**State-of-the-art drilling automation.**

**SUPERIOR DRILLING OPTIMIZATION AND CONTROL**

ExxonMobil DAS™ is an automation package consisting of advanced optimization and control algorithms formed in a partnership between Pason and ExxonMobil Upstream Research Company.

- Maximizes Rate of Penetration (ROP)
- Mitigates Stick Slip
- Optimizes Drilling Energy
- Superior AutoDriller Control

**REAL RECORD-BREAKING RESULTS**

Record-breaking performance seen in the first 50 rig installations including numerous pacesetter wells.

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*ExxonMobil DAS is technology licensed from ExxonMobil Upstream Research Company.*

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For more information, go to pason.com.
**MAXIMIZES ROP**

- Dynamically changes weight-on-bit (WOB) to maximize rate of penetration (ROP) and bit life in a constantly changing drilling environment

**MITIGATES STICK SLIP**

- Provides real-time stick slip indicators to the rig and the office using an advanced software model from ExxonMobil
- Automatically manages WOB to reduce stick slip severity when it exceeds a safe operating threshold
- Resumes ROP optimization once stick slip has been mitigated

**OPTIMIZES DRILLING ENERGY**

- Only allows energy into the system (WOB) if it results in improved ROP, resulting in improved bit condition
- Reduces WOB where there are no ROP gains which significantly extends bit life and decreases wear and tear on equipment
- Extends life of the mud motor

**SUPERIOR AUTODRILLER CONTROL**

- Smooth payout of the drill line at high ROPs with tight control to differential pressure and WOB
- Automatically adjusts tuning parameters based on drilling rig dynamics
- Increased accuracy to plan through two sliding modes for holding toolface (smooth toolface control) or adjusting toolface (aggressive steering mode)