

# TEC PLOT RS 2009



## Complete Reservoir Visualization

For engineers who want to cut time in understanding reservoir simulation results, Tecplot RS is a specialized visualization and analysis tool that helps increase your productivity. It gives you a full range of options for analyzing data with line graphs, 2D cross sections, and 3D grid plots. Of all the post-processing tools available, Tecplot RS is the easiest to use and produces the most visually powerful output.

### History Match Analyzer

- Automatically calculate history match factors for multiple simulation runs
- Compare data from multiple simulator runs with historical well data
- Use delta bubbles to identify regions where the simulation over/under predicts
- Create well groups interactively
- Modify properties for selected regions and output for subsequent runs

### Well Optimization

- Explore 3D solutions with arbitrary slices, blanking, and iso-surfaces
- Easily perform sums and integrations of properties in regions and layers
- Extract cell data for wells and grid regions

### One Tool for All Your Work

- Use plot templates to repeat specific plots and styles for many runs
- Use projects to remember all files associated with a case
- Display multiple plots per page
- Double-click to edit plot styles

### Mega-Million Cell Models

- Load on demand: Data loads automatically when it's needed
- Grid data pre-processing for faster loading
- Multi-threaded

### Professional Graphics

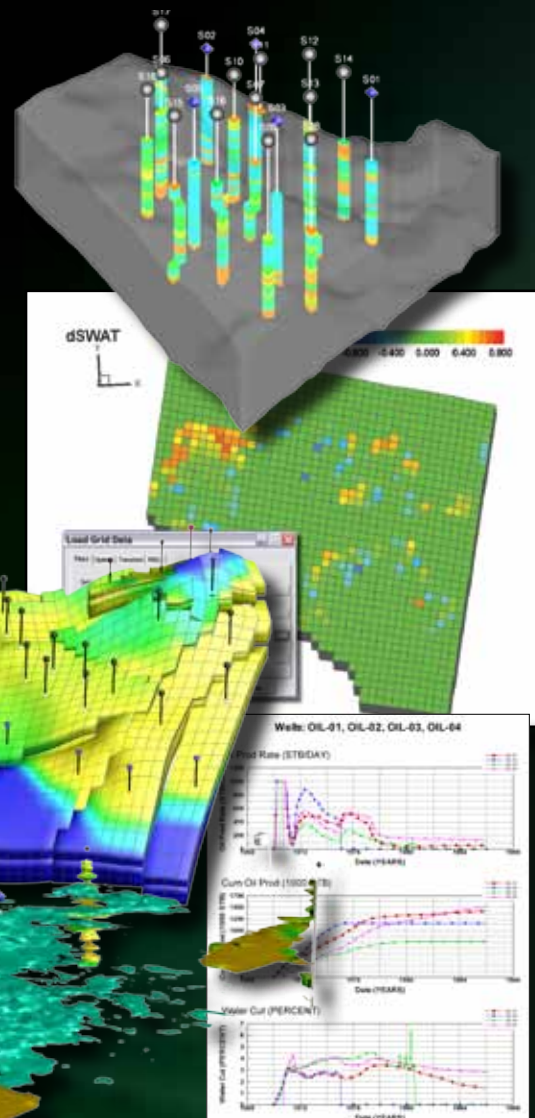
- Create Flash (SWF) and AVI movies
- Export plots in 9 raster or vector graphic formats
- Copy and paste plots and animations to Microsoft® Office® products

### 30 Minutes to Up and Running

- 1-on-1 Web-based training to get you started
- Tutorials and online help
- 10 predefined common plot types

### Responsive Support

- Same day tech support response time
- Software releases every 6 months
- 100% customer-driven feature set



"We find Tecplot RS to be much more cost effective on projects and in distributing simulation results files for independent QC or analysis than the tools currently available from the major simulation software vendors."  
- Joseph Dozzo, IRT, Inc.

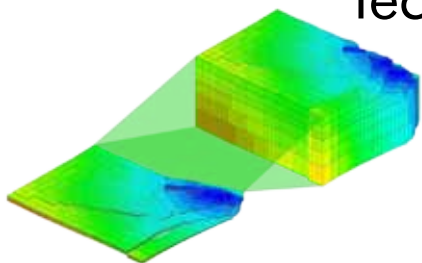
"Tecplot RS is easy to use, offers more capabilities, and produces better quality images, both screen and hardcopy."  
- Jim Gilman, iReservoir

### Tecplot RS Customer List

**Chevron**  
**Colorado Schl. of Mines**  
**CSIRO Petroleum**  
**Encana**  
**Groupement Berkine**  
**iReservoir.com**  
**IRT**  
**Kuwait Oil Company**  
**LaRoche**  
**Magellan Petroleum**

**Marathon Oil**  
**MHA Petroleum**  
**Nance Petroleum**  
**Occidental Petroleum**  
**Questa Engineering**  
**RPS Energy**  
**Saudi Aramco**  
**Shell**  
**SPT**  
**...and more**

# Tecplot RS 2009 R2 Feature Set



## History Match

- Automatically determine and display match factors for multiple simulation runs.
- Compare data from multiple runs with historical well data.
- Use delta bubbles to identify regions where the simulation over/under predicts.
- Modify properties for selected regions and output for subsequent runs.

## Data Analysis

- Use cross plots to observe relationships between data.
- Use histograms to observe distribution of data.
- Calculate new variables from existing variables.
- Integrate solutions over selected ranges.

## Multiple Data Sets

- Load and manage multiple data sets for comparison plots.
- Load and append data from numerous sources.
- Remove data sets that are no longer needed.

## 3D Grid Plots

- Load and display inactive cells.
- Generate 3D images of the simulation grid solutions.
- Display 3D perspective and orthographic views with light source shading.
- Rotate, translate, and zoom with mouse buttons to focus on a particular region.
- Use translucency to view internal 3D features like well trajectories and isosurfaces.
- Use blanking to cut away or isolate regions of the reservoir or to just show the cells along a well path.
- Use pick blanking to interactively select groups of cells to isolate or remove.
- Display differences between grid solutions.
- Save customized color legends for each grid variable.
- Create "Fence" plots from multiple intersecting grid layers, multiple x,y or z slices, or a set of arbitrary slices.
- Display fault surfaces.
- Evaluate user-specified "survey" wells.
- Use Z-thickening to stretch grids in Z direction without distorting the grid topology.
- Sum or average properties over grid layers.

## 2D Grid Plots

- Load and display inactive cells.
- Examine the simulator solution, layer by layer.
- Quickly step through grid layers for aerial and cross-section views.
- Display grid layers in physical or index coordinates.
- Display grid variable as distinct value per cell or smoothly varying.
- Use the mouse to translate and zoom on the image.

- Customize all text and style elements of each plot.
- Superimpose bubble plots of well production and injection data.
- Use Delta bubbles to display difference between two well data sets.
- Display wells and local grid refinements as they appear in each layer.
- Use ternary coloring to display oil, water, and gas saturations.
- Display fault lines.
- Stretch grids in the Z direction without distorting the grid topology.

## Animation

- View the time history of reservoir data.
- Create 2D and 3D views for specific simulation times.
- Animate or step forwards and backwards through a time sequence to observe changes in the solution variables.
- Create and share movies showing saturation fronts, pressure changes, and other recurrent grid properties.
- Display the difference between current values and a user-selected reference time.

## XY Plots

- Specify spacing of major and minor markers for the axes of XY plots.
- Compare data from multiple simulator runs with historical well data and normalize differences.
- Plot data for multiple wells or multiple variables in each graph.
- Compare multiple variables in each graph using one or more Y-axes.
- Plot versus time, or select any other variable for the X-axis.
- Customize the colors, sizes, patterns and fonts of each graph and save the style settings for reuse.
- Rapidly step through plots of field, region, group, well, completion, branch, segment and cell data.
- Use special plot types for completion profiles and RFT data.
- Sort and filter well lists using alphanumeric or performance criteria.
- Automatically sum or average data for selected sets of wells.
- Add geologic layers and annotations as background to RFT plots.

## Multiple Plots Per Page

- Arrange multiple plots on one page to quickly view data for numerous wells, variables, and data sets.
- Use default settings to view sets of variables or well plots on one page.
- Customize 'standard' sets of plots for viewing producers, injectors, or groups of wells.
- Combine XY graphs and 2D and 3D grid views on one page.

- Click wells to display XY graphs of production and RFT data with grid plots.
- Click cells to display time histories of grid data with grid plots.
- Include a histogram of grid properties.
- Display side-by-side views of matrix and fracture solutions for dual porosity runs.
- Interactively create pages of customized XY plots and save as a project for future editing and viewing.

## Export Data

- Output selected data for further analysis or input to simulations.
- Output data from selected XY plots to CSV file.
- Use blanking options to select cells to output.
- Output selected cell variables for user-selected times.
- Output cell data along well paths.
- Modify properties and output selected cells to ASCII file for most simulator-specific formats.
- Define a sector, by specifying grid index ranges, and select and output grid properties for that vector.

## Streamlines

- View streamlines to more fully understand flow paths in the reservoir.
- Display streamlines based on well pairs and arrival time.
- Control the percentage of streamlines to display.
- Combine streamlines with grid-based solutions.
- Color streamlines based on a solution variable.
- Use formats compatible with FrontSim, 3DSSL, VDB.

## Macro Language

- Access all features with macro commands.
- Create and run macros interactively to repeat sets of views for new data sets.
- Create and edit macro scripts to batch process data from multiple simulation runs.

## Data Loaders

- Eclipse, Chears, VIP, VDB and FrontSim.
- Historical rate data, RFT data, observed well pressure data.
- VDB database format for VIP/NEXUS simulators compatible with 32-bit and 64-bit versions of WindowsXP, Vista, and Linux.
- Streamline solution data from the VDB format.
- Streamlines from streamline simulators like FrontSim and 3DSSL.
- User-created ASCII files or CSV.
- ASCII RFT files from VIP Simulator.
- Load multiple simulation and observed data files in one operation.
- Create project files to load all datafiles and plot style information.
- Partial load and load-on-demand for managing large data files.
- Update plot data while simulator is still running.
- Translate and rotate the grid to new coordinates.
- Load the difference between two solutions for the same grid, normalize data.

Free, No-Hassle Trial Copies of  
Tecplot RS are available at:  
[www.tecplot.com/trial](http://www.tecplot.com/trial)

