

V-SFT Ver. 6.1.6.0 Update Information

	V9	TSi/TS	V8i(N)/V8(N)	X1
System program	Ver. 2.600	Ver. 2.390	Ver. 2.390	Ver. 1.300 ^{*2}
OS	Ver. 4.40 ^{*1}			



^{*1} A storage device is required for the update.

^{*2} Please download the X1 update program from our website. For the update procedure, refer to the "Update Procedure" provided with the X1 update program.

Connection

1 Additional connectable model: MITSUBISHI ELECTRIC FX5UJ series

Applicable model: V9/TSi/TS/V8i(N)/V8(N)/X1
Device: MITSUBISHI ELECTRIC FX5U/5UC series(Ethernet)
MITSUBISHI ELECTRIC FX5U/5UC series

2 Additional connectable model: JTEKT TOYOPUC-Nano 10GX

Applicable model: V9/TSi/V8i(N)/X1
Device: JTEKT TOYOPUC-Nano(Ethernet)

3 Additional connectable device: Azbil NX(CPL)(Ethernet TCP/IP)

Applicable model: V9/TSi/V8i(N)/X1
Device: Azbil NX(CPL)(Ethernet TCP/IP)

4 Additional connectable device: SHINKO TECHNOS PCB1 Series

Applicable model: V9/TSi/TS/V8i(N)/V8(N)/X1
Device: SHINKO TECHNOS PCB1 Series

5 Additional connectable device: SHINKO TECHNOS JIR-301-M Series

Applicable model: V9/TSi/TS/V8i(N)/V8(N)/X1
Device: SHINKO TECHNOS JIR-301-M Series

6 Additional connectable device: SHINKO TECHNOS BCx2 Series

Applicable model: V9/TSi/TS/V8i(N)/V8(N)/X1
Device: SHINKO TECHNOS BCx2 Series

7 Connectable device extended specifications: Hitachi HIDIC-S10/ABS Multi-link 2(Ethernet) supported

Applicable model: V9
Device: Hitachi HIDIC-S10/ABS

Function

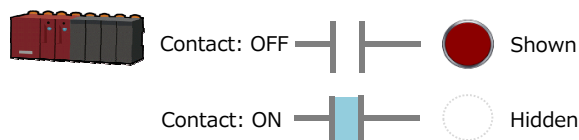
1 Item show/hide function: Display condition "bit state OFF " supported

Applicable model: V9/X1

<Overview>

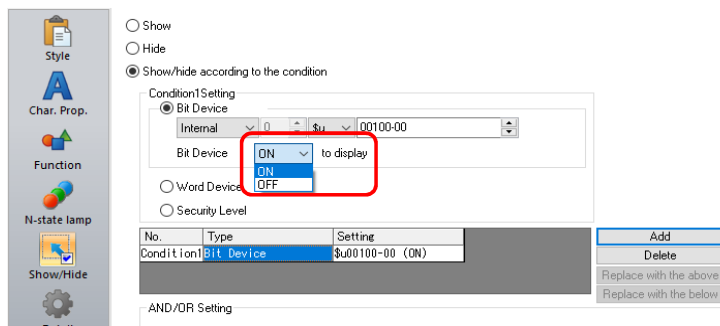
The OFF state is added to the display condition by bit device.
The item can be shown with bit state OFF and hidden with bit state ON.

Screen configuration is possible for each item according to the PLC ladder programs.



<Setting location>

Each item → [Show/Hide] → [Show/hide according to the condition]
→ [Bit Device OFF to display]



2 Alarm: Parameters extended from 8 to 32

Applicable model: V9/X1

<Overview>

Up to 32 parameters can be registered per alarm device memory address in [System Setting] → [Alarm Server] → [Alarm Device] → [Parameter].

3 PDF viewer: Extended specifications

Applicable model: V9

* For details, refer to the V9 Series Reference Manual 2.

<Overview>

The location of the referenced PDF file can be specified with a switch function or PLC command. In addition, file names can be specified in the device memory, so that the PDF viewer can be used according to user operations.

<Setting location>

When using a switch:

Switch settings window →
[Function: PDF Viewer Display]

When using a PLC command:

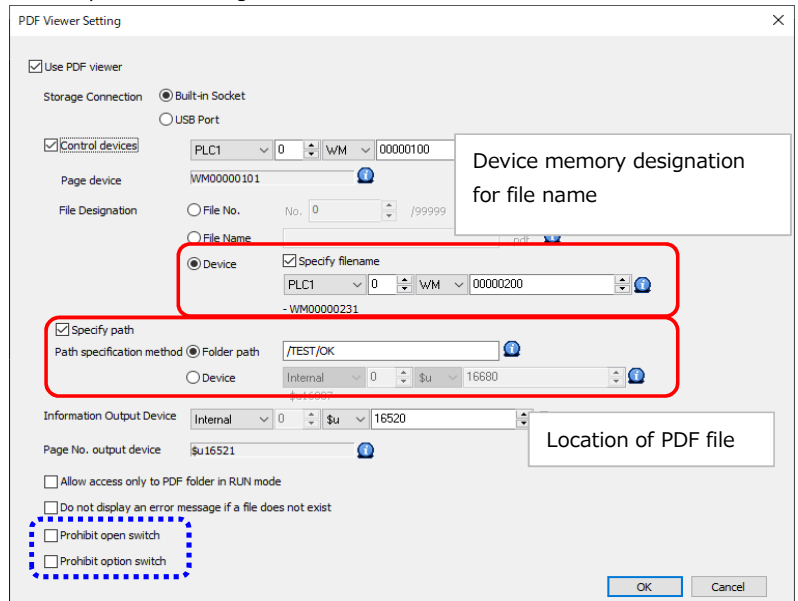
[System Setting] → [Other] → [PDF Viewer Setting]

<Remarks>

The [Open] or [Option] switch in the PDF viewer can be disabled. Hiding unused switches in the PDF viewer prevents incorrect user operations.



Example: When using a PLC command



4 Macro command IF (MULTI): Extended specifications

Applicable model: V9/X1

<Overview>

The number of conditions for the IF (MULTI) macro command is extended from 2 to 4. The reconditional branch macro command IFELSE (MULTI) can also be used during the IF (MULTI) command. Each command requires only one line, even for complex processes with multiple conditions.

Red text: NEW !

Example: Reconditional branch IFELSE (MULTI)

```
IF((condition 1 AND/OR condition 2) AND/OR condition 3) AND/OR condition 4 THEN
(1)
IFELSE ((condition a AND/OR condition b) AND/OR condition c)AND/OR condition d
THEN
(2)
ENDIF
```

Up to four conditions can be specified for each command.

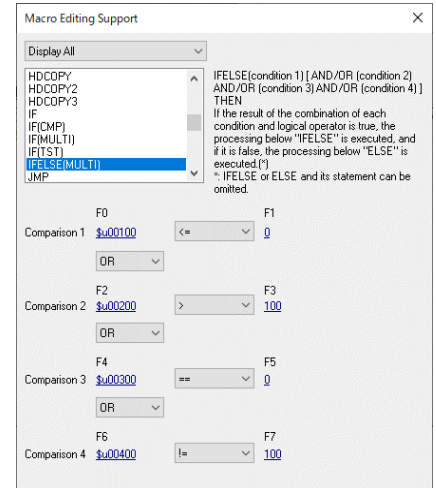
<Example>

```
IF($u100 >= 100) OR ($u200 < 20) AND ($M0 >= 0) AND ($M0 < 10) THEN (W)
condition 1 condition 2 condition 3 condition 4
$u200 = $u200 + 1 (W)

IFELSE($u100 <= 0) OR ($u200 > 100) OR ($u300 == 0) OR ($u400 != 100) THEN (W)
condition condition b condition c condition
$u100 = $u100 + 1 (W)

ENDIF
```

"\$u200 = \$u200 + 1" is executed when \$u100 is greater than 100 (condition 1) or \$u200 is less than 20 (condition 2) and \$M0 is greater than 0 (condition 3) and less than 10 (condition 4).
If above four condition are not satisfied, execute IFELSE macro.
"\$u100 = \$u100 + 1" is executed when \$u100 is less than 0 (condition a) or \$u200 is grater than 100 (condition b) and \$u300 is 0 (condition c) and \$u400 is not 100 (condition d).

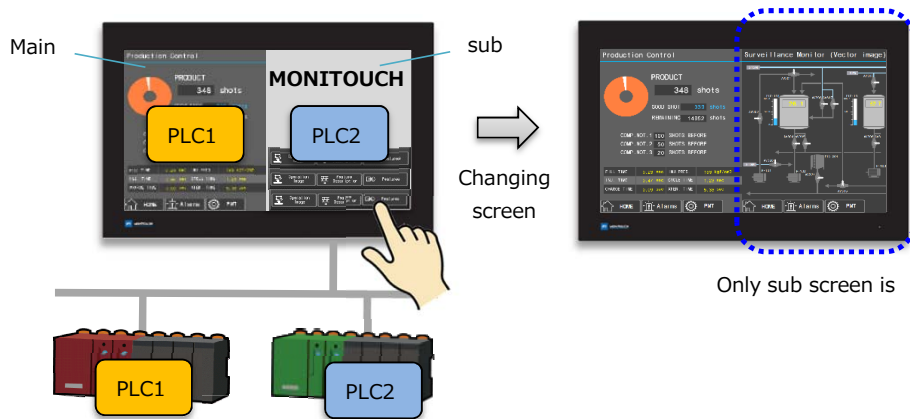


5 Multi-Display: 2-split screen

Applicable model: X1

<Overview>

The X1 unit can launch two X1 apps and display the screens of each app side by side (landscape) or up and down (portrait). Both X1 apps can be displayed and operated separately. Space saving and further cost reduction are possible.



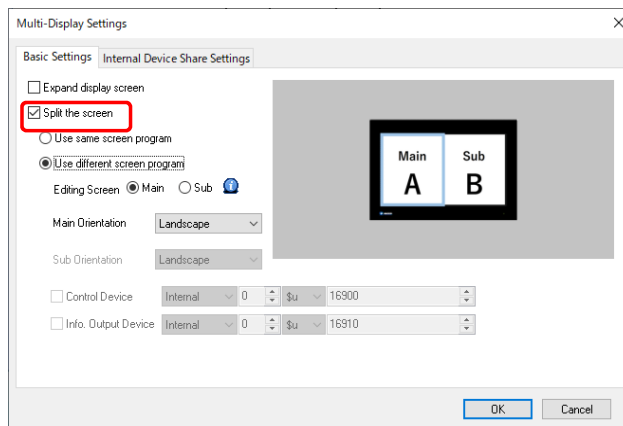
Portrait orientation is also available!



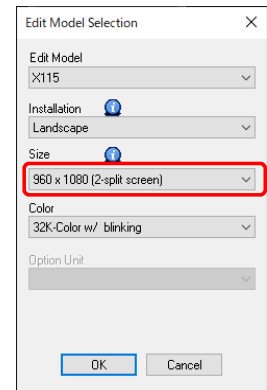
<Setting location>

[System Setting] → [Other] → [Multi-Display Setting] → [Split the screen] checkbox
or

[System Setting] → [Hardware Setting] → [Multi-Display] → [Split the screen] checkbox



* [Edit Model Selection] → [Size] will be cut in half.

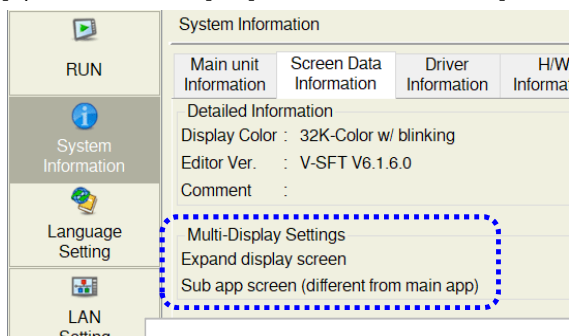


* For details, refer to "15 Multi-Display" in the X1 Series Reference Manual 2.

<Remarks>

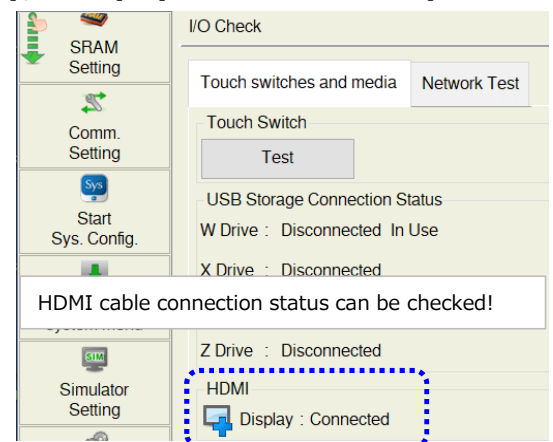
The status of Multi-Display settings and external display connection can be checked in Local mode.

- [System Information] → [Screen Data Information]



It is possible to check the status of the multi-display settings and distinguish between the main screen and the sub screen!

- [I/O Check] → [Touch switches and media]



6 Starting applications:

Specifying the display position/window size, 2-split screen (area for user application)

Applicable model: X1

■ Specifying the display position/window size

<Overview>

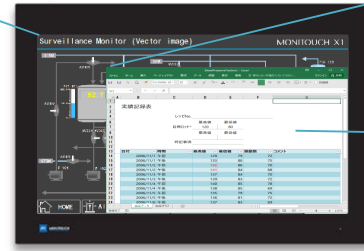
The display position and the window size can be specified.
User applications can run in desired display position and size according to the display layout.
Available for both switch function and PLC command.

(0, 0)

Example: X115

Display position
X,Y (500, 250)

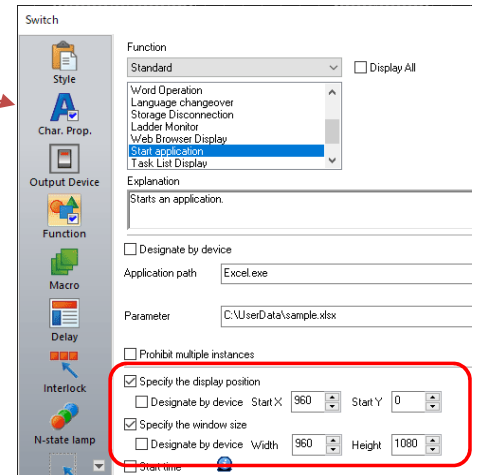
Window size
Width, Height
(1420, 830)



<Setting location>

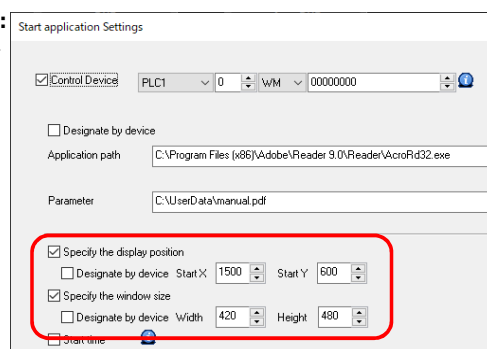
When using a switch:

Switch settings window → [Function: Start application]
→ [Specify the display position], [Specify the window size]



When using a PLC command:

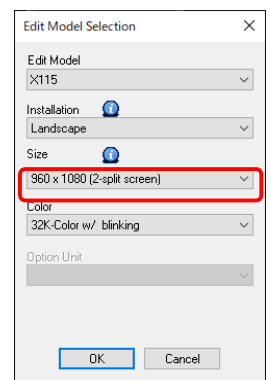
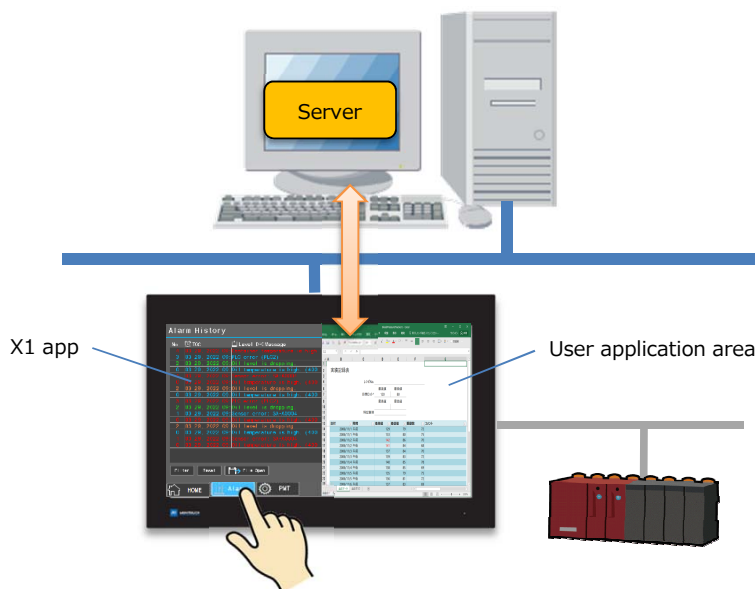
[System Setting] → [Other] →
[Start application Settings] →
[Specify the display position],
[Specify the window size]



■ 2-split screen (area for user application)

<Overview>

The display area of the X1 can be divided into two areas.
One area displays the X1 application and the other area displays the user application only.
Excel or databases containing product management data on the server can be displayed and operated any time without hiding the X1 app.
This function is used in conjunction with the display position/window size specification supported in this version.



<How to use> Example: Launching a user application with a switch on X115

1. Select [960 x 1080(2-split screen)] at [System Setting] → [Edit Model Selection] → [Size].
2. Set the starting application. See above <Setting Location> "When using a switch:".
3. Transfer the screen data and tap the switch in step 2. Excel appears in the entire user application area.

* For details, refer to "8.4 Starting Applications" in the X1 Series Reference Manual 2.

7 X1 app: External USB storage supported

Applicable model: X1

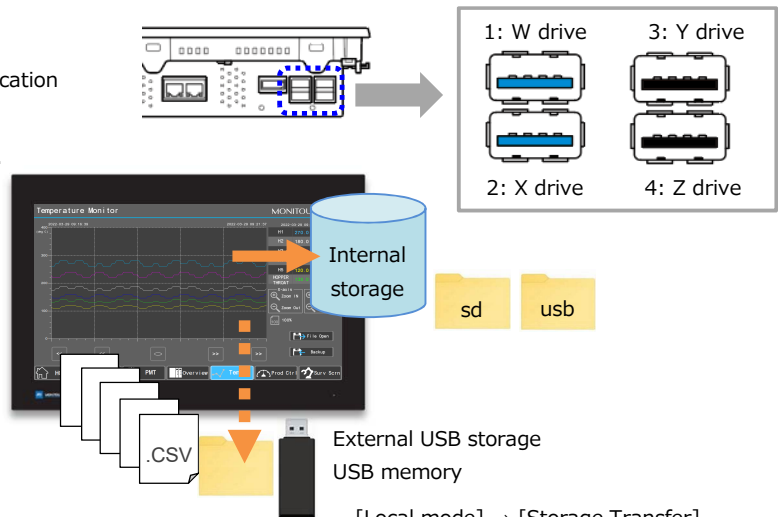
<Overview>

USB memory can be accessed directly from the X1 application as well as Windows.

So, the following operations are now possible with X1.
The drive names for USB ports 1-4 on X1 are fixed W-Z.

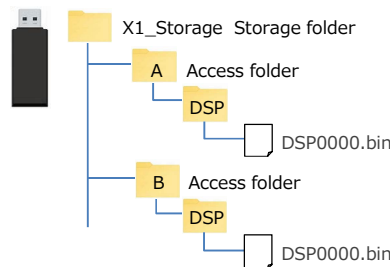
- ◆ Destination for saving each function, copying and moving folders and files

USB memory can be used as the output target of logging/alarm backup files.
Folders and files can be copied and moved between storage devices by using the COPY_FILE macro etc.

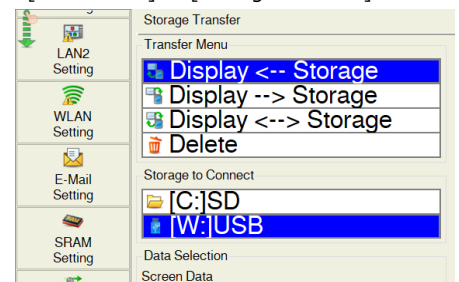


- ◆ Screen data transfer in Local mode

Since multiple screen data can be stored in the storage device, the desired screen data can be selected and changed in the Local mode when it is necessary.

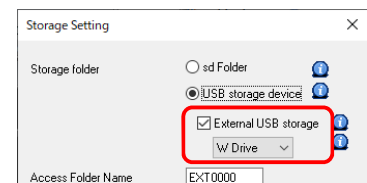


[Local mode] → [Storage Transfer]



<Necessary setting>

Specify the drive at [System Setting] → [Other] → [Storage Setting] → [External USB storage]



* For details, refer to "9 Storage" in the X1 Series Reference Manual 2.

8 Task list and on-screen keyboard: Display method added

Applicable model: X1

<Overview>

Task list and on-screen keyboard can be displayed with a switch function or PLC Command.

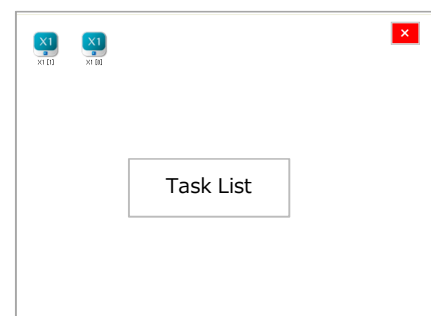
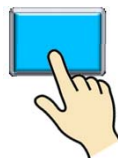
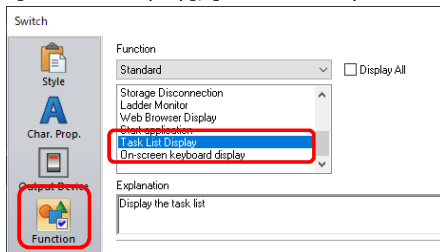
They can be displayed on any screen or at any time regardless of the [Task List] or [System Keyboard] settings on the system configurator screen.

<Setting location>

When using a switch:

Switch settings window → [Function]

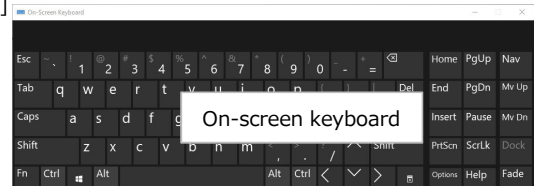
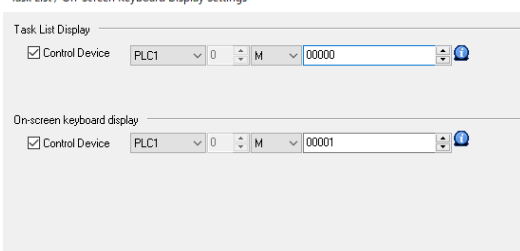
→ [Task List Display], [On-screen keyboard display]



When using a PLC command:

[System Setting] → [Other] → [Task List / On-Screen Keyboard Display Settings]

Task List / On-Screen Keyboard Display Settings



* For details, refer to "8.7 Task List / On-Screen Keyboard Display" in the X1 Series Reference Manual 2.

9 Write filter: Applicable area expanded

Applicable model: X1

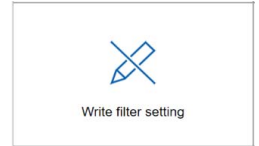
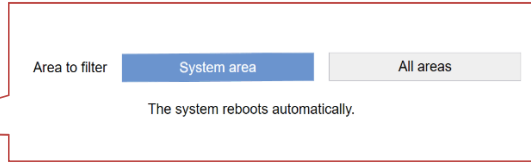
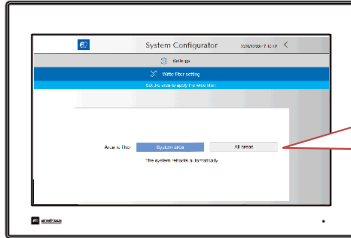
<Overview>

All areas of the internal storage can be write-protected to protect X1 against unauthorized writing from external devices.

The applicable area of the conventional write filter is the system area only (default).

<Setting location>

System Configurator → [Setting] → [Write filter setting] → [Advanced settings] → [Set the area to filter]



* When [All areas] is selected, the following message appears at lower part of Local mode.



* For details, refer to the X1 Hardware Specifications Manual.

5 V-SFT title bar: Displaying the file name at the top

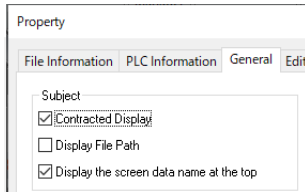
<Overview>

The screen data file name appears at the beginning of the title bar information. You can easily see the file name being edited.

<Setting procedure>

Select [Display the screen data name at the top] in [File] → [Property] → [General].

Example: When setting the following

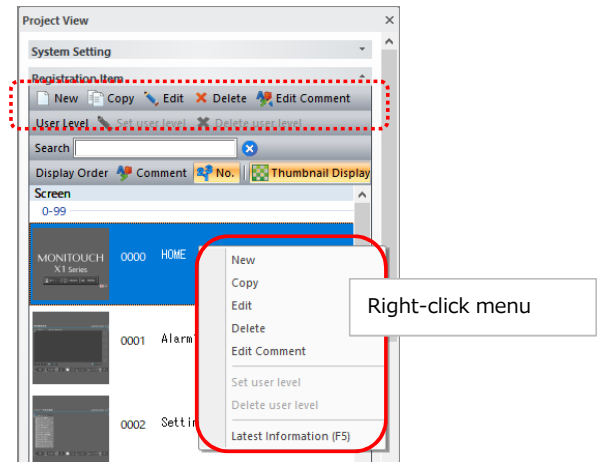


* For details, refer to the V9 Operation Manual.

6 Project view: Operability improvement

<Overview>

The menu at the upper part of the project view can be also selected from right-click menu.

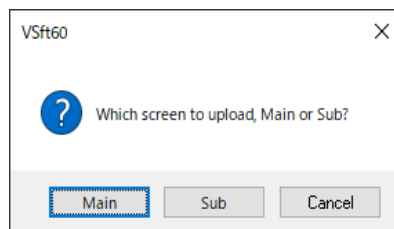


7 Multi display: Improved specifications for reading screen data

Applicable model: X1

<Overview>

If the screen data with multi-display settings has been transferred to the X1 unit *, you can select which screen data to read when reading the screen data from the X1 unit.



* This feature is available only for the screen data selected [Use different screen program] in [System Setting] → [Other] → [Multi-Display Settings].