DecisionSpace® Well Integrity Management

OVERVIEW

DecisionSpace® Well Integrity Management software is designed for operating companies that are implementing a complete, agile and integrated well integrity management system across all assets in their organization, in accordance with corporate and regulatory requirements. It is also designed for companies that are working towards this by adapting existing processes and business workflows to create well integrity management systems for sub-sets of assets.

It is a recognized challenge for an operating company to ensure the integrity and availability of all its wells, all the time. Aging wells have scattered historian data in various formats. New smart wells produce a flood of data. Wells are oftentimes in multiple regions with different economic requirements, operating conditions and environmental regulations. All of these things increase the complexity of cost-effectively managing well integrity across an organization.

DecisionSpace® Well Integrity Management lessens complexity by being the singular point of interaction with a user’s well integrity management system and standardizes well integrity management workflows across the organization, while tailoring it to specific regional regulations. The software collects, aggregates, and analyzes well data, so that users can view reports of actual vs. optimal integrity metrics. Ultimately, users can take preventative actions throughout the lifecycle of the well because they’re able to view the integrity indicators in relevant time.

A well summary view from DecisionSpace Well Integrity Management shows key well integrity assurance workflows.
**BENEFITS**

**Well Integrity Management Benefits**
Ensure each asset team is viewing the same trusted and quality-assured well integrity information, and provide the information through a wide range of devices, when and where it is needed.

Reduce information overload and focus on the data needed to make critical well integrity decisions in relevant time.

Leverage Halliburton’s expertise in well integrity by using a set of integrated management workflows, which can easily be extended as required to meet a user’s particular needs.

Significantly reduce overall deployment time by using basic monitoring capabilities.

Building critical operational workflows like real-time annulus integrity monitoring.

Facilitate early detection of potential issues and provide easy to use analysis and diagnostic tools to identify the root cause.

Establish key performance indicators and safe operating envelopes for a single well, field, or a company-wide asset portfolio, and monitor the success criteria in real time.

**Enterprise Benefits**
Provide a foundation for the overall well integrity strategy with comprehensive data management, configurable well integrity management workflows, surveillance workflows and extensible workflow automation platform.

Deploy common work processes across a complex global organization, while enabling engineers to tailor visual representations to their more specific local requirements and personal preferences.

View information from multiple data sources in configurable dashboards that are adaptable to particular policies and preferences.

Increase collaboration between new and experienced engineers while reduce training time with an intuitive user interface, and easy to use analysis and diagnostic tools.

*DecisionSpace Well Integrity Management shows the relevant-time performance of the wells against key integrity indicators at regional and field levels.*
FEATURES

Multi-Level Well Integrity Monitoring
At once, visualize the integrity of all wells in a region. Compare performance between regions by monitoring a configurable list of key performance indicators such as:

- Overdue Integrity Activities
- Wells with Sustained Casing Pressure
- Wells with Failed Integrity Tests
- Open Anomalies
- Wells with Well barrier Element Impairment or Failures
- Wells Under Corporate Deviation or Regulatory Departure

From the multi-level well integrity monitoring, users can drill down to the individual well level to see its detailed and up-to-date status.

Well Integrity Management
Well integrity engineers and managers are able to trigger, track and update several workflows to ensure that important information is captured and analyses are performed on time. Some of these workflows are:

- Establishing Safe and Normal Operating Envelopes
- Defining Maximum Allowable Annulus Sustained Pressure
- Managing anomalies for Trees, Wellheads, Tubing, Annulus, Downhole Safety Valves, and more
- Defining and managing WBE and containment envelopes per company Well Integrity Management System (WIMS)
- Managing WBE Impairment or Failures using thorough assessment, Root Cause Failure Analysis (RCFA) and Management Of Change (MOC)
- Managing Wells Identified with Corporate Deviation and/or Regulatory Departure (collapsed conductor pipe, failed cement, cellar leak, abnormal annulus pressures etc.)
- Maintaining Well Risk Rank in accordance to corporate HSE Matrix
- Maintaining Downhole Safety Valve Equipment Inventory and Testing Data
System and Software

SOFTWARE REQUIREMENTS

DecisionSpace® Well Integrity Management Portal:
- Windows Server 2008 R2 / 2012
- Microsoft® SharePoint Foundation / Farm 2010 / 2013
- Microsoft® SQL Server 2008 R2 / 2012
- Enterprise / SQL Server Express

Client Computer:
- Microsoft® Internet Explorer IE 10+
- Google Chrome 35+

OPERATING SYSTEMS

DecisionSpace Well Integrity Management Portal:
- Windows® Server 2008 R2 / 2012

Client Computer: Microsoft® Windows® 7 or 8

HARDWARE

DecisionSpace® Well Integrity Management Portal:
- 64-bit, four core system with 16-GB Ram
- 100 GB of Storage, plus additional storage for routine operational data storage

Client Computer:
- 64-bit, four core system with 32 GB RAM
- 100 GB of system drive space
- Display: Minimum is 1280 x 1024 and Maximum is 1920 x 1080

Consistent Data Model

Use Landmark’s Production Data Model (PDM) based on the industry standard Professional Petroleum Data Management (PPDM).

Data Federation

Ensure engineers and asset managers are viewing consistent and quality-controlled data within the application. Connect directly to real-time data historians, production database, equipment inventory, maintenance, plans, events and other critical systems while maintaining data QA/QC.

Modern Architecture

Deploy a consistent work process across global operations with a scalable, flexible, and centrally-managed application architecture built on modern technology.

Extensibility

Evaluate data in the correct context using configurable statistical and visual analysis tools. Using time-relevant data perform pattern and cluster analyses, produce high quality visuals for reporting needs.

DecisionSpace Well Integrity Management provides an advanced solution with extensive data accessibility, remarkable flexibility in configuring its workflows, and competitive reporting as well as analytical capabilities tailored to meet field challenges and user preferences, all together are essential for the business to address increasingly challenging and dynamic well integrity issues in a timely and cost efficient manner.

LEAD WELL INTEGRITY ENGINEER

Landmark Software & Services offers solutions to help you deliver on your business strategies. For questions or to contact your Landmark representative, visit us at landmarksoftware.com.