Cerberus Modeling Software

Designed to meet today’s design and monitoring challenges

Since 1995, Cerberus™ has been the leading intervention modeling software for planning and performing coiled tubing, wireline, and jointed pipe operations. Cerberus models provide advanced calculations for fatigue life, tubing forces, and hydraulics providing operational confidence. Featuring cloud connectivity, the entire organization now has access to the complete picture of operations and assets in real-time, enabling immediate process improvements, reduction of NPT, and unlocking opportunities to gain efficiencies for improving the bottom line.

Utilize Cerberus for the following:

- Tubing, jointed pipe, and wireline forces analysis
- Fatigue life tracking
- String design and selection
- Wireline weak point selection analysis
- Asset management
- Bottom hole assembly (BHA) configuration
- Local and cloud* real-time forces monitoring
- Hydraulics modeling

Cloud Connectivity

District Administration Functionality

Cerberus now has the functionality to manage all connected company assets, which streamlines project management, modeling projects, string assets, BHA assets, and fluid libraries. The designated district administrator can push projects, strings, and more to-and-from the unit’s PC to remotely setup real-time jobs and verify post-job field results.

*Real-time monitoring through cloud connectivity is available through CTES Live™.
Forces, Fatigue, Hydraulics, and Inventory Management

**Orpheus**

Determine job feasibility and anticipate possible problems with extended reach, tubing and wireline limits with fluid dynamics. Orpheus™ calculates the cumulative forces, considering effects such as drag, buckling, hydraulics effects and mechanically applied forces such as extended-reach tools and tractors.

- Navigate highly deviated wellbores or other obstacles by modeling BHAs in real time
- Analyze the surface weights acquired during a job, identify apparent friction, and help predict the expected friction factor to be used in future projects with the Orpheus Forces Monitor

**Achilles and Hercules**

Achilles™ fatigue calculations remain the industry benchmark for coiled tubing life monitoring. Today’s complex applications make it critical to track the fatigue life and diameter growth to avoid an expensive and potentially dangerous failure at the wellsite.

Hercules™ tubing limits plot is the widely accepted model that uses von Mises combined stress to predict tubing burst and collapse limits. The model takes into account helical buckling, maximum expected pressures, diameter growth, and torque.

**Wireline Weak Point Analysis**

Understanding your wireline and tools’ parameters ensure a successful run.

The wireline weak point analysis displays your project’s simulated surface weight (RIH and POOH), allowing you to visualize the maximum overpull prior to activating the weak point or disconnect. It also allows you to visualize the maximum surface weight for the planned operation and check for potential cable compression to ensure you are working within the asset’s limits.

**String Inventory Management**

With the string inventory view, all company users now have the ability to analyze their coiled tubing strings aggregated status in real time. This includes maximum fatigue life, average fatigue life, running footage, job counts, and more.