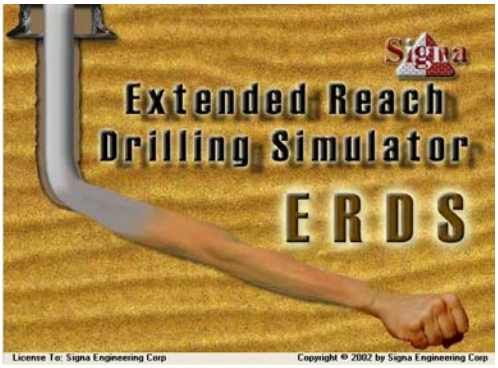
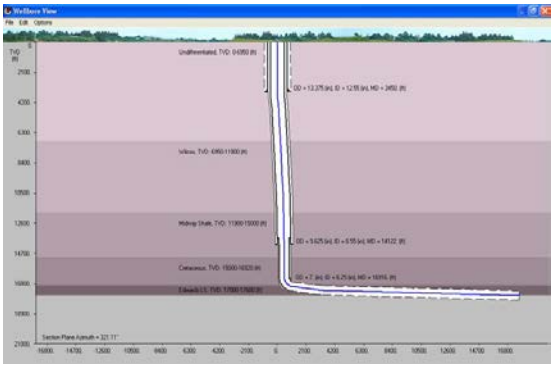
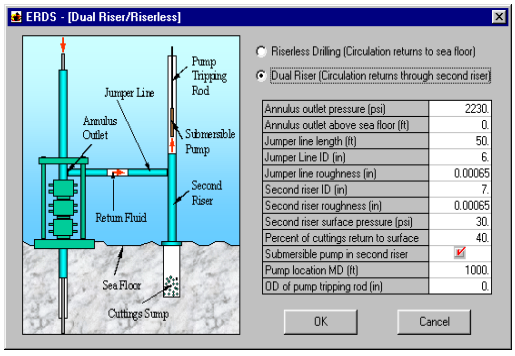
Extended Reach Drilling Simulator (ERDS)

Successful Extended Reach Drilling (ERD) requires proper design of well trajectory, capacity of drilling equipment, and circulating fluid. ***ERDS*** incorporates all these designs into one user-friendly package, predicting adequate hole cleaning, minimizing torque and drag, and maximizing penetration rate while optimizing wellbore departure.



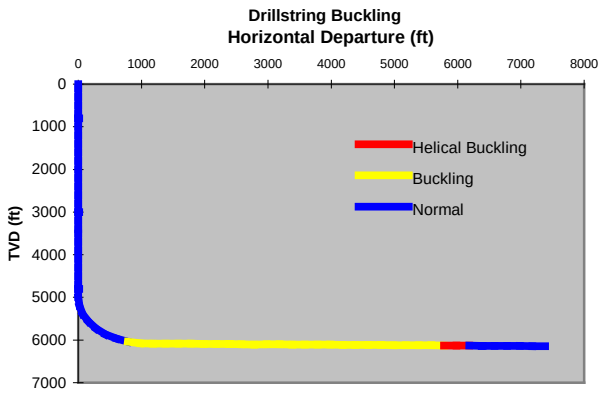


ERDS includes Torque, Drag, Buckling, Heat transfer, HTHP, Influx/Lost Circulation, phase change, and hole cleaning calculations. Besides normal drilling it also handles casing drilling and dual gradient drilling.



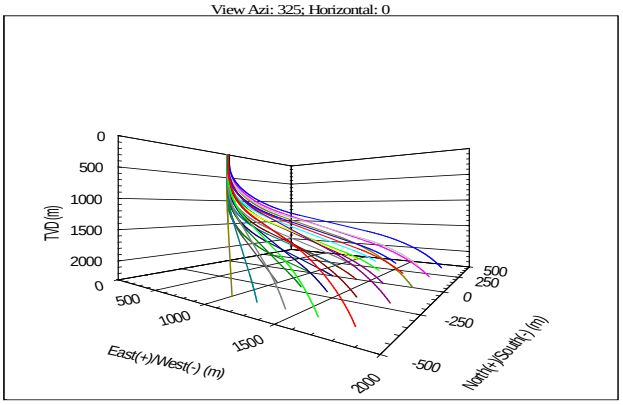
ERDS accounts for a variety of dynamic situations that frequently accompany ERD, including:

- High Torque and Drag
- Potential for buckling of pipe
- Inefficient hole cleaning
- Inability to reach the target.



To improve user productivity, ***ERDS*** includes:

- MS Office compatibility
- Only one wellbore description entry required
- Single/multi well trajectory design
- Offshore rig capability (accounts for air gap and negative temperature gradient in riser)
- Multiple fluid rheology models
- Productivity Index calculation
- Lookup tables for tubulars and fluids
- Customized units option
- Drillstring joints and eccentricity
- Torque, Drag and Buckling determination
- Heater transfer and HTHP
- Dual gradient drilling



The directional model in ***ERDS*** allows the wellbore to be viewed at any orthogonal projection.

For a free trial, please visit: www.signaengineering.com or contact George Medley or Shifeng Tian at the address or phone number shown below.

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