

MACHINE LEARNING & PREDICTIVE ANALYTICS IN THE DIGITAL OIL FIELDS



INDUSTRY BRIEF - OIL & GAS

Benefits of Predictive Analytics

- *Drive operational excellence through understanding trends and relationships in multiple sets of data*
- *Gain insight into real-time operations data*
- *Improve risk analysis and take corrective action*
- *Increase your ability to predict health and safety concerns*

Predictive analytics is the new standard in strategic decisions, reduction of manual-intensive repetitive tasks, and selecting effective preventative measures.

CHALLENGE

The aging energy infrastructure currently in place across North America has undoubtedly increased the maintenance and inspection demands on energy operators and distributors. Low oil prices are highlighting the effects of inefficiencies in operations, and with thousands of devices and operational systems generating and collecting data, the ability to react, respond, and proactively adjust a business based on actual trends and patterns is becoming increasingly more important.

As an example, manually managing thousands of kilometers of pipeline to proactively mitigate potentially dangerous conditions not only will impact your bottom line, but restrict future growth. To meet these challenges, oil and gas companies need to embrace advanced technologies integrating predictive analytics, sensor-driven technologies, machine learning, artificial intelligence (AI), and the dynamic computing power of the cloud.

OUR SERVICES

New paradigms for business analytics application usability, portability, and scalability are rapidly evolving as technologies such as sensor-driven processes, machine learning, and AI, are now integrated with robust predictive analytics.

Sierra Systems' machine learning accelerators, Agile BI project methodology, and experience provides you with the perfect starting point on your machine learning experience. By mobilizing data to identify meaningful patterns and correlations, we can help you maintain system integrity, reduce costs, and manage risks. Sierra Systems' business analytics, data scientists, and application development specialists have the technical skills and industry knowledge to help you turn your data into a key corporate asset.

Our BI Technologies

- *Cortana Intelligence Suite*
- *SQL R*
- *Power BI*
- *Machine learning*
- *Azure IoT Suite*
- *IBM Watson*

ENERGY EXPERIENCE, DIGITAL KNOWLEDGE

Sierra Systems has the energy-sector experience to drive operational excellence, combined with the next-generation analytics technology to change procedural business processes.

Improve productivity with better, faster insights



Data pools now grow faster than most enterprises' ability to deal with them. Sierra Systems' BI and IoT services deliver cost-effective self-service BI, machine learning, and predictive analytics, enabling your staff to use enterprise data sources to find new insights, and drive business performance.

Insight at all levels of production, operation, & sales



Reports created by your staff and partners are easily enhanced by embedding a visualization or dashboard into an operational application, such as ERP or CRM systems. This provides contextual data sets for every decision.

Manage data in the field for business agility



It's now easier than ever to take unstructured data from field inspections and use the data to drive predictive maintenance and improve quality assurance. We can incorporate location analytics, typically graphically layering data onto geographical maps, to identify pipeline or well conditions, helping you address new and predicted threats.

Enhance transparency and operational efficiency



Create business value for your organization with self-serve visual analysis from almost any recorded stage. Our professionals use a combination of technologies, including Cortana Intelligence Suite, Cognitive Toolkit, SQL R Services, and the Power BI suite delivered via Azure to deliver solutions to meet your specific needs.

These technologies can be used as a stand-alone, on-premises option for individual users, or when power users are authoring complex data mash-ups involving on-premises data sources. Sierra Systems can implement focused BI applications, such as Power BI for data preparation, data discovery, and interactive dashboards in a single design tool.



Sierra Systems' development and ingenuity in machine learning was key to winning the 2017 Microsoft Partner Networks' Impact Award for Data and Advanced Data Analytics Innovation.

Learn more

To learn more about Sierra Systems' solutions contact us:

AnthonyBulk@sierrasystems.com
1-877-688-1371
sierrasystems.com