Pointwise V17.3R4 Release Notes

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POINTWISE®
Reliable CFD Meshing

Release Notes

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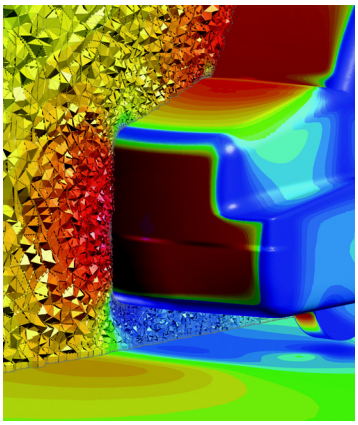


Overview

Pointwise is the future of reliable CFD meshing. It combines meshing techniques developed over 26 years with a graphical user interface that reduces the effort needed to create grids. High levels of automation and customization will help complete your grids more efficiently than ever before.

Graphical User Interface

Pointwise uses a noun-verb interaction model. The entities to be operated on (nouns) are first picked, and then the action to be performed on them (verb) is selected. After the action is completed the entities remain selected so that further commands can be applied immediately.

Selection in Pointwise follows the standard Left Mouse Button (LMB) convention with the additional abilities to use **Ctrl**+LMB for additive selection and **Shift**+LMB for range selection.

Selection in Pointwise is heterogeneous; different types of entities can be selected simultaneously (e.g. both connectors and domains). Some commands operate on multiple entity types and some only operate on the selected entities that are of a particular type. Selected entities that are not applicable for the command are ignored.

Image manipulation in Pointwise is done by mouse movement in conjunction with:

Panning - **Ctrl** + Right Mouse button
Zooming -Middle Mouse button
Rotating - **Shift** + Right Mouse button

Complete usage information is available in the Pointwise User Manual found via the Help menu.

New Features for V17.3 Release 4

Pointwise V17.3 R4 includes the following new features:

- Pointwise now supports export to the PyFR software.
- A Gridgen Generic ASW has been added to replicate the Generic exporter previously supported by Gridgen.
- Formatted BC export is now supported for the NPARC solver.
- The ACIS SAT, CATIA V5, NX Unigraphics, Parasolid XT, Pro/Engineer, SolidWorks, and STEP CAD importers have had version updates.

New Features for V17.3 Release 3

There are no new features included in Pointwise V17.3 R3.

New Features for V17.3 Release 2

Pointwise V17.3 R2 includes the following new features:

- Pointwise now supports export to CMSoft-Aero software.
- C&R Technologies' Thermal Desktop is now a supported CAE solver. The Nastran bulk data file format required for this solver includes grid and boundary names.
- The *Exodus II* exporter will now merge blocks into single entities based upon volume conditions.

- The Extrude command has been updated with additional Boundary Conditions as well as updates to existing BC settings. Special attention has been given to wing cap topologies that contain point and line singularities which, when inflated, form degenerate, but well formed hex cells.
- The tetrahedral mesher has been updated to improve unstructured volume mesh generation.
- The Pointwise CAE ANSYS Fluent exporter now provides support for pass through (non-inflatable, shadow) BC types that do not inflate (clone) grid points when applied to baffle or inter-block, connection domains.
- The scale task now supports entering a single (uniform) scale factor.

New Features for V17.3 Release 1

Pointwise V17.3 R1 includes the following new features:

- Overset grid assembly can now be performed within Pointwise's Overset command. This enables users to select and set up an overset assembly (for either Pegasus 5 or SUGGAR++) then run the hole cutting process remotely or locally within Pointwise. Additionally, overset data can be visualized within the Examine command to identify fringe points, orphan points and the blanked portions of the mesh. Adaption is available with the Overset command to help improve interpolations between component grids.
- Display attributes such as shading, line width and show/hide status can be applied to model and block entities.
- The Layers panel has been updated to make the Assign Layer frame more prominent and to facilitate assigning multiple selections easily to the same layer. The indication of which layers contain selected entities has also changed so that it can show selections in multiple layers.
- Drawing curves on database surfaces has been enhanced so that users can explicitly select which surface or surfaces to draw on as well as whether curves should be excluded from selection when an endpoint is the initial point selected for a segment.
- Examine cutting planes with arbitrary orientations can be created in addition to the standard X-, Y-, and Z-oriented cutting planes.
- The Examine command can now be invoked from within the Solve command in order to assess the grids' quality.
- Pointwise now supports more PLOT3D options for structured grid import and export: blocking (single or multi-block data), iblanking (data with or without IBLANK) and 1D/2D.
- The Print to File command can be used to save an image of the current display during script execution.
- The Orient command now shows each structured domain's K vector in order to make reorientation easier.
- Pointwise now supports CAE Export of unstructured grids to the AeroDynamic Solutions (ADS) Leo format.
- Pointwise now supports CAE Export to the Gmsh format.
- The Split command now allows database surfaces to be split at C1 discontinuities.
- Database points can now be projected to surfaces.
- The T-Rex panel has been updated to display information about the average growth rates and initial spacings on adjacent structured domains with arbitrary distributions that are set to Match boundary conditions.
- STL files with multiple meshes (i.e. solids) can now be imported and exported in both ASCII and binary formats.
- Pointwise now provides customizable default settings for all T-Rex attributes.
- The CATIA V5, Siemens NX, Pro/ENGINEER and SolidWorks CAD readers have been updated to support newer versions.

New Features for V17.2 Release 2

Pointwise V17.2 R2 includes the following new features:

- Improved T-Rex hexahedra combination at export.
- A new Align View to Surface command for orienting the view normal to a surface or domain.
- Improved and updated CAD file readers.
- Addition of a Drawing Guide view option which overlays a drawing guide on the Display window.
- New CAE export for the Edge and LAURA solvers.
- Enhanced connector projection allowing control over how the original distribution is treated.
- The addition of a Save Selection As command allowing export of only selected entities to a .pw file.
- Additional Glyph commands providing more control over scripted entity selection.

New Features for V17.2 Release 1

Pointwise V17.2 R1 includes the following new features:

- T-Rex hexahedra combination at export for T-Rex layers formed from structured domains. Additionally, structured domains can now be used as Match boundary conditions for T-Rex initialization.
- Automated closed and baffle face assembly for unstructured block creation.
- Improved OpenGL shading, including a new shading light source control.
- New CAE export support for FUN3D and Gambit Neutral files.
- CAE export format upgrades to CGNS v3.1.4 and SC/Tetra V9.
- Expanded grid export to NASTRAN to now include pyramids.
- Additional CAE functionality to mirror symmetry grids at export.
- A new Draw Curve toolbar implementation with pull-down list.
- Persisting entity selection within the Rules command, allowing those entities to be transferred directly to the solver or other commands upon exiting Rules.
- Tabular organization of data provided at the top of the Properties command.

New Features for V17.1 Release 4

Pointwise V17.1 R4 includes the following new features:

- Pointwise now imports and exports files compatible with the GridPro meshing software.
- The Adjacent Grid boundary control function has been added for blocks in the structured solver.
- OpenFOAM export now includes both Sets and Zones files.
- Control Points can easily be deleted in both the Draw Curve and Edit Curve panels.
- TAU NetCDF has been added to the list of supported CAE solvers.

New Features for V17.1 Release 3

Pointwise V17.1 R3 includes the following new features:

- Pointwise's version number is now displayed in the Title Bar.
- The number of scan plane increments and the coordinate extents of the scan planes in the Examine command can now be set by the user.
- Pointwise is now compatible with the Kestrel CFD solver.
- Pointwise is now has an updated interface to the Exodus II CFD solver.
- Shaded surface drawing of database entities is now 300X faster.
- An optional parameter has been added to the closestPoint and intersectRay methods in the pw::Database class that return a boolean indicating whether or not a surface was found.

New Features for V17.1 Release 2

Pointwise V17.1 R2 includes the following new features:

- Prism recombination at export has been significantly improved. Recombination now yields right at optimum recombination by cell count for nearly all cases exported.
- OpenFOAM CAE export has been optimized to drastically reduce memory requirements.
- The PWI_PLUGINS_SEARCH_PATH environment variable has been added to allow users to specify their own plugin location outside of the default location in the installation folder structure.

New Features for V17.1 Release 1

Pointwise V17.1 R1 includes the following new features:

- An advancing front algorithm may now be used to generate unstructured surface meshes. This method is an alternative to the Delaunay algorithm currently in use and can be applied on a domain-by-domain basis or as the default method for all new domains.
- The Pointwise project file (.pw) format has been changed from HDF5 to a proprietary format that is up to 100 times faster to read and write.
- New functions were added to the API to better support CAE solvers that support grid data in face-based rather than node-based format.
- The *Edit*, *Add Faces* command has been changed to *Edit*, *Add/Remove Faces*. This update to the command allows both the addition and removal of faces in an existing unstructured block.
- Similar to the *Edit*, *Add/Remove Faces* command for unstructured blocks, users may now add/remove edges for existing unstructured domains using *Edit*, *Add/Remove Edges*.
- Global grid and flow attributes can now be set and exported in the Pointwise export interface for the CAE solvers that support them.
- Connectors can now be created directly on database boundary curves using the *Create*, *On Database Entities* command.
- When copying a distribution of grid points from one connector to another, the direction of the connectors being copied from is now displayed.

- Glide (whether or not the grid continues to pan, zoom, or rotate after you stop moving the mouse) can now be toggled on or off as a preference.
- Improvements to the license manager installer have been made to streamline the process and improve the experience.
- The Distribute command now provides the ability to probe the grid spacing values at individual grid points.
- Many new accelerator keys have been added to Pointwise. All new accelerator keys can be found in *Section V.I* of the Pointwise User Manual.
- A new Glyph 2 command has been added that allows script writers to get the transformation matrix for a periodic connector or domain.
- New exporters have been added to Pointwise for the following CAE: ANSYS CFX, COBALT, ANSYS FLUENT, STAR-CD, SC/Tetra.

New Features for V17.0 Release 2

Pointwise V17.0 R2 includes a handful of notable changes:

- New CAE plugins are included for SU2, NSU3D and ShipIR.
- TheT-Rex BC table can now be sorted by column.
- Various enhancements have been made to the Glyph API.

New Features for V17.0 Release 1

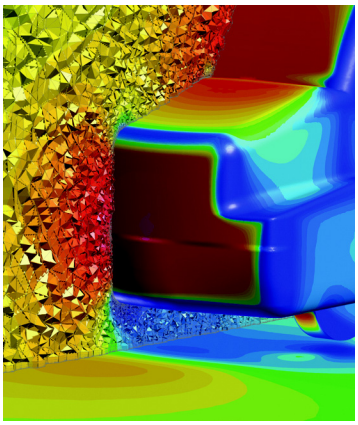
Pointwise V17 inherits the remaining major feature set from Gridgen which did not exist in V16. These new features include:

- T-Rex anisotropic tetrahedral meshing for blocks with an all new Push Attributes option allowing attributes to be set once at the block level and automatically pushed to the bounding domains and connectors. Additionally, Convert T-Rex to Prisms is added to the Edit suite for separating complete aniso layers into separate recombined prism blocks.
- Full baffle support in unstructured blocks with the ability to use T-Rex meshing for mesh refinement.
- An all new native CAD file import capability, as a bundled feature, supporting a number of popular CAD formats including ACIS, CATIA, STEP and SolidWorks.
- Groups as a selection tool for connectors, domains, blocks and database entities. Groups can be created, edited, and ungrouped. Group information in Gridgen restart files is supported.
- Spacing constraint value copy and paste. Constraints are also available to view, select and edit in the List panel.
- SubGrids for structured domains and blocks.
- Re-extrude allowing previously saved extrusions (this version and on) to be returned to the Extrude command for further work with the original extrusion attributes.
- Diagonalize command enhancements.
- Double precision graphics.
- Examine database UV parameters.
- Addition of the entities assigned to a selected layer or layers to the current selection.
- Offset curve creation from database boundaries.
- Projection of domains on the Run tab of the Solve panel.

- Pyramid automatic crossing check and local correction.
- Several CAE export formats are updated, including ANSYS CFX, CFD++, STARCD and Tetrex. These CAE selections now include prism recombination for incomplete layers previously only available for CGNS.

Please refer to the Pointwise V17 User Manual for complete details on all of these new features.

Resolved Issues



Pointwise V17.3 Release 4

The below listing is provided as a reference for issues that were fixed in Pointwise V17.3 R4:

SPR 19381 - Block initialization was crashing where a T-Rex Match BC was applied to periodic domains.
SPR 19380 - A T-Rex block containing periodic domain boundaries was initializing poorly.
SPR 19379 - A T-Rex block could not be initialized in the V17.3R3 release.
SPR 19349 - Fixed an error for Examine, Area Ratio for structured domains with dimension 2.
SPR 19345 - There were errors in the ADS/Leo (unstructured) export.
SPR 19341 - There were errors in CGNS export.
SPR 19322 - It was not possible to save project .pw file after using the extrusion floating BC.
SPR 19316 - Attempting to untrim a surface resulted in a crash.
SPR 19314 - Byte order control was missing from NPARC export.
SPR 19309 - Reverse was not working properly in the Distribute command.
SPR 19307 - CATIA V5 geometry was not importing as expected.
SPR 19274 - T-Rex match BC was not working off of a baffle.
SPR 19270 - There was an error exporting to CFD++.
SPR 19268 - Copy/Paste of a large number of DB entities caused an unexpected exit.
SPR 19265 - The Polar TFI was failing to initialize properly.
SPR 19260 - Certain Fluent connections were marked as the wrong type in the case file.
SPR 19254 - Exodus II block IDs were being modified undesirably.
SPR 19240 - Parasolid files were not importing properly in V17.3R2.
SPR 19227 - Fixed unexpected presence of coarse tetrahedral cells in volume grids.
SPR 19113 - There were vertex and BC errors in the Wind (unstructured) CAE export.
SPR 18929 - A database quilt could not be untrimmed.
SPR 18915 - 2D Edge export was not importing properly in Edge.
SPR 17414 - Corrected an issue that caused initialization to never finish or error out.

Pointwise V17.3 Release 3

The below listing is provided as a reference for issues that were fixed in Pointwise V17.3 R3:

SPR 19239 - Export to Fluent was reporting "non-positive" volume warnings.
SPR 19238 - Pointwise was unexpectedly exiting while editing database curves.
SPR 19229 - An exception was being thrown when re-dimensioning connectors.
SPR 19226 - Grid export to Plot3D was failing.
SPR 19192 - Alt+RMB query was giving very large random values.
SPR 19122 - Collapsed patches were being exported in the SUGGAR++ grid file but not in the boundary condition file.
SPR 19087 - Isotropic tetrahedral mesher was generating regions with very large cells in the middle of the volume grid.
SPR 19082 - GUI setup was not being maintained after new installation of Pointwise.

Pointwise V17.3 Release 2

The below listing is provided as a reference for new features added to and issues that were fixed in Pointwise V17.3 R2:

SPR 19189 - Corrected an issue that caused the overset tutorial tail extrusion to fail.
SPR 19187 - SUGGAR++ overset export was missing block-to-block connection boundary conditions.
SPR 19185 - File > Export > Grid (CGNS) allowed export of an uninitialized unstructured block.
SPR 19181 - CMSoft-Aero plugin treated surface elements incorrectly.
SPR 19178 - Fixed an issue where hex elements were destroyed upon export to CGNS.
SPR 19172 - Overset assembly data corrupted when unstructured blocks contained pyramids.
SPR 19168 - Fixed OpenFOAM export to correct an empty boundary file.
SPR 19162 - Simple connector re-dimension was crashing Pointwise.
SPR 19160 - Unimplemented tasks are no longer visible in menu.
SPR 19159 - Domain- Examine/Wall Spacing is unusably slow.
SPR 19154 - Pointwise generated an error when trying to save a project (.pw) file.
SPR 19153 - Block initialization was poor depending on the version of Pointwise used.
SPR 19146 - Corrected an issue that caused a pole domain to not be selectable.
SPR 19144 - Connector distribution caused Pointwise to exit prematurely.
SPR 19142 - Connection table in CAE, Set Boundary Condition doesn't appear.
SPR 19143 - Connections are now enabled when layer with blocks is OFF.
SPR 19139 - Mirroring an unstructured block flips its face orientation.
SPR 19138 - Database curves could not be intersected.
SPR 19137 - Align with master was not working for models.
SPR 19117 - Structured domains with J Dimensions larger than 1020 did not display correctly.
SPR 19112 - CAE export was taking too long.
SPR 19097 - Fixed an issue where a user could no longer copy then project.
SPR 19096 - Scaling all entities corrupted domains.
SPR 19095 - Binary STL import generated poor entity names.
SPR 19088 - Corrected a failure when in the ADS exporter when using the "2008 Wall function - CHT" boundary condition.
SPR 19085 - Duplicate VC IDS are no longer forced to unique values when a PW file is read.
SPR 19084 - Fixed an error on import SUGGAR++ data for o-grid structured blocks when they were treated as unstructured.
SPR 19083 - Corrected a layer problem that instigated a subsequent failure.
SPR 19082 - Fixed an issue that caused GUI customizations to reset after a new installation.
SPR 19079 - Uneven curve parameterization produced poor point distribution and extrusion normals.
SPR 19076 - New CAD file attributes exported to a .pw file were not importing.
SPR 19068 - The initialize interior points toggle was not being applied to domains on quilts.
SPR 19067 - Corrected an issue with domain orientation.
SPR 19066 - Plot3D files with invalid points were causing crashes or GUI issues.
SPR 19065 - T-Rex cell combination for adjacent blocks still had issues.
SPR 19014 - There was a crash for certain topologies using Edit, Convert T-Rex to Prisms.
SPR 18993 - Corrected an issue where splining a surface made it vanish.
SPR 18913 - Fixed an issue where the point picked when creating a curve on a DB was incorrect.
SPR 18912 - Changed permissions for SUGGAR++ and PEGASUS scripts on Mac.
SPR 18639 - Added logic to catch Pegasus assembly failures.

SPR 17998 - SLDPART files were being loaded incorrectly (CTI 3145).

Pointwise V17.3 Release 1

The below listing is provided as a reference for new features added to and issues that were fixed in Pointwise V17.3 R1:

SPR 18988 - A particular PLOT3D formatted file could not be imported.
SPR 18891 - Solve attributes check boxes would re-check on Apply for no value entered.
SPR 18859 - Grids with more than 2.1 billion faces could not be exported to OpenFOAM.
SPR 18858 - Unstructured domains exported to VSAEROhybrid had zero valued normal vectors.
SPR 18839 - A T-Rex mesh reported zero full layers were generated when the first points stopped in the front did not appear until layer 11.
SPR 18801 - When T-Rex blocks were exported, the cells at the block interface did not combine into prisms.
SPR 18796 - Pointwise exited prematurely when trying to initialize a T-Rex block.
SPR 18791 - Joining all domains in a particular project was causing an error.
SPR 18786 - CAE export with cell combination was crashing.
SPR 18782 - Face only export to Patran was very slow.
SPR 18776 - Non-manifold block connections with BCs were causing export errors.
SPR 18768 - A connector would not split properly when the location was set by mouse.
SPR 18762 - Examine was rendering unstructured domains when it should not.
SPR 18745 - The glyph command pw::Display setSelectedEntities caused a particular script to fail to complete.
SPR 18733 - An unstructured block could not be initialized.
SPR 18719 - T-Rex mesh exported to ANSYS Fluent with the Combine anisotropic tetrahedra option fails import into ANSYS Fluent.
SPR 18651 - Toggling Show Domains within the Orient command would disable selection.
SPR 18598 - An unstructured block could not be initialized.
SPR 18560 - Rendering was off after import of some IGES files.
SPR 18527 - Pointwise would not assemble a block that contained a collapsed structured face using the Block Assembly toolbar command.
SPR 18524 - Splitting a structured match domain shared by two T-Rex blocks caused the boundary conditions applied to the resulting domains to be incorrect.
SPR 18520 - T-Rex blocks were not exported to FLUENT correctly.
SPR 18452 - Swapping geometries for a single topology required a domain initialization for only one domain.
SPR 18276 - Merging connectors caused the interior of a domain to become invalid.
SPR 18253 - I/O was always defaulting to the Documents folder on the Mac.
SPR 18247 - There was a crash during CFD++ export.
SPR 18232 - Rendering of bad spline was causing a crash.
SPR 17658 - Export to ANSYS FLUENT (legacy) generated fatal errors.
SPR 17448 - Cell combination for multiple T-Rex blocks was incomplete.
SPR 17354 - Re-initializing a particular domain on a Linux workstation causes poor quality cells to be created at the domain boundaries.
SPR 17249 - WIND (Unstructured) export with the Combine anisotropic tetrahedra command has too many faces.
SPR 17160 - The element vertex indices were being exported incorrectly for the CAE solver FrontFlow.
SPR 16941 - T-Rex layers stopped advancing earlier than expected for a domain constrained to a database surface.
SPR 16902 - Cell combination for adjacent T-Rex blocks caused mismatched faces at the block interface.
SPR 16694 - A particular SolidWorks Assembly could not be imported.

SPR 16632 - T-Rex extrusion off a Wall BC stopped too early.
SPR 15603 - First layer of anisotropic extrusion was skewed for a particular T-Rex grid.
SPR 15549 - Anistropic extrusion was failing in the first step off a domain edge.
SPR 15239 - Anisotropic extrusion was failing at one point in a domain.
SPR 4923 - Database entities were disappearing when creating database constrained connectors.

Pointwise V17.2 Release 2

The below listing is provided as a reference for new features added to and issues that were fixed in Pointwise V17.2 Release 2:

SPR 18384 - T-Rex domains were not initializing properly.
SPR 18349 - Structured C plugin projects were using unstructured API settings.
SPR 18346 - Face selection count in the Solve panel was inconsistent.
SPR 18337 - A specific STEP file could not be imported.
SPR 18329 - Precision was lost in setting a mirror plane.
SPR 18291 - Multi-grid relaxation factor in Solve could not be set to 0 (zero).
SPR 18273 - Export to FLUENT included extra interior zones.
SPR 18270 - Poor values were calculated for Equivolume skewness.
SPR 18250 - Non-zero Jacobian values were being displayed as 0.0.
SPR 18245 - The T-Rex Match BC was not working for certain wall spacings.
SPR 18243 - The Line Density attribute was not working properly.
SPR 18241 - Projections were resulting in skewed cells that were previously fine.
SPR 18240 - An unstructured domain with interior holes could not be initialized.
SPR 18235 - Grid points were no longer exactly in plane after a rotational transform.
SPR 18221 - While running the Solve command a single point had poor orthogonality.
SPR 18188 - The T-Rex Match BC was not being enforced.
SPR 18106 - The Draw Circle segment was not based on the view orientation as expected.
SPR 18103 - Copy and Mirror operations were causing negative jacobians.
SPR 17757 - A specific unstructured block was not initializing in the isotropic tet mesher.
SPR 17750 - J-direction grid lines were not being rendered.
SPR 17688 - The isotropic tet mesher slowed excessively with additional iterations.
SPR 17331 - Highlighted spacing constraint values were not displayed properly.
SPR 17229 - The Merge command was requiring a very large tolerance to pick up merge candidates.
SPR 15778 - The isotropic tet mesher was producing unusual mesh distributions.

Pointwise V17.2 Release 1

The below listing is provided as a reference for new features added to and issues that were fixed in Pointwise V17.2 Release 1:

SPR 18012 - FLUENT v4 export produced errors.
SPR 17974 - Cell combination at export failed.
SPR 17961 - Cell combination at export for OpenFOAM and FLUENT failed.
SPR 17821 - Mirrored entities could not be isolated.
SPR 17790 - UGRID unformatted import was failing.

SPR 17786 - Database notes could not be copied and pasted.
SPR 17768 - Loss of VPN connection caused Pointwise to hang without ability to save.
SPR 17743 - Extrusion direction arrow indicator was not consistent with all the other arrows.
SPR 17733 - A structured topology including poles could not be exported to the FV-UNS format.
SPR 17708 - A simple unstructured block failed to initialize.
SPR 17702 - Some connectors in the mirror plane were not merging.
SPR 17699 - A Project file took a long time to export.
SPR 17695 - Joining two unstructured domains resulted in the connectors disappearing for one of the boundaries for the resultant domain.
SPR 17675 - When changing the dimension of connectors in a periodic domain in a Glyph script, the corresponding periodic domain did not update.
SPR 17672 - Exporting blocks whose volume conditions were set to Unspecified for OpenFOAM resulted in those blocks being exported into the cellZone (if cellZone export was turned on) instead of being ignored.
SPR 17670 - Mirroring a structured grid with its associated database entities created negative jacobians in the grid.
SPR 17668 - A particular T-Rex mesh was not initializing.
SPR 17645 - Exporting a structured grid to ANSYS FLUENT (Legacy) caused Pointwise to exit prematurely.
SPR 17626 - The Set BCs panel was not catching a scripted orphan unstructured face.
SPR 17609 - Background color was not correct for high resolution Print to File image export.
SPR 17607 - Apply button did not reset after a BC change was applied on the Boundary Conditions tab for the Solve command for unstructured blocks.
SPR 17599 - A specific SolidWorks assembly was failing to import.
SPR 17543 - Point Probe in Examine was unable to pick shown extrema cell or probe cell vertices.
SPR 17537 - Cutting planes used for creating subgrids in the Solve command were not updated.
SPR 17530 - Structured domains produced improper normals in unstructured block faces.
SPR 17522 - A T-Rex Match BC was not working on a non-manifold baffle face.
SPR 17412 - An unstructured block was not initializing under Linux.
SPR 17411 - Initializing a T-Rex block failed with the error “One or more entities could not be initialized.”
SPR 17207 - There were connectivity issues with domains at symmetry locations.
SPR 17070 - Exporting to FLUENT was crashing Pointwise.
SPR 16975 - Export to OpenFOAM was failing.
SPR 16972 - UGRID .mapbc file BCs were not exported in numerical order.
SPR 16883 - A change to CAE BCs was not resetting project file modified flag.
SPR 16712 - Importing a particular Gridgen .dba file crashed.
SPR 16691 - Pointwise was not allowing users to save on OSX when connection to the server was lost.
SPR 16581 - FUN3D CAE selection was reverting to CGNS when opening an existing project file on a different platform from the one it was created on.

Pointwise V17.1 Release 4

The below listing is provided as a reference for new features added to and issues that were fixed in Pointwise V17.1 Release 4:

SPR 17483 - Subconnectors could not be selected for copying dimension.
SPR 17480 - Fluent CAE export crashed when writing to an unwritable file.
SPR 17473 - A Solidworks file could not be imported under Linux.
SPR 17467 - There were duplicated accelerators on the Mac platform.

SPR 17466 - Colons were not allowed for PWI_PLUGINS_SEARCH_PATH in the PluginSDK.

SPR 17373 - Splitting a connector resulted in an equal distribution.

SPR 17364 - Domain edges were set to the Floating boundary condition in the grid solver. Running these edges several iterations through the solver in Pointwise V17.1 R3 did not result in the shared edges "floating" to an optimized position.

SPR 17358 - The Fixed Surface Shape attribute for the grid solver was not working properly for a domain within a script.

SPR 17340 - Control functions in grid solver act on incorrect edges.

SPR 17289 - For multiple block configurations, Pointwise was not recombining sufficient amounts of T-Rex cells into prisms.

SPR 17244 - Pointwise was freezing up with mouse motion for certain Linux hardware and settings.

SPR 17242 - Exodus export was not quite right.

SPR 17239 - Extrusions without stop criteria set were making project files unreadable.

SPR 17229 - The Merge command was requiring a significantly larger tolerance than what was displayed for actual candidate pair distances.

SPR 17207 - CAE export contained symmetry domain connection issues.

SPR 17202 - Cobalt export was failing when recombination was used.

SPR 17179 - Text was not showing properly in the Examine command with different background colors.

SPR 17175 - The Join command was producing results with duplicate domain names.

SPR 17161 - Domains with a single cell could not be initialized.

SPR 17155 - The minimum angle diagnostic was not calculated correctly for certain cases.

SPR 17142 - Unstructured block initialization was taking too long.

SPR 17141 - BCs were not transferring correctly from Gridgen to Pointwise.

SPR 17133 - Some baffle export using face streaming produced unmatched faces.

SPR 17129 - Some memory errors from isotropic tet initialization were not being reported.

SPR 17128 - Unstructured domains could not be initialized on particular cylindrical database surfaces.

SPR 17109 - The new Exodus II plugin was not exporting sidesets correctly.

SPR 17070 - FLUENT export was crashing.

SPR 17065 - The Examine U,V diagnostic was taking a really long time for certain database surfaces.

SPR 17057 - Initializing all T-Rex blocks emptied 1 block.

SPR 16610 - Could not import a specific Solidworks file.

SPR 16479 - CATIA V4 import issues were introduced between maintenance releases.

SPR 15986 - Double clicking a project file would start Pointwise but not load the file under OSX.

SPR 15809 - A CATIA V5 assembly file failed to import.

SPR 15586 - When using the Floating boundary condition in the grid solver on blocks, orthogonality was not being maintained on the floating edges.

Pointwise V17.1 Release 3

The below listing is provided as a reference for issues that were fixed in Pointwise V17.1 Release 3:

SPR 17080 - T-Rex grids were being exported incorrectly to WIND-US.

SPR 17067 - Re-extruding a mirrored prism block failed because the extrusion direction was not mirrored.

SPR 17061 - Opening a Pointwise .pw file generated errors about the block data.

SPR 17058 - A copied, mirrored prism block exported from Pointwise was failing import into ANSYS Fluent.

SPR 17046 - Transforming a domain caused it to become unbalanced.

SPR 17029 - Scaling a block caused issues with the interior of the block.

SPR 17017 - Blocks with advancing front domains were not initializing.

SPR 17001 - T-Rex export to CGNS was crashing.

SPR 16995 - Advanced IJK Offset was not available for Edit, Split.

SPR 16985 - Secondary color mode was not working.

SPR 16981 - Extrusion BC could not be reset after being set to Adjacent Grid.

SPR 16976 - Entity names imported for surfaces in IGES files were not being used for the surface's corresponding quilt after import.

SPR 16975 - OpenFOAM export was not passing checkMesh validation.

SPR 16964 - Importing a Gridgen restart (.gg) file after opening a Pointwise project (.pw) file caused Pointwise to exit prematurely.

SPR 16957 - On Linux platforms only, single cell domains could not have their Display Fill Attribute changed to Shaded.

SPR 16946 - When extruding a prism block from an advancing front surface mesh, irregularities appeared in the grid line spacing in the direction normal to the original surface.

SPR 16938 - Import of a CATIA V5 R21 file caused Pointwise to exit prematurely.

SPR 16916 - Duplicate connector names occurred after block splitting.

SPR 16902 - T-Rex blocks had non-matching interface after export to CFD++ with recombination.

SPR 16873 - A prism block created in Gridgen was saved to a Gridgen restart (.gg) file. When the .gg file was imported into Pointwise, all the Jacobians in the prism block became negative.

SPR 16872 - Importing a Gridgen database composite (.dba) file caused Pointwise to exit prematurely.

SPR 16854 - When IGES files were imported, duplicate entity names were being renamed inconsistently.

SPR 16853 - Copying and pasting a periodic unstructured block caused both blocks to be emptied of volume points.

SPR 16775 - When exporting CGNS files, the "GridLocation" of each boundary condition was being reported as FaceCenter instead of Vertex.

SPR 16769 - Connectors on Database Entities did not create a connector on a quilt boundary.

SPR 16758 - The status of a structured domain was not maintained from one entry into the Grid, Solve command to the next.

SPR 16716 - Importing a PRO/E geometry file caused Pointwise to exit prematurely.

SPR 16679 - Grid, Solve does not show database entities names in the Probe when assigning them in the Attributes, Surface Shape frame.

SPR 16667 - The CFX CAE exporter was exporting a mismatch in the number of faces reported in each boundary condition versus the number of faces reported in the header for each boundary condition group.

SPR 16609 - Trimming two surfaces against each other resulted in a surface with rendering issues.

SPR 16470 - The launch script for Pointwise on Linux platforms was not allowing a user to specify both a port and a server name (27000@myserver) when prompted for the license server.

SPR 16222 - An unstructured T-Rex mesh exported to OpenFOAM with the "Combine anisotropic tetrahedra" option did not pass OpenFOAM's checkMesh utility.

SPR 15944 - All surfaces in a Siemens NX file were not being imported into Pointwise.

SPR 15933 - Quilts which spanned the seam in a Torus could not be intersected.

SPR 15927 - Combining anisotropic tetrahedra into prisms on export broke the periodicity of an unstructured T-Rex block.

SPR 15874 - An unstructured domain could not be initialized with T-Rex layers on.

SPR 15815 - A user was unable to set a default initial memory size of 0 for an unstructured mesh in Grid, Solve.

SPR 15631 - Very small spacing constraints could not be applied.

Pointwise V17.1 Release 2

The below listing is provided as a reference for issues that were fixed in Pointwise V17.1 Release 2:

SPR 16718 - Creation of a rotated periodic entity was hanging.
SPR 16700 - Creating database notes was producing an error.
SPR 16699 - Appending a project file with T-Rex BCs removed existing T-Rex BCs.
SPR 16698 - StarCCM+ CAE export would not read into the solver correctly.
SPR 16676 - Cobalt CAE export was incorrect in V17.1R1.
SPR 16670 - CFX CAE export would not read into the solver correctly.
SPR 16667 - CFX CAE export was not exporting boundary conditions properly.
SPR 16665 - Use of File, Sort caused V17.1R1 project files to be unreadable.
SPR 16579 - Domains in a layer enabled during block face selection could not be selected.
SPR 16567 - The NSU3D AND USM3D formats had issues.
SPR 16320 - Splitflow CAE export did not include ID numbers for VC type solid.
SPR 16227 - Composite database files with specific data types were crashing Pointwise on import.
SPR 16011 - The Merge command was crashing while replacing one connector with another.
SPR 15944 - Import of an NX cad file was incomplete.
SPR 15809 - A CatiaV5 file could not be imported.
SPR 13957 - A shell database entity could not be split.

Pointwise V17.1 Release 1

The below listing is provided as a reference for issues that were fixed in Pointwise V17.1 Release 1:

SPR 16485 - A model that was imported from a CATIA IGES file could not be intersected with a plane.
SPR 16475 - Using the Edit, Convert T-Rex to Prisms command caused the resultant tetrahedral block to be deleted.
SPR 16418 - Pointwise exited prematurely while examining Jacobians for a prism block.
SPR 16412 - The table in Grid, Solve was not showing an accurate count for the number of Full Layers created in a T-Rex mesh.
SPR 16399 - STAR-CD export contained spacing issues between strings.
SPR 16386 - Redimensioning a connector caused a crash.
SPR 16382 - The OK button was not being enabled for certain access to and changes on the T-Rex panel.
SPR 16376 - Prism recombination for CFX was causing an assertion.
SPR 16347 - T-Rex block imported from Gridgen was emptied.
SPR 16332 - Importing a Gridgen restart file was crashing.
SPR 16294 - A journaled script of Grid, Solve, Initialize was failing to execute.
SPR 16288 - A T-Rex mesh was exported to CGNS with the "Combine anisotropic tetrahedra" option. The resulting mesh had some prisms and pyramids with negative face normals.
SPR 16280 - A 2D extrusion was failing with a poor marching direction.
SPR 16278 - Solve, T-Rex BC operations created a "checkpoint x" undo stack entry.
SPR 16275 - Cancelling out of Grid, T-Rex did not restore T-Rex Boundary Conditions deleted in the command.
SPR 16261 - Solve showed domain shape as free but was still using database shape.
SPR 16245 - No error was reported when the I/O temporary folder did not exist.
SPR 16221 - With certain Solve attributes blocks having no T-Rex cells were marked as having T-Rex layers.
SPR 16214 - A CATIA V5 model was not importing with "cannot convert" error.

SPR 16140 - Exporting a grid to ANSYS FLUENT with multiple Fan boundary conditions set caused issues with the file importing properly into ANSYS FLUENT.

SPR 15991 - Changing the Max Angle and Centroid skewness settings in the T-Rex attributes for a T-Rex block caused connectivity issues in the resulting grid.

SPR 15920 - Export to the ANSYS CFX CAE was taking longer than expected.

SPR 15910 - CFL3D block interfaces were being connected backwards.

SPR 15877 - When changing the Shape attribute from Free to Database for an unstructured domain in Grid, Solve, the correct database entities were not always set automatically.

SPR 15857 - The Push Attributes option for T-Rex created skewed cells at a Match grid interface.

SPR 15736 - Degenerate triangles were being created on a domain on a cylindrical database surface.

SPR 15317 - Opening and saving a project file was taking too long for certain cases.

Pointwise V17.0 Release 2

The below listing is provided as a reference for issues that are fixed in Pointwise V17.0 Release 2:

SPR 16261 - There was problem solving certain domains with shape set to free.

SPR 16221 - A block was incorrectly marked having T-Rex cells.

SPR 16214 - Could not import a CATIA V5 file.

SPR 16114 - Solver was crashing under a certain button press order.

SPR 16094 - Identical BC IDs were not being saved.

SPR 16070 - CGNS export was missing zonal boundary data.

SPR 16055 - Copy and Paste of a certain domain was causing the domain topology to change.

SPR 16048 - T-Rex 2D and 3D growth rates appeared dissimilar.

SPR 16047 - Changing Diagonalize panel options too quickly corrupted the panel.

SPR 16006 - There was a problem using the Plot3DMerge script on grids with poles.

SPR 15998 - A prism block from Gridgen was emptied after import to Pointwise

SPR 15982 - Sorting for initial spacing in the T-Rex BC table was incorrect.

SPR 15952 - Copying a scaled distribution with X spline variable produced unexpected results.

SPR 15938 - There were scaling issues during CATIA V5 import.

SPR 15923 - There were connectivity issues at certain T-Rex interfaces.

SPR 15921 - Using Grid, Dimension, Ave Δs on a specific case caused a crash.

SPR 15920 - CFX export was taking too long.

SPR 15910 - Block interfaces were being defined backward.

SPR 15899 - Split was failing on some blocks with periodic domains.

SPR 15897 - Using "/" in saved layer set names produced a file save error.

SPR 15895 - Export to GASP with recombination was crashing.

SPR 15894 - Re-Extrusion was creating undefined blocks.

SPR 15878 - A kink was occurring in T-Rex domain layers.

SPR 15877 - Inconsistent database associativity for unstructured domains.

SPR 15873 - Convert T-Rex to Prisms command produced incomplete block definition for self connecting T-Rex layers.

SPR 15868 - CRUNCH export was incorrect.

SPR 15867 - Unstructured domains were poorly initialized.

SPR 15860 - Some solver attributes were not transferring correctly from Gridgen to Pointwise.

SPR 15855 - There were connectivity errors in CGNS export with recombination.

SPR 15854 - CGNS export was taking too long.
SPR 15852 - While confirming an assemble block Pointwise would hang.
SPR 15851 - A specific Gridgen restart was causing a crash on import.
SPR 15841 - Redimensioning a connector caused Pointwise to exit prematurely.
SPR 15839 - Selected boundary curves were not bolded in the status bar.
SPR 15817 - The negative component for coordinates was excluded in STAR-CD export files.
SPR 15790 - Deleting a database curve from Pointwise took a very long time.
SPR 15789 - Trimming certain quilts by a curve caused Pointwise to exit prematurely.
SPR 15738 - Connector Join was failing with Use Default unchecked.
SPR 15736 - There were consistent degenerate triangles on cylindrical database surfaces.
SPR 15709 - Creating a coons surface crashed.
SPR 15704 - Push Attributes was not pushing off a boundary condition.
SPR 15702 - Use of the Floating boundary condition in the grid solver was causing skewed cells near the floating boundaries.
SPR 15656 - FV-UNS export had lost a significant digit in V16.
SPR 15626 - Execution of a script caused Pointwise to exit prematurely.
SPR 15529 - There were file dialog issues specific to the OpenSUSE platform.
SPR 15368 - A crash was occurring during a script execution.
SPR 15317 - I/O taking too long for large entity counts.
SPR 15048 - Changing a connector's dimension caused its associated domain to disappear.
SPR 14144 - Splitflow CAE export dropped VC ID numbers in V16.04.
SPR 14130 - A crash was occurring during import of a Gridgen restart file.
SPR 10693 - Running a set of structured blocks in the grid solver caused the solver to diverge.

Pointwise V17.0 Release 1

As a new major version there are no SPRs to report resolved in this release.