

# CSiPlant v9.1.0 Release Notes

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**Notice Date: 08-May-2025**

This document lists changes made to CSiPlant since v9.0.0, released 18-October-2024. Items marked with an asterisk (\*) in the first column are more significant.

## Analysis

### Enhancements Implemented

*	Ticket	Description
*	10423	An enhancement was added to allow users to control whether the effects from a support object are applied to the surface or to the centerline of the pipe to which they are attached. The default value is set to false, so the support effects are applied to the surface of the pipe. The new option can be found in the Analysis menu in the Set Analysis Options form.

## External Import and Export

### Enhancements Implemented

*	Ticket	Description
	7065	PCF import has been enhanced as follows: (1) Added a form to graphically display the PCF model before importing it into CSiPlant. This allows users to visually examine all components in the PCF file, distinguish successfully imported components from those that were not imported, and view additional information for each component by clicking on it. (2) Added a form that displays the contents of the PCF file, along with import logs, in a human-readable HTML format. (3) Added the following import options to control various aspects of the import process: Handling of Duplicate Items Method for Consolidating Support Properties Support Local Axes Enable Selection of Models, Pipelines, and Pipe Components for Import Move Models to Origin Show Warning Messages when Creating a CSiPlant Model
*	11215	An enhancement to interoperability was implemented. Using the "File > Print Graphics... > Button A" command, it is now possible to export a model as an AutoCAD .DXF with 3D CAD objects. DXF files can be opened in nearly all CAD programs.

## Installation and Licensing

### Enhancements Implemented

*	Ticket	Description
*	10930	The version number has been changed to v9.1.0 for a new minor release.

## User Interface

### Enhancements Implemented

*	Ticket	Description
	11063	Default values for the Display Deformed Shape form were updated to use GR (if available) for Load Case, and UZ for DOF. Default values for the Display Design Results form were updated to use the "Show Varying DCR Contour" option.
*	11369	An enhancement was made to reduce the time required to open model files. Additionally, new options were added to Graphics Preferences, allowing for changes to the default number of graphical views shown when opening model files and the default render mode used when opening model files and adding new graphical views. The default values for these settings are 1 and Extruded. These are application settings, meaning they will affect all model files used in the application. Additionally, changes have been made to improve speed of selecting items in large models as well as rendering time when in Line rendering mode.

*	Ticket	Description
	11384	The Insert form has been enhanced to initialize the Pipe Property Set to a previously used value when it is opened with either no points or more than one point selected. The original behavior was such that the Pipe Property Set was initialized to a default Pipe Property Set under these circumstances.

**Analysis**  
**Incidents Resolved**

* Ticket	Description
11013	An incident was resolved where using the Multi-threaded solver on systems with AMD CPU's could lead to analysis errors, convergence failures, or incorrect results. The problem was dependent on the specific model being analyzed and was easily noticeable when this happened. This error did not affect the Advanced or the Standard solvers, and it did not affect machines using Intel CPU's. Note that the default solver is Advanced.
11092	An incident was resolved where the forces and/or stresses reported in pipe and frame objects did not include the internal forces or stresses due to loads applied to that element in linear direct-integration time-history load cases. This did not affect the overall structural response or any other reported response quantities, only the reported response for element loading on the element itself. This did not affect nonlinear static, staged-construction, or nonlinear direct-integration time-history load cases; it did not affect linear static or linear static multi-step load cases; it did not affect linear or nonlinear (FNA) modal time-history load cases.

**Design – Piping**  
**Incidents Resolved**

* Ticket	Description
11037	An incident was resolved where the calculation of the combined stress in B31.4, B31.8, B31.12 and GB50251 incorrectly considered the sign of bending. Previous results could be impacted and should be reviewed for correctness, particularly where bending stresses are high, relative to the axial and hoop stresses.

**Drafting and Editing**  
**Incidents Resolved**

* Ticket	Description
9177	An incident was resolved where the Snap to Global Axes, Snap to Local Axes, and Orthographic Extension Snapping features would not work past 1m when using a model initialized in Metric SI or Metric MKS database units
10008	An incident was resolved in which distributed loads on curved elements were not displayed properly. Additionally, distributed loads on pipes and frames that were joined together using the Join Pipes/Frames command were not displayed properly, and this has also been resolved. These issues were purely graphical issues and did not affect results.
10437	An incident was resolved where selecting objects that included special joints connected to frames, such as joints of supports on frame elements, and moving them resulted in the special joints moving twice the specified distance.

**External Import and Export**  
**Incidents Resolved**

* Ticket	Description
10417	PCF Import has been enhanced as follows: - Added and exposed PointMergeToleranceMultiplier parameter that can be used to override point merge tolerance when converting a PCF model into CSiPlant. - PCF line objects with zero length are now ignored for import. - The HTML report has been enhanced to show the import summary. - An option was added to select which types of PCF objects should be imported.

* Ticket	Description
11061	The following two issues related to the import of PCF files were resolved: (1) Some reducers were not imported correctly from the PCF file. Previously, a single reducer defined in the PCF file may have been imported as two separate reducers aligned with the Global X direction and placed at the start and end joints of the actual reducer. Now, reducers are imported with the correct orientation matching the reducer definition in the PCF file. (2) Tees defined in the PCF file such that the distance between the tee start point and the center point was different from the distance between the tee center point and the end point were not imported, because the tee half main length in CSiPlant was determined as half of the distance between the tee end points, which resulted in insufficient space for the longer side of tee main. Now, the tee half main length in CSiPlant is set to the shorter half main length from the PCF file to allow such tees to be successfully imported.

## Graphics

### *Incidents Resolved*

* Ticket	Description
10986	An incident was resolved relating to joint visibility, selection line thickness, and text height.

## Loading

### *Incidents Resolved*

* Ticket	Description
7994	An incident was resolved where applying joint displacement loads to an anchor at a joint with non-default (rotated) local axes produced results as if the joint had default local axes.
* 10411	An Incident was resolved where assigning a joint mass of the "As Weight" type using the Replace assignment option resulted in changing the mass type to "As Weight" and keeping the numerical mass values unchanged upon saving the model.
* 11144	An Incident was resolved where the results for variable pressure loading changed after automeshing was assigned to a pipe that was originally not automeshed. Automeshing the pipe resulted in assigning zero pressure values at the interior points created by the automeshing, which led to incorrect pipe results, such as displacements, forces, and stresses. These interior points now have the correct pressure values based on the specified pressure distribution, and the results are consistent with the applied pressure distribution.

## Results Display and Output

### *Incidents Resolved*

* Ticket	Description
* 11319	An Incident was resolved when no contours were shown after requesting the display of distributed support reactions.

## User Interface

### *Incidents Resolved*

* Ticket	Description
7268	An incident was resolved where editing one direction of an orthotropic material property automatically updated the other directions of the same property. This has been resolved so each direction can be edited individually.
11029	An Incident was resolved where changing the load case type on the Load Cases form and then editing the updated load case could result in errors on the Load Case Definition form. This occurred when the original load case had ambient temperature or pressure reference loads, but the updated load case type did not utilize reference loads.
11294	An Incident was resolved where the layout of the Modal Damping form was incorrect on certain machines with Windows Graphics DPI settings higher than 100%, causing the OK and Cancel buttons to be missing from the form.
11406	An incident was resolved on the Define Supports form where changing the display units for Force and Length had no effect on the displayed units of the form