OVERVIEW

Typically, new wells are planned using information from past drilling experiences and data, particularly from offset wells. Leveraging this historical drilling data is critical to optimizing newer drilling operations. Despite a wealth of data available, it is often difficult to extract meaningful knowledge from it. Current solutions for mining information from engineering databases either requires an expert with data-model knowledge and database query-writing skills, data to be exported out of its native database, or extensive customization of third-party tools. None of these solutions are optimal, with many of them being expensive, time-consuming, and often giving inadequate results.

DecisionSpace® Drilling Analytics software bridges this gap as the industry’s first business intelligence and visualization solution specifically designed for drilling. Built to access Landmark’s Engineer’s Data Model™ (EDM™) out of the box, but fully customizable, DecisionSpace Drilling Analytics software gives engineers and managers instant insight into their data through a series of analytic models based around common drilling and well-engineering issues. These models allow users to quickly and easily compare many attributes across large numbers of wells in various graphical forms, including multiple interactive filtering, without ever having to write a database query.

Total NPT failures by Time (left), Cost (right) & by Well (bottom) interactively filtered for bad, null, & non-critical data
**BENEFITS**

Designed by and for the E&P industry, DecisionSpace Drilling Analytics software drastically cuts down the time required to create relevant analytical models. This allows E&P companies to spend more time on analyzing the data itself and gaining critical operational insights. DecisionSpace Drilling Analytics software can be used for:

- **Optimizing planning of new wells** by aggregating, visualizing, and analyzing data from offset wells.
- **Benchmarking** best and worst performing equipment, partners, and processes.
- **Data Quality Control** to quickly find missing, null, or incomplete data.
- **Reviews** with easy to read and access graphs and charts of drilling operations.

For operators wanting a customized solution, the software provides a foundation built around their EDM database, which can be modified for their specific needs either by using the tools provided by the software or through Landmark consulting services.

**Preconfigured Analyses Built In**

DecisionSpace Drilling Analytics software delivers 18 analyses, each of which is a specially designed business-intelligence data model built around a specific drilling or well-engineering issue. Business-intelligence models store data very differently from traditional databases. Their multidimensional data structures with a business issue at their core are optimized for extracting information from data. Most analyze EDM and OpenWells® reporting data, but all are fully customizable. The preconfigured analyses include:

- NPT Analysis
- BHA Analysis
- Bit Analysis
- Safety Analysis
- Kick Analysis
- Mud Loss Analysis
- Max Activity Analysis
- Asset Analysis
- Rushmore Reports (x2)
- Plan vs. Actual
- Depth vs. Days
- AFE vs. Actual Costs
- Mud
- Mud Inventory
- Rig Status
- Perforation Summary
- Production Equipment Failure

*Bit Performance by bit run for individual wells (top). Average ROPs for all wells for all depths (bottom)*
FEATURES

**Web-based Interface**
DecisionSpace Drilling Analytics software is built on a Web-based interface so you can access your analyses from anywhere. It has been streamlined and simplified for ease-of-use across most modern browsers, including those on mobile devices.

**Fully Customizable**
The software is fully customizable, allowing you to:

- Easily add in additional data from different EDM tables
- Join data from a completely different data-source, such as Excel or other relational databases
- Build entirely new analyses based on your unique needs, problems, and data sources

Customization is done via an intuitive graphical interface with prebuilt interfaces to most common data sources.

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**Rich Charting and Graphing Capabilities**
DecisionSpace Drilling Analytics software comes with over thirty different types of charts and graphs that can be presented four to a screen for comparison of data, or spread across as many pages as you like. Charting is intuitive and fast, with visualizations being completely interactive, and changes in data selection criteria being immediately reflected across all displayed views. Views can be private, shared between all users, or exported and emailed.
Interactive Mapping Interface

All of your well data can be displayed on an ESRI®-based map interface where you can manually lasso a subset of wells for analysis, or use one or more filters that allow you to find data based on a variety of drilling and engineering parameters. These filters are fully customizable allowing you to add your own selectors based on your specific data types and needs.

System and Software

SOFTWARE REQUIREMENTS

Landmark EDM™ Database version 5000.1.7 or later

Any current-generation Web browser (IE9, Firefox, or Chrome)

SUPPORTED OPERATING SYSTEMS

Windows 7 or Windows 2008 Server R2

ESRI-Based Interactive or Filter-Based Well Selection.