

### **Release Notes**

The following features, improvements, and corrections are included in this major release of SROD Version 8.9.2, April 2024.

- Enhancements
- <u>Updates</u>
- System Requirements
- Installation Instructions

SROD's version can be displayed by clicking **Help > About**.

#### Enhancements

- New function to support user configurable, custom rods:
  - Show rod taper loading on modified Goodman diagram.
  - Updated Reports with MGD equations and hyperlinks.
  - Manually set rod guides count per rod are marked with '#' in reports.
- In the Case-Comparison tool:
  - Export report to Excel
  - User configurable custom report parameters to display.
  - Additional new report parameters:
    - Max Buckling, Max Buckling Location, Taper Bottom Min Stress, Taper Rod Weight, Crank Rotation, Tubing Size, Tubing Stretch, Tubing Anchor Location, Pump Depth, Tubing Gradient, Min Max Tubing Head Pressure, Pump Intake Pressure, Pump Friction, Neutral Point Measured Depth, Max Side Load, Max Drag Load, Counterbalance Moment/Effect/Peak Air Pressure/ CB Weight (In-Balance/Existing)
- New capability to configure the number of guides per individual rod taper.
- New Reports: once saved the report will open automatically. (Configurable)
- New capability to export Dynagraph surface and downhole cards to; .dyn and .csv file formats
- Graphed data now can be exported to .csv files, for the following graphs:
  - Reducer Torque vs. Rod Position
  - Motor Current vs. Rod Position
  - Motor Power Factor vs Rod Position
  - Motor kW Input vs Rod Position
- New function, "Apply Rod Type to All Tapers" and "Apply Rod Type to following Tapers" to the taper-number's context menu (right click). This will automatically choose the same type rods to match the current line item.
- Database modifications:
  - Added LIBERTY LIFT XL/HE/EG SERIES to SROD DB
  - Updated Rods Catalog with latest Endurance Lift Solution (ELS) information.
  - Renamed John Crane FG rods to Endurance lift solutions.
  - Added WM30 master-weight to GRC160AR/160AL crank for the LUFKIN LLS (SHORES SLS) Series
  - Updated 'A' dimension for 'Weatherford Max III 912-365-192 A118-55 CRANKS' from 178 to 203.125
  - Updated the 'Reducer Speed Ratio' for 'LUFKIN CG-640D-365-168 (132125CA CRANKS)' from 28.72 to 28.6
  - Updated the 'Modulus' for the 'LSI ENDLESS ROD' from 30.5 to 29
  - Updated the 'Rod Type' for the 'LSI ENDLESS ROD' from Steel to Continuous Rods
  - Fixed CHAMPION C1280D-365-240 pumping unit radii values



- Added 'Weatherford QD-20' and 'Weatherford QX-30' Rods to SROD DB
- Gear Reducer values were updated for the following units: LC114-150-64, LC160-143-64, LC228-144-120, LC228-173-64, LC228-173-74, LC228-190-64, LC228-190-64, LC228-200-64, LC228-212-86, LC228-220-100, LC228-221-84, LC228-221-84, LC228-246-74, LC228-250-74, LC320-197-120, LC320-219-120, LC320-247-84, LC320-250-120, LC320-250-74, LC320-256-100, LC320-256-120, LC456-320-120, LC640-300-144, LC640-320-120, LC640-365-168, LC80-102-54, LC80-109-48, LC80-119-54, LC80-119-64, LC80-127-48, LC80-133-48, LC80-133-54, LC80-141-48, LCT5A-80D
- o Updated the Maximizer III 1280-427-192 A118-60 radii.
- Added APEX Pumping Units' catalog.
- Update Weatherford rods catalog (COROD ME, COROD MER, COROD CALBAR ME and COROD CALBAR MER)
- Added TRC MPACT rods' catalog.
- Added LUFKIN Sprint Conventional pumping units SC-640-365-192.

### **Updates**

- SROD calculates correct SPM for a given target production and pump efficiency.
- Suggested Rod Guides report will not show guides for tapers marked with Rod Guides = N - NO
- Fixed: 3D view re-scales after editing the deviation survey to maximize available space.
- The "Min/Max Molded guides Per Rod" are saved with the corresponding case in the .inp file.
- Fixed: CBAL now correctly shows the user defined engineering units from user file.
- Fixed: CBAL now correctly utilizes direction of rotation from the user entered well data.
- Fixed: SROD no longer generates guides for tapers marked with "Rod Guide = No"
- Fixed: Failure during processing a case with Rod-diameters with 4 or 5 decimal places
- Fixed: When adding user configured "custom" Master or Aux. counterweights, SROD will verify that the maximum number of available charters is not exceeded prior to saving the data to the database.
- Fixed: Compare tool, now correctly reports tapers diameters.
- Fixed: CBal now report show the right calculated CB moment in multi case file.
- Fixed: The Slimhole coupling warning now shows the right metric Tubing Size.
- Fixed: (In deviated wells) "Let SROD Calculate Pump Intake Pressure" now uses MD.

# **System Requirements**

The following system requirements (hardware and software) are recommended for running SROD 8.9.2:

- 4 Core Intel ® Xeon ® E51603, 2.80 GHz equivalent or above
- 4 GB RAM or above
- 1 GB 3D video card or better
- Resolution of 1280 X 768 or higher (1600 X 1024 recommended), dpi small fonts for better visual effects. Using Windows "Scale and Layout" = 100%
- Microsoft .NET Framework 4.5.1 or later

# **Installation Instructions**

Refer to the SROD Installation Guide, section **Installation Instructions** for more details. For any technical issues, contact SROD Technical Support at <u>srod.technical.support@lufkin.com</u>