ASSET INTEGRITY

Watching assets like HAWX

Xodus Group has launched an online tool to simplify the process of asset integrity management

ACROSS the industry, operators and services firms are taking an increasingly proactive approach to asset monitoring. Better testing methods and substantially increased amounts of available data are enabling engineers to predict maintenance better and avoid infrastructure failure.

With vibration, corrosion and erosion causing a sizable proportion of piping and pipeline failure, tracking fatigue and operating data on these assets is essential. Frequently, though, that data is stored in a spreadsheet, where it can be difficult to locate, interpret and share results within an organisation. Even then, the information that is there is not traceable.

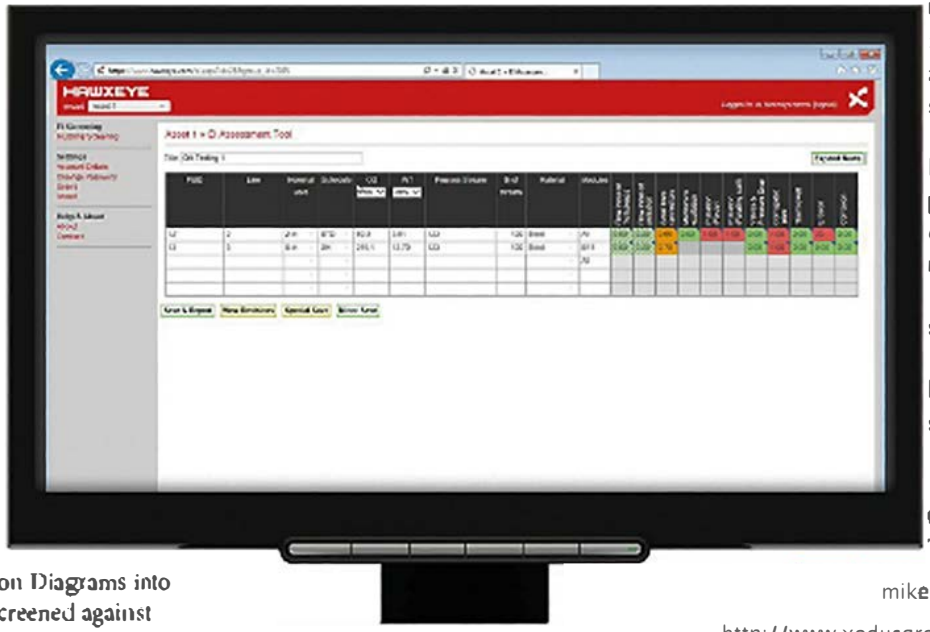
HAWXEYE is a new secure web application designed by Xodus to simplify the process of screening this data. Designed for use by upstream explorers, producers and subsea firms, its main benefit is that it allows operators to focus on investigating and preventing failures rather than locating and analysing data.

Overseeing development of the system, HAWXEYE product manager and Xodus' global lead for computational fluid dynamics, Mike Lewis – explained to InnovOil that it was originally devised as an internal tool to aid the company's screening processes for new designs. Xodus has seen a need for HAWXEYE based on its involvement in a number of internal and external joint industry projects (JIPs).

Users simply feed asset operating data and information from Piping and Instrumentation Diagrams into the program, where it is screened against industry standards. HAWXEYE then calculates likelihood of failure (LOF) readings – a probability value based on industrial guidelines from the Energy Institute, DNV GL and NACE – and reports the information using a simple traffic light system, indicating any potential issues.

By storing historical data throughout the asset's life, the data can be used to inform ongoing asset integrity management and improvement programmes.

Its design also alerts operators of any potentially poor design features in both the development and operations phases, allowing them to detect the root causes of piping and pipeline failures and monitor reliability. They can also prioritise time and capital in addressing the most pressing issues first, while remaining confident about the integrity of other areas.



As an online cloud-hosted tool rather than a local spreadsheet, that information can be accessed by anyone across an organisation simultaneously, or generated in the form of a report for external stakeholders, contractors and for HSE requirements. The data entered is then fully traceable.

Xodus Group operations director Graeme Rogerson adds that: "HAWXEYE is fully scalable, from a single item to multiple assets and can be used by any organisation facing piping and pipeline condition issues in difficult to reach equipment, which is a costly issue for the industry. Its user-friendly interface makes the app instantly accessible for experts and non experts alike."

Lewis suggests that future incarnations of HAWXEYE may include automated data entry, as well as a number of other tools currently used in-house by Xodus. For now, though, he that says feedback from the HAWXEYE test group has been good, and has proved encouraging despite the tough market.

And if it proves successful, it could even signal the end for headache-inducing spreadsheets. ■

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