SWX600 SOFTWARE MANUAL

DTS INSIGHT CORPORATION

Revision History

Edition	Date of Issue	Modifications
1st Edition	2019.03.15	Initial publication
2nd Edition	2019.11.29	Correction of erroneous description
	2020.02.07	Functional names are changed
		MainSystemUpdate→FIRM Update
3rd Edition		SubSystemUpdate→FPGA Update
Sid Edition		MainSystem Version→FIRM Version
		SubSystem Version→FIRM Version
		Error messages are also corrected
	2021.08.31	Functions are added
4th Edition		Edit mode description is added
		DIO control is added
5th Edition	2022.02.15	Chapter 2.35 Some part of descriptions are changed
	2022.04.14	Functions are added
		Chapter 1.3 Address Warning Area
6th Edition		Chapter 1.6 Address Warning Load
		Appendix 1. CAN set value list
		Appendix 2. CAN-FD set value list

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The wording "Programming" in this manual means writing data into a target microcomputer flash memory or an external flash memory connected to the target microcomputer.

ICON

The following table describes the meaning of icons used in this guide.



It indicates very important information. Be sure to perform an operation with extra care.



It indicates useful information and tips for operation.



It indicates references. Please see the referenced chapter of this manual and other manuals, if you needed.

Words & Terms	Description
SD card	Insert this dedicated SD card into NETIMPRESS avant main unit. This dedicated SD card is necessary for operating the main unit. By installing object files and other necessary files into a YIM folder in a SD card, you can operate NETIMPRESS avant as a stand-alone.
Buffer memory	NETIMPRESS avant has a buffer memory whose memory map is same as the programming target MCU in the each YIM folder of dedicated SD card. When the flash memory programming, data in the buffer memory is programmed into MCU. SWX600 can load / save an object file in the buffer memory, edit the buffer memory, etc.
Definition program	MCU-specific program to communicate each MCU. This is placed in the each YIM folder of the dedicated SD card. Some parts of the definition program are consisted from parameter. You can change it by using a remote controller SWX600. (To use the definition program, you need to install definition license in each dedicated SD card.)
Probe logic license	AFX is provided with probe cables, PHX400 and PHX. PHX400 supports serial and SPI by default. You can expand supported interface by adding a probe logic license.
Object file	This is the program / data file for programing into the flash memory of microcomputer by the user. NETIMPRESS supports the binary, intel HEX, and Motorola S format.

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Introduction

SWX600 is software for personal computers to control AFX series remotely. With SWX600, you can perform operations such as, create YIM folders, change parameter tables, download each file, and execute device function, via Ethernet. (Remote Mode)

With SWX600, you can also edit and save a parameter file (*.prm), which can be downloaded to SD card without connecting with NETIMPRESS (Edit mode). As to a parameter file which you have edited and saved, you can use it by downloading with [Load Parameter] after connecting SWX600 with NETIMPRESS in the Remote mode.



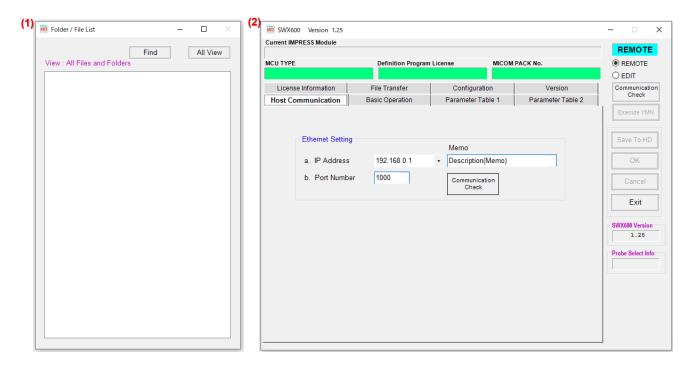
SWX600 is unavailable for NETIMPRESS next.



For how to install SWX600, usage environment, and how to start, see Start-up Manual.

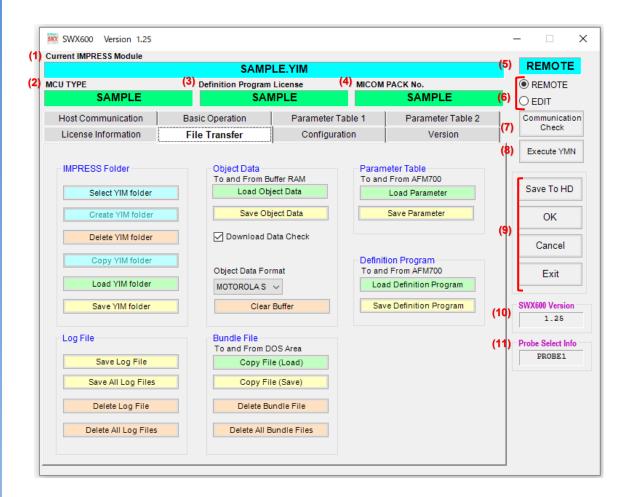
1. Display of NETIMPRESS avant

When you start SWX600, the following two windows are open.



- (1) Folder / file list window ...List of YIM folders and other files saved in your dedicated SD card is displayed here. Right click any of the YIM folder in this window, you can use shortcut menu.
- (2) Main window ... You can configure the connection setting with the programmer and operating environment of a target board. You can also execute each function.

Common parts of the main window

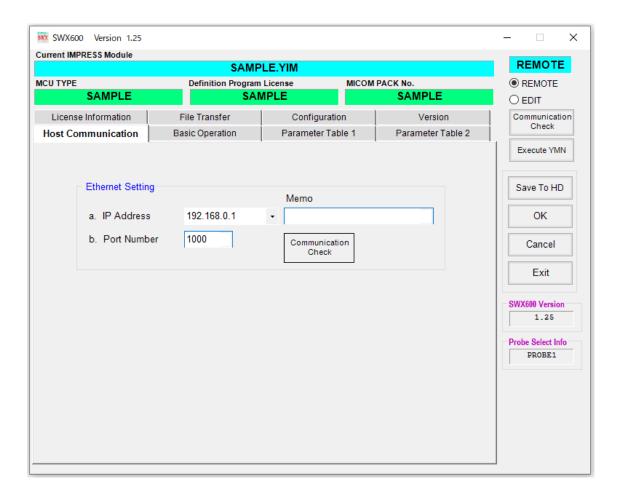


- (1) Current IMPRESS Module...YIM folder currently selected is shown here.
- (2) MCU TYPE...Type name of the MCU to be flashed is shown here.
- (3) Definition Program License...Definition program license information is shown here.
- (4) MICOM PACK No....The name of Micom-Pack currently use is shown here.
- (5) REMOTE Controller Mode...Current mode (REMOTE or EDIT) is shown here.
- (6) Mode check boxes (Remote/Edit)... Use to switch the mode between Remote and Edit.
- (7) Communication Check...Use this when you connect NETIMPRESS avant with the PC for operating SWX600.
- (8) Execute YMN...Use this when you execute YMN function.
- (9) OK ...Click this button to reflect parameters, which you have changed on SWX600, to NETIMPRESS avant.
 - Cancel ... Click this button to restore parameters, which you have changed on SWX600.
 - Exit ... Click this to quit SWX600.
- (10)SWX600 Version...Shows the version information of this software.
- (11)Probe Select Info...Shows the currently selected probe information.

Functional tab windows

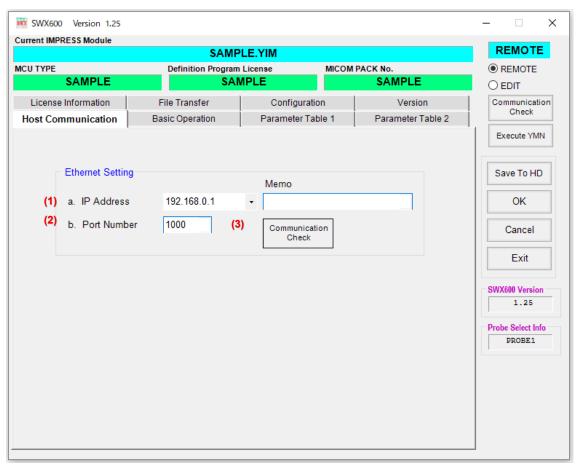
The screen of SWX600 is configured by following 8 tabs.

- Host Communication · · · For showing the settings of connection with a programmer
- Basic Operation · · · For executing device functions
- Parameter Table 1 · · · For setting parameters
- Parameter Table 2 · · · For setting parameters (parameters specific to the microcomputer)
- License Information ・・・ For adding licenses to NETIMPRESS main unit
- File Transfer · · · For transferring files
- Configuration · · · For setting the main unit
- Version · · · For showing each version information



1.1. Host Communication

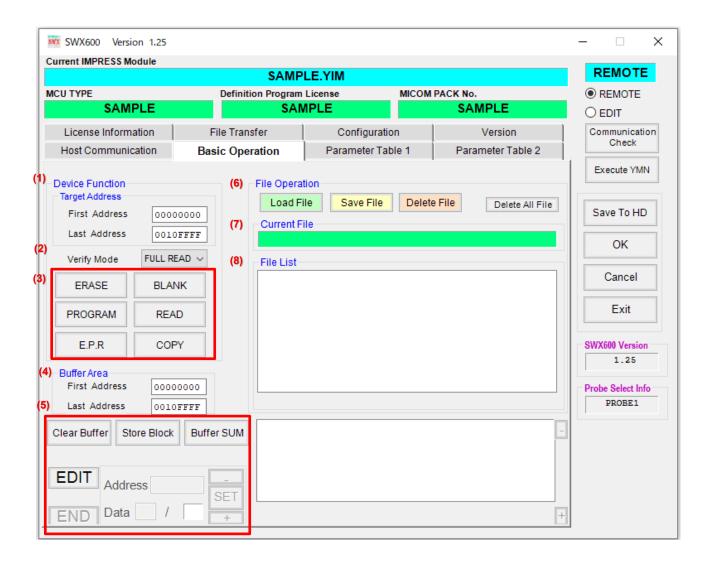
Set up communication setting with the main unit.



- (1) IP Address ...Set IP address of NETIMPRESS avant
- (2) Port NumberSet Port number of NETIMPRESS avant
- (3) Communication Check...Connect with NETIMPRESS avant

1.2. Basic Operation

Execute device functions and carry out operations on buffer memory.



(1) Target Address

Set up a target area to execute the device functions. Set up start and last addresses of the target area.

(2) Verify Mode

You can change the mode of the verification when executing verify with device function.

(3) Device Function

- ERASE ... Erases the flash memory and performs blank check.
- BLANK ... Executes blank check.
- PROGRAM ... Programs a flash memory and verifies the data.
- READ ... Compares buffer memory data with the data flashed into the target device.
- E.P.R ... Executes operations in the order of ERASE, BLANK, PROGRAM, and READ.
- COPY ... Copies the contents of flash memory to buffer memory.

(4) Buffer Area

This command sets up the buffer memory range for loading and saving an object file. For object files with Intel HEX or Motorola S format, which contain address descriptions, the settings become disabled when loading the files.

(5) Buffer Operation

- Clear Buffer ... Executes clearing a buffer memory
- Store Block ... Programs the specified range of the buffer memory in 1 byte data
- Buffer SUM ... Displays the SUM value of the specified area at Target Address and Buffer Area

(6) File Operation

Operates files

- Load File ... Loads the file saved in the current folder into the buffer memory.
- Save File ... Saves the contents of the buffer memory in current YIM folder as a file.
- Delete File ... Erases selected file in current YIM folder.
- Delete All File ... Erases all files in current YIM folder.

(7) Current File

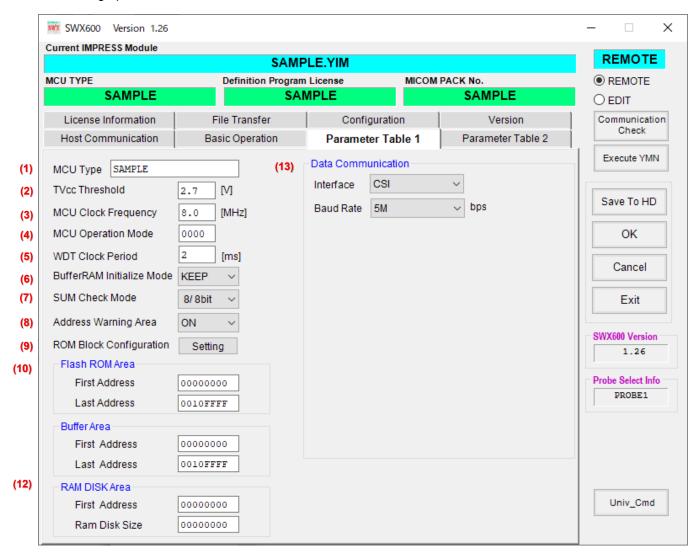
The file name downloaded at the buffer memory is shown here.

(8) File List

Files in current YIM folder are listed here.

1.3. Parameter Table 1 (For setting parameter)

For changing MCU clock frequency, detection level of the target power (TVcc threshold), and communication baud rate, change parameters here.



(1) MCU TYPE

Target name is displayed here. You can change the name as you like (Max. 20 letters).

(2) TVcc Threshold

When executing device function, SWX600 uses this value as the threshold to check if the target power is turn on or not. Normally, set the value to about 90% of the target power voltage.

(3) MCU Clock Frequency

Set frequency of the target MCU here. (0~99.9[MHz])

(4) MCU Operation Mode

Set up the MCU mode. For further information, see a manual of each definition program.

(5) WDT Clock Period

Set up watchdog timer clock period. ($1 \sim 200 [ms]$)

(6) Buffer RAM Initialize Mode

- KEEP ... AFX100 keeps data before turn off the power.
- CLEAR ... AFX100 initializes buffer memory at starting up.

(7) SUM Check Mode

Select SUM value calculation mode. (Calculation and display methods)

(8) Address Warning Area

"ADDRESS WARNING" error is output when "PROGRAMMING AREA" and "BUFFER AREA" are different from whole target device area information at AFX series startup.

- ON: Error [1016:ADDRESSWARNING]
- OFF: No Error

(9) ROM Block Configuration

Set the target flash memory for programming.

(10) Flash ROM Area

Set flash ROM area.



Be sure to make the setting to include the entire internal flash memory area.

(11) Buffer Area

Set buffer area.

(12) RAM DISK Area

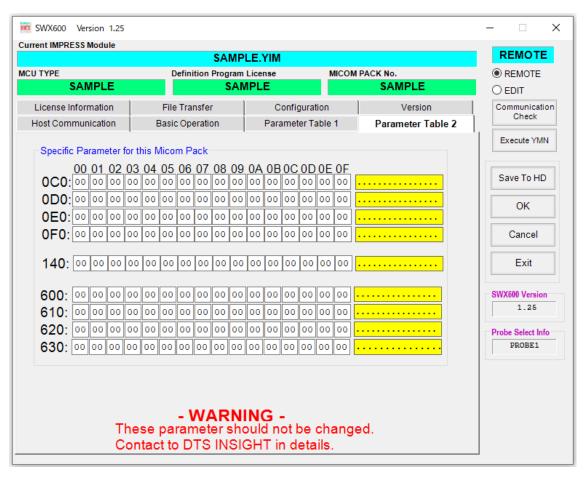
Set RAM DISK area.

(13) Data Communication

Configure the communication setting between a device and the programmer. Set the communication method (such as UART or CSI) and baud rate.

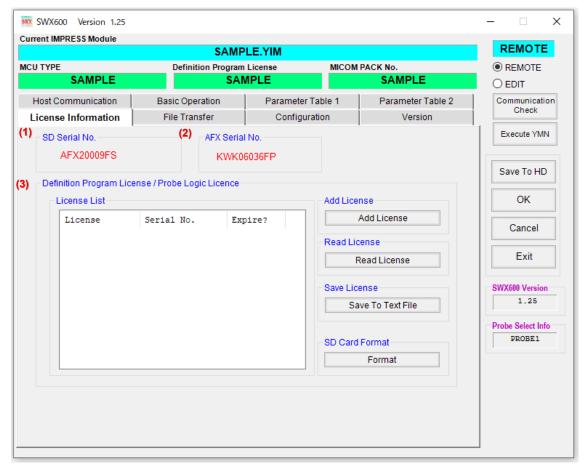
1.4. Parameter Table 2 (For setting parameter)

At Parameter Table 2, you can directly change a parameter value in accordance with your environment. For further information on this, see a manual of each definition program.



1.5. License Information

License Information tab is mainly used to set licenses.



(1) SD Serial No.

Serial number of the dedicated SD card.

(2) AFX Serial No.

The serial number of NETIMPRESS avant.

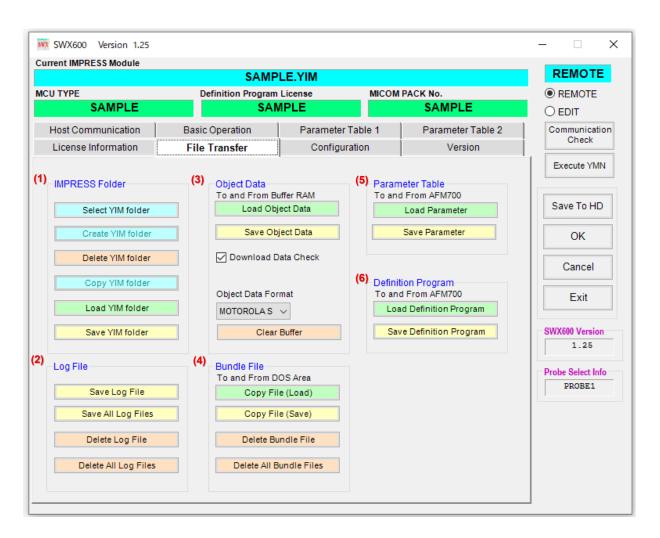
(3) Definition Program License/Probe Logic License

Set definition license / probe logic license here.

- License List ... List of licenses in the dedicated SD card
- Add License ... Adds definition program license information into the dedicated SD card or NETIMPRESS avant.
- Read License ... Reads out definition program license information in the dedicated SD card and displays them on License List.
 - Save License ... Saves the definition program license information in the host PC.
 - SD Card Format ... Formats dedicated SD card (all information in the card such as files is deleted)

1.6. File Transfer

In File Transfer tab, you can do the following: downloading CM files and parameter files, transferring various bundle file, and setting up environment for flash programming (creating YIM folders) for example downloading objects.



(1) IMPRESS Folder

The buttons are used for operating YIM folder selected in Folder/File List Window.

Folder/File List is displayed in new window.

- Select YIM folder ... Select folder from YIM folder list
- Create YIM folder ... Create new YIM folder
- Delete YIM folder ... Delete selected YIM folder
- Copy YIM folder ... Copy selected YIM folder
- Load YIM folder ... Load YIM folder from PC to dedicated SD card of NETIMPRESS avant
- Save YIM folder ... Save specified YIM folder to PC

(2) Log File

When the NETIMPRESS avant's log function is ON, a LOG folder will be created in the dedicated SD card, and then a log file is created in it.

- Save Log File ... Save log file in dedicated SD card to PC.
- Save All Log File ... Save all log files in dedicated SD card to PC.
- Purge Log File ... Purge selected log files in dedicated SD card.
- Purge All Log File ... Purge all log files in dedicated SD card.

(3) Object Data

- Load Object Data ... Extract object file (intel HEX / Motorola S / binary) to buffer memory
- Save Object Data ... Save object file on buffer memory into PC
- Object Data Format ... Specify format to save object data (Intel HEX / Motorola S)
- Clear Buffer ... Program all the data of buffer memory in 0xFF.
- Download Data Check ...Output a warning if the file data is outside the address range specified in the buffer area. (Address Warning Load)
 - Checked (ON): Error [102B:ADDRESSWARNING]
 - · No check (OFF): No error

(4) Bundle File

- Copy File (Load) ... Download bundle file of your choice from PC
- Copy File (Save) ... Upload bundle file of your choice to PC
- Delete Bundle File ... Delete bundle file of your choice
- Delete All Bundle Files ... Delete all bundle files

(6) Parameter Table

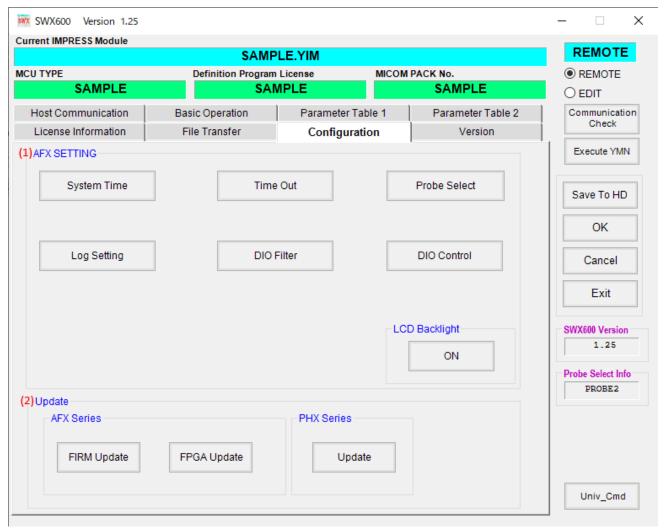
- Load Parameter ... Load parameter on PC to NETIMPRESS avant
- Save Parameter ... Save parameter of NETIMPRESS avant on PC

(6) Definition Program

- Load Definition Program ... Load definition program on PC to NETIMPRESS avant
- Save Definition Program ... Save definition program of NETIMPRESS avant on PC

1.7. Configuration

In Configuration tab, set up NETIMPRESS avant.



(1) AFX SETTING

- System Time ... Set date and time
- Time Out ... Set up communication timeout time between SWX and AFX
- Probe Select ... Select probe to use
- Log Setting ... Set log
- DIO Filter ... Set DIO in the 1 255[ms] range
- LCD Backlight ... Switch between on and off of back light

(2) Update

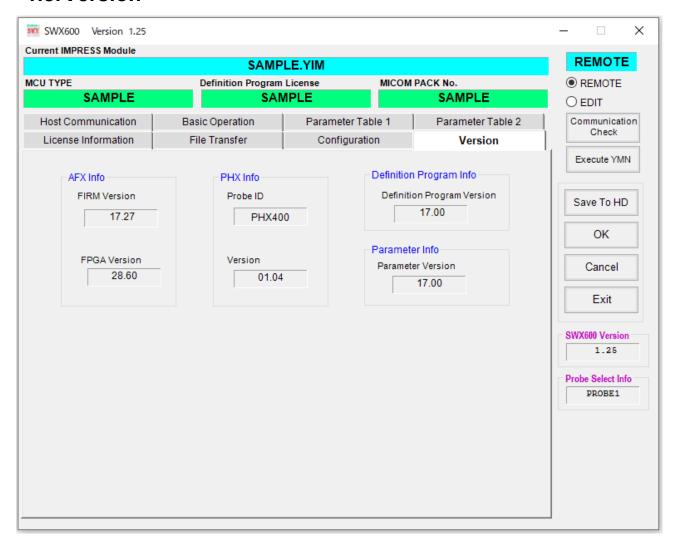
AFX Series

- FIRM Update ... Select an update file for firmware (.FWK)
- FPGA Update ... Select an update file for FPGA (.HWL)

PHX Series

Not available for this version. (You cannot use this button.)

1.8. Version



- (1) AFX info
 - FIRM Version ... Version information of firmware.
 - FPGA Version ... Version information of FPGA.
- (2) PHX Info
 - Probe ID ... Probe ID
 - Version ... Version information of probe
- (3) Definition Program Info
 - Definition Program Version ... Version information of definition program
- (4) Parameter Info
 - Parameter Version ... Version information of parameter file

2. Operation

This chapter describes primary operation. When an error is shown, see the error code list starts from page 56.

2.1. Adding License

To add definition program license information into the dedicated SD card or NETIMPRESS avant, follow the description below.

Click [Add License] button on [License Information] tab. See 1.5.(3).

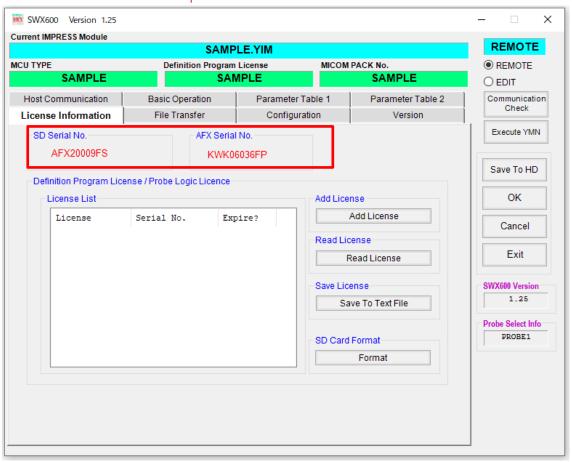
A window opens. Select a license file on the host PC.



To use a definition program for the target MCU of your programming environment, a definition program license has to be added into the dedicated SD card.

Before adding license information into the SD card or NETIMPRESS avant, get required license files (definition program license and probe logic license) by follow the direction on a license sheet.

To get a license file, it is required to register user's information in our website. For detail, see Chapter 4.of NETIMPRESS avant Startup Manual.



2.2. Reading Out License

To read out license information of a definition program or probe in the dedicated SD card and display them, follow as shown below.

Click [Read License] button on [License Information] tab. See 1.5.(3).

Definition program license information in the dedicated SD card is shown in License List.

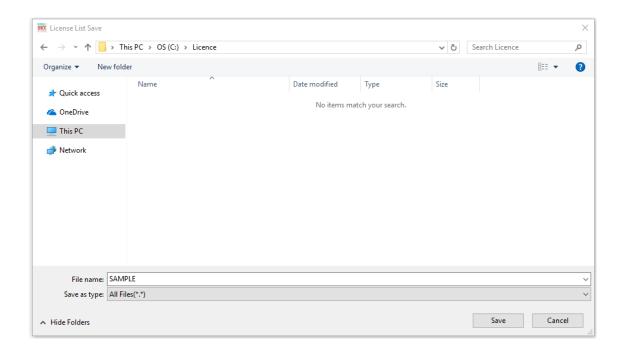


2.3. Saving License

Save license information of the definition program or probe logic, which is read out from the dedicated SD card, on the host PC as a text file.

Click [Save to Text File] button on [License Information] tab. See 1.5.(3).

File saving window is shown. Select a destination to save a text file, set a file name, and then click the Save button. Click the Cancel button if you want to stop saving a text file.



2.4. Setting Verify Mode

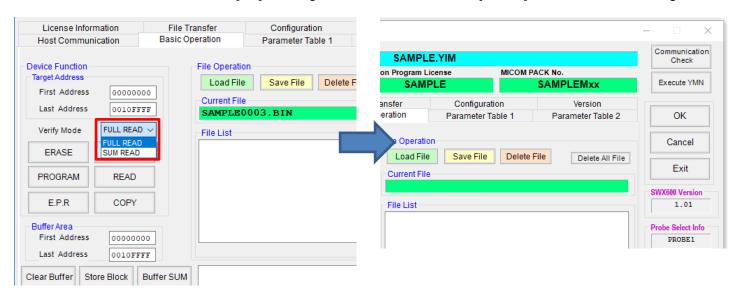
Set the Verify Mode when executing device function.

There are two modes.

Mode	Meaning
FULL READ	After programming execution by device function, all the programmed data are compared and checked.
SUM READ	After execution of programming by device function, compare and check SUM value of the programmed data.

Click verify mode button on [Basic Operation] tab. See 1.2.(2).

Select either one mode, and click [OK] at the right side of the window. Click [Cancel] button to undo the change.



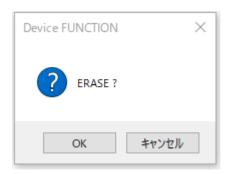
2.5. Executing Device Function

This section describes how to execute device function.

Click one of the device function buttons you want to execute in [Basic Operation] tab. The buttons are E.P.R, ERASE, BLANK, PROGRAM, READ, and COPY. See 1.2.(3).

The confirmation window opens when you click a button, and then click OK button. Click the Cancel button if you want to cancel device function.

Example: Executing ERASE





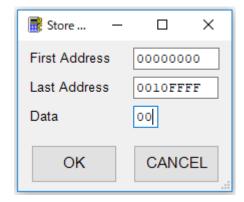
The operation of each device function differs depending on the definition program. When the name of device function is not matched with actual action, see a manual of each definition program.

2.6. Programming Buffer Memory in Fixed Data

Specified range of the buffer memory is programmed in 1 byte data

Click [Store Block] button on [Basic Operation] tab. See 1.2.(5).

Enter the area you want to program and the data to be programmed.



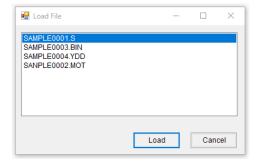
2.7. Loading a File

Load the file saved in a current YIM folder into buffer memory. The following formats are supported: the binary, Intel HEX, and Motorola S format.

For this operation, you can change the programming data with saving the object data into the current YIM folder.

Click [Load File] button on [Basic Operation] tab. See 1.2.(6).

Select a file you want to load, and then click [Load] button.



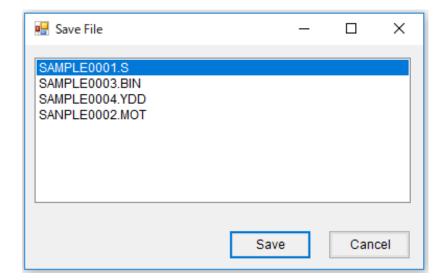
2.8. Saving a File

Save the data in buffer memory to the file in current YIM folder.

This is used for making a backup of the buffer memory.

Click [Save File] button on [Basic Operation] tab. See 1.2.(6).

Select a file you want to save, and then click [Save] button.

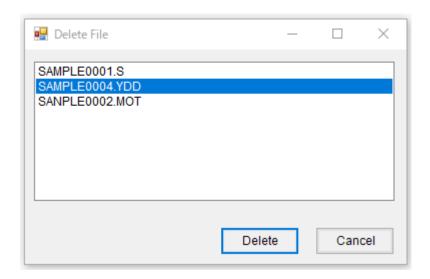


2.9. Deleting File in Current Folder

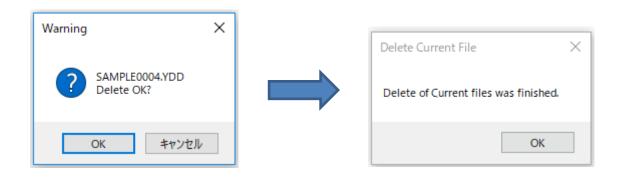
Click [Delete File] or [Delete All File] button on [Basic Operation] tab. See 1.2.(6).

Example: Executing Delete File

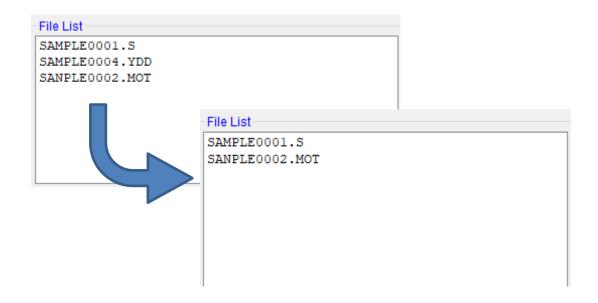
Select any file to delete and click [Delete] button.



A confirmation message is displayed. Check if the selected file is correct and click [OK] button.



You can see deleted files in File List.

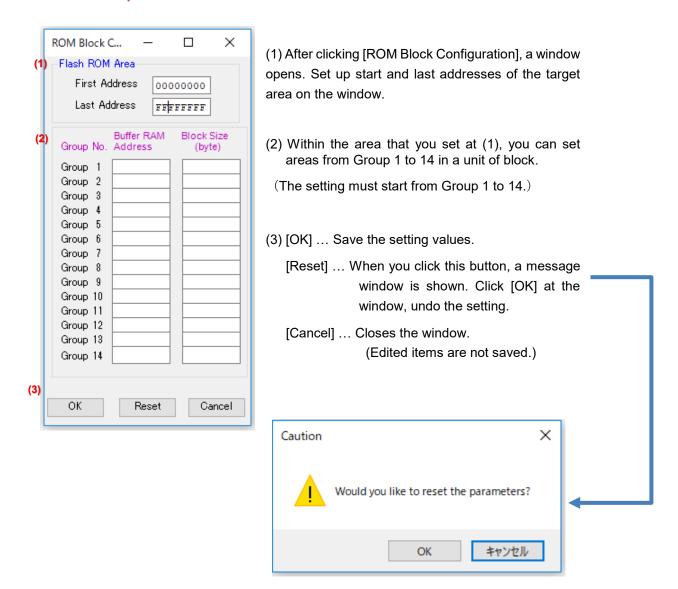


2.10. Changing Block Configuration of Flash Memory.

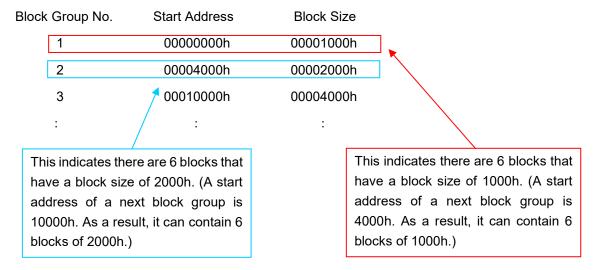
Click [ROM Block Configuration] on [Parameter Table1] tab. See 1.3.(8).



Be sure to set up block configuration to match with those of flash memory in a target microcomputer.



Setup Example

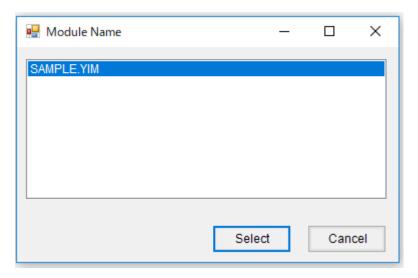


2.11. Selecting YIM Folder

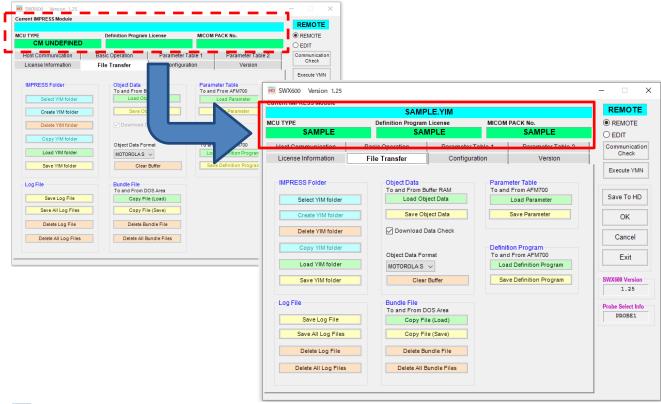
Select one of the YIM folders in the dedicated SD card to the current YIM folder.

Click [Select YIM folder] button on [File Transfer] tab. See 1.6. (1).

Click a YIM folder you want to select and click [Select] to complete.



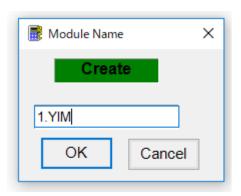
Make sure the upper part of SWX600 has changed.



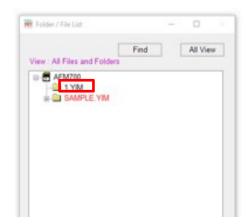
You can also select a YIM folder from Folder/File List Window. Right-click a YIM folder and choose [Select] from the pop-up menu.

2.12. Creating New YIM Folder.

Click [Create YIM folder] button on [File Transfer] tab. See 1.6. (1).



Enter a folder name and click [OK]. A new folder is added in [Folder/File List].

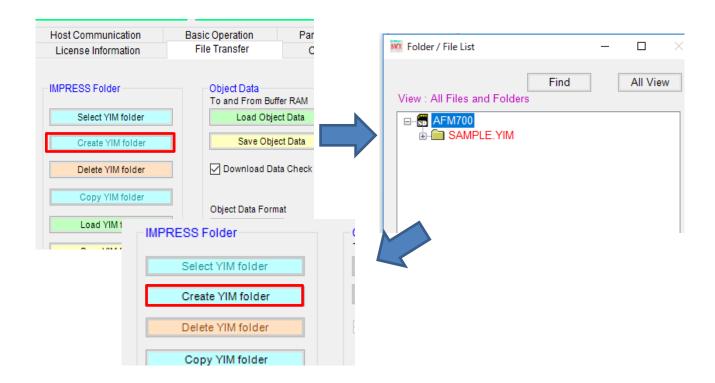




When you cannot click [Create YIM folder], select SD card icon on Folder/File List Window.



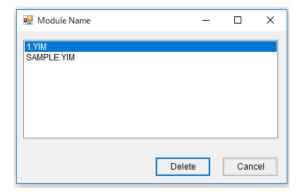
You can also create a YIM folder by right-clicking anywhere in Folder/File List Window and selecting [Create] from the pop-up menu.



2.13. Deleting YIM folder

To delete a YIM folder in a dedicated SD card, follow the steps below.

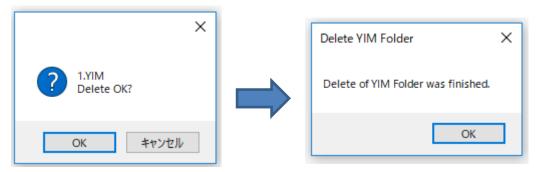
Click [Create YIM folder] button on [File Transfer] tab. See 1.6. (1).



(YIM folders saved in the dedicated card which is inserted in the NETIMPRESS avant are listed.)

Click a folder that you want to delete and click [Delete].

Click [OK] to complete delete the folder.



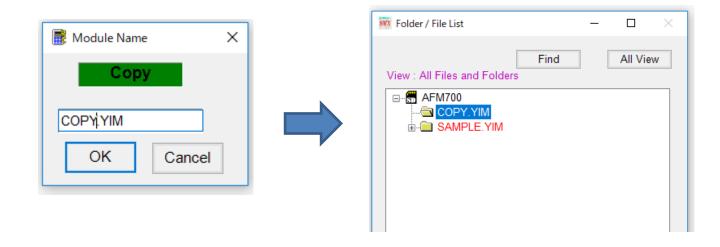
You can also delete a YIM folder by right-clicking any one of them on the Folder/File List window, and then select [Delete YIM Folder].

2.14. Copying YIM Folder

This section describes how to make a copy of current YIM folder in a dedicated SD card and save the copied folder in the SD card under different name.

Click [Copy YIM folder] button on [File Transfer] tab. See 1.6. (1).

Enter a folder name and click [OK]. A copied folder is added in [Folder/File List].



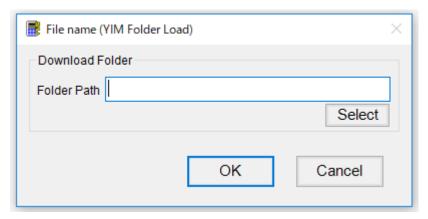
You can also copy a YIM folder by right-clicking any one of YIM folders on the Folder/File List window, and then select [Copy YIM Folder].

2.15. Downloading YIM folder

This section describes how to download YIM folder on PC into a dedicated SD card.

Click [Load YIM folder] button on [File Transfer] tab. See 1.6. (1).

Click [Select] and specify a YIM folder on the PC.



Click [OK]. A loaded folder is added in [Folder/File List].



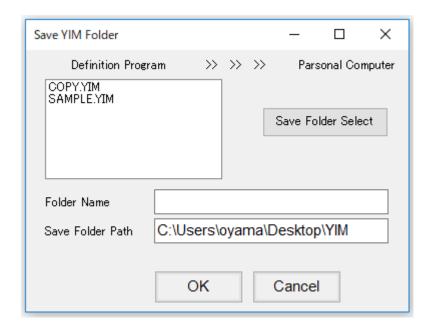
You can also download a YIM folder by right-clicking any one of YIM folders on the Folder/File List window, and then select [Load YIM Folder].

2.16. Uploading YIM Folder

This section describes how to upload current YIM folder to host PC.

Click [Save YIM folder] button on [File Transfer] tab. See 1.6. (1).

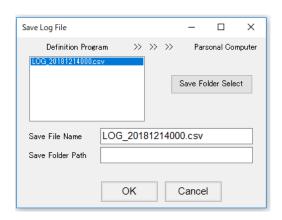
Specify a YIM folder that you want to save and a directory to save the file. Click [OK] to save it.



YIM folder can be uploaded on the PC by right-clicking on the Folder/File List window, and then select [Save YIM Folder].

2.17. Saving Log File in Dedicated SD Card

Click [Save Log File] or [Save All Log Files] button on [File Transfer] tab. See 1.6. (2).



A window for setting the destination of saving file is shown. Select a log file you want to save and destination to save it. Then click [OK] button. Click [Cancel] button if you want to cancel the save.

2.18. Deleting Log File in Dedicated SD Card

To delete log files, click [Delete Log file] or [Delete All Log Files] button on [File Transfer] tab. See 1.6. (2).

Example of when you click [Delete Log File]

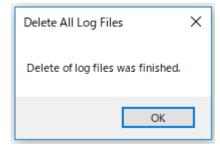


Log file selection window is shown. Select a file you want to delete, and then click [Delete] button. Click [Cancel] button if you want to cancel the deletion.

Example of when you click [Delete All Log Files]



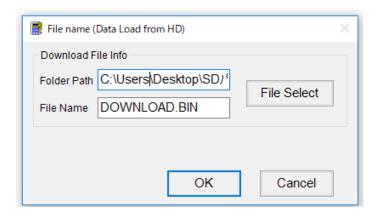
The following message is shown, and all log data are deleted. Please note that the deleted log data cannot be restored.



2.19. Downloading Object File

How to download an object file into buffer memory of the current YIM folder from the PC.

Select current folder on the folder/file list window, and then click [Load Object Data] button in [File Transfer] tab. See 1.6. (3).



Window for selecting object file is shown. Select an object file you want to download, and then click [OK] button.

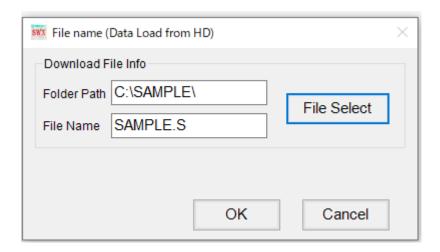
If you select [Download Data Check], which you can find in [File Transfer] tab, a warning will be output if the file data is outside the address range specified in the Buffer Area.

2.20. Uploading Object File

How to upload a buffer memory in the current YIM folder to host PC.

Click [Save Object Data] button on [File Transfer] tab. See 1.6. (3).

Select where to save a file, enter the file name, and click [OK].



You can select the format of the object file to be saved at [Object Data Format].

You can select Motorola S or Intel Hex Format.

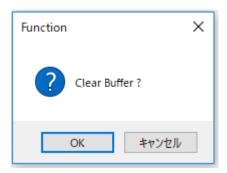
To change the format, select new format and click [OK] button on the right side of the main window.

2.21. Clearing Buffer Memory

How to initialize the buffer memory of current YIM folder.

Click [Clear Buffer] button on [File Transfer] tab. See 1.6. (3).

Confirmation window will be shown. Click [OK] button.



If buffer memory clear is executed, the value of whole buffer memory area is initialized to the value which configured by the parameter.

2.22. Downloading Bundle File

How to download a bundle file into current YIM folder.

Click [Copy File(Load)] button on [File Transfer] tab. See 1.6. (4).

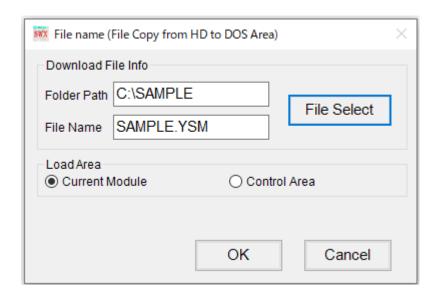
Following window is shown. Select a file you want to download.

Select one of the following from Load Area:

Load Area Current Module ... Downloads the file in current YIM folder.

Control Area ... Downloads the file in a root directory of the dedicated SD card.

Click [OK] to start download.



2.23. Uploading Bundle File

How to upload a bundle file which is in the dedicated SD card to the PC.

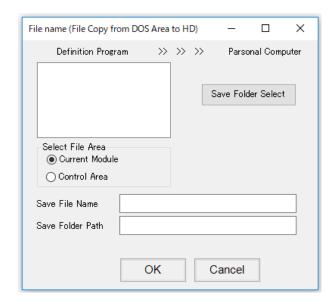
Click [Copy File (Save)] button on [File Transfer] tab. See 1.6. (4).

Specify the path where to save a file, enter a file name.

Select File Area Current Module ... Saves a file, which is in current YIM folder, in the PC.

Control Area ... Saves a file, which is located at the root level of the dedicated SD card,

in the PC.



2.24. Deleting Bundle File

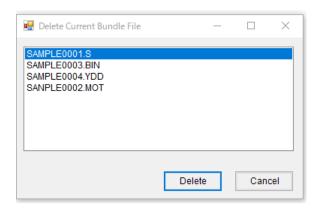
How to delete bundle files in the current YIM folder.

Click [Delete Bundle File] or [Delete All Bundle File] button on [File Transfer] tab.

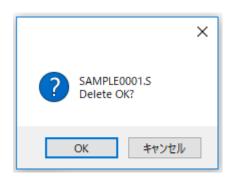
See 1.6. (4).

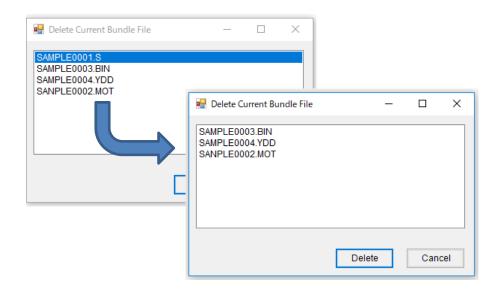
Example: Executing [Delete Bundle File]

Following window is shown. Select a file you want to delete. Click [Delete].



Confirmation window will be shown. Click [OK] button to delete the file.



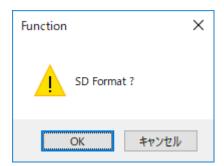


2.25. Initializing Dedicated SD Card

How to initialize a dedicated SD card. The data in the dedicated SD card is deleted when you initialize the dedicated SD card. (License information is not cleared.)

Click [Format] button on [License Information] tab. See 1.5.(3).

Following window is shown. Click [OK].





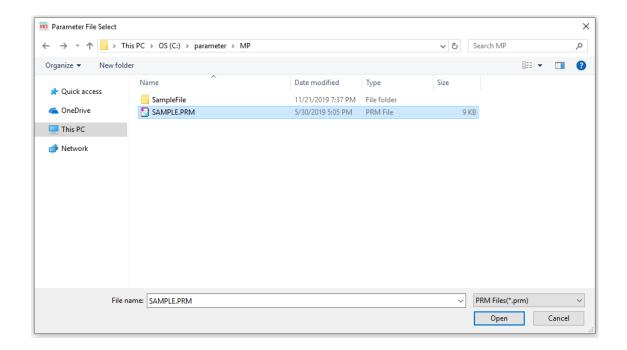
We recommend you to back up the data before the initialization.

2.26. Downloading Parameter File

How to download a parameter file from the PC into current YIM folder.

Click [Load Parameter] button on [File Transfer] tab. See 1.6. (5).

Select a parameter file you want to download and then click [Open] button.



If you try to download a parameter file that is not supported by the definition program downloaded in the current YIM folder, it will result in an error.



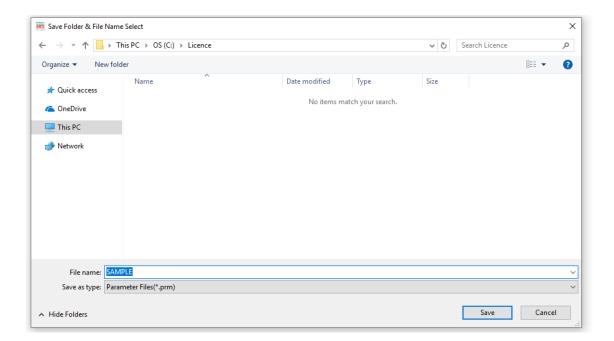
The buffer memory is cleared when a parameter file, which differs from the parameter file existed in the current YIM folder, is downloaded.

2.27. Uploading Parameter File

How to save a parameter file in current YIM folder to the PC.

Click [Save Parameter] button on [File Transfer] tab. See 1.6. (5).

Select where to save the file, enter a file name, and click [OK].

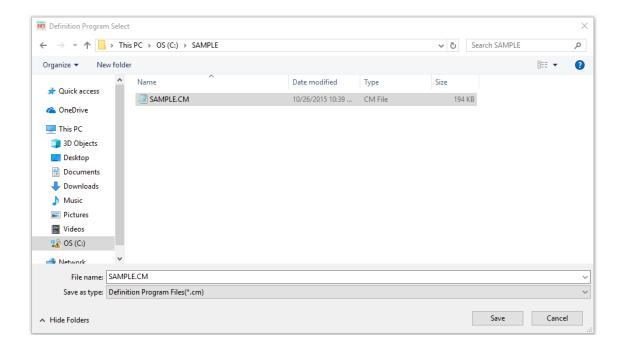


2.28. Downloading Definition Program File

How to download a definition program file on the PC to current YIM folder.

Click [Load Definition Program] button on [File Transfer] tab. See 1.6. (6).

Select a definition program (.CM file) you want to download and then click [Open] button.

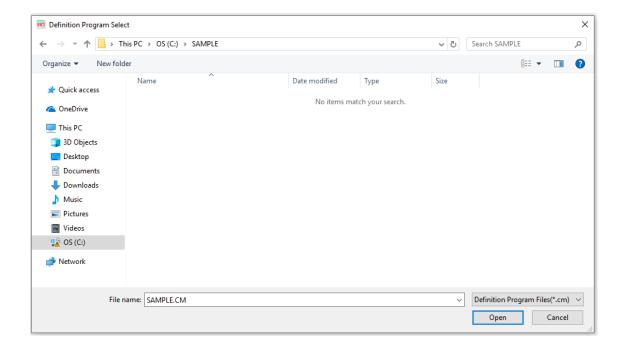


2.29. Uploading Definition Program File

How to save a definition program file in current YIM folder to the PC.

Click [Save Definition Program] button on [File Transfer] tab. See 1.7. (6).

Select where to save the file, enter a file name, and click [Save].

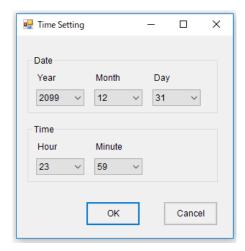


2.30. Setting Date and Time

How to set date and time of NETIMPRESS avant.

Click [System Time] on [Configuration] tab. See 1.7. (1).

Following window is shown. Set the current time.



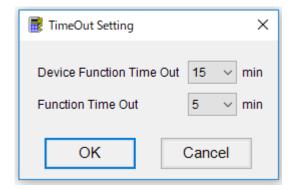
The time can be set within \pm 24 hours of the time that a clock in NETIMPRESS avant set to. Set it according to your local time.

2.31. Timeout Setting

How to set timeout time for device function and function.

Click [Time Out] on [Configuration] tab. See 1.7. (1).

You can set the time for each device function and function.



2.32. Changing Probe Setting

How to select a probe to use.

Click [Probe Select] on [Configuration] tab. See 1.7. (1).

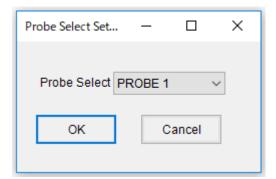
You can select setting from the following three types.

• H/W ...Probe is selected by the state of hardware.

Selected by Probe select signal (activated by LOW level input) of Probe Hard (phx4**).

Target Probe 1 is selected, if both probe(probe1,probe2) is active.

- PROBE1...Probe to be used is fixed to PROBE 1
- PROBE2...Probe to be used is fixed to PROBE 2

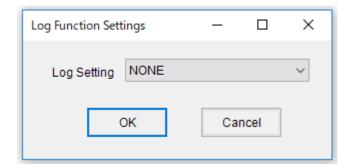


2.33. Enabling Log Save Function

Click [Log Setting] on [Configuration] tab. See 1.7. (1).

You can select from the following three types.

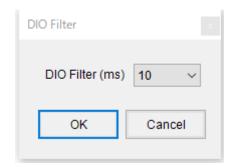
- NONE ... Command execution logs are not saved.
- Device Function ...Only execution logs of device function are saved.
- Device Function & Function ... All command execution logs are saved.



2.34. Setting DIO Filter

Set filtering time of the main unit side input signal of DI/O within 1 to 255 [ms] range.

Click [DIO Filter] on [Configuration] tab. See 1.7. (1).



2.35. Executing DIO Control

Executing DIO input-output control.

Setting range: 1-255[ms]

Click [DIO Control] on [Configuration] tab. See 1.7 (1).



You can output arbitrary level of specified port by OUT Control.

- 1) Port setting (0-7)
- 2) Low or High (specified by pressing the button)
- 3) Execute output by pressing "OUT" button

You can acquire specified part level state by IN Control.

- 1) Port setting (0-4)
- 2) Low or High (terminal level state is shown)
- 3) By pressing "LOAD" button, you can acquire level state.

3. Using Remote Controller SWX600 as a tool to modify parameters

To make it easy to use Definition Program for multiple microcomputers that have same protocol and algorithm with a target microcomputer, some of the parameters are made available as user-definable parameters.

You can use SWX600 Remote Controller in the Remote mode as a tool to modify the parameters of Definition Program set in NETIMPRESS. Also, you can use it in the Edit mode as a tool to modify a parameter file (*.prm) on a PC.

The procedure and method for modifying parameters in Edit Mode is the same as in Remote Mode.

When you modify parameters in the Edit mode and finish the settings, press the "Save to HD" button to save a modified parameter file in a PC



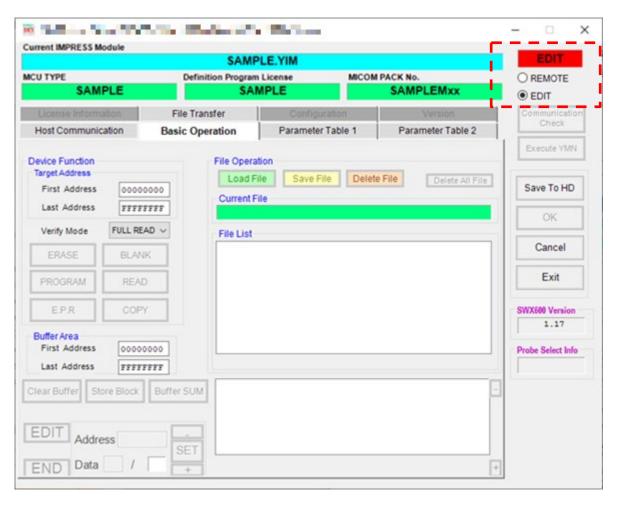
You can use a saved parameter file by downloading it to SD card set in NETIMPRESS.



To modify the parameter table, you do not need to connect NETIMPRESS with a target system (microcomputer). However, when you use SWX600 for any purposes other than modifying the parameter table, be sure to connect NETIMPRESS with a target system.

3.1. Editing a parameter file in the Edit mode

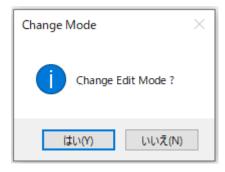
You can edit and save a parameter file (*.prm) on a PC without connecting with NETIMPRESS.



You can edit a parameter file in the Edit mode.

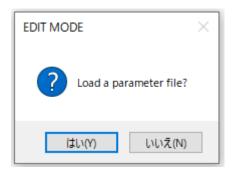
To switch to the Edit mode, select the EDIT button at the upper right corner of the window.

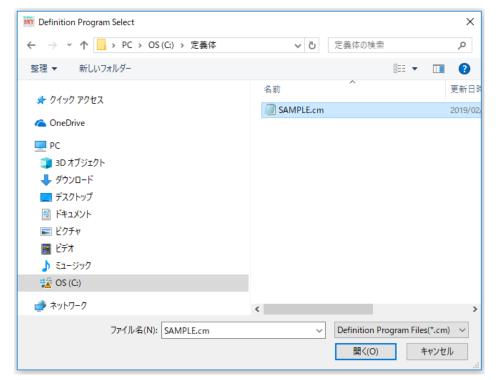
When EDIT is selected, the message as shown below appears asking if you want to change the mode. If you want to change to the Edit mode, select Yes.



With the Edit mode, you can load a parameter file from a PC and edit a parameter table besides a parameter table already loaded with SWX600.

To load a parameter file, click Yes. Then, the dialog box listing parameter file(s) appears. Select a parameter file to load.







How to edit a parameter table and create a parameter file is the same as in Remote Mode.

You can save them as a file in the hard disk of a PC by pressing the "Save to HD" button at the right hand of the window.

- When you finish editing parameters, you can save them as a file by pressing the "Save to HD" button.
- Insert SD card to download a parameter file to NETIMPRESS and connect with NETIMPRESS in the Remote mode.
- Press the "Load Parameter" button. Then, a parameter file will be downloaded to SD card.

4. Error Message

Error Code	Description	Details
63:NEW FILE ERR	Log file setting is not correct	Log file setting of universal command is not correct.
100:File not found.	File is not found.	Check if the file exists.
101:File access error.	Fail to access file.	The file may be broken. Please check the file.
102:File format error.	Format of file is abnormal.	Check the format of file.
103:Irregular parameters	Parameter file is abnormal	Check the parameter file.
104:Cannot use double byte character to filename	Error of using double-byte characters	Double-byte characters cannot be used for the file name. Check the file name.
110:Cannot Connected to NETIMPRESS. xx	Connection is abnormal	Check the connection between the PC and NETIMPRESS avant.
111:NETIMPRESS Time Out. xx	Communication time out	Check the connection between the PC and NETIMPRESS avant. Check the communication of NETIMPRESS avant and Target system.
112:Invalid data.	Data setting error	Enter a correct value.
115:The search name is not defined	Search file name error	Enter the file name to be searched.
116:File Name Error	File name error	File mane is not correct. Check the file name.
117:Folder Name Error	Folder name error	Folder mane is not correct. Check the folder name.
118:Folder not found.	Folder error	Folder does not exist. Check if the file exists.
120:Device function error.	Error for executing device function	Error occurs when executing device function
121:Command Not Support	Unsupported command	The command is not supported.
122:YIM Folder System Error	YIM folder system error	System of YIM folder is not correct.
123:Folder Path Error	Save destination folder path error	Folder of save destination does not exist.
124:YIM Folder Name Error.	Folder name error	YIM folder is not selected. Select correct YIM folder.
125:YIM Folder Save Error.	Error when saving YIM folder.	Error occurs when saving YIM folder.

Error Code	Description	Details		
126:Log file access error.	File access error (Log/CurrentFile/RootFile/YIMFolder)	Error occurs when accessing log file.		
127:Time Set Error	Time setting error in the programmer and the system	Error occurs when setting the time to NETIMPRESS avant.		
128:Log Function Set Error	Setting log conditions error	Error occurs when setting log conditions.		
129:Writer Time Error	Time setting error in NETIMPRESS avant	Error occurs when getting the time to NETIMPRESS avant. There is a problem in the connection or the setting time. If the time set to NETIMPRESS avant has problem, contact our support center.		
130:Probe Select Error	Probe select setting error	Error occurs when setting [Probe Select].		
131:Time Parameter Error	Error of parameter for setting the time	The time is not set up to NETIMPRESS avant correctly.		
132:DIO Filter Setting Error	DIO filter setting error	Error occurs when setting DIO filter.		
133:Format error.	Error for send data format	Format of data sent from NETIMPRESS avant is abnormal. Contact our support center.		
140:Remote2.ini File Format Error	Remote2.ini file error	Format of Remote2.ini file is not correct.		
170:Serial Number set Error	Serial No. setting error	Error occurs when setting serial No.		
200:Definition Program Undefined.	Definition program setting error	Definition program is not set. Download a definition program.		
201:Module not found.	YIM folder selection error	YIM folder does not exist.		
202:Download File Unmatching.	Parameter file error	The parameter file to be loaded is not correct. Check the parameter file.		
203:Module Name is too long.	File name error	File name is too long. Check the file name.		
204:YIM Folder Full	YIM folder is full in the SD card.	YIM folder cannot be created any further. Delete files which are not necessary.		

Error Code	Description	Details		
205:Control File Full	Full of control files	Control file cannot be created any further. Delete files whare not necessary.		
206:Current Module File Full	Current YIM folder is full of files	File cannot be created in the current YIM folder any further. Delete files which are not necessary.		
207:YIM folder is not selected.	YIM folder unselected error	YIM folder is not selected. Select YIM folder.		
300:YMN Execute error.	YMN runtime error	Error occurs when running YMN. Check the YMN file is correct.		
400:Read License Format Error	License read-out error	Check if the license is registered.		
500:AFX_FPGA_Ver Invalid	Error for obtaining subsystem	Check setting of subsystem version.		
600:Backlight Setting Error	LCD back light setting error	Error occurs when switching ON and OFF setting of LCD back light.		
900:This function is not support.	Execution function error	This function is not supported.		
901:Folder is not selected.	YIM folder is not selected	Select the YIM folder before executing the function.		
1066:Full Path Error!	Full path error	The full path of file/folder is not correct, or file/folder does not exist in the path.		

Error Code	Description	Details
Not Execute	Unexecuted YIM folder selecting error	No folder is selected. (There is no current folder.)
Busy	Running another command	Another command is currently running. Wait for the command to finish, and then try again.
xxx:FILE OPEN ERR	File open error	Error occurs when opening a file.
xxx:FILE CLOSE ERR	File close error	Error occurs when closing a file.
xxx:FILE ACCESS ERR	File access error	Error occurs when accessing a log file.
xxx:S FORMAT ERR	Motorola S format error	Format of S file is not correct.
xxx:HEX FORMAT ERR	Intel HEX format error	Format of HEX file is not correct.
xxx:FORMAT ERR	Format error	Format of file is not correct.
xxx:ERR UNKOWN	Unexpected error	Unexpected error is occurred.
Other command executing	Running other commands	Other commands are currently running.
Parameters are not set into NETIMPRESS	Parameter modification is not reflected.	The modified parameter is not to NETIMPRESS avant.
No Item	Un-entered items	YIM folder and YMN file are not selected.
Buffer Area(FUNC F5) Data Error	Setting error	Buffer area is not set up correctly.
Device Function Area(FUNC- 0) Data Error	Setting error	Device function area is not set up correctly.
TVcc Threshold Data Error	Setting error	TVcc threshold setting is incorrect.
Flash ROM First Address Data Error	Setting error	Flash memory start address is not set up correctly.
Flash ROM Last Address Data Error	Setting error	Flash memory last address is not set up correctly.
ROM Block Address Data Error	Setting error	Address set to block configuration is not set up correctly.

Error Code	Description	Details		
ROM Block Size Data Error	Setting error	Block size of block configuration is not set up correctly.		
TgtROM/Buf Block Address Data Error	Setting error	Either TgtROM or Buf is not set up.		
Memory Type Data Error	Setting error	Memory Type is not set up correctly.		
MCU Clock Frequency Data Error	Setting error	Operation clock is not set up correctly.		
WDT Clock Period Data Error	Setting error	WDT period is not set up correctly.		
TxCANID (CAN) Data Error	Setting error	Transmitter CANID is not set up correctly.		
RxCANID (CAN) Data Error	Setting error	Receiver CANID is not set up correctly.		
S_SJW (CAN) Data Error	Setting error	SJW is not set up correctly.		
TxCANID (CAN-FD) Data Error	Setting error	Transmitter CANID is not set up correctly.		
RxCANID (CAN-FD) Data Error	Setting error	Receiver CANID is not set up correctly.		
S_SJW (CAN-FD) Data Error	Setting error	SJW is not set up correctly.		
F_SJW (CAN-FD) Data Error	Setting error	F_SJW setting is not correct.		
Data Error	Setting error	Stored data in block store is not set up correctly.		
X is access error!	File access error	Failed to access file.		
X is not accessible	File access error	Failed to access file.		
FOLDER IS EXIST	Folder name error	Folder which has the same name exists.		
Invalid Password, try again	Password error	Password is not correct.		
001:COMMAND FILE NOT FOUND	File name error	File mane is not correct.		
Serial Number Setting Error	SD HARD Serial No. setting error	Error occurs when setting serial No.		
Serial Number Format Error	Serial No. format error	Serial No. format is not correct.		
Update File Upload ERROR	Update error for FIRM, FPGA, or probe	Update failed on File xxx.		

5. Appendix 1. CAN set value list

Describes a list of setting values when CAN is selected as the communication method in this chapter.

By SWX600, you can easily configure settings associated with CAN communication by selecting some typical setting values as defaults and from a list of options. If you want to specify "Bit Rate" or "Sampling Point" that is not listed in the choices, you can also set any value from the "Bit Timing Setting" button.

The following table shows the Bit Rate and Sampling Point that can be set for SWX600.

CAN					
Bit Rate[Kbps]	Sampling Point[%]	Tseg1(※)	Tseg2(※)	SJW(※)	PRESC(%)
	60	12(10)	8(7)	8(7)	16(15)
	65	13(11)	7(6)	7(6)	16(15)
125	70	14(12)	6(5)	6(5)	16(15)
125	75	15(13)	5(4)	5(4)	16(15)
	80	16(14)	4(3)	4(3)	16(15)
	85	17(15)	3(2)	3(2)	16(15)
	60	12(10)	8(7)	8(7)	8(7)
	65	13(11)	7(6)	7(6)	8(7)
250	70	14(12)	6(5)	6(5)	8(7)
230	75	15(13)	5(4)	5(4)	8(7)
	80	16(14)	4(3)	4(3)	8(7)
	85	17(15)	3(2)	3(2)	8(7)
500	60	12(10)	8(7)	8(7)	4(3)
	65	13(11)	7(6)	7(6)	4(3)
	70	14(12)	6(5)	6(5)	4(3)
500	75	15(13)	5(4)	5(4)	4(3)
	80	16(14)	4(3)	4(3)	4(3)
	85	17(15)	3(2)	3(2)	4(3)
	60	12(10)	8(7)	8(7)	2(1)
	65	13(11)	7(6)	7(6)	2(1)
4000	70	14(12)	6(5)	6(5)	2(1)
1000	75	15(13)	5(4)	5(4)	2(1)
	80	16(14)	4(3)	4(3)	2(1)
	85	17(15)	3(2)	3(2)	2(1)

xxx(*): Display value of SWX600 (value in parameter file) Display value and actual setting value are different.

Tseg1 = (display value - 2) Tseg2/SJW/PRESC = (display value - 1)

■ Settings for "Bit Rate" and "Sampling Point" other than the selected items can be set using the "Bit Timing Setting" button.

*For communication operation in the case of arbitrary setting values (AFX ⇔ Target), it is recommended to match the respective communication setting values.

Frequency is fixed at 40 MHz.

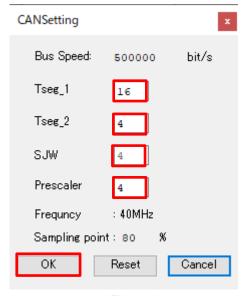


Figure 1.

Setup steps

- 1. Enter each values in the red box in Figure 1.
- 2. Pressing OK button in Figure 1 will reflect the values on the main screen.
 - Figure 1 Reset button: Resets the value to the value before editing.
 - · Cancel button: Cancels editing and returns to the main screen.

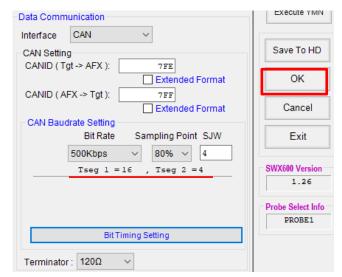


Figure 2

- 3. Press OK button (Figure 2, red frame) to apply the settings to AFX.

 If the value is not in the list of default values, "Bit Rate" and "Sampling Point" are shown as non-selective status, but you can confirm the set value in the text display (Figure 2, underlined in red)..
- 4. If returning to default settings, select "Bit Rate" → "Sampling Point" again and press OK button (Figure 3 red frame).

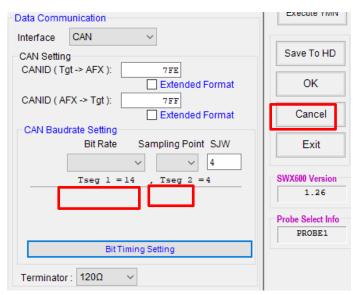


Figure 3.

6. Appendix 2. CAN-FD Set value list

Describes a list of setting values when CAN-FD is selected as the communication method in this chapter.

By SWX600, you can easily configure settings associated with CAN-FD communication by selecting some typical setting values as defaults and from a list of options. If you want to specify "Bit Rate" or "Sampling Point" that is not listed in the choices, you can also set any value from the "Bit Timing Setting" button.

The following table shows the Bit Rate and Sampling Point that can be set for SWX600.

CANFD Arbitration Phase						
Bit Rate[Kbps]	Sampling Point[%]	Tseg1(※)	Tseg2(※)	SJW(※)	PRESC(※)	
	60	48(46)	32(31)	32(31)	4(3)	
	65	52(50)	28(27)	28(27)	4(3)	
125	70	56(54)	24(23)	24(23)	4(3)	
123	75	60(58)	20(19)	20(19)	4(3)	
	80	64(62)	16(15)	16(15)	4(3)	
	85	68(66)	12(11)	12(11)	4(3)	
	60	48(46)	32(31)	32(31)	2(1)	
	65	52(50)	28(27)	28(27)	2(1)	
250	70	56(54)	24(23)	24(23)	2(1)	
230	75	60(58)	20(19)	20(19)	2(1)	
	80	64(62)	16(15)	16(15)	2(1)	
	85	68(66)	12(11)	12(11)	2(1)	
	60	Not selectable				
	65	52(50)	28(27)	28(27)	1(0)	
500	70	56(54)	24(23)	24(23)	1(0)	
300	75	60(58)	20(19)	20(19)	1(0)	
	80	64(62)	16(15)	16(15)	1(0)	
	85	68(66)	12(11)	12(11)	1(0)	
	60					
	65	Not selectable				
1000	70					
1000	75	30(28)	10(9)	10(9)	1(0)	
	80	32(30)	8(7)	8(7)	1(0)	
	85	34(32)	6(5)	6(5)	1(0)	

xxx (*): Display value of SWX600 (value in parameter file) Display value and actual setting value are different.

Tseg1 = (Display value - 2) Tseg2/SJW/PRESC = (Display value - 1)

CANFD Data Phase						
Bit Rate[Kbps]	Sampling Point[%]	Tseg1(※)	Tseg2(※)	SJW(※)	PRESC(%)	
	60	12(10)	8(7)	8(7)	2(1)	
	65	13(11)	7(6)	7(6)	2(1)	
1000	70	14(12)	6(5)	6(5)	2(1)	
1000	75	15(13)	5(4)	5(4)	2(1)	
	80	16(14)	4(3)	4(3)	2(1)	
	85	17(15)	3(2)	3(2)	2(1)	
	60	12(10)	8(7)	8(7)	1(0)	
	65	13(11)	7(6)	7(6)	1(0)	
2000	70	14(12)	6(5)	6(5)	1(0)	
2000	75	15(13)	5(4)	5(4)	1(0)	
	80	16(14)	4(3)	4(3)	1(0)	
	85	17(15)	3(2)	3(2)	1(0)	
	60	6(4)	4(3)	4(3)	1(0)	
	65	Not selectable				
4000	70	7(5)	3(2)	3(2)	1(0)	
4000	75	Not selectable				
	80	8(6)	2(1)	2(1)	1(0)	
	85		No	selectable		
	60					
	65	Not selectable				
5000	70					
3000	75	6(4)	2(1)	2(1)	1(0)	
	80		No:	t selectable		
	85		140	30.30.000		
	60	3(1)	2(1)	2(1)	1(0)	
	65					
	70					
8000	75	Not selectable				
	80		140	30.30.000		
	85					
	100					

xxx(*):Display value of SWX600 (value in parameter file) Display value and actual setting value are different.

Tseg1 = (display value - 2) Tseg2/SJW/PRESC = (Display value - 1)

■ Settings for "Bit Rate" and "Sampling Point" other than the selected items can be set using the "Bit Timing Setting" button.

*For communication operation in the case of arbitrary setting values (AFX \Leftrightarrow Target), it is recommended to match the respective communication setting values.

Frequency is fixed at 40 MHz.

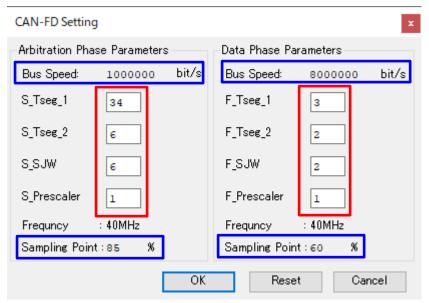


Figure 1

Setup steps

- 1. Enter each values in the red box in Figure 1.
- 2 Pressing OK button in Figure 1 will reflect the values on the main screen.
 - Figure 1 Reset button: Resets the value to the value before editing.
 - Figure 1 Cancel button: Cancels editing and returns to the main screen.

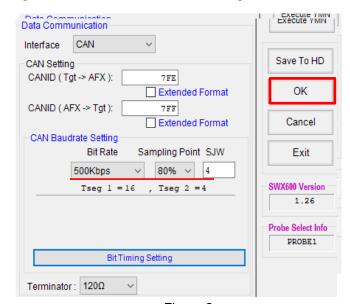


Figure 2

- 3. Press OK button (Figure 2, red frame) to apply the settings to AFX.
 - If the value is not in the list of default values, "Bit Rate" and "Sampling Point" are shown as non-selective status, but you can confirm the set value in the text display (Figure 2, underlined in red)..
- 4. If returning to default settings, select "Bit Rate"→ "Sampling Point" again, press OK button (Figure 3 red frame).

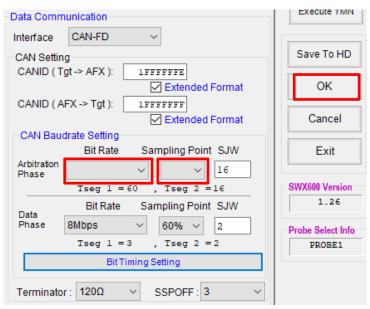


Figure 3

7. Contact

For inquiry about the specification of NETIMPRESS avant, please contact our support center. For inquiry about the price information or lead time, please contact our sales or your local distributors.

Contact

NETIMPRESS Support Center

E-mail : support-impress@dts-insight.com

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SWX600 SOFTWARE MANUAL

DTS INSIGHT CORPORATION

URL: https://www.dts-insight.co.jp/en/product/netimpress-avant/index.html

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