Offshore Asset Integrity Management

Program for Life Cycle Maintenance

FOUNDED 1862

ABS

Setting Standards of Excellence

Our Mission

The mission of ABS is to serve the public interest as well as the needs of our clients by promoting the security of life, property and the natural environment primarily through the development and verification of standards for the design, construction and operational maintenance of marine-related facilities.

Quality & Environmental Policy

It is the policy of ABS to be responsive to the individual and collective needs of our clients as well as those of the public at large, to provide quality services in support of our mission, and to provide our services consistent with international standards developed to avoid, reduce or control pollution to the environment.

All of our client commitments, supporting actions, and services delivered must be recognized as expressions of Quality. We pledge to monitor our performance as an on-going activity and to strive for continuous improvement.

We commit to operate consistent with applicable environmental legislation and regulations and to provide a framework for establishing and reviewing environmental objectives and targets.

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ABS OFFSHORE ASSET INTEGRITY MANAGEMENT

The ABS Offshore Asset Integrity Management program is tailored for the oil and gas industry and takes a comprehensive approach towards managing risk throughout the life of an offshore asset. Available to jackups, semisubmersibles, drillships and other offshore assets, the program supports several core elements of an effective risk management program, specifically integrity management (structure and equipment), configuration management and emergency response support.

The Offshore Asset Integrity Management program includes the following solutions that can be purchased as a suite or individually:

- **Integrity Management:** includes an asset-specific survey planning manual, software that manages and tracks the asset's structural condition and program management services.
- **Configuration Management:** offers industry-proven offshore stability monitoring and load management software combined with annual configuration audits.
- **Offshore Rapid Response Damage Assessment:** employs customized salvage response software allowing for rapid evaluation of damaged conditions to an offshore asset in an emergency situation.

The Offshore Asset Integrity Management program leverages ABS' classification services as well as the fully-integrated asset management software suite, NS5 Enterprise, and offers users the latest technology in stability and load management software solutions.

Owners and operators that purchase the full product suite in the Offshore Asset Integrity Management program will be offered the new ABS class notation for asset integrity management, **AIM**.

The AIM notation provides evidence to port and coastal State authorities and other interested parties that the owner has exercised due diligence in maintaining the integrity of the unit to the highest standards.

INTEGRITY MANAGEMENT

The Integrity Management products are designed to manage and track the structural condition of an offshore asset throughout its life cycle. This offering includes a survey planning manual detailing the class requirements for an offshore unit at each of its five-year survey cycles; hull inspection maintenance software that helps manage the survey plan and keep track of the asset's condition; and program management services. Survey planning documents help verify that the owner and ABS are in agreement with what is required each year to maintain class on the units in accordance with the ABS *Rules for Building and Classing Mobile Offshore Drilling Units* (MODU Rules).

Features

Hull Inspection Survey Planning Manual

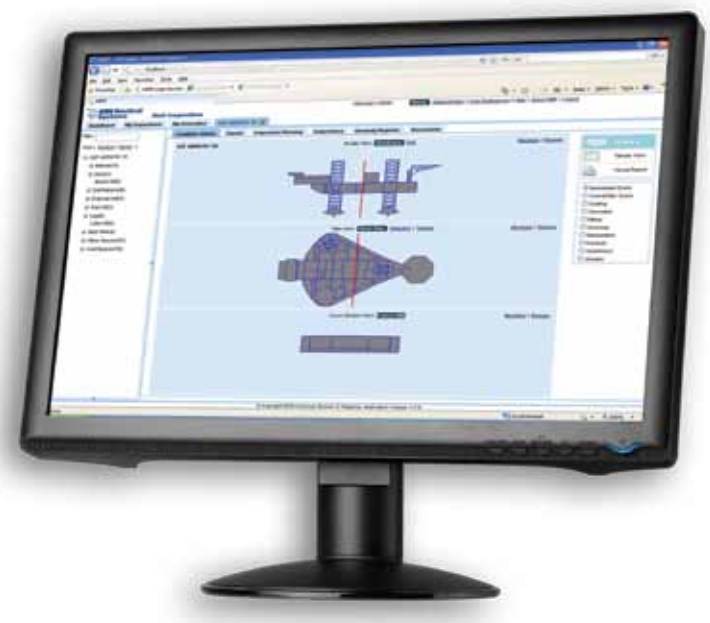
- Asset-specific survey planning manual outlining areas to examine
- Identification of critical areas based on design, construction and experience
- Compliance with the ABS MODU Rules, Surveys After Construction

Hull Inspection Software

- Dashboard view of asset condition with drill-down capabilities
- Plan management with regular review, updates and reporting
- Single database to store, retrieve and analyze inspections
- Visibility of all open anomalies and deficiencies
- Hull structural condition displayed via traffic light grading system

Integrity Management program highlights:

- Asset-specific survey planning manual
- Industry-proven hull inspection software
- Enrollment in the hull inspection and maintenance program
- **HIMP** class notation



CONFIGURATION MANAGEMENT

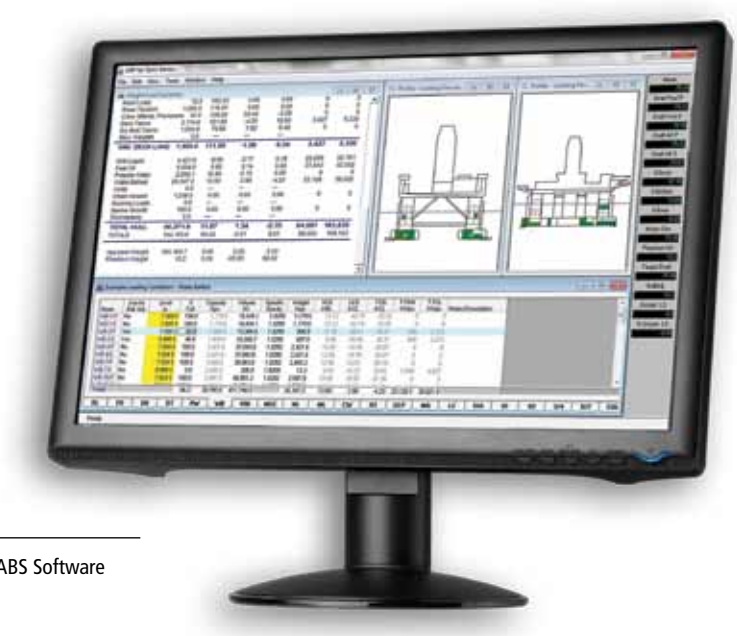
The Configuration Management program provides users with an industry-proven load management program (LMP) that tracks ongoing configuration changes to meet offshore stability, operational monitoring and weight management requirements. The program provides the capability to evaluate the weight management and operational limits of various situations. In addition, users have the option to include an annual configuration audit that confirms the current state of the asset as validation of the LMP software.

Features

- Simplify updating of deck loads on a daily basis
- Monitor tank levels and consumables (periodically or automatically)
- Access real-time configuration status of the asset
- Track lightship modifications
- Calculate ballast water adjustments
- Explore damage stability scenarios

Configuration Management program highlights:

- Delivery of load management software (LMP[1])
- Personalized training on use of the program
- Optional annual onboard configuration audit of the current state of the asset versus that represented in the software



[1] LMP is the load management program. The product is owned by Herbert-ABS Software Solutions LLC, a joint venture between Hebert Engineering and ABS.

OFFSHORE RAPID RESPONSE DAMAGE ASSESSMENT

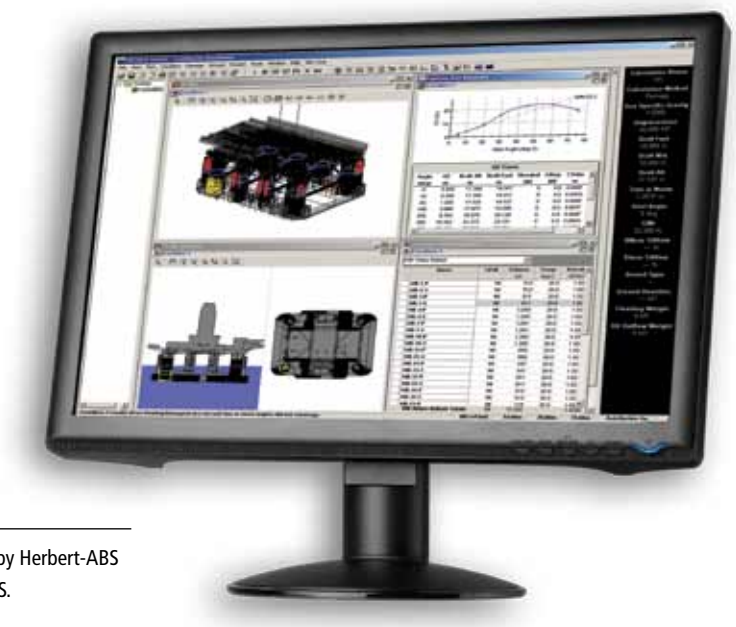
The Offshore Rapid Response Damage Assessment program offers technical assistance to operators of offshore drilling units during emergency situations. Requests for assistance will initiate immediate access to the program and essential engineering support. The program is operated by dedicated personnel trained in the use of software applications, designed to efficiently analyze affects of damage to hull and structural components. The analysis contributes to effective emergency management and identifies considerations and recommendations that mitigate the potential for loss.

Features

- Software modeling of the hull and superstructures specifically developed for damage assessment
- Demonstrate measurable management for emergency preparedness
- Emergency response operation manuals for planning and incident management
- Centralized access to essential drawings and other required data
- Unified communications with ABS and other stakeholders
- Short and long-term risk mitigation planning
- System tests with effective drills and exercises

Offshore Rapid Response Damage Assessment program highlights:

- Damage stability software license (HECSALV[1]) with asset-specific model
- Enrollment in Offshore Rapid Response Damage Assessment program
- Dedicated engineering staff with emergency response capabilities
- **ORRDA** class notation



[1] HECSALV is salvage engineering response software. The product is owned by Herbert-ABS Software Solutions LLC, a joint venture between Hebert Engineering and ABS.

REALIZE THE BENEFITS

The Offshore Asset Integrity Management program provides users with the ability to manage risks during operations on an offshore asset. In the context of risk management, key factors include the proper maintenance of the asset and the tracking of weight and configuration changes. These factors are paramount to the strength and stability of the asset.

The core software elements of the program provide operators and owners with real-time asset-specific data. The information, which is displayed in "dashboard" views, monitors the overall condition and configuration of the asset.

The program assists the owner and operator in maintaining compliance with class Rules, government regulations, industry standards and company policies, practices and procedures.

The emergency response element of the program provides efficient and detailed analysis of the asset's condition at the time of an incident. The modeling tool provides recommendations for stabilization and recovery operations.

Owners and operators may realize improved performance, less downtime, greater operating efficiencies and reduced exposure to risk through the use of the full suite offered in the Offshore Asset Integrity Management program.

For more information, contact your local ABS office or send an email to **ns-info@abs-ns.com**.

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