# **USAGE NOTES**

## Title: SigmaWin+ Version 7 Release Notes

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

## **About This Document**

This document provides information related to the current and historic releases of Yaskawa's SERVOPACK Engineering Tool SigmaWin+ for Sigma-series AC SERVOPACKs. Read and understand this document to determine if SigmaWin+ should be updated for your usage.

#### Contents

| SigmaWin+ Version 7.44 Release Notes (upgrade from version 7.43)  | 2  |
|---|----|
| SigmaWin+ Version 7.43 Release Notes (upgrade from version 7.42)  | 3  |
| SigmaWin+ Version 7.42 Release Notes (upgrade from version 7.40): | 4  |
| SigmaWin+ Version 7.40 Release Notes (upgrade from version 7.32): | 6  |
| SigmaWin+ Version 7.32 Release Notes (upgrade from version 7.31): | 7  |
| SigmaWin+ Version 7.31 Release Notes (upgrade from version 7.29)  | 11 |
| SigmaWin+ Version 7.29 Release Notes (upgrade from version 7.28)  | 13 |
| SigmaWin+ Version 7.28 Release Notes (upgrade from version 7.27)  | 14 |
| SigmaWin+ Version 7.27 Release Notes (upgrade from version 7.26)  | 15 |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

## SigmaWin+ Version 7.44 Release Notes (upgrade from version 7.43)

| # | ltem    | Category    | Description   |
|---|---------|-------------|---|
| 1 | Sigma-X | New Feature | Sigma-X is now supported.   |
| 2 | Trace   | Correction  | Running a trace with a SERVOPACK combined with the Safety Option SGDV-OSA01A no longer results in an error (code 0x31000012). |
| 3 | Trace   | Correction  | Negative values no longer appear as "0" when reading a trace file (*.std) and displaying the parameters.                      |
| 4 | Trace   | Correction  | SigmaWin+ no longer crashes when loading a Sigma-5 trace file (*.std).  |

#### Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

### SigmaWin+ Version 7.43 Release Notes (upgrade from version 7.42)

| # | ltem                   | Category    | Description  |
|---|------------------------|-------------|--|
| 1 | Supported OS           | Removals    | Windows 7 is no longer supported.  |
| 2 | Installation           | Improvement | USB drivers are now automatically installed when installing SigmaWin+.<br>NOTE: If the USB driver is already installed, it will not be updated.  |
| 3 | SERVOPACK<br>Features  | Improvement | Supports the additional features of SERVOPACKS with Ver.0036.  |
| 4 | Trace                  | Correction  | <ul> <li>Saving a trace setting file (*.stc) with the sampling period at 8000 us no longer changes to 2000 us after loading the trace setting file.</li> <li>Negative value is no longer 0 when "Display parameter" is performed on the trace screen.</li> <li>Tracing no longer fails if the axis number (line number) is not in ascending order of A axis/B axis in the module configuration definition.</li> <li>*.std files saved by SigmaWin+Ver.5 can be loaded again (could not be read using Ver.7.40 or 7.42).</li> </ul> |
| 5 | Parameter<br>Converter | Correction  | CSV file is now saved when selecting "Save conversion log (csv) at the same time".   |
| 6 | Installation           | Correction  | CamTool for MP3000 is no longer installed with SigmaWin.   |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

YASKAWA

### SigmaWin+ Version 7.42 Release Notes (upgrade from version 7.40):

| # | ltem                   | Category                           | Description   |
|---|------------------------|------------------------------------|---|
| 1 | Supported OS           | Additions                          | Windows 11 is now supported.  |
| 2 | Supported<br>Product   | Additions                          | Σ-MD EtherCAT is now supported.   |
| 3 | Mechanical<br>Analysis | Additions                          | <ul> <li>Up to 10 previous results from performing Mechanical Analysis are now available to be displayed from the history dialog box.</li> <li>Printing superposed graphs is now possible.</li> </ul>   |
| 4 | Trace                  | Improvements<br>and<br>Corrections | <ul> <li>The position of the pre-trigger on the graph is no longer slightly different than the set value.</li> <li>When the pre-trigger set value is changed to 0, the display of the trigger position on the graph now updates to 0 from the previous position.</li> <li>The cursor values are now completely displayed.</li> <li>The batch export destination folder is no longer set to the default value each time (the previous save destination is now retained).</li> </ul>  |
| 5 | Edit<br>Parameters     | Improvements<br>and<br>Corrections | <ul> <li>The name of PnB24 bits 20 to 24 (SO1 to SO5) now matches the name in the SERVOPACK manual.</li> <li>The name of Pn475 now matches the name in the SERVOPACK manual.</li> <li>PnB02 and PnB04 no longer display as "Reserved".</li> <li>Σ-7 EtherCAT parameter PnB9C is now displayed.</li> <li>Pn50D.0 and Pn50D.3 contents are now correct (applies to SGDV-□□E[S/P]1 models).</li> <li>Pn550 and Pn553 are now displayed (applies to SGDV-□□E[1/2]1 models).</li> </ul>  |
| 6 | Ripple<br>Compensation | Improvements<br>and<br>Corrections | <ul> <li>Ripple Compensation is now correctly performed after closing the function with the X button after clicking "Write to Servo". Previously, if closing the Ripple Compensation function with the X button, the SERVOPACK would be in the state before the Ripple Compensation was executed. Note: The related parameter is Pn423.0.</li> <li>When measuring the speed ripple with the Reverse button, the compensation effect of the speed ripple is now improved.</li> </ul> |
| 7 | Safety Module          | Improvements                       | Improved the function to clear A.EC0 and A.EC1.   |
| 8 | Scan                   | Improvements                       | An error could be reported when attempting to connect to a SERVOPACK though a controller if Microsoft Visual C++ Redistributable was not installed. The installer now installs this component.  |

# Title: SigmaWin+ Version 7 Release Notes

#### Product(s): SigmaWin+ Version 7

| # | ltem         | Category    | Description   |
|---|--------------|-------------|---|
| 9 | Setup Wizard | Corrections | <ul> <li>The Pn20A formula is now correct when a round table mechanical structure is selected with the setting to use a fully-closed encoder.<br/>The formula was: "sine wave pitch (cycle) count per load shaft rotation" ÷ "gear ratio" The formula is now: "sine wave pitch (cycle) count per load shaft rotation" × "gear ratio"</li> <li>Σ-7 EtherCAT parameters for electronic gear ratio for a (CoE) communications references SERVOPACK are now correct (was Pn20E and Pn210, is now PnB02 and PnB04).</li> <li>Σ-7 EtherCAT formula for electronic gear ratio is no longer missing "× 1/16" when set to not to use a fully-closed encoder.</li> <li>When the mechanical structure is belt and pulley, and the pulley diameter is set, the pitch formula is now correct (was "pulley diameter" + π, is now "pulley diameter" × π). This is now also corrected for "rack and pinion" and "roll feed".</li> </ul> |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

YASKAWA

## SigmaWin+ Version 7.40 Release Notes (upgrade from version 7.32):

| # | ltem                | Category    | Description   |
|---|---------------------|-------------|---|
| 1 | Supported<br>Models | Addition    | Added support for SGD7S-  |
| 2 | Trace               | New Feature | Trace function is overhauled. Major additions: 4 analog trace channels along with 4 I/O channels. Number of plot points increased from 1000, to 1024. <b>NOTE</b> : The <b>Print</b> function has been replaced with the <b>Copy to Clipboard</b> function. |
| 3 | Program             | New Feature | SigmaWin+ may be launched with multiple instances.<br><b>NOTE</b> : Connecting to products with multiple instance of SigmaWin + may degrade program responsiveness as the communication load increases.   |
| 4 | Trace               | Improvement | Added multi-axis support for trace data files.  |
| 5 | Trace               | Correction  | Corrected an issue that caused a SigmaWin+ error when SigmaWin+ was closed after importing an *.std file.   |
| 6 | Trace               | Correction  | Corrected the display of /HWBB1 and /HWBB2 in the Trace function for Sigma-7 MECHATROLINK-III models.   |
| 7 | Tuning              | Correction  | Corrected an issue that caused Sigma-7 motors to return to a previous state when starting the motor with Custom Tuning.   |
| 8 | Program             | Correction  | Corrected an issue that caused SigmaWin+ to terminate when connecting through a PCI or PCIe connection.   |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

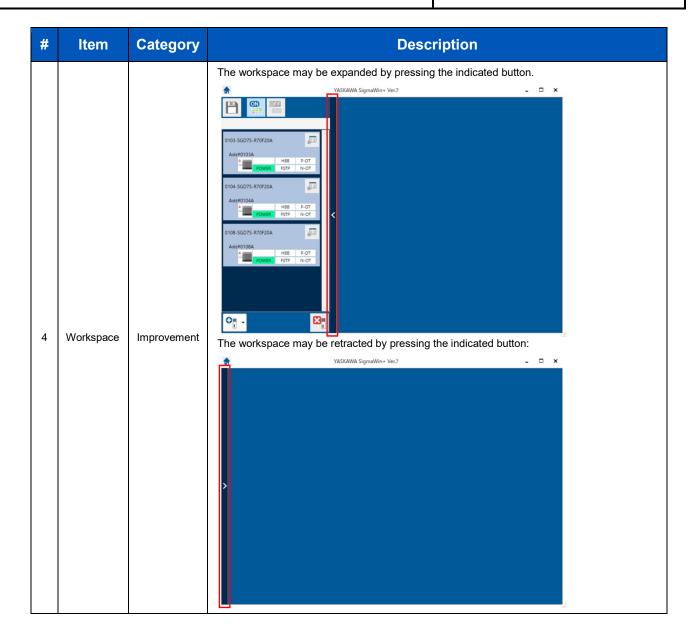
**YASKAWA** 

### SigmaWin+ Version 7.32 Release Notes (upgrade from version 7.31):

| # | ltem                           | Category    | Description   |  |  |
|---|--------------------------------|-------------|---|--|--|
| 1 | Axis<br>Search<br>function     | Improvement | When selecting connected SERVOPACKs from the SERVOPACK search results list, all SERVOPACKs can now be selected at one time with the indicated checkbox.         Communications Settings         Search for SERVOPACKs: Controller Connection         Search Again         Image: Connect Circuit No. Axis No.(Station Address) SERVOPACK         Image: Connect Circuit No. Axis No.(Station Address) SERVOPACK |  |  |
| 2 | Edit<br>Parameters<br>function | Improvement | The startup speed of the Edit Parameters window has been improved.  |  |  |
| 3 | USB driver                     | Improvement | The SigmaWin+ installer places the USB driver in the following location:<br><b>[32-bit systems]</b> C:\Program Files\YASKAWA\SigmaWinPlus7\Driver<br><b>[64-bit systems]</b> C:\Program Files (x86)\YASKAWA\SigmaWinPlus7\Driver<br>This allows the user to delete the SigmaWin+ installer files, yet still be able to install the USB<br>driver.   |  |  |

# Title: SigmaWin+ Version 7 Release Notes

#### Product(s): SigmaWin+ Version 7



#### Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

| # | ltem              | Category   | Description   |
|---|-------------------|------------|---|
| 5 | Program<br>Launch | Correction | Previously, launching SigmaWin+ could result in the following error, if Microsoft Office (64-bit version) was installed.          YASKAWA SigmaWin+ Ver.7         Image: Condition of the model information file was not completed normally. An attempt to restore the SigmaWin+ data to the previous condition failed.         The following is a possible cause of not being able to add the file.         • There was a problem in the model information file that was just added.         • There was a problem in the model information file that was just added.         • The Microsoft Access Database Engine 2010 Redistributable Components are not installed.         Click the OK Button. SigmaWin+ will be ended automatically. Uninstall SigmaWin+ and then install it again.         OK  |
| 6 | Trace<br>function | Correction | manually placed in the SigmaWin program directory.<br>This issue is corrected.<br>The checkmark for axis selection was not displayed for multi-axis SERVOPACKs in the Trace<br>function. This issue is corrected, as shown:<br>Trace Setting<br>Auto Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Monitors positioning completion ( Set Samping Setting<br>Trace Object Setting Trace - vertical axis (Left) Set Monitors position ( Set |
|   |                   |            | Trigger Conditions     Trigger A       Trigger A       Trigger Target       No Trigger       Trigger Level       0       Trigger Type       P Rising Edge   |

# Title: SigmaWin+ Version 7 Release Notes

#### Product(s): SigmaWin+ Version 7

| #  | Item                             | Category   | Description   |
|----|----------------------------------|------------|---|
| 7  | Tuning<br>function               | Correction | Using Windows 10, SigmaWin+ would stop working if the speed was manually decreased in the <b>Moment of inertia ratio estimation</b> function within the <b>Tuning</b> function. This issue is corrected.<br>Note:<br>After the speed is set and the notification message is displayed, SigmaWin+ would freeze when opening the <b>Reference Transmission</b> Window.                |
| 8  | Real-time<br>tracing<br>function | Correction | The two following issues have been corrected:<br>1. When <b>Real-time tracing</b> function is executed simultaneously on two axes, the /S-ON<br>waveform repeatedly switches between ON and OFF regardless of the actual servo ON/OFF<br>state.<br>2. When <b>Real-time tracing</b> function is executed simultaneously on two axes and one axis<br>stops, SigmaWin+ stops working. |
| 9  | Search<br>function               | Correction | If using SigmaWin+ through a motion controller, SigmaWin+ could not correctly connect to SERVOPACKs in a system that has multi-axis SERVOPACKs. This issue is corrected.  |
| 10 | Standard<br>MP                   | Correction | If SigmaWin+ is started with MPE720 Ver. 7 (the programming environment for Standard MP controllers), SigmaWin+ stops working if a CSV (axis file) <b>Edit Parameters Import</b> function is executed with the CSV file already open. This issue is corrected.  |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

## SigmaWin+ Version 7.31 Release Notes (upgrade from version 7.29)

| # | ltem                          | Category     | Description  |  |
|---|-------------------------------|--------------|--|--|
| 1 | Model<br>information<br>files | Installation | Old model information files must not be used.<br>When upgrading to SigmaWin+ Version 7.31, uninstall any old versions of SigmaWin+<br>version 7.x, and select the box as indicated in the image below.               |  |
| 2 | Parameter<br>additions        | Improvement  | For Sigma-7S 100/200V SERVOPACKs with EtherCAT, added parameters PnB9C, PnBBE, PnBC0, PnBC2.<br>Note: 400V models do not support these parameters.   |  |
| 3 | Display                       | Improvement  | Support for high resolution monitors.<br>Also, corrections made to Trace function screen.  |  |
| 4 | Standard MP                   | Improvement  | Various feature improvements when SigmaWin+ is started with MPE720 Ver. 7 (the programming environment for Standard MP controllers): Axis Parameter CSV Export & Import, and Parameter comparison with project file. |  |

#### Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

| # | ltem   | Category    | Description   |
|---|--|-------------|---|
| 5 | Copying<br>parameters<br>from one axis<br>to another | New Feature | <text><list-item></list-item></text>  |
|   |  |             | Ph001.1         Overtravel Stopping Method         =         0 : Apply the dynamic brake or cost:         0 : Apply the dynamic brake or cost:         0 : Apply the dynamic brake or cost:           Ph001.2         Main Circuit Power Supply AC/DC II         =         0 : Input AC power as the main circuit         0 : Input AC power as the main circuit         0 : Input AC power as the main circuit           Ph001.3         Reserved parameter (Do not chang         =         0 : Reserved parameter (Do not chang         0 : Reserved parameter (Do not chang           Ph002.0         MECHATROLINK Comman Position         =         1 : Use TLIM as the torque limit.         1 : Use TLIM as the torque limit. |

# **I YASKAWA**

## Title: SigmaWin+ Version 7 Release Notes

#### Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

## SigmaWin+ Version 7.29 Release Notes (upgrade from version 7.28)

| # | ltem  | Category    | Description  |
|---|---|-------------|--|
| 1 | Forced termination  | Correction  | SigmaWin+ was terminated during operation. Several contributing factors have been identified and corrections have been made.   |
| 2 | SERVOPACK<br>search results and<br>connection   | Correction  | When two SVC-01 were connected separately with SGD7W SERVOPACKs that<br>have the same station address, and SigmaWin+ was connected to the<br>SERVOPACKs via a machine controller, the SERVOPACK search function failed or<br>a connection could not be established with a SERVOPACK even when the<br>SERVOPACK was found.<br>Another example of the problem was that the incorrect SERVOPACK was displayed<br>in a SERVOPACK search result when axis numbers for one SGD7W and one<br>SGD7S SERVOPACK were set as follows in MPE720 Ver.7.<br>SGD7W (first axis) 03:01<br>SGD7S: 04<br>SGD7W (second axis) 03:02<br>This problem has been corrected. |
| 3 | The button to add<br>servo drives when<br>SigmaWin+ is<br>connected via<br>MPE720 Ver.7 | New Feature | SERVOPACKS connected via MPE 720 Ver. 7 can now be added to the project with the "Add SERVOPACK" function within a project.  |
| 4 | Title display when<br>SigmaWin+ is<br>connected via<br>MPE720 Ver.7                     | Improvement | The string (machine controller model+ project file storage location + project file name) is displayed in the title bar when SigmaWin+ is connected via MPE720 Ver.7  |
| 5 | Supports new<br>product   | New Feature | SigmaWin+ 7.29 adds support for the following products:<br>SGD7S-□□□□C0  |
| 6 | User's Manual   | Improvement | The User's Manual is now accessible without having to install SigmaWin+.<br>It is found at:<br><directory .zip<br="" extracted="" of="" sigmawin+="">archive&gt;\SIETS80000134*.zip</directory>  |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

YASKAWA

## SigmaWin+ Version 7.28 Release Notes (upgrade from version 7.27)

| # | Item                  | Category    | Description  |
|---|-----------------------|-------------|--|
| 1 | Supports new products | Improvement | SigmaWin+ 7.28 adds support for the following products:<br>• 400V Sigma-7Siec<br>• 400V SigmaLogic7 Compact<br>• 400V SigmaLogic7 Modbus |

Product(s): SigmaWin+ Version 7

Doc. No. SigmaWinPlus\_Ver.7

**YASKAWA** 

## SigmaWin+ Version 7.27 Release Notes (upgrade from version 7.26)

| # | ltem  | Category    | Description   |
|---|---|-------------|---|
| 1 | Installation of FT components   | Improvement | SigmaWin+ now installs the FT components with the main program installer.<br>Previous versions of SigmaWin+ required the FT components to be installed<br>manually.   |
| 2 | Supports new<br>SERVOPACK<br>firmware   | Improvement | SigmaWin+ 7.27 supports new SERVOPACK firmware.   |
| 3 | Edit Parameter<br>window, when<br>connected with<br>MPE720 using<br>Ethernet Option<br>Module 218IF-01/02 | Correction  | Corrected the Edit Parameter not starting under the following condition:<br>SigmaWin+ connection via MPE720 through the Ethernet Option Module 218IF-01<br>or 218IF-02.<br>[Applicable Models]<br>SERVOPACKs with MECHATROLINK communications<br>Note: If SigmaWin+ is connected through a Controller, SigmaWin+ will not support<br>communications via the Ethernet Optional Module (218IF-01/02).   |
| 4 | Parameter display:<br>Pn493, Pn494  | Correction  | Corrected the missing display of Pn493 and Pn494 that existed in SigmaWin+version 7.26.           [Applicable Models]           SGD7S-000         SGD7W-0020           SGD7S-000         SGD7W-0020 |
| 5 | Input Signal names<br>(SI1 to SI3) for the<br>SERVOPACKs with<br>analog voltage/pulse<br>train references | Correction  | The input signal names for CN1-41, CN1-42, and CN1-43 have been changed to the names used in the product manual:           Before Change         After Change           SI1 (CN1-41)         SI3 (CN1-41)           SI2 (CN1-42)         SI1 (CN1-42)           SI3 (CN1-43)         SI2 (CN1-43)           [Applicable Model]         SGD7S-0000   |
| 6 | Pn880 display   | Correction  | The display of the Pn880 value was changed from the decimal number system to the hexadecimal number system. [Applicable Models] SGD7S-00010 SGDV-000110   |

# Title: SigmaWin+ Version 7 Release Notes

#### Product(s): SigmaWin+ Version 7

| # | Item                     | Category   | Description   |
|---|--------------------------|------------|---|
| 7 | Pn001 & Pn515<br>display | Correction | Pn001 and Pn515 are now displayed.<br>[Applicable Models]<br>SGD7S-000D30<br>SGD7S-000DA0 |