

NEXUS IC

The seamless all-industry asset integrity management solution

Oil and gas, petrochemical, power generation, renewables, nuclear

Built to support all asset types and with no industry limitations, Wood's NEXUS IC all-of-facility asset integrity management software suite improves productivity, removes data duplication and provides real-time asset information both at site and office.

NEXUS IC performs real-time calculations to analyse and predict common integrity concerns such as defect assessments, estimating life expectancy and identifying potential risks of failure.

Designed to integrate

The inherent benefit of NEXUS IC is its ability to interface, use and update information by integrating or interfacing with a wide range of applications including SAP and other CMMS platforms. It also links with geographical information systems (GIS) and historian systems to create and maintain asset, inspection and anomaly data records. Information updates are automated to avoid data duplication and improve productivity.



Assess and predict integrity issues

The powerful function builder within our NEXUS IC suite provides a visual tool to calculate, predict and assess integrity issues. This supports maintenance scheduling and inspection campaigns from anomaly and historical actions and also automates reporting on specific equipment, modules or complete assets, providing regular updates on the integrity status from within a bespoke integrity management strategy.

NEXUS IC can be used to create complex logical functions; referenced in asset information fields or risk models and cross referenced with other functions to generate highly complex calculations. Data can then be extracted and displayed in a number of ways, from Excel to bespoke dashboards.

Structured management of your information

Asset information types can be configured and structured to meet your specific needs and can link to multiple data sources as required. Data such as operating pressures, material types and hazard levels can be stored and used along with inspection data to automatically calculate corrosion rates, maximum allowable operating pressures and wall thickness alarms. With bulk information upload and asset information shared or inherited from one facility to another, database builds become easier and faster. NEXUS IC significantly reduces data entry enabling inherited information to be overridden to cater for life cycle changes through replacement or repair.

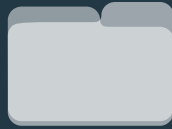
NEXUS IC stores reports, documents, photos, drawings and piping and instrumentation diagrams (P&IDs) which can be linked to reference documents in document control or other systems. Users can maintain graphical and photographic records of complex assets to assist with inspections and drawings can be marked up to provide easy navigation of the asset hierarchy tree. Additional reference drawings can be attached as library items and baseline data can be stored and displayed for pipeline or other forms of linear assets.



Clear definition and structure

NEXUS IC provides a comprehensive asset register and framework for managing information for any asset type or inspection methodology which then enables:

Storage of live asset information during development and operational phases, including information from inspections and surveys



Function builder for logical and mathematical functions to calculate, assess and predict integrity KPIs



The calculation, prediction and assessment of integrity down to the level of individual asset components



Anomaly tracking from initial discovery to close out, including generation of monitoring & rectification tasks



Routines to automate reporting on current integrity status and integrity management strategy



Customisable key asset performance indicators derived from business rules and risk analysis workflows



Planning engine for fixed interval and risk based inspection (RBI) scheduling



Dynamic risk assessment from real time data and inspection results



Customisable traffic lights for integrity, anomaly, risk and other status needs



Single-source-of-the-truth storage of inspection, monitored and survey data, without the need to interrogate other data sources



Benefits:

- A master database that links site and office information seamlessly and in real-time to ensure streamlined data and reporting
- Applicable for onshore and offshore facilities across energy and industrial sectors including; subsea, topsides, plants, facilities and renewable energy equipment or other assets
- RBI engine alerts to identify risks, help build effective maintenance plans and provide the ability to reschedule and reassign future campaigns
- Easy access to inspection data to define predictive trends, support forward planning to optimise spending and comply with auditing and assurance
- Creation of anomaly management initiative mitigates the need for multiple databases or spreadsheets, providing a holistic asset register in one place
- Multifunctional reporting and dashboard visibility and customised features to meet individual asset and reporting requirements
- Reduces interfaces and streamlines reporting structures to support effective time management and process simplification
- Runs both via server or cloud-based applications so can plug and play with single sign-on feature
- Works across single or multiple assets, with no limitation on infrastructure or industry
- Bespoke training and supporting documentation to ensure best utilisation of NEXUS IC





Powerful extensions that can be bolted on to provide wide-ranging and complimentary services

The NEXUS IC suite contains other modules and connectors which extend the power of the system. Connectors to Historian packages (eg. PI), GIS systems (eg ArcGIS), CMMS systems (eg. SAP, Maximo, Oracle eAMS), and BI systems (eg Spotfire, Tableau) can be customised to provide one and two-way data transfer capability.

Risk

Our 4-Site assesment tool adds robust risk assessment and RBI functionality to NEXUS IC so that users can clearly see which assets are in immediate need of attention. With easy configuration of risk models and analysis for risk assessments, 4-Site caters for any system whether it is a physical asset or grouping of assets; a process unit, corrosion loop, pressure or structural equipment, or a management system.

4-Site can use formalised risk assessment and RBI methodologies such as API 581, DN-RP-G101, AS 2885.1, AS 4360 or customised risk models of any level of complexity. Qualitative or quantitative corporate risk models, internally determined models, or tailored models to suit specific issues or situations can be used.

IC-Inspection

IC-Inspection facilitates the rapid collection of complex inspection information during offshore subsea inspections and IC-Inspector is an iPad app for easy management of topside or onshore inspections. All inspection data is seamlessly transmitted to the NEXUS database for offline review in NEXUS IC. Providing automated capabilities, the user interface is designed with inspection engineers in mind.

One of IC-Inspection's strengths is its ability to automatically capture information from a variety of real-time inputs, as well as coordinate and control digital devices resulting in a consistent, detailed data records. This provides improved accuracy and detail because inspectors have access to detailed asset and historical inspection information, supporting repeatable inspection outcomes over time.

IC-Web

IC-Web provides convenient, online access to asset integrity information anywhere in the world. IC-Web provides access to NEXUS IC via a web-browser, but looks and feels like the desktop application, making it much faster and easier to use than traditional page-based web methods.





Wood is a global leader in the delivery of project, engineering and technical services to energy and industrial markets. We operate in more than 60 countries, employing around 55,000 people, with revenues of around \$10 billion. We provide performance-driven solutions throughout the asset life-cycle, from concept to decommissioning across a broad range of industrial markets including the upstream, midstream and downstream oil & gas, chemicals, environment and infrastructure, power & process, clean energy, mining and general industrial sectors. We strive to be the best technical services company to work with, work for and invest in.