

Upgrading the MICREX-SX Series Programming Support Tool

1. Applicable model

IEC 61131-3-compliant programming support tool: SX-Programmer

Type	Name	Newest version	Date of upgrade
NP4H-SEDBV3	Expert (D300win)	V3.5.2.36	July 2011

2. Upgrade service details

This new service gives the registered users of Expert (D300win) direct access to the latest version of the software through the upgrade feature on the Fuji Electric FA website. Users can download the most recent version of the software from the website at their convenience.

Name of the upgrade file for SX-Programmer: ExpertUpdateV35236.exe

3. Main changes in the latest version: V3.5.2.36 (July 2011)

(1) Support for new modules

Support added for the SPH3000 new CPU modules SPH3000MM and E-SX bus I/O unit.

(2) Windows 7 compatibility

Added compatible with Windows 7 (32bits).

(3) Problem correction

In the SPH3000 series, the following problems of the optimization compilation have been corrected.

- In the ladder circuit, when the AND block and the OR block are combined and used, the operation might not be correctly executed.
- In the ST language, the operation of a minus value type conversion instruction might not be correctly executed.

4. History of main version upgrades

(1) V3.5.1.15 (April 2010)

1) Enhancing of watch window function

Added the writing function of the recipe value and the file saving function of watch window information.

2) Enhancing of POU property function

Added the batch change function of property and the POU comment functions.

3) Improvement of display function of graphic editor

Improved the Non-display of the VAR_EXTERNAL variables and Non-display of the terminal of the FB functions.

4) Improvement of online debugging function

Improved the operation of the online debugging dialog.

(2) V3.5.0.0 (March 2009)

1) Addition and expansion of LD/FBD-V2-compatible editor functions

Increased the number of undo times and made functional improvements, including improvements in the FB/function replacement function.

2) Improvement in editor setting function

Improved the graphic editor and LD/FBD editor setting functions.

3) Addition and expansion of SFC editor functions

Made functional expansions including the expansion of SFC branch reassignment function and active step display function.

4) Support for new modules

Support added for the SPH3000 CPU modules.

5) Windows Vista compatibility

Added compatible with Windows Vista.

(3) V3.4.5.0 (November 2008)

1) Expansion of SPH300-compliant functions.

Added support for the SPH300 'Waiting time mode for structure check' function and 'Non fatal failure User ROM recognition error display' function.

2) Expansion of SPB/ board controller -compliant functions.

Added support for the SPB/ board controller 'Updating current value setting' in the high counter definition.

3) Problem correction

In the SPH2000 series, when you used user FB by two steps or more nesting and the BOOL type variable was connected with the terminal VAR_INOUT of user FB, the problem which the operation was not correctly executed has been corrected.

(4) V3.4.4.1 (September 2008)

1) Problem correction

In the program (project) verify function with CPU of the SPH2000 series, the verify problem when the number of program steps is the same has been corrected.

(5) V3.4.4.0 (May 2008)

1) Expansion of SPH2000-compliant functions.

Added support for the SPH2000 CSV mail client, general-purpose communications settings by users, and parallel interface connection with a Programmable Operation Display (POD).

2) Added support for @E.Integrator

(6) V3.4.3.0 (November 2007)

1) Expanded COM port number of communication setting to 256 ports.

2) Expansion of SPH200-compliant function

Adding the function that enables to select latency mode to check configuration from "configuration correspondence/set time" in the SPH200 system properties.

(7) V3.4.2.0 (August 2007)

1) Expansion of board controller-compliant function

- A function enabling a user to select rising-edge or falling-edge in the logic system of the signal to the high-speed Input connector has been added to the board controller's CPU parameters.
- A function to externally set a link station address has been added to the simplified CPU link function of the board controller's CPU parameter.
- The day of the week data and the calendar write request have been added to the board controller's calendar information.

2) Improved failure diagnostic function

A "Failure analysis" function to automatically analyze and display the failed state has been added to the SPH300 failure diagnostic function.

* To use the "Failure analysis" function, the installation of Microsoft [.NET Framework 2.0] is required.

Please see Item **6. Upgrading procedure** in this notice.

(8) V3.4.1.0 (May 2007)

1) Supports a mode of No detection of battery error

Adding the battery error detection function for CPU parameters in SPB series.

2) Enhanced LED monitor indication

Adding display function of existence of zero suppression in decimal display and Standard decimal point expression in real number.

(9) V3.4.0.0 (February 2007)

1) Improving basic functions

Various basic functions, including variable editor's coordination with Microsoft Excel, variable property dialog box, automatic update of cross-reference function, project comparison, and the element registration in data watch

window, have been improved.

2) Improving ladder diagram editor

Such functions as alignment of the bus on the left, worksheet division, and the jump to circuit comment have been improved.

3) Supports SPH300 non-user ROM-based operation mode

4) Supports SPH2000 redundant CPU module (NP1PM-256H)

5) V3.3.7.1 problem correction

A problem that if the capacity of a global variable sheet is large, the Expert was forcibly terminated when you intended to execute the creation of cross-reference, has been corrected.

(10) V3.3.7.1 (December 2006)

1) V3.3.7.0 problem correction

With models of SPH200 and SPB, a problem that showed an application error when you operated the download of project, has been corrected.

(11) V3.3.7.0 (November 2006)

1) Board controller support — T-Link optional card

(12) V3.3.6.0 (October 2006)

1) IP address list: Network device search function

A network device search function has been added to IP address list function.

2) Offline ZIP file save function

A function to save ZIP files on the computer's hard disk has been added.

(13) V3.3.5.0 (August 2006)

1) Servo system FALDIC ALPHA5 support

2) V3.3.4.1 problem correction

With models other than SPH300EX, a problem that showed a compile error if the end of variable name was '_E' when you specified a global variable for AT, has been corrected.

(14) V3.3.4.1 (July 2006)

1) High performance CPU module SPH300EX(NP1PS-74D) support

2) V3.3.3.0 problem correction

With SPH2000(NP1PM-48E/NP1PM-256E), a problem that the access of FTP was disabled, has been corrected.

(15) V3.3.3.0 (May 2006)

1) Enhancing password functions

A function that lets the user set the scope of access restrictions has been added for use with the function that was added in V3.3.2.0 to set restrictions on PLC online operation. A password can now be used to set the restricted functions for each access level.

2) Adding a ladder program printing function with cross-references

A function was added that allows project printing to print cross-reference data on the same page as the program.

3) Improving the dialog box for defining variables

The default display for the "Display all worksheet variables" function, for setting global variable groups in the dialog box for defining variables, has been changed to "With setting".

4) Tool chip display of variable data

The data format, initial value, comments, etc. for each variable can be displayed in tool chip format on the worksheet.

(16) V3.3.2.0 (January 2006)

1) Expansion of password functions

A function has been added to set restrictions on PLC online operation.

By using this function and setting a password for access authentication, PLC operation can be restricted on three levels (i.e., level 1, level 2, and level 3).

2) Batch resetting of variable display mode

A reset function has been added to return the variable display mode settings in the LD/FBD worksheet to the default display settings in a single operation.

3) SPH300 firmware support (V**65)

- System fail-soft startup time reduction function
- Continuous operation under forced settings

(17)V3.3.1.0 (November 2005)

1) Board controller support

- System support functions added.
- Online functions added.

(18) V3.3.0.0 (August 2005)

1) System definition: Enhanced non-mounted operation

Mounted and non-mounted modules can be switched with just one click. And, with just one click of the mouse in the batch non-mounted setting function, modules selected on the configuration tree and modules below that hierarchy can be set for batch dismounting or the setting can be cancelled.

2) SPH 2000 support

The new series CPU module SPH2000 is supported.

(19) V 3.2.1.0 (June 2005)

1) Change of the product name

The name of the product has been changed from "D300win" to "SX-Programmer Expert (D300win)".

2) Improved variable editor

The variable editor has been improved to support Microsoft Excel, to enhance edit operation and batch insertion of variables.

3) Improved project editing

The extraction of compressed project files (ZWT files) and the project tree editor function have been improved.

4) Improved printer functions

Page print setting in project printing and loop back printing for variable worksheets have been improved.

5) Supports SPH300 I/O area expansion

The SPH300 (V**64 or later) I/O area expansion function is supported.

(20) V 3.2.0.0 (April 2005)

1) Upgraded kernel functions

- Improved dialog box for defining variables
- Improved dialog box for defining functions and function blocks
- Improved variable worksheet operations
- Added POU group functions
- Expanded POU import/export functions
- Enhanced multi-user support functions
- Expanded sampling trace functions
- Improved message windows

2) Added a project history function

A function has been added to log project histories (including POU changes) after every successful download.

3) Improved failure diagnostic function

The documentation on the part of the memory dump in the RAS display screen has been improved.

(21) V 3.1.4.0 (October 2004)

1) Maximum processor link module configuration expanded

The maximum connectable number of processor link modules (P-link or FL-net) has been increased to 8 (eight).

2) Added system definition settings

A setting for booting the system without CPU "0" has been added to the system operation definition settings in the

system definition. An “Expansion setting” has been also added to the fail-soft startup definition in the system properties.

(22) V 3.1.3.0 (August 2004)

- 1) Supports sampling trace function on SPH CPU board
High-precision sampling trace startup is supported when this programming support tool is connected to a CPU board (NP3PS-SX1PCS74 V**63) with sampling trace function mounted.

(23) V 3.1.2.0 (May 2004)

- 1) 8 k-step POU support
Supports 8 k-step POUs of SPH300 (V**62 or later).
- 2) Improved the SX control utility
Online connection by the message manager is supported. This enables Expert (D300win) and the control utility to communicate simultaneously from a single port.

(24) V 3.1.1.0 (December 2003)

- 1) Sampling trace function support
Supports the sampling trace function available with the SPH300 (V**61 or later).
- 2) Improved online functions
The failure diagnostic function has been enhanced, in which the POU name corresponding to the POU number can be displayed by the system fatal fault information.

(25) V 3.1.0.0 (June 2003)

- 1) Compact PLC SPB support
The IEC 61131-3 compliant program for SPB series PLC is supported.
- 2) SPB system software utility
The system software (firmware) for SPB basic units can be rewritten to SX mode (IEC 61131-3 -compliant programming language).
- 3) Enhanced SX control utility functions
Data editing functions have been expanded; including time and text string formats. Backup file uploading has been enhanced, editing functions expanded, and a tab delineated text format added.

(26) V 3.0.0.0 (December 2002)

- 1) New ladder editor
The ladder editor, which is used to display and edit ladder worksheets, has been improved from the previous free-layout format to a grid-frame fixed format. The new editor simplifies programming by key operation.
- 2) Table format for variable worksheets
The new table format for variable worksheets (local/global) makes it easier to organize variables.
- 3) Project protect function added
Security has been increased by allowing detailed protection by means of a project password.
- 4) Improved fault diagnosis function
Fault diagnosis has been simplified by allowing fault data analysis while confirming constituent data.

5. Backward compatibility

The following table shows the project compatibility for the upgrade.

	Projects created with previous version	Projects created with V 3.5.2.36
NP4H-SEDBV3 (previous version)	○	△
NP4H-SEDBV3 (V 3.5.2.36)	○	○

Projects created with the new version cannot be used with the previous version Expert (D300win).

6. Upgrading procedure

- (1) Create a new folder on the computer's hard disk.
- (2) Download the V 3.5.2.36 upgrade file (ExpertUpdateV35236.exe) to the new folder.
- (3) Double click the downloaded file. (The upgrade is a self-extracting file.)
- (4) The file will be extracted to the same folder.
- (5) Double click the extracted Setup.exe file.
- (6) Follow the prompts from the installer program to upgrade the software.
- (7) Expert (D300win) will start up when the installation is completed. Check Info from the Help menu to make sure the version number is V 3.5.2.36.

* NOTE 1

To use the "Failure analysis" function which were added in V3.4.2.0 or later, the installation of Microsoft [.NET Framework 2.0] is required. Install the program according to the procedure below.

< Windows XP SP2 or later >

- (1) Download [.NET Framework 2.0] from Microsoft's website shown below.
<http://www.microsoft.com/en-us/msdn/netframework/downloads/>
- (2) Execute the downloaded file.
- (3) Following the instructions from the installer to install the program.

< Windows 2000 SP3 or later >

- (1) Download [Windows installer 3.1] from Microsoft's website shown below.
<http://support.microsoft.com/kb/292539/en-us>
- (2) Execute the downloaded file.
- (3) Following the instructions from the installer to install the program.
- (4) Download [.NET Framework 2.0] from Microsoft's website shown below.
<http://www.microsoft.com/en-us/msdn/netframework/downloads/>
- (5) Execute the downloaded file.
- (6) Following the instructions from the installer to install the program.

< Windows 2000 SP2 or earlier, Windows XP SP1 or earlier >

As [.NET Framework 2.0] is not supported, the "Failure analysis" function is not available.

* NOTE 2

To use on Windows Vista and Windows7, administrator's right is necessary for the installation. Install the program according to the procedure below.

- (1) Select "Setup.exe" in the Explorer window after extracting the update file, and right-click this.
- (2) Select "As the administrator" from the right-clicking menu.
- (3) Following the instructions from the installer to install the program.

7. Upgrading precautions

- (1) Make sure that NP4H-SEDBV3/Expert (D300win) is already installed on the computer prior to upgrading the software.
- (2) The software cannot be upgraded if the computer does not have Expert (D300win) version 3.0.0.0 or later already installed on it.
- (3) Do not begin the installation if the upgrade file is not exactly the same size as the file that was downloaded. If they are not the same size, throw all of them into the trash and download the upgrade file again.
- (4) Be sure to quit all programs that are currently running (e.g., Expert (D300win), SX control utility, or message manager) prior to the installation.
- (5) If the installation fails due to an error, try to install the software again. If the installation fails again, re-install the previous version of Expert (D300win) from the setup CD and then try to install the upgrade software again.

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