Release Notes

Tecplot RS 2018 R1

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Additional Resources

In addition to these Release Notes, Tecplot RS includes the following manuals and HTML Help Library to help you explore all of Tecplot RS's features. Your installation includes these manuals in the doc folder within your installation folder.

- **Installation Guide** This guide gives detailed instructions on how to install Tecplot RS on your machine.
- **Tutorial** Get started with Tecplot RS quickly by working with real-world data in a series of easy lessons.
- **User's Manual** This manual provides a complete description of working with Tecplot RS features.
- **Integrated Help Library** You can access indexed, searchable Tecplot RS information by choosing “Tecplot RS Help” from the Help menu.
- For additional resources or help using Tecplot RS, visit our Web site at [https://www.tecplot.com](https://www.tecplot.com).

**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](https://my.tecplot.com).
Welcome to Tecplot RS 2018 R1!

What's New in Tecplot RS 2018 R1

Tecplot RS 2018 R1 includes a number of new features, bug fixes, and usability improvements requested by our valued customers.

• Stamp Plot
   Well production data can be viewed simultaneously with the grid solution in the new Stamp Plot feature in Tecplot RS. When both the grid data and its associated production data are loaded into Tecplot RS, and the well display activated, the Stamp Plot can be viewed. Once the Stamp Plot is activated, Tecplot RS will display a small production plot at each specific well location.
   In the Stamp Plot Options dialog, you can select the production and injection property you wish to display. The well type at a specific time step will determine what property is displayed.
   The size of the Stamp Plot displayed at each well can be controlled. If a more detailed view of a specific Stamp is desired, the Quick XY functionality can be used. If the "Show enlarged stamp plot option" is chosen, Tecplot RS will force that chosen production/injection property to be displayed in the Quick XY view.

• Arbitrary Slice Enhancements
   The process of creating an arbitrary slice is now easier than ever. Once the arbitrary slice inside view is selected and started, Tecplot RS will be in arbitrary slice creation mode. There are three types of slice definitions that can be chosen. The choice makes the creation process more efficient.
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• Chain – slice through a continuous chain of points or wells
• Radial – slice coming out a single point or well (ie. slice coming out from an injector to its producers)
• Pair – slice between any 2 points or wells

“Show” toggle will automatically be activated and the slice will be displayed once the slice has been created.

• Cell Blanking Indicator
When Cell Blanking (either value or pick blanking) is activated, the blanking icon on the top toolbar will be illuminated with a green highlighter. This gives a visual indication that the blanking is active.

In the cell blanking dialog, each blanking constraint in value blanking will be illuminated given as a visual indicator that it is active.

What was New in Tecplot RS 2017 R1

• Recovery Map
The Recovery Map is now an available feature in Tecplot RS. A new toggle labeled “RM” (Recovery Map) is included below the KSUM and KAVG options.

With the Recovery Map, a user will be able to quickly calculate and display the recovery percentage of the specific variable they are looking at.

• RESQML Loader
Tecplot RS can load IJK grid geometries in the RESQML format (*.epc files and the associated .h5 files). At this time, only the grid geometries are loaded from the RESQML files. However, the associated grid solution data, including well geometries, can be read from Eclipse formatted .init and .unrst files.
Disclaimer: The RESQML Loader is operational but still is a work in progress as updates and changes are made to the RESQML output. We are working hard to increase compatibility for all RESQML datasets. Updates will continue to come as fixes are made.

- **Time of Day and Date Loader**
  Changes were made to the way Tecplot RS reads and stores date information internally. Such improvements include: Time of Day (HH:MM:SS) can now be read into Tecplot RS, Dates are stored as Excel days (a fixed offset of a Julian day), and Date format options now contain many new formatting options.

- **Zoom Lock for XY Plots**
  Users now have a zoom lock available on the sidebar of the XY Variables Plot type. After zooming into a range, depressing the lock will temporarily fix the X-axis into the chosen range.

- **Ignore Shut-In Wells when Averaging Multiple Entities or Completions**
  In XY Entities and XY Subsets, the option was added to “Ignore Zeroes” when averaging well or completion data.

- **Property Modifier Quick Access**
  Added a toolbar button to make it easier to get to the Property Modifier function.

- **Derived Variables in Integration Calculations**
  Integration results can be “binned” by properties other than the one being integrated. Now you can use the derived (equation) values for the binning value.

- **Completions Data Added to Extract Data Tables**
  The Extract Data By Cell option creates a spreadsheet showing values for selected cells and properties, with cells identified by their grid/LGR and IJK indices. The
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- **Time Slider Sensitivity**
  The time slider is now usable even when the grid property is static. This allows you to see changes in wells and bubbles over time, even if the displayed property is not changing.

- **RFT Plot Animations**
  Users now have animation control buttons to scroll through available timesteps for each entity in the RFT plot type. Similar to other XY dialogs, users will now be able to export the animation.

output now includes the well name for cells that contain a well completion or is intersected by a well trajectory.
Usage Notes

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 RS, especially with larger data sets.

• NVIDIA: https://www.nvidia.com/Download/index.aspx
• ATI: https://www.amd.com/en/support
• Intel: https://downloadcenter.intel.com/Default.aspx

Usage Data Collection
To help us better understand how our customers use our products and improve them further, Tecplot RS includes an analytics feature that reports basic information about your operating system, product version, and license at each launch of Tecplot RS. This data is not collected if you do not have access to the Internet or if the Google Analytics service is blocked by a firewall. No other data about your use of the product is collected.

Windows Configuration
Tecplot RS uses OpenGL 3D graphics, and will utilize high-end 3D graphics cards. For best results, use a graphics card and operating system that supports OpenGL (almost all newer graphics cards do).

With certain system configurations, it is not uncommon to experience problems due to insufficient memory or issues
with graphics drivers. If problems arise on your system, please attempt the following:

1. Temporarily set the Hardware Acceleration option to None. To do this, add the following line to your `tecplot.cfg` file:

   ```
   $!Interface OpenGLConfig{AllowHWAcceleration= No}
   ```

   If this fixes the problem, it is very likely your OpenGL driver was involved. We recommend you install the latest driver for your graphics card from the manufacturer’s Web site. Setting Hardware Acceleration to None may substantially reduce drawing speed, so use this as the final solution only if nothing else works.

2. Try changing the Color Palette to 16-, 24-, or 32-bit color.

3. If operating on large data sets, you still may run into memory issues. If this is the case, try one of the alternative Graphics Cache settings: Cache Only Lightweight Graphics Objects, or Do Not Cache Graphics. Choose “Performance Options” from the Options menu. On the Rendering page of the Performance dialog, choose the desired Graphics Cache setting and click OK.

   You can also make these your default settings by editing your `tecplot.cfg` file with a combination of commands. For Cache Only Lightweight Graphics, use:

   ```
   $!Interface UseDisplayLists = Yes
   CacheLightWeightDisplayListOnly = Yes
   ```

   For Do Not Cache Graphics, use:

   ```
   $!Interface UseDisplayLists = No
   ```

**Linux Configuration**

- **Qt Display Customization**

  The default display settings for Qt software on Linux platforms may cause Tecplot RS to display graphics at
less than optimal speeds. You can customize your Qt display settings by using the \texttt{qtconfig} utility included in the standard Tecplot RS installation (in the \texttt{bin} folder).

- **Remote Display Issues**
  If you have a \textbf{Network} or \textbf{Site} license, you can run Tecplot RS on one computer and display it on a second computer (via an X server). However, if you are running the OpenGL version of Tecplot RS, the X server must have the GLX extensions. If you are working with a large grid file remotely, try using the \texttt{-mesa} option to minimize the number of OpenGL commands sent across the network.

When displayed remotely, Tecplot RS may exhibit substantially lower drawing speeds than when it is displayed locally, especially for text and geometries.

- **Mesa Versions**
  Mesa, an OpenGL-equivalent graphics library, performs 3D rendering in software. It is typically used when hardware acceleration is unavailable or when working with remote display of large data.

The Mesa version of Tecplot RS functions more slowly, especially for 3D plotting. If you must run the Mesa version and display remotely, you can speed up the rendering for XY Line and 2D plots by setting the environment variable below. (On some machines, this may improve the speed of 3D plotting.)

\begin{verbatim}
export MESA_BACK_BUFFER=Pixmap
\end{verbatim}

- **Sidebar docking**
  If you have trouble re-docking the toolbar or dockable sidebar, double-click the title bar at the top of the sidebar, where it says “Plot Controls.”