings Menu	22-2
22.2	Creating Limited Access Screens	22-3
22.3	Limiting Screen Access by Authority	22-5
22.4	Password Input Window.....	22-7
22.5	Common [Security Settings] Settings Guide	22-9
22.6	Restrictions	22-12

22.1 Settings Menu

Creating Limited Access Screens

☞ Setup Procedure (page 22-3)

Level 0
Menu Screen
Line Manager Screen
Beep
Screen Change
Beep
Password Input
Level 1
Line Manager Screen
Password matches
Display the destination screen

Touch "ESC" to return to the menu screen (previous screen).

Limiting Screen Access by Authority

☞ Setup Procedure (page 22-5)

Level 1
Line Manager Screen
Factory Length Screen
Beep
Screen Change
Beep
Password Input
Level 5
Plant Manager Screen
Password matches
Display the destination screen

Change again to the Plant Manager Screen

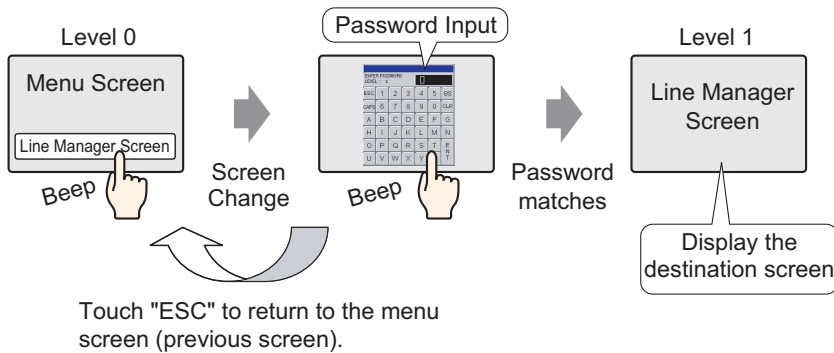
22.2 Creating Limited Access Screens

22.2.1 Setup Procedure

NOTE


- Please refer to the settings guide for details.
 ☞ “22.5 Common [Security Settings] Settings Guide” (page 22-9)

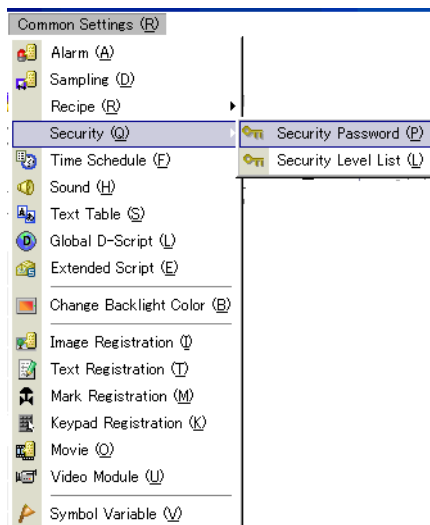
Sets a Line Manager screen with a security level and password. This example uses Sampled Data B2, security level 1 and password 1111.



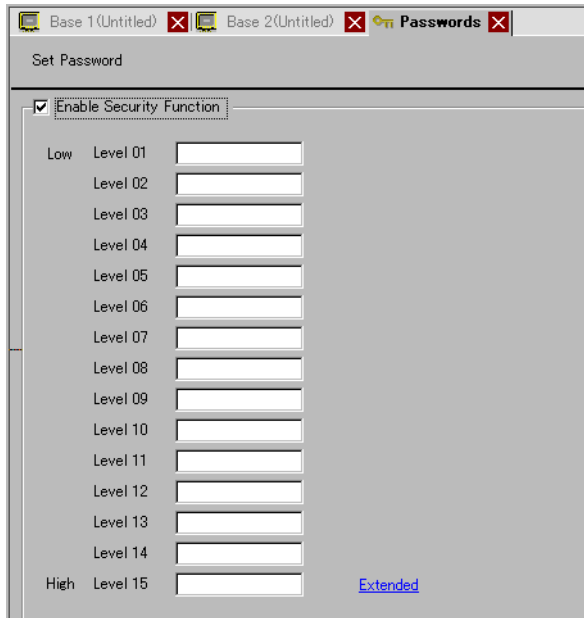
NOTE

- Security level 0 means no security is set.

- 1 From the [Common Settings (R)] menu, point to [Security (Q)] and select [Security Password] or click  on the toolbar.



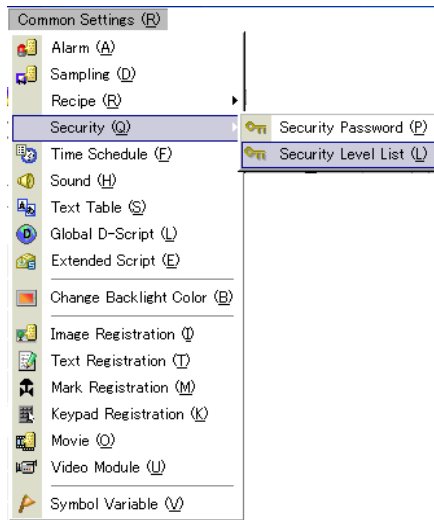
2 The Passwords window opens. Select the [Enable Security Function] check box, and type the password "111" in [Level 01].



NOTE

- Up to eight characters are allowed for each password.

3 From the [Common Settings (R)] menu, point to [Security (Q)] and select [Security Level List].




4 For [Sampled Data] B2, set the [Security Level] to 1. The security settings are complete.

Screen	Security Level	Title
B1	0	menu screen
B2	1	line common

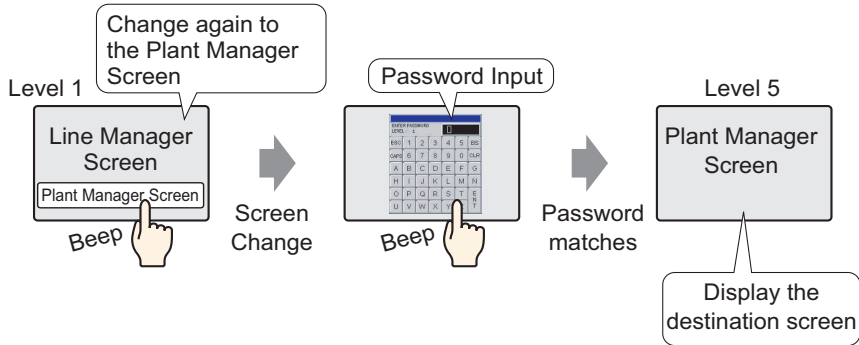
22.3 Limiting Screen Access by Authority


22.3.1 Setup Procedure

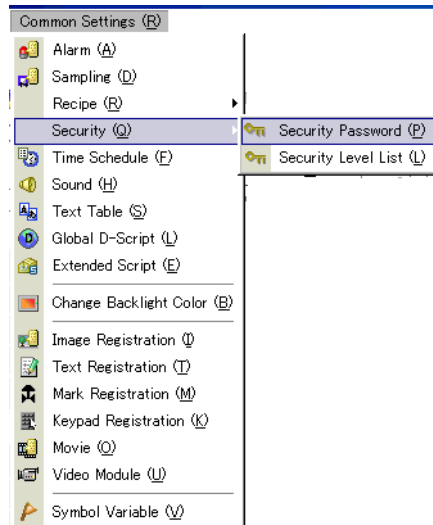
NOTE

- Please refer to the settings guide for details.
 "22.5 Common [Security Settings] Settings Guide" (page 22-9)

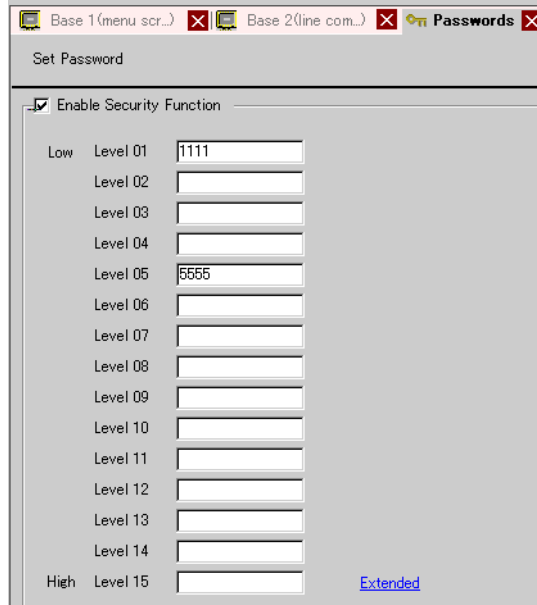
Sets a Plant Manager Screen with a security level and a password. This example uses Sampled Data B3, security level 5 and password 5555.



- 1 From the [Common Settings (R)] menu, point to [Security (Q)] and select [Security Password] or click  on the toolbar.

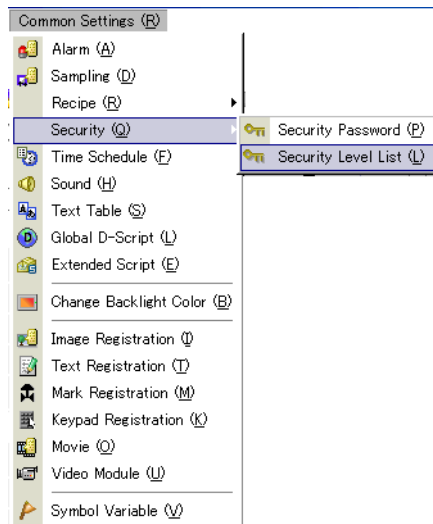


2 The Passwords window opens. Select the [Enable Security Function] check box, and type the password "1111" in [Level 01] and the password "5555" in [Level 05].



NOTE • Up to eight characters are allowed for each password.

3 From the [Common Settings (R)] menu, point to [Security (Q)] and select [Security Level List].



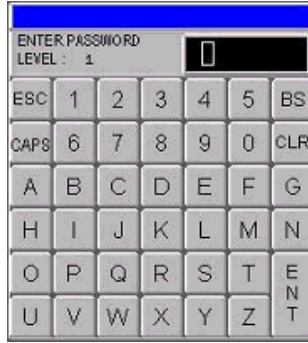
4 For [Sampled Data] B2, set the [Security Level] to 1. For [Sampled Data] B3, set the [Security Level] to 5. The security settings are complete.

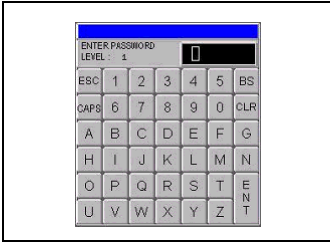
Screen	Security Level	Title
B1	0	menu screen
B2	1	line commander screen
B3	5	Factory commander screen

22.4 Password Input Window

22.4.1 Introducing the Password Input Window

The password input window appears when you access a screen with a higher security level than the one that is currently displayed. When entering the password, asterisks appear to hide the password from other users.



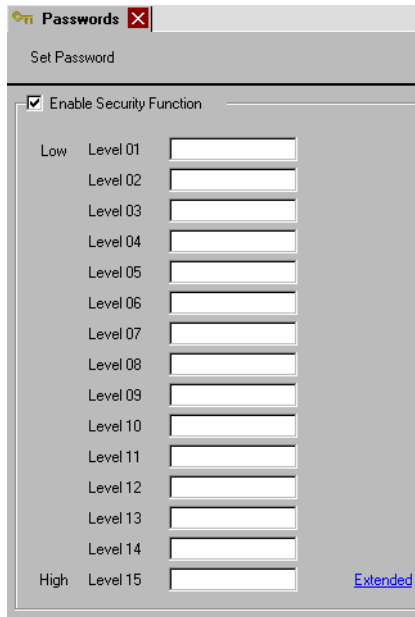
Display	Description
ESC	<p>Pressing ESC closes the password input window.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;">  </div> <div style="font-size: 2em; margin-right: 20px;">➔</div> <div style="border: 1px solid black; padding: 20px; text-align: center; width: 200px;"> <p>Previous screen</p> </div> </div> <p>NOTE</p> <ul style="list-style-type: none"> To enable the ESC key to close the password input window when a change screen operation occurs from the device/PLC, you must set the [Reflect in Device/PLC] option. In the System Settings window, select [Main Unit] then in the [Display] tab select the [Reflect in Device/PLC] check box. <p>☞ “5.14.6 [System Settings] Setting Guide ■ [Display Unit] Settings Guide ◆ Display • Screen Settings” (page 5-110)</p>
CAPS	<p>Changes between uppercase and lowercase letters. When the [CAPS] key is displayed in the reverse color (black), it will input lowercase letters.</p> <p>NOTE</p> <ul style="list-style-type: none"> Even if you change between uppercase and lowercase letters, the keypad will only display in uppercase letters.
ENT	<p>Confirm the inputted password.</p>

Continued

Display	Description						
<p>LEVEL (Request Level Display)</p>	<p>Shows the security level of the screen you are accessing.</p> <div data-bbox="633 227 976 401" style="text-align: center;"> <p>The screenshot shows a terminal window with a blue title bar. The text 'ENTER PASSWORD' is displayed at the top. Below it, 'LEVEL: 1' is shown, with the '1' highlighted by a red circle. To the right of the text is a black rectangular area representing a password input field. Below the terminal window is a numeric keypad with buttons for ESC, CAPS, and digits 1-0, along with BS and CLR.</p> </div> <p>NOTE</p> <ul style="list-style-type: none"> The current level and the request level can be seen from the internal device addresses. The values are stored in the following internal device addresses. <table border="0" style="width: 100%;"> <tr> <td style="width: 150px;">LS9301</td> <td style="width: 150px; border: 1px solid black; height: 15px;"></td> <td>Current Level</td> </tr> <tr> <td>LS9302</td> <td style="border: 1px solid black; height: 15px;"></td> <td>Request Level</td> </tr> </table> <p>LS9301 and LS9302 are read-only. When there is a password request in LS9302, the security level is stored and the value returns to 0 when the password input is complete.</p>	LS9301		Current Level	LS9302		Request Level
LS9301		Current Level					
LS9302		Request Level					

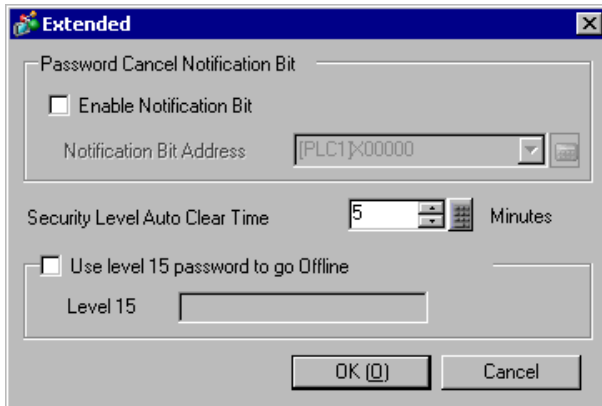
22.5 Common [Security Settings] Settings Guide

22.5.1 Password Settings



Setting	Description
Enable Security Function	Select to use the security function.
Level 01 - Level 15	<p>Set the password for security level 1 to 15. Passwords must be 1 to 8 characters and are case-sensitive. Set passwords only for the security levels you want to use.</p> <p>NOTE</p> <ul style="list-style-type: none"> • The same password can not be used for more than one security level. • By setting a password in security level 15, you can change all security level passwords on the GP (offline mode).
Extended	<p>Displays the [Extended] dialog box.</p> <p>☞ “ ■ Extended” (page 22-10)</p>

■ Extended

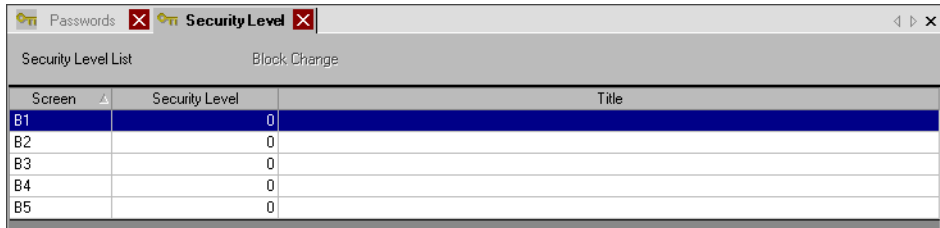


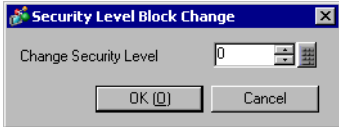
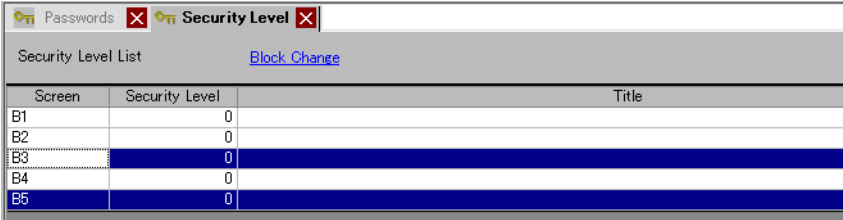
Setting	Description												
Enable Notification Bit	Select this check box to send a notification when the ESC key is used to exit the password input window after a change screen operation initiated by the device/PLC. This will not work when changing screens by touch.												
Notification Bit Address	When you cancel a password input window with the [ESC] key, the designated Notification Bit Address turns ON. If you haven't set the [Reflect in Device/PLC] option, when this Notification Bit turns ON, change the [Change-To Sampled Data] ^{*1} to the same number as [Current Sampled Data] in the device. The password input window closes when the screen numbers match.												
Security Level Auto Clear Time	This feature sets the length of time required before the security level status returns to "0", assuming no GP unit operations/ screen changes are performed. The time can be set from 1 to 60 minutes. <div style="border: 1px solid black; padding: 2px; width: fit-content;">NOTE</div> <ul style="list-style-type: none"> • If "0" is entered for the min. value, the security level status is not be automatically cleared. • When the LS9300's 0 bit goes from OFF→ON by performing the internal device address's bit action, the security level is cleared and the current security level stored in LS9301 changes to 0. After the Security Level Clear occurs, return LS9300's 0 bit to OFF. (LS9301 is read-only.) <div style="margin-top: 10px;"> <table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="border: none;">LS9300</td> <td style="border: none; text-align: center;">0</td> <td style="border: none;"></td> <td style="border: none;"></td> </tr> <tr> <td style="border: none;"></td> <td style="border: 1px solid black; padding: 2px;">Reserved (0)</td> <td style="border: none; text-align: center;"> </td> <td style="border: none;">Security Level Clear Bit</td> </tr> <tr> <td style="border: none;">LS9301</td> <td style="border: 1px solid black; padding: 2px;"></td> <td style="border: none; text-align: center;"> </td> <td style="border: none;">Stores the current security level</td> </tr> </table> </div>	LS9300	0				Reserved (0)		Security Level Clear Bit	LS9301			Stores the current security level
LS9300	0												
	Reserved (0)		Security Level Clear Bit										
LS9301			Stores the current security level										
Use level15 password to go Offline	When you change to OFFLINE mode, the password input window will appear on the GP display and request the security level 15 password. <div style="border: 1px solid black; padding: 2px; width: fit-content;">NOTE</div> <ul style="list-style-type: none"> • When you change back to online mode, the security level changes to "0" (no password required). 												
Level 15	Set the password for security level 15.												

*1 When working with [Change-To Sampled Data] and [Current Sampled Data], and in the System Settings window's [Main Unit]-[System Area] tab you select the [Enable System Data Area] check box, to use a connected device to define the [Change-To Sampled Data], set it up in the System Data Area.

“5.14.6 [System Settings] Setting Guide ◆ System Area Settings” (page 5-133)

22.5.2 Security Level List



Setting	Description
Sampled Data	Displays the screen number.
Security Level	Set each screen's security level. NOTE <ul style="list-style-type: none"> When setting multiple screens to the same security level, please use [Block Change].
Comment	Displays each screen's title.
Block Change	Updates the selected security levels for multiple screens at one time. Select the screens to change and click [Block Change]. The Security Level Block Change dialog box appears and allows you to change the level.  NOTE <ul style="list-style-type: none"> To select multiple screens, drag the cursor or select rows while holding down the CTRL key. 

22.6 Restrictions

22.6.1 Restrictions for a Password Input Window

- The password input window format cannot be edited.
- Passwords cannot be entered using a device/PLC.
- Passwords cannot be entered using a Bar-Code Reader.
- If the Trigger Bit of a Local Window or Global Window turns ON while the password input window is displayed, the Local or Global Window is displayed once the password input window closes.
- On Window parts that call Windows with security, do not set the [Continuous Read] option. The password input window is not displayed on the GP and the security does not work.
- If you assign a security level to a screen, but the level does not have a password assigned, you must enter the password for the next higher security level that has a password assigned. If there is no higher security level with a registered password, you will not be able to change to that screen.

1 When the passwords are set as follows and the screen changes to a level 4 screen

Level 1	AAAA
Level 2	BBBB
Level 3	CCCC
Level 4 to 14	None
Level 15	ZZZZ

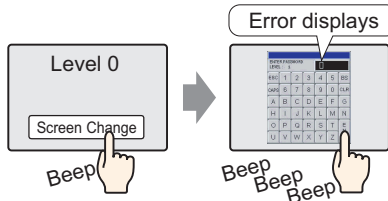


Input the level 15 password

There is a password higher than level 4, so the screen change is permitted

2 When the passwords are set as follows and the screen changes to a level 4 screen

Level 1	AAAA
Level 2	BBBB
Level 3	CCCC
Level 4 to 15	None



Even if you have inputted something, pressing the [ESC] key will return to the previous screen.

There is no password higher than level 4, so the screen change is not permitted

- If you set a security level to the initial screen, the screen displays on the GP before the password input window appears. Initial screen operations run even while the password input window is displayed. You cannot touch [ESC] to close the password input window; you need to input the correct password.