

General Information

This update can exclusively be used for the **PSS®SINCAL Platform 19.5**. It can't be used with other product versions!

Procedure for Installation

- Close all running PSS SINCAL Platform applications.
- Decompress the Zip archive.
- Start the installation using AutoRun.exe or Sincal\SincalSetup.exe. The setup automatically detects the existing PSS SINCAL Platform installation and updates all components.

If you have any questions, please contact **PSS SINCAL Platform Support** (fon +43 699 12364435, e-mail sincal.support.it@siemens.com).

Additions/Corrections Update 7 (December 22, 2023)

This update contains all the additions of the previous updates and on top of that the following error corrections and additions.

PSS SINCAL User Interface

- Network Browser – Contingency List
When activating the "Select all" and "Deselect all" functions, the contingency list was not updated.
- Formatting in the Graphics Editor
Improved functionality when setting formatting/attributes via the format toolbar if the formatting of the selection amount is different.
- Incorrect Symbols
Some symbols in the menu were displayed incorrectly when using HighDpi display.
- Diagrams
 - Diagram objects with a background color identical to the page color were drawn transparently. As a result, the text of the objects (labels, markers) was drawn without a background and the underlying line made the text unreadable.
 - Correction of an error when saving the order of diagram objects in the Format dialog box.
 - Correction of an error when updating old pipe diagram data which could have caused a complete program crash.
- Message Boxes
Correction of an error in some extended message boxes with options, whereby the application was not completely locked and various actions could be executed.

PSS SINCAL Electrical Networks

- Harmonics (OB)
The extended parameter "Harmonics.DefAngUnsym=On" can be used to activate automatic

switching to unbalanced calculation for default angle determination. An unbalanced power flow is now also calculated here.

- **Operating Points**
The ambient temperature at operating points was only taken into account if profiles were also used for time series.
- **Protection Documentation**
Correction of an error when saving and loading the legend attributes, whereby the background color, line color and line pattern were not saved or restored.
- **Protection Coordination (OC/SZ)**
Correction of the incorrect report for protection device setting values.
- **Protection Analysis (PSA)**
Correction of an error when highlighting network elements if parts of the network graphic are not graphically created.
- **Distance Zones Data Screen Form**
The selective grading section was locked when "Manual" was selected. This problem has been fixed.
- **Dynamics (ST/EMT)**
Extended calculation parameter for infeeders with bad convergence in PSS NETOMAC. This allows the PQV option for the power flow to be activated in the CTL files in program control line 4:
NETOMAC\PQV := 1
- **CIM 16 Import – Extensions for LV Insight**
 - Detailed error output for problems and topology errors.
 - Correction of an error when importing the graphic of node elements, whereby the element contour had to have at least 3 points (node, terminal contour, symbol point) - an import using node and symbol position was not possible.

PSS SINCAL Pipe Networks

- **Infeeder Heating/Cooling**
For power supplies with constant supply power, which have the same temperature as the return temperature, the calculation was completed without an error message.
- **Select Supply**
The GUI function for selecting the supply of network elements did not work in district heating networks.

PSS SINCAL Automation

- **Calculation Automation – Protection Devices**
If several calculations were performed by the automation and elements on which protection devices are located were set to inactive, the protection devices were set to inactive and no longer to active.

PSS NETOMAC

- **Stability Limit**
Correction of an error when processing the control settings when starting from the PSS NETOMAC user interface.
- **Power Flow**
Improvement of convergence.
- **Templates**
 - The PLO file of the template had an incorrect format, which caused the plot definition dialog box to not work properly.
 - Correction when creating a new project from a template. The files of the template project were only renamed if they were assigned in the project. Additional files in the directories kept the "template default name".

Additions/Corrections Update 6 (October 30, 2023)

This update contains all the additions of the previous updates and on top of that the following error corrections and additions.

PSS SINCAL User Interface

- **Images in the Network Diagram**
Correction of an error with saving the image information when pasting a screenshot from the clipboard. The images were saved in the images directory, but with absolute paths in the database. By saving as/network archive exports, the images were then no longer found, or referred to the wrong image.
- **Annotation and Filter**
Correction of an error in the annotation and filter of the unbalanced load flow results at the node. The "Phasing" field could be activated and selected as a filter, but it was neither displayed in the graph nor considered in the filter.
- **Automation**
Correction of a bug in the GUI automation function
`SincalDoc.SelectByFunction(ConnectedTopology)` – which did not select any network elements in the graphics editor.

PSS SINCAL Electrical Networks

- **Power Flow (PF)**
An error in generating the results in the external results database was corrected. The node and element violation statuses were not correct.
- **Distance Protection Setting Calculation (DI)**
The error messages E2894 and E2895 (distance protection modeling check of tripping and pickup data) were also incorrectly output in the following calculations: Distance protection settings determination, Distance protection grading diagrams. This problem has been corrected.
- **Load Development (LD)**

Relative development series and factors were not allowed for measuring devices.

- Fuse Dimensioning (DN)
The algorithm did not consider connectors correctly.
- Reliability (ZU)
The Extended parameter "Parallelization" was not considered in the reliability calculation. The parallel calculation was always active.
- Automation of the Calculation Methods
 - GetObject()
Fixed an error where an empty COM object was returned instead of None/Null if the item could not be found.
 - SetValue()
Correction of an error when setting attributes for terminals of network elements via the COM API.

PSS NETOMAC

- XMAC Models
Correction of a processing error when using the "DLL IEC" block with many inputs.
- Transformer with M-Line
Correction of an error when processing M-line for transformers. The impedance ratios R0/R1 and X0/X1 were not correctly considered.

Additions/Corrections Update 5 (September 29, 2023)

This update contains all the additions of the previous updates and on top of that the following error corrections and additions.

PSS SINCAL User Interface

- Contingency Analysis (CA)
 - Improved performance in the network browser when processing and displaying contingencies.
 - Correction of primary keys in CA result tables (CANodeResult and CABranchResult).
 - Improved display of results in tabular view (units, names).
- Grid Code Compliance Renewables (DES)
Connection of the user-defined diagram colors in the result diagrams of the calculation module.
- Control with Shunt Capacitor and Shunt Reactor
An error in editing controlled terminals in the data screen form has been corrected.
- Password Input Fields
Correction of a problem whereby navigating by cursor, deleting the input (DEL, BACKSPACE) was not possible.

PSS SINCAL Electrical Networks

- Load Allocation (LA)

Powers of loads were not always adjusted correctly in the iterations.

- **Control with Shunt Capacitor and Shunt Reactor**
An error in editing controlled terminals in the data screen form has been corrected.
- **Harmonics (OB)**
For three-winding transformers, assigned impedance characteristics were not correctly taken into account and instead a predefined constant quality X/R was calculated. This problem has been corrected.
- **Protection Routes**
Correction of an error in the generation of protection routes for pickup steps. Only the distance for phase excitation was always determined. The implementation has been extended so that the distance with the maximum range is displayed depending on the type of fault, regardless of whether phase, ground or both settings are assigned.

Additions/Corrections Update 4 (August 30, 2023)

This update contains all the additions of the previous updates and on top of that the following error corrections and additions.

PSS SINCAL User Interface

- **Annotation Three-Winding Transformer**
Correction of an issue when processing the text settings of the 3rd terminal. The error caused changes to the formatting of the text on the 3rd terminal to be saved.
- **Neutral Point Symbol**
Correction of an error when displaying the neutral point symbol (NeutralPointImp) in the graphic, which did not display the current operating state.

PSS SINCAL Electrical Networks

- **Protection Device REL670**
Correction at min. tripping current.
- **Protection Analysis (PSA)**
Correction of an error in the results report. The backup devices were not output correctly.

PSS NETOMAC

- **Eigenvalue Analysis (EVA)**
Correction of an error when processing branch-related network element values (P, Q, I).

Additions/Corrections Update 3 (July 27, 2023)

This update contains all the additions of the previous updates and on top of that the following error corrections and additions.

PSS SINCAL User Interface

- Substation Dialog Box
Correction of incorrect entries in the pop-up menu of the substation browser for selecting in the network graphic.
- Importing PSS SINCAL Networks
Correction when importing records with secondary keys.
- Insert Netpoint
Correction of an error when inserting the netpoint for lines in locked graphic layers.

PSS SINCAL Electrical Networks

- Harmonics
Correction of an error in the display of the result screen forms (symmetrical/unbalanced).
Characteristic curves with activated Default Angle Determination option lead to unbalanced results in the symmetrical network model.
- Converter
Correction of an error in voltage control. If no controlled node was assigned, the control was not considered correctly.
- Dynamics
When calculating with negative time offset, the signals in the diagrams were not assigned correctly.

Additions/Corrections Update 2 (June 30, 2023)

This update contains all the additions of the previous updates and on top of that the following error corrections and additions.

PSS SINCAL User Interface

- Graphic Element Container
When performing UNDO operations, the graphical element container was not properly created, because of which the elements were no longer displayed in the reduced form (without text, suppression of symbols, ...)
- Breaker Symbols
Correction of an error when loading the "Simplified/Advanced" display option.
- Insert Netpoint
Correction of an error when inserting a net point on a switched element.

PSS SINCAL Electrical Networks

- Screen Form Asynchronous Machine
In the System Data, the group box for DFIG was always visible, even if the corresponding fields were not visible.
- Screen Form Network Area

Removal of the "Contingency Analysis" tab.

- Screen Form Distance Protection Zones
The SD135 and SD135A do not display the "Angle phi" field.
- Contingency Analysis (CA)
If the contingency analysis was started several times in the automation, the results were not cleared.
- Automation
In some calculation modules the database was not closed, which could lead to the fact that during automations the database file could not be accessed until the calculation object was released.
- CYMDIST Export
Wrong data types were output when exporting a regulator.
- Protection Device Database
For the circuit breaker with CT 269PLUS.6, an error in the protection device database has been corrected.

PSS SINCAL Pipe Networks

- Results Heating
The summary results for Network Area and Network Level were not correct.
- Screen Form Pressure Regulator
In gas networks, the output pressure was always locked in the pressure regulator screen form.

PSS NETOMAC

- Eigenvalue Analysis (EVA)
Correction of an error in the construction of the calculation GUI during the Eigenvalue Analysis. When only one element was available in the analysis, the selection value "All" was not included in the selection list, causing the calculation to terminate with error.

Additions/Corrections Update 1 (May 31, 2023)

This update contains the following error corrections and additions.

PSS SINCAL User Interface

- Printing
Correction of an error when printing attachments such as protection devices, breakers and fault observations. These were not displayed when printing.
- Protection Device Pop-up Menu
Correction of an error when opening the diagrams via the pop-up menu of a protection device for the first time, which caused the diagram view to be activated incorrectly.
- Workspace
Fixed an error when importing workspaces, which caused the visibility control for labels to be

imported incorrectly and therefore the corresponding field could no longer be displayed in the network graphic.

PSS SINCAL Electrical Networks

- Power Flow
 - Correction of a problem with creating voltage curve diagrams for unclear routes.
 - Correction of an initialization error in the calculation of load factors using the Newton Raphson method.
 - Correction of an error in active and reactive power generation. For unbalanced network elements, the factor for the phase was not correctly determined in all cases.
- Short Circuit
 - Correction of a problem with short circuit and protection calculations with initial load. The voltage in case of fault with topology changes was not always determined correctly. The correction can be disabled with an extended parameter: Group: ShortCircuit, Name: DisableQuickLF;
 - Unbalanced network models: Extension of error message E2713 with the hint that for 2-phase short-circuit calculations also the option "Unbalanced" must be activated.
- Protection Simulation
 - Correction of an error in determining the points for the tripping area (forward).
- OC Setting Values
 - Correction of an error when entering the OC setting values. If several OC settings were assigned to a device, the ground setting (ProtCharE_ID) was not set correctly.
- Equipment Sizing for Lines
 - Now the reduction factor is also taken into account to visualize the utilization of the lines.
- CIM16 Import
 - Improved determination of VoltageLevels at ConnectivityNodes outside the substation when using line containers in CIM.

PSS NETOMAC

- Correction of an error at transformers in the dynamics simulation. A rotation of the additional voltage specified in the tap changer of three-winding transformers (1-line) was not correctly taken into account in the dynamics simulation.

Multi-User Master Database

- Corrections to the "History" and "Undo Publish" functions. After the release by the administrator, it was no longer possible to check the changes of the check-in via HTML log. As a result, it was also no longer possible to roll back the changes correctly using the "Undo" function.
- Fixed a bug when converting the current network to a master database. Directly after the conversion some functions were not available via the administration page (Show Changes, Publish All, ...).