



Resolved Issues and Limitations



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Introduction

The objective of this document is to provide easily accessible information on the limitations and key defects resolved in the release. This is to help you determine whether the release will address some of the issues you may have encountered previously. We do not intend to list all defects addressed in the release but a subset of important ones with broad impact.

The *ANSYS Resolved Issues and Limitations* document lists issues and limitations in the previous releases that have been resolved in this release.

The parenthetical numbers associated with each entry are reference numbers corresponding to an internal error tracking system. The numbers are included to help to facilitate ANSYS, Inc. technical support and help to ensure that the issue described in the entry is resolved.

Note that Class3 error corrections are available via the Class 3 Error Reporting System, and not included in this document.

Chapter 1: Advisories

See the ANSYS 18.2 Release Notes for product change notifications.

Chapter 2: Installation

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Chapter 3: Licensing

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Chapter 4: Documentation

The ANSYS 18.2 product documentation is accessible online as a beta release via <https://ansyshelp.ansys.com>. The online documentation provides updates (e.g., resolved issues and limitations) between product releases; including product help, tutorials, and videos. Accessible from Internet-connected devices, a customer portal login is required; or you can set online documentation as the default source of help for your ANSYS programs. For more information, see the Documentation section of the ANSYS 18.2 Release Notes.

Chapter 5: ANSYS Structural Products

Mechanical

- For Mechanical APDL .cdb files, the Workbench External Model system now enables to import Mesh200 elements that are included in your file and import the elements as a part of your geometry in Mechanical. (148728)

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Mechanical APDL

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Autodyn

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Aqwa

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

ANSYS Composite PrepPost (ACP)

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Chapter 6: ANSYS Fluids Products

Fluent

Data Import and Export

- You can simultaneously export any number of variables to the AVS and/or PATRAN file formats.
- Reading and writing files using the hierarchical data format (HDF) is now available in the serial version of ANSYS Fluent.
- You can now read a parallel data (.pdat) file in the serial version of ANSYS Fluent. Note that you must be on the same platform as that used to write the file.

Models

- In Release 18.0, the `F_STORAGE_R(f, t, SV_DPMS_EROSION)` macro for storing erosion rates at faces was replaced by `F_STORAGE_R_XV(f, t, SV_DPMS_EROSION, EROSION_UDF)`. The new argument `EROSION_UDF` is used internally and does not require user input. Starting with R18.0, journals or scripts that use the macro must be updated accordingly.
- When running the parallel solver with the shell conduction model, junctions between coupled walls and periodic boundaries are now supported.

Boundary Conditions

- When you have a wall for which you have enabled one of the **High Roughness (Icing)** models in a case using the **Spalart-Allmaras** turbulence model, it is now possible to run the solver in serial.

Mesh

- Dynamic gradient adaption based on custom field functions is supported when running ANSYS Fluent in parallel (as well as serial).
- If you are solving your sliding mesh model in several stages, whereby you run the calculation for some period of time, save case and data files, exit ANSYS Fluent, start a new ANSYS Fluent session, read the case and data files, continue the calculation for some time, and so on, it is no longer necessary to delete the mesh interface(s) before saving the case file.

Field Variables

- The **Boundary Volume Distance** field variable (in the **Adaption...** category) is no longer only available in the serial version of ANSYS Fluent, but can now be used in the parallel version as well. This applies to any functionality that uses field variables, such as displaying contours, creating custom field functions, creating surface report definitions, and so on.

Graphics, Postprocessing, and Reporting

- Any temperature units can be used for plotting and reporting minimums, maximums, standard deviations, and averaged quantities.
- You can change the view during playback for 3D **HSF File** and **In Memory** animations after disabling **Use Stored View** in the **Playback** dialog box.
- (Windows only) It is no longer necessary to disable the **Fade or slide menus into view** setting in Windows to avoid seeing context menu artifacts in the Fluent graphics window(s).

User-Defined Functions (UDFs)

- The `Get_Input_Parameter` macro can be called from either the host or the compute nodes when running Fluent in parallel.

CFX

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

TurboGrid

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

BladeModeler

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

CFD-Post

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Polyflow

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Forte

Simulation Interface

- The Preview Mesh in the Simulation Interface is now consistent with the on-the-fly automatic mesh generation (for fixed mesh refinements).
- Fixed a problem encountered when editing the table entries in an Injection profile. (147616)
- Fixed a problem encountered when trying to View/Edit project data as text. (147617)
- Corrected version-number text in the Sector Mesh Generator interface. (148406)
- Prevent selection of multiple boundaries for boundary-condition-based probes, since the probe requires a single boundary condition for each definition. (148971)

- Allow the surface checker to be rerun after removing the report of problem vertices. (149404)
- Fixed an issue that caused the Seat the Valve utility to fail to find a seated position.(150673)
- Added missing parameter-study option for Spray parcel # initialization control options. (151964)

Job Submission, Monitoring, and Running Options

- Corrected the behavior of Monitor Probes, such that the monitor plots respond to a user's specified units preference. (148550)
- Improved the documentation and consistency of the command-line interface (CLI). (149174, 149178)
- Allow units to be specified for profiles when using the command-line interface (CLI). (149592)
- Removed the buffering behavior when writing spatially averaged data to the monitored *.**csv** files and *.**ftavg** file. (149593)

Engineering Models and Computation

- Addressed issues that resulted in failures while running with large numbers of cores over several nodes with MPI. (147617, 149047, 149265, 149336, 149342, 149477, 150973, 153384)
- Addressed issues found in running arbitrary sector sizes with automatic mesh generation. (148949, 149109, 149247, 150742)
- Fixed a failure that occurred with a symmetric case that included valve motion. (149402, DE150329)
- Improved the accuracy of the mean droplet diameter calculated for a spray injection when using the Rosin-Rammler option to initialize the droplet size distribution. (149587)
- Corrected the fuel mass reported in the engine summary data in the **FORTE.log** file, for the case when the fuel crosses open boundaries during the simulation. (152054)
- Allow special characters in comment lines within chemistry set files. (149596)
- Fixed an issue with valve stem motion that could cause vertices from the port to move with the valve. (151400)
- Fixed an issue that caused the solution adaptive meshing control not to deactivate at the specified ending time of the control. (151405)

Visualization

- Fixed an issue with the Enight© reader, which caused a failure during the read of a certain mesh configuration. (150748)

Chemkin-Pro

- Fixed a bug that caused the solution variable count to be incorrect when the SI engine model is used but the gas heat release equation is NOT turned on. The work-around was to turn on the **Integrate Heat Release by Gas-Phase Reactions** option on the "Output Control -> Heat Release" panel of the SI engine project file.

- Fixed an error that occurred when a warning is triggered and reported during pre-processing of the chemistry-set data for the last reaction, when real-gas data are present in the chemistry set. (148639)
- Fixed an issue that caused Continuations to be unavailable for certain reactor model options.
- Fixed an issue that prevented the display of the Species panel for the Partially Stirred Reactor model. (150424)
- Removed an error occurrence from processing a pressure fall-off reaction when the name of the third-body species, that is, the (+species), contains a parenthesis. (153361)

FENSAP-ICE

- Resolved a heat flux update issue during the execution of unsteady icing simulations. The heat fluxes were only updated at solution writing which prevented ICE3D from accessing the latest heat fluxes from the current time step.
- Resolved a Gresho heat flux overwriting issue that occurs when running a 0-iteration flow with a restart file. The previous version overwrote the Gresho heat flux field by zero (144001)
- Fixed a bug that occurs when running droplets and crystals in the rotational frame of reference (turbo rotors, helicopter blades, etc. applications). Under those circumstances, the crystal velocity fields were incorrectly initialized which could lead to convergence problems. (152602)
- A memory build-up of CAD surfaces which resulted in ICE3D terminating with the message “cannot create octree object” has been fixed. This was mostly encountered in turbomachinery runs when sliding BCs were enabled inside ICE3D.
- Fixed the cpu-time graph of drop3d runs, the time data stored in the converge file for drop3d iterations was incorrect. (153458)
- Included a check to detect invalid periodicity set on boundaries that are not meant to be periodic, like inlets, exits, walls, etc. (153352)
- K-Omega SST implementation had problems when the roughness value was set high, in the order of meters. This is usually the case when analyzing air flow on architectural city grids. The problem has been resolved (144325)
- ICE3D would displace thin boundary layer elements on enabled-sliding walls which are supposed to remain static, i.e. hub/shroud walls in turbo components where the blade are allowed to displace for icing. Problem corrected (146396)
- Multishot-remeshing sequencer would fail if there was no icing in one of the shots and the required “.disp” solution files were not written (149885)
- Fixed the issue when Multishot-Remeshing sequence is used with a grid that is incompatible with remeshing, the code reverts to standard mesh morphing, and the “.disp” files required for the sequence to continue are not written (148283)
- Fixed the issue where multiple selection of BCs in the GUI would not always apply the entered value to all BCs, i.e. not all walls getting the assigned temperature (153249)
- Resolved the issue of unphysical pressure values at non-slip wall/inlet intersections: Use mass flow inlet if possible, estimating the mass flow rate using the inlet area, the temperature, expected pressure, and the imposed temperature. (154020)

Chapter 7: ANSYS Electronics Products

Icepak

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Chapter 8: ANSYS Geometry & Mesh Prep Products

CAD Connections & Integration

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

DesignModeler

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

SpaceClaim

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Meshing

- Several issues regarding meshing mixed dimension multibody parts consisting of sheets and solids were addressed. As part of this, the default for meshing sheet bodies is to mesh the bodies as linear elements, and the default for meshing solid bodies is to mesh the bodies as quadratic elements. For mixed dimension models this will result in mixed order mesh where the transitional elements are high order with dropped midside nodes to maintain proper connectivity. Several other issues related to mixed order meshing were also fixed to better support these types of cases. For more information, refer to the ANSYS, Inc. Release Notes V18.2. (135779)
- The graphics library error that caused Mechanical and Meshing to fail to open or import databases on some SLES (11.x, 12.x) and Red Hat (6.x, 7.x) systems has been resolved. You no longer need to set the *export LD_LIBRARY_PATH* environment variable as a workaround. (146890)

IC Engine

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

ICEM CFD

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Fluent Meshing

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

Chapter 9: ANSYS Simulation Products

Workbench

System Coupling

- You can now archive a System Coupling project when the “Result/solution and retained design point files” check box is deselected. (148266)

ACT

ACT with AIM

- When a callback changes an ACT property in the same step, a change to the Workbench property is executed so that the AIM interface is immediately refreshed. (149144)

ACT with Fluent

- Using the method `FluentScriptEngineTUI.SendCommand` can result in the action being executed in an improper thread, potentially freezing Fluent. To ensure that this does not occur, always call the function `SendCommand` inside `ExtAPI.Application.InvokeUIThread`. (145904)

ACT with Mechanical

- The deformation of a part now displays on the ACT results. (151824)
- When using `tabular.py` to plot graphs and tabular data for a custom result, you can successfully resize the tabular data. (150167)

Remote Solve Manager (RSM)

- When using the 'My Computer, Background' solve process setting on Linux, a solve job will no longer fail if the project folder contains a space. (142214)
- RSM password caching from the Mechanical UI to RSM now works on Linux. (153609)
- If you close the client application (Mechanical or Fluent, for example) after submitting a job, and the job finishes on the cluster before you restart the application, RSM is now able to successfully retrieve the job and display its status when you restart the client application. (149651)
- RSM now successfully continues to monitor a Mechanical job after the Mechanical application is closed, resulting in successful job status updates in the Workbench Job Monitor. (145952)

EKM

- Compatibility issues between the current version of EKM and older versions of Workbench have been resolved.

- When using the File Transfer Client to upload files/folders to EKM, uploading a Workbench project file without its associated **_files** folder no longer causes the upload to fail.
- Workbench project files are now properly cached when Workbench projects are uploaded to EKM via a cache server. This applies when using the **Save to Repository** action in Workbench, and when uploading a Workbench (**.wbpj**) file and its **_files** folder using the File Transfer Client in EKM. It also applies when Workbench projects are uploaded to the Master workspace from a Slave workspace in a Master-Slave configuration.
- When downloading files via a cache server using the File Transfer Client, the **Transfer Details** dialog box now reports the **Percentage cached** value correctly.
- When saving to a repository that contains a large number of sub-directories, you can now navigate these sub-directories with reasonable speed, and sort them alphabetically.
- When using the EKM Client API to interact with an EKM repository, users are now successfully authenticated with the server file transfer service.
- When running jobs in a multi-node Linux cluster, attempting to cancel a job that is running on a non-primary node no longer results in an exception.
- When submitting distributed CFX jobs to an HPC cluster via EKM, and the solver version is 18.0 or higher, using certain **.def** files no longer causes jobs to fail.
- When updating a Workbench project that has a space in its name, the project is now properly updated in EKM once the job is complete.

DesignXplorer

Parameters

- You can have derived Boolean parameters defined in your project. (149641)
- In an optimization component with a lot of parameter relationships, the time it takes to edit input parameter properties has been significantly improved. (147873)

Response surface-based optimization

- The custom candidate points are updated after a change in an upstream component. (148255)

Response surfaces

- During refinement of a Kriging response surface, failed design points are now taken into account, allowing the process to continue until either the refinement has converged or the maximum allowable number of refinement points has been generated. (148933)
- The accuracy of the Genetic Aggregation response surface has been improved for output parameters when their values are less than 1e-10 in their defined units. (150731)

Chapter 10: AIM

See the ANSYS 18.2 Release Notes for descriptions of product enhancements.

