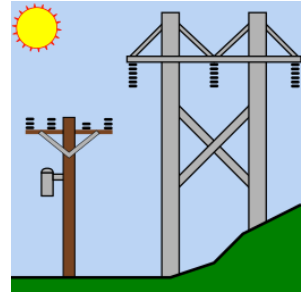


2024 PLS-CADD Advanced Training and User Group Meeting

What's New in PLS-POLE™



Summary of changes since June 2022 User Group.
Covers versions 17.50-20.00.

Projects saved in version 20.00 are readable in versions 18.01 and newer unless:

- Version 18.11 and newer when using Notes or Keywords in Attachment Manager.
- Version 18.12 and newer for LIC and LCA files when using EN50341-2-15:2019 (Netherlands NNA).
- Version 19.12 and newer when using hatch filled annotations.
- Version 19.13 and newer when using lambda, double pin, or double suspension insulators.
- Insulator Library files with lambda, double pin, or double suspension properties require version v19.05 or newer.
- Version 19.13 and newer when using modal analysis.

New Commands

1. Added support for three new insulator types:
 - 1.1. Lambda (Inverted V)
 - 1.2. Double Pin
 - 1.3. Double Suspension
2. Context menu commands, *Rotate* and *Move Anchor Point*, when snapping to guys to graphically position the guy anchor.
3. Context menu command, *"Rake Pole"*, when snapping to a pole's center line to graphically lean the pole.
4. Added *Run Modal Analysis* option to **General/General Data....** In anticipation of updates to ASCE 48.

Standards and Codes

- 1) Added "EN50341-2-18:2016" Normal and Extreme Swedish NNA Wind/Ice Loading Methods.
- 2) Added "EN50341-2-15:2019 (Netherlands NNA)" Wind/Ice Loading Method.

General Additions

1. No longer save files compatible with software versions earlier than v17.50.
2. No longer support Windows 7 or Windows 8. See <https://www.powerlinesystems.com/windows> for officially supported versions of Windows.
3. Mini-pref "Prompt for permission before saving projects in new version" now results in a Yes, No, Always dialog so user can avoid being prompted multiple times during Batch Modify without having to change the mini-pref first.
4. Made Framing Manager drag'n'drop match Windows Explorer convention - drag starts as soon as mouse moves when something is selected.
5. Notify user when saving files to an updated file format version, what software versions can read those files, and what feature requires that new version.
6. Make Allowable Spans *Create Method 1 File for PLS-CADD* option compatible with models that only define insulators in framing elements.
7. Added four options to 3D Controls Load Vectors combo box "PLS-CADD Wires", "PLS-CADD Wires and Labels", "PLS-CADD Survey Data", "PLS-CADD Wires and Survey Data", in addition to "PLS-CADD Wires, Labels and Survey Data".
8. Added Notes and Keywords columns to **Lines/Reference Manager** file list.
9. Added Notes and Keywords columns to **Drafting/Attachments (Raster and Vector)/Attachment Manager....** Can add Notes or Keywords to any attached file using the Table button or context menu command.
10. Open **File/Preferences...** when the units status bar indicator pane is double-clicked.
11. Added **File/Preferences...** option to save backup files with a .PLSBAK extension.
12. Added preference setting to reverse direction of zoom with scroll wheel.
13. Now persist **View/Entity Info Snap Settings...** when closing and opening PLS-POLE.
14. Now warn about potential unsaved changes whenever you hit the ESC key in a dialog containing a table with changes.
15. Persist the state of the "Lock to label load case" checkbox in the **View/Display Options/Set Rotation, Color and Label Options...** dialog.
16. Usability improvements to the list control in **Drafting/Attachments (Raster and Vector)/Attachment Manager...**
17. Improved performance of DXF hatch support and added a **File/Preferences** option to set the maximum number of hatch lines before aborting draw.

18. Added custom hatch support to polygon and ellipse annotations.

Performance

1. Reduced memory usage for Framing Components when using **Components/Framing/Manager...**
2. Implemented a binary cache for DXF and SHP files to greatly speed up loading those files if they have not changed (can be over 100x faster depending on file).

Drafting and Graphics

1. Added "Texture" column to FRP Pole Properties table (Components/FRP Pole...) for setting the color of FRP poles to either gray (existing default) or brown.
2. Support dark mode for images inserted into reports.
3. New enhanced graphics including high DPI improvements.
4. Now support hatches and splines in DXF attachments.

Interface

1. Can now display and snap to survey data points when opened from PLS-CADD by using the "PLS-CADD Wires and Survey Data" option for Load Vectors in 3D Controls dialog ("View/Display Options/Set Rotation, Color and Label Options...").
2. Graphical "Move" and "Rotate" commands can now snap to annotation and survey data points imported from PLS-CADD.
3. Support sending full schema table reports to PLS-CADD so can right click to view them as a table, export to XML, etc.
4. File selection dialogs now show "Property Notes" for component files.
5. Added "Wait for post processor to finish" option to **General/Post Processor Options**.
6. **General/Reference Manager** now stores file checksum, size, and last write time so can alert you when a referenced file has changed.
7. Added setting to **File/Preferences...** for "Minimum number of lines displayed for status bar text".

Engineering & Reports

1. Allow Post Interaction Capacity Diagram inputs to have up to four fractional digits so very dense computer-

generated data doesn't have rounding induced concavities.

2. Now ignore embedded CAISSON design and analysis in Foundation Strength when determining the direction for Max Wind load cases, but still feed the resulting loads to embedded CAISSON.
3. Updated description of IS802 2015 automated calculations to include the July 2022 CEA specification update.
4. When *Print extended diagnostic output* is enabled in **General/Output Options** now print *Detailed Pole Loading Data for Load Case* for all load cases including trivial legacy ones.
5. Guarantee that the joints we create for steel angle crossarm at quarter points for bending check have unique labels.
6. Now allow splices that cross ground line for FRP and steel poles.
7. Made **Model/Check** errors suppressible.
8. Improved heuristic which decides what warnings to print in the inset Model Check Report in live update edit dialogs. Now detects warnings about joints relative to the member being edited.
9. Added right click "Aggregate <schema name> Across All Load Cases" command for any report schema that has "Title Detail" defined (e.g. a load case name) and where the report contains more than one of these schemas. Command presents a single large table with all schemas appended and load case inserted as the first column.
10. Added "Exclude attachments" option to **File/Export/DXF...**
11. Added ability to drag lower right corner of table cell to do copy/fill or, if applicable, a pattern fill of the selected range.
12. Added "Digits of precision to use for Dimension Annotations" option to "File/Preferences..." to change the default precision.

Web, Components, & Examples

- 1) New Videos
 - a. LiDAR Survey Data in PLS-POLE & TOWER Models - <https://www.youtube.com/watch?v=8JBkqxtYFdU>
- 2) Technical Notes
 - a. Checking Post Insulators with Interaction Curves - <https://www.powline.com/technotes/post-curves.pdf>
 - b. Application of NESC Insulator Requirements - https://www.powline.com/technotes/NESC_Insulators.pdf
- 3) New/Updated Component Libraries
 - a. https://www.powline.com/files/pls_pole/nucor_ld.spp

- b. https://www.powline.com/files/pls_pole/trident.fpp
- c. https://www.powline.com/files/pls_pole/mcwane.spp
- d. https://www.powline.com/files/pls_pole/mus.r2-2022.spp
- e. [https://www.powline.com/files/pls_pole/Shemar DCICA 2023 08 29.xrm](https://www.powline.com/files/pls_pole/Shemar_DCICA_2023_08_29.xrm)
- f. [https://www.powline.com/files/pls_pole/MAGNUM All Soils V1.0.can](https://www.powline.com/files/pls_pole/MAGNUM_All_Soils_V1.0.can)
- g. [https://www.powline.com/files/pls_pole/pupi 2024 06 24.brc](https://www.powline.com/files/pls_pole/pupi_2024_06_24.brc)
- h. [https://www.powline.com/files/pls_pole/pupi 2023 08 29.xrm](https://www.powline.com/files/pls_pole/pupi_2023_08_29.xrm)
- i. [https://www.powline.com/files/pls_pole/pupi 2023 09 20.dvt](https://www.powline.com/files/pls_pole/pupi_2023_09_20.dvt)