



# **Release Notes**

*Tecplot Focus 2023 Release 2*

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# Additional Resources

In addition to these Release Notes and HTML Help, Tecplot Focus includes access to the following manuals.

- [User's Manual](#) This manual provides a complete description of working with Tecplot Focus features.
- [Scripting Guide](#) This guide provides Macro and Python command syntax and information on working with Macro and Python files and commands.
- [Quick Reference Guide](#) This guide provides syntax for zone header files, macro variables, keyboard shortcuts, and more.
- [Data Format Guide](#) This guide provides information on outputting simulator data to Tecplot Focus file format.
- [Installation Guide](#) These instructions give a detailed description of how to install Tecplot Focus on your machine.

## My Tecplot

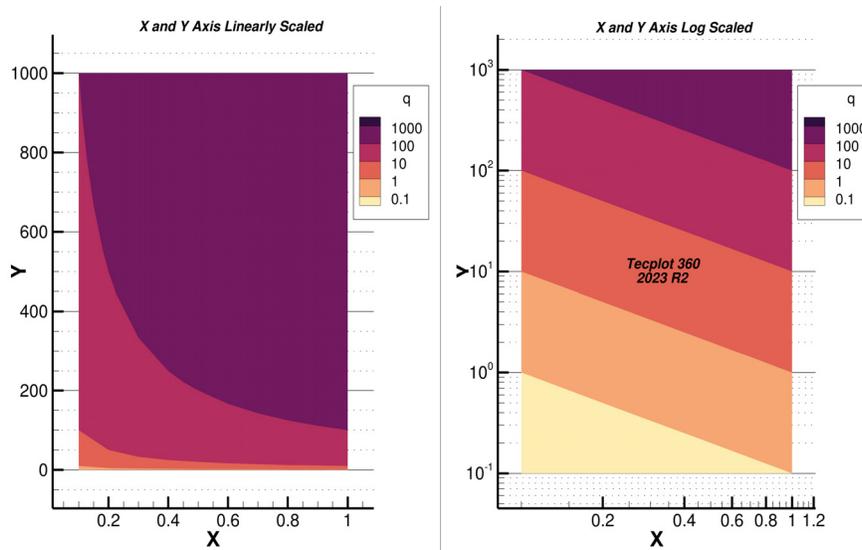
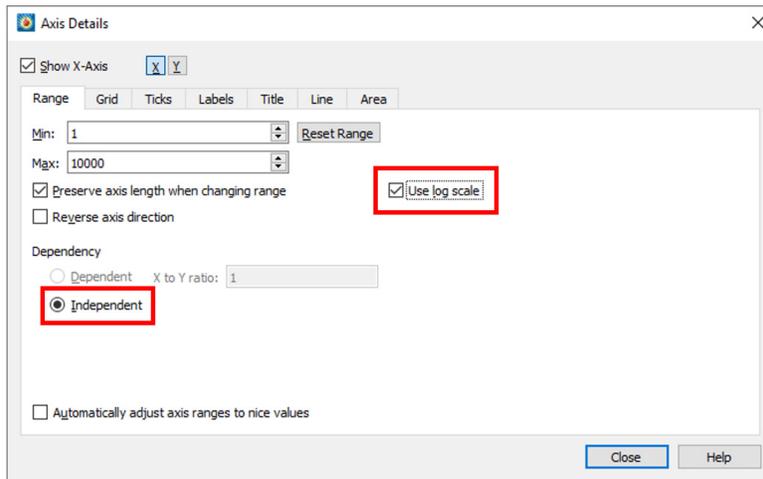
My Tecplot is Tecplot's one-stop portal that allows you to download software, manage your license keys, and more. Visit it at <https://my.tecplot.com/>.

# Welcome to Tecplot Focus 2023 R2

## Tecplot Focus 2023 R2 Release Notes

Tecplot Focus 2023 R2 includes important new features and stability improvements.

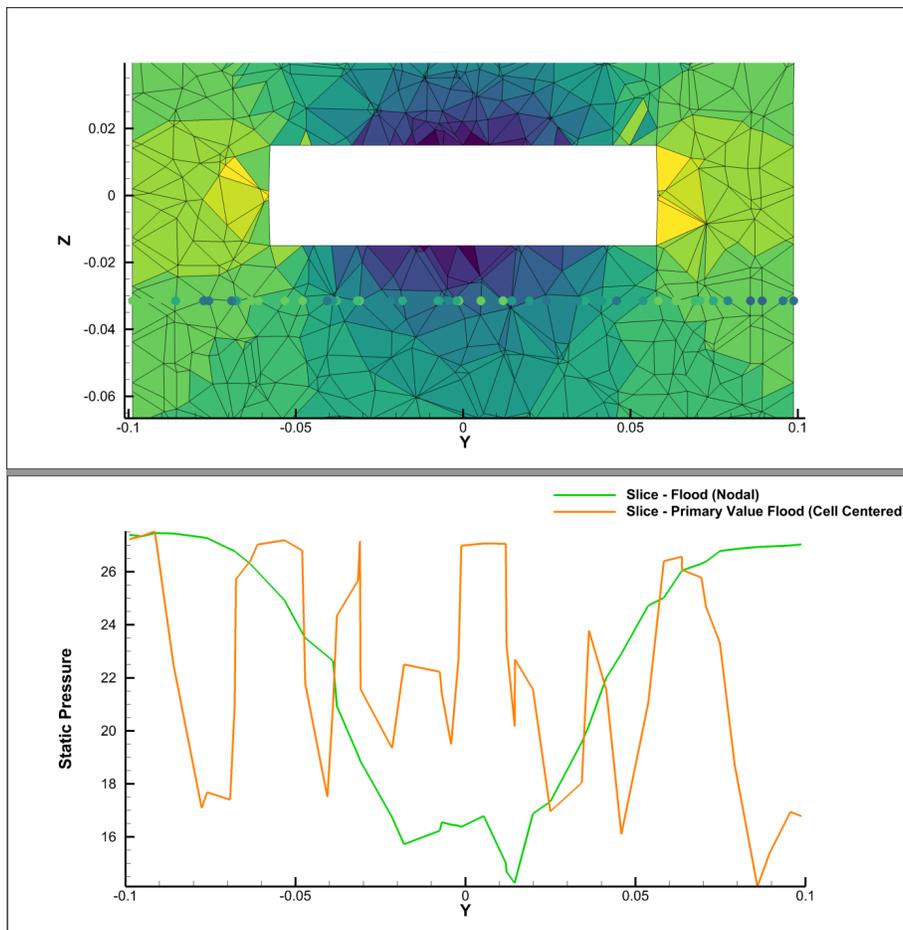
- Added support for 2D Log Plots. To use log scaling in 2D plots, ensure that *Dependency* is set to *Independent* and then toggle on *Use log scale*. Note that when using log axes in 2D plots, vectors will not be drawn. Also, note that geometries are not drawn using log scaling.



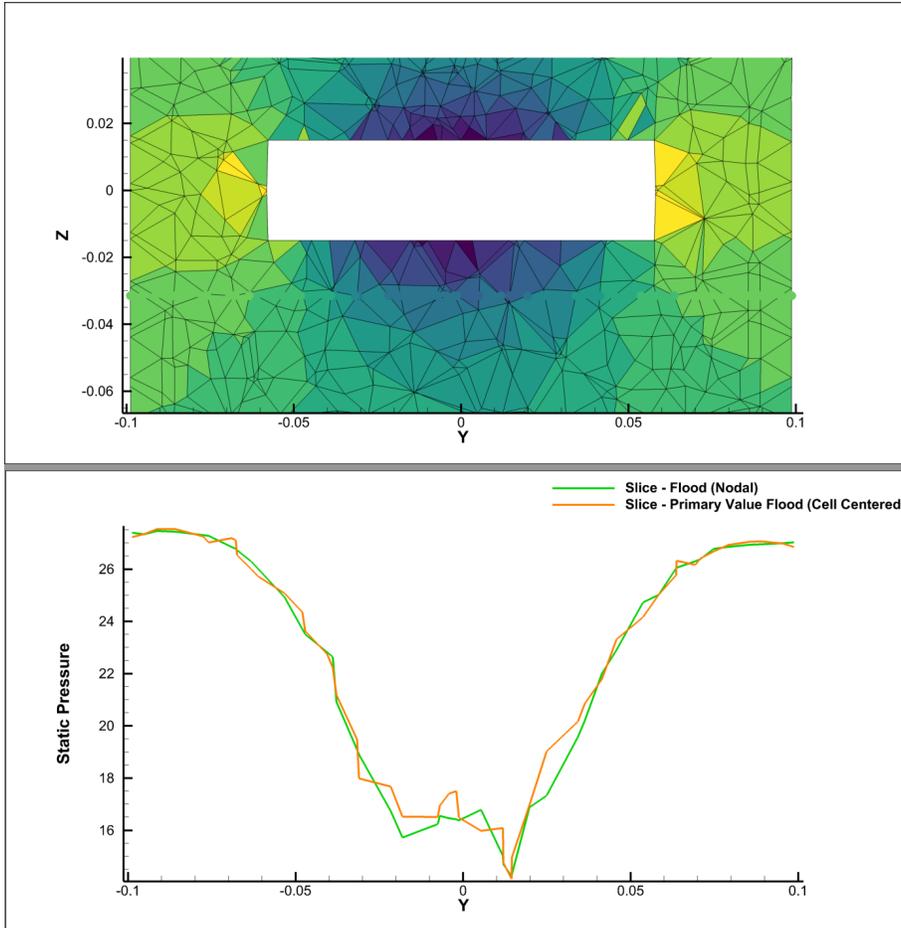
[Plot comparing linearly scaled X and Y axes on the left vs log scaled X and Y axes on the right side of the plot. The "q" variable equals  $X*Y$ .]

## Bug Fixes and Enhancements

- TecIO Updates:
  - TecIO library is now updated to resolve an issue reading partitioned data.
  - Fixed crash in TecIO library when calling tecFileWriterFlush() with multi-section FEMixed zones.
  - Fixed issue with TecIO library when writing partitioned grid/solution files.
- Fixed an intermittent crash on Windows in multi-threaded code.
- Fixed a Windows only issue in which datasets with a large number of zones/variables could not be loaded due to a Windows limitation with the number of available system handles.
- Keyframe animations can now open and save animation files to Unicode file paths. New macro commands have also been added to automate the saving and loading of animation files.
- Fixed issue where slices extracted from surface zones with cell-centered variables resulted in incorrect variable values on the extracted slice. When extracting slices, Tecplot Focus will extract data such that the resulting variables are node-located. That is, unless the slice is set to use *Primary Value Flood* on the *Contour* tab of the *Slice Details* dialog - in this case the resulting variables will be cell-centered. When extracting a slice from surface zones, in which the surface zone has cell-centered variables **and** the slice is set to *Primary Value Flood* the resulting cell-centered values in the extracted slice were incorrect. This issue has been resolved. The images below illustrate the incorrect and corrected results.



[Focus 2023 R1 - The orange line (cell-centered data) should closely match the green line (nodal data) and the scatter points in the 2D plot should closely match the cell colors.]



[Focus 2023 R2 - Slice extraction when using Primary Value Flood has been fixed. The orange line (cell-centered values) closely matches the green line (nodal values), and the scatter points in the 2D plot closely match the cell colors.]

- Fixed a crash when value blanking is enabled and selected FieldMaps are opted out of blanking.

## Platform Support

The Focus 2023 R2 release is supported on the following platforms:

- Linux:
  - Ubuntu 20.04 LTS, 22.04 LTS
  - SUSE Linux Enterprise Desktop (SLED) 15
  - RedHat 7.8+, 8, and 9
  - CentOS 7.8+
  - Rocky Linux 8 and 9
- Windows: 10 and 11
- macOS: 12, 13, and 14

## Platform End of Life Updates

Ubuntu 18.04 LTS Standard Support ended April 2023. Tecplot products are no longer supported on Ubuntu 18.04 LTS.

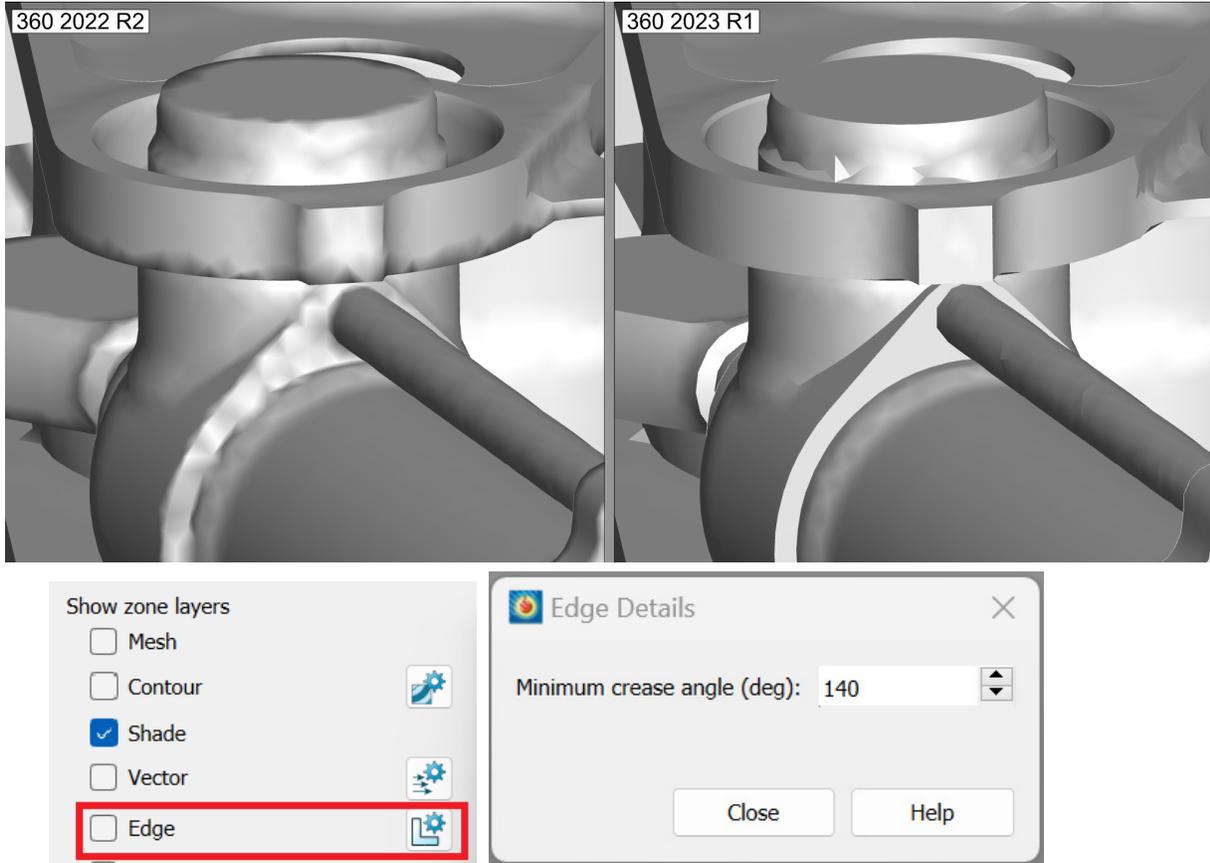
CentOS 7 support ends, June 30th, 2024. Tecplot software released after this date will not be supported on CentOS 7.

Tecplot has discontinued support for macOS 11. Current and future Tecplot product releases may work, but will not be supported on macOS 11 and older.

# What Was New in Tecplot Focus 2023 R1

## Updates & Features

- Gouraud (smooth) shading now takes into account sharp angles between cells (creases) for improved rendering. The crease angle may be adjusted using the Edge Details dialog. To restore the 2022 R2 behavior, set the crease angle to zero.



## Bug Fixes

- Fixed a licensing issue associated with network license servers combined with a load balancer. Client machines experienced a message stating, "The connection to your license server has been lost..." and then after 5-10 minutes, connection to the license server would be restored.
- Fixed an issue where ASCII files wrote-out invalid variable sharing lists. If a user created a shared variable, then wrote out this variable along with additional variables, an error was given when attempting to load that file.

## Platform Support

The 2023 R1 release is supported on the following platforms:

- Linux:
  - Ubuntu 20.04 LTS, 22.04 LTS
  - SUSE Linux Enterprise Desktop (SLED) 15
  - RedHat 7.8+, 8, and 9
  - CentOS 7.8+

- Rocky Linux 8 and 9
- Windows: 10 and 11
- macOS: 11, 12, and 13

## Platform End of Life Updates

Ubuntu 18.04 LTS Standard Support ended April 2023. Current and future Tecplot product releases will not support Ubuntu 18.04 LTS.

Tecplot has discontinued support for macOS 10.15. Current and future Tecplot product releases will not support macOS 10.15.

## Usage Data Collection

To help us better understand how our customers use our products and improve them further, Tecplot 360 includes an analytics feature that reports user activity over the Internet using the Google Analytics™ platform. This feature tells us which dialogs you use and which controls you manipulate in them. However, to protect your privacy and trade secrets, we do not see names associated with your data (such as variable, zone, or file names) or the actual values of fields in dialogs, nor do we receive any information about you or your organization's identity.

If you do not wish to participate in this program, turn off "Collect Anonymous Usage Data" in the Help menu.

We receive basic information about your operating system, product version, and license at each launch of Tecplot 360, even if you have opted out of the usage data program. This information is not tied to any usage data collected.

No usage data of any kind is collected if you do not have access to the Internet or if the Google Analytics service is blocked by a firewall.

## Crash Reporting

Please help us make Tecplot 360 better by sending a crash report to us in the event that the application terminates unexpectedly.

On Windows, Tecplot 360 creates a crash dump file. You will receive a message indicating that a crash dump file has been created. Click **Yes** in this dialog to open the folder where the file is created. You can then e-mail the most recent *.dmp* file in this folder, along with a description of what you were trying to do, to [support@tecplot.com](mailto:support@tecplot.com).

On other platforms, no crash dump file is created. However, we urge you to send us a report anyway with as much detail as you can remember.

If you have a moment and a desire to be extra helpful, please re-open Tecplot 360 and choose **Enable Diagnostic Logging** in the **Help** menu. Then redo the steps you took to cause the crash. Tecplot 360 will record your actions as a macro file. If you are able to reproduce the crash, send the resulting *.mcr* file to us (along with the *.dmp* file if you use Windows). On non-Windows platforms, you can find the *.mcr* file in */usr/tmp/tecplot\_\$USER/tpa\_diagnostics*.

Crash dumps and diagnostic macros are stored in a temporary folder and will be eventually be deleted by the system. There is no need to delete them manually.

## Graphics Drivers

For best results, please make sure that you are using the latest graphics drivers compatible with your hardware and operating system. These can be obtained from your graphics adapter vendor's Web site. Old versions may have issues with Tecplot 360 EX, especially with larger data sets.

- NVIDIA: <https://www.nvidia.com/Download/index.aspx>
- ATI: <https://www.amd.com/en/support>
- Intel: <https://www.intel.com/content/www/us/en/download-center/home.html>

## Platform-Specific Notes

The following table outlines the support for various platform-specific features in Tecplot Focus 2023 R2.

	Linux	Mac	Windows
FLOW3D loader	✓		✓
ABAQUS loader			✓
Excel Loader			✓
Tecplot Chorus	✓		✓
Tecplot SZL Server <sup>a</sup>	✓		

a. The SZL Server runs only on Linux, but Tecplot 360 running on any supported platform can connect to the server as a client

Refer to the remainder of this section for issues specific to your operating system.

### Windows

Your account must have administrator rights on your computer to install Tecplot Focus, or else right-click the installer and choose "Run as Administrator."

### Linux

- **Temporary Directory**

Tecplot Focus relies on being able to create temporary files in the system temporary directory. On Linux, this directory is typically `/usr/tmp` or `/var/tmp`. If your user account does not have permission to write into the system temporary directory, you can use a different directory either by setting the `TMPDIR` environment variable in your profile or by setting the `TEMPFILEPATH` in the `tecplot.cfg` file.

- **Menu Shortcuts**

Menu shortcut keys may not work if the `NUM LOCK` is on. You may set the `NUM LOCK` to turn off automatically at boot in your computer's BIOS.

- **SELinux**

SELinux (provided with some Linux distributions) adds an extra layer of security. If you see this error message:

```
./bin/tecplot.shared: error while loading shared libraries: ./lib/libtec.so: cannot restore segment prot after reloc: Permission Denied
```

Enter these two commands, replacing `/path/to/tec360/lib` with the actual path of your installed Tecplot 360 *lib* directory (your account needs `sudo` permission):

```
sudo chcon -v -R -u system_u -r object_r -t lib_t /path/to/tec360/lib/  
sudo chcon -t texrel_shlib_t /path/to/tec360/lib/*
```

You can then run Tecplot Focus without disabling SELinux.

## Mac

### • Keyboard Shortcuts

Previous versions of Tecplot 360 used the Control key for most keyboard shortcuts, rather than the Mac standard Command key. Tecplot 360 EX changes these shortcuts to use the Command key under Mac. Similarly, when rotating a 3D plot, you now hold down the Command key while dragging with the right mouse button.

Note that the Alt key may be called Option on some Mac keyboards.

### • Right Mouse Button

If your Mac's mouse has only a single button, hold the Control key while clicking to access right-click functionality.

### • Middle Mouse Button

There is no functionality in Tecplot 360 that *requires* a middle mouse button; however, it does provide some shortcuts. Users of single-button mice cannot emulate the middle button, but users of mice with two buttons can hold down Control while right-clicking if their mouse does not support a true middle-button click.

Enjoy Tecplot Focus 2023 R2 and master the view.