

2026 PLS-CADD Advanced Training and User Group Meeting

What's New in PLS-GRID™



Summary of changes since June 2024 User Group Covers changes in Versions 5.00 – 6.15

Summary of changes between PLS-GRID 5.00 built 09/09/24 and 6.15 built 5/30/2026

General:

- 1) Updated "File/PLS-GRID/Open Grid View" to better display over large areas up to entire globe without visual tears and gaps.
- 2) Updated to PROJ 9.4.0, which includes many newly integrated EPSG coordinate system definitions.
- 3) Allow PLS-CADD users without PLS-POLE or TOWER licenses to check out and check in a PLS-GRID project with PLS-POLE and TOWER models if those models are not modified.
- 4) Added menu item "Drafting/Structure and Section Labeling/Grid View" to support unique structure label settings for Grid view.
- 5) Can now apply privilege flags (i.e. admin, add projects, etc.) to groups.
- 6) Added ability to Map View to filter by project group affiliation.
- 7) Add button "Show Results in GRID View" to "File/PLS-GRID/Project Discovery" which applies the current Discovery filters to the GRID Map View window.
- 8) Added option to search by structure name in "File/PLS-GRID/Goto/Zoom".
- 9) Added "Delete From Workspace" context menu command in Project Manager Discovery which removes files from the project's workspace subdirectory after verifying the file is archived on the PLS-GRID server.
- 10) In "File/PLS-GRID/Project Discovery", added option to filter by projects group affiliation.
- 11) In "File/PLS-GRID/Project Reviewer" List of Files, use a highlight color when there are multiple files with the same content (e.g. structure component files).
- 12) Improved search in "File/PLS-GRID/Project Discovery" to specify what to search (project names, general data, etc) and directly access recent and saved search queries from a dropdown list.
- 13) In "File/PLS-GRID/Project Discovery", added option to mark projects as "Favorites" from the context menu, and user can toggle between showing all / only showing favorites with a checkbox.
- 14) Added mini-pref to automatically prompt to check-in current project to PLS-GRID (if checked-out by the current user) when closing the project.
- 15) Allow searching for a structure name without first selecting a project.
- 16) Added an option to "File/PLS-GRID/Server Settings" to disable searching PLS-GRID projects/files in the quick search toolbar.
- 17) In "File/PLS-GRID/Grid Analytics...", there is now an option to unselect a project within the defined region before the reports are run.
- 18) In "File/PLS-GRID/Grid Analytics..." when selecting a Criteria / Feature Code override project, it will now merge Feature Code voltages when the target project has a different set of clearance voltages than the selected override project.
- 19) Added an iTwin synchronization option when doing an Add Project or Check-In Project to PLS-GRID.
- 20) Added "Sections/Stringing Chart/Multiple Sections..." to "File/PLS-GRID/Grid Analytics..."
- 21) Added "Lines/Reports/Structure Loads Report..." to "File/PLS-GRID/Grid Analytics..."
- 22) Added "Lines/Reports/Structure Wind Rating Report..." to "File/PLS-GRID/Grid Analytics..."
- 23) Improved the organization of Structure Loads reports generated by Grid Analytics to show one at a time when snapped to a structure.

- 24) For "File/PLS-GRID/Grid Analytics...", added the option 'Select LAS/LAZ survey data files to use for reports' which overrides the selected projects' survey data with specified LAS/LAZ data before generating reports.
- 25) Added 'General Data XML', 'Sections Table XML', and 'Sections Circuits Labels XML' options to the PLS-GRID Export Options dialog.
- 26) For "File/PLS-GRID/Grid Analytics...", also export XML data for 'Thermal Rating' and 'Stringing Chart' reports.
- 27) Added an auto-generated daily/weekly report, containing schema of all Project Manager projects with columns for each General Data field configured in client.json.
- 28) No longer require admin rights to rename a PM project, just need normal write permissions. Requires latest version of PLS-CADD, PLS-POLE, and TOWER.
- 29) Added disconnected or offline mode for Web Client Map View including cached reference files and map info.
- 30) In Web Client's Project Files page, added a Table Export button which generates and downloads a CSV file of user selected project, structure, or span information from uploaded projects.
- 31) Added support for installing Web Client as a Progressive Web App (PWA) which gives the appearance of a native mobile app.
- 32) Added support for accessing project Bill of Material information from the PLS-GRID Map View.
- 33) Added support for right of way information which can then be displayed in the Grid Map View.
- 34) Added the ability to upload the right of way information from "Terrain/Alignment/Display Options for P.I., Alignment, Right of Way..." to the PLS-GRID server and display that information in the Grid View window. Requires PLS-GRID v5.04 or later.
- 35) Now display reports from the past two months rather than only the most recent one and added option to download general data reports from the Web Client.
- 36) Added 'CPID' to the "Project Management Information" page.
- 37) Added 'Clear Analytics Data' option to the Admin's Modify Project page.
- 38) Improved the batch update functionality which updates the same file for multiple projects to include a more descriptive revision description which clearly identifies all affected files.
- 39) Improved the Voltage Legend in the Grid View window by grouping consecutive voltages that share the same line properties (color/style/thickness) and added a checkbox to "File/PLS-GRID/Display Options..." to toggle this on/off.
- 40) Added Lock Snap Entity option to context menu command "Change Snap Settings" in the Grid View to disable their mouse from snapping to new elements so user can interact with Property scroll bars without changing their selection.
- 41) Improved PLS-GRID Map View draw performance 2-4x when reprojecting to a new coordinate system for large data sets.
- 42) Updated "File/New/Project Estimator..." to work when a project from PLS-GRID is selected for the "Import Data from an Existing Project..." button.
- 43) Added option to create BAK of a project checked out from PLS-GRID that can be edited by other PLS-GRID users, but only the user that checked it out can check it back in.
- 44) Improved detection and notification of changes made to external reference files when using the Reference Manager and checking a project in to PLS-GRID.
- 45) Projects added or checked in to a PLS-GRID server now include material information which can be viewed from the PLS-GRID map view (requires PLS-GRID v5.07 or later).
- 46) Add support to query project, structure, and span material from GRID Map View.
- 47) Add the option to toggle the display of all project extents and current project extents in PLS-GRID map view via "File/PLS-GRID/Display Options..."
- 48) Add support to create a new PLS-CADD/LITE project using a PLS-CADD template from PLS-GRID.
- 49) Added predefined structure group "Exclude From GRID Map" to specify structures not to show in the GRID Map view for PLS-GRID projects.
- 50) Added new command, "File/PLS-GRID/Get Standard Projects", which pulls down all template projects to the 'PLS-GRID Standard Templates' subdirectory in the user's workspace.
- 51) Added new command, "File/PLS-GRID/Duplicate Project in GRID", which creates a copy of the project with a new name.
- 52) The QuickSearch toolbar now shows results for 'Structure GRID Link' which will open the Grid Map View and zoom to the structure.
- 53) In Grid Map View, added the "Copy Structure GRID Link" context menu command when snapped to a structure.

- 54) When using Augmented Reality view, warn the user if they are in landscape orientation which is not currently supported.
- 55) Allow access to navigation bar while in offline mode, but restricted to content that is available.
- 56) Now display a list of available offline projects in Offline menu.
- 57) Implemented rate limiting for photo uploads from the web client (no more than 1 photo every 3 seconds).
- 58) Added XML as an option to the "Download Spreadsheet" command accessible through the Project Files page, the GRID Map context menu when snapped to a project, and the GRID Map area select tool.
- 59) Added "Copy Structure GRID Link" and "Copy Project GRID Link" commands to the GRID Map context menu which copies a structure or project specific URL to the clipboard.

- 60) Added 'Temperature and Wind' to the Map Layers options which shows predicted conditions from the US National Weather Service at the specified day and time at structure locations on the PLS-GRID Map.
- 61) Added 'Project Manager' privilege for "Manage User Access" which is similar to 'Admin' except it does not have access to updating, restarting, or turning off the server or viewing the endpoint log.
- 62) Added a configuration option to config.json to enable a batch file download button per project in the Project Files page which will download all the specified reports and files associated with the project.
- 63) Show 'Structure Loads' reports under the 'Grid Analytics' section of the context menu in the PLS-GRID Map.
- 64) Allow batch photo uploads from web client.
- 65) Speed up of database integrity checks by 80x.
- 66) Added 'Section Labels' to information about span elements that can be queried from WFS.
- 67) Significant performance improvement (possibly over 1000x faster for large data sets) when checking files as part of adding or checking in projects.

Server Configuration:

- 68) Added configuration options to automatically install server upgrades (using the specified type, on the specified day of the week).
- 69) Automatically restart the server in the event of a crash.
- 70) Updated configuration options for Bentley iTwin synchronization.
- 71) Removed our password complexity requirements for new passwords and now only enforce a minimum and maximum length. Min length defaults to 12 and is now configurable via pls_grid.json setting "MinimumPasswordLength" (but cannot be configured less than 8 or more than 64).
- 72) Added contractor access logic to automatically create and add new users to an ACL group named for the licensed user's company.
- 73) Let "ContractorAccess" settings apply to internal users too, if configured for the internal client ID.
- 74) For "ContractorAccess" config, if an object in the "Clients" array doesn't contain a CID or has a CID of 0, treat it as a section that should apply to internal users.
- 75) Added pls_grid.json option "BatchUpdateRequireStandards", which controls whether or not the batch project update functionality requires the user to have the 'Edit Standards' permission flag.
- 76) Added support for Web Feature Service (WFS) so external tools can query a PLS-GRID server for information on projects, structures, and spans. Only supported when enabled in the pls_grid.json config.
- 77) Added support for OIDC based SSO.
- 78) Add support for authenticating desktop users via SSO. Requires PLS-CADD/PLS-POLE/TOWER Version 20.04 or newer and PLS-GRID Server Version 5.04 or newer. Note: The configured SSO Identity Provider must also support multiple Assertion Consumer Service (ACS) URLs.
- 79) Added ability to configure separate SSO Identity Provider for desktop client authentication (PLS-CADD/PLS-POLE/TOWER).
- 80) Added pls_grid.json config option "EnableWebServiceWorker" which defaults to true. Can change to false to fully disable the offline mode of the Web Client.
- 81) Add option "ForceAddNewProjectsToACLGroup" to client.json (defaults to false), which will force PLS-CADD/PLS-POLE/TOWER users to select at least one ACL group when trying to add new projects to PLS-GRID (if the user belongs to at least one ACL group).

- 82) Added "DesktopSSOCompatibilityMode" flag to "ContractorAccess" options, which defaults to false. This controls whether or not the server should allow older versions of our desktop apps to authenticate automatically with a server that has desktop SSO configured.
- 83) Make sure external contractors that get auto-generated via desktop SSO get auto-added to their configured groups.
- 84) Updated to coordinate system project library to support GeoTIFF grid/projection files and will now automatically download missing/required GeoTIFF grid/projection files. This can be configured in the pls_grid.json file.
- 85) When installing as a service, now set the startup type to "Automatic (Delayed Start)", to make sure the system has network connectivity before trying to run the service so license can be validated.
- 86) Warn users when trying to start up the server with file encryption enabled, and we detect that the users.json file was migrated from a different server with a stored encryption password.
- 87) Added "BatchReferenceDownload" which allows for a PLS-GRID server to automatically package up different reports and exports in various formats. Packages are on the PLS-GRID Server and available for users in the Web Client and Desktop Client.

Recently Published Technotes and Videos:

- 88) PLS-GRID Sync to iTwin Video - <https://youtu.be/chx4Ufecx0U>
- 89) PLS-GRID Web Feature Services (WFS) Video - <https://youtu.be/0Sasz2rGTdA>
- 90) https://www.powline.com/technotes/PLS-GRID_adding_projects_and_locating_project_errors.pdf