PREDICT-RT
Predictive Intelligence for Real-time Corrosion Management
Now You See It: Making the Invisible Visible

See corrosion as it happens now and in the future, with up-to-the-minute corrosion analytics.

A Silent Killer

Corrosion costs a typical refinery $250 million a year in direct damage and equipment costs. If unaddressed, it represents a serious safety hazard to people, the plant and environment.

Invisible from the outside, refinery owners and operators are left with two options for managing corrosion: cost-intensive, periodic inspections using non-destructive testing (NDT) techniques (ultrasonic thickness measurements and x-ray radiography), along with replacements based on estimated safe operating limits; or installing intrusive corrosion sensors at key points for real-time measurements.

Both fall short. Periodic inspections disrupt operations and offer little or no visibility into actual corrosion rates between inspections. Plants risk replacing assets too early, wasting useful operating life, or too late, risking a leak or safety incident. Corrosion sensors are an expensive alternative, limited in coverage and providing no forecasting ability. In both cases, process impacts on corrosion can be identified only in hindsight, if at all.

1ARC Advisory Group Report
Real-Time Predictive Data Intelligence for Better Operations

Predict-RT gives users updates on the state and rate of corrosion in piping and equipment across the plant every few minutes, rather than every few months or years.

Plants gain accurate insights into real-time corrosion rates and cumulative corrosion damage since the last inspection or replacement and the ability to predict remaining life based on current operating conditions.

Harnessing existing process historian data, Predict-RT’s field-proven predictive analytics and models provide easy-to-use tools to monitor, forecast and mitigate corrosion. It enables users to improve operations, boost reliability, and maximize resource utilization, achieving key business objectives consistent with the unique plant, process and operating environment.

On Closer Inspection: More Reliable Corrosion Management

Predict-RT takes the guesswork out of inspections. With a continuously updated view of corrosion rates and cumulative damage, you can adjust inspection schedules to improve safety and minimize maintenance costs. If corrosion rates are lower than planned, safely push back the next inspection to extend uninterrupted operations; if faster, bring it forward to mitigate risks.

Users can eliminate unexpected corrosion-related incidents, and better coordinate inspections with planned turnarounds or maintenance work. It will help you improve the efficiency of your maintenance and reliability functions.

Operational Insights for Improved Asset Life

Real-time data is the missing piece for identifying and managing causes of increased corrosion and concomitant operational costs. With corrosion rates updates every few minutes, and deep insights connecting process parameters to corrosion, you can immediately see the impact of changes in temperature, flow or relevant process components.

Predict-RT’s intuitive dashboard provides users with an overview of all locations with high corrosion rates. They can then quickly determine whether changes extend or reduce asset life to help them consistently make the best operational decisions.

Combining at-a-glance insights with the ability to dig deep into the data, Predict-RT brings the best corrosion data insights and process analyses to the real-time control room environment.

Maximize Operating Profits

With control over their metallurgy and equipment degradation and corrosion, operators can maximize value from processing heavy sour crudes, oil-sands, extra-heavy oil, oil shale and other opportunity crudes, while ensuring plant safety.

Predict-RT gives users insight on current corrosion levels and allows them to quickly evaluate the impact of processing more corrosive feedstock so they can maximize the value extracted from assets.

Giving you the confidence to draw from a repository of corrosion knowledge relevant to your asset integrity and operational limitations, Predict-RT provides the flexibility to seize opportunities and dramatically enhance operating profits.

Models of Reliability

The corrosion analytics used by Predict-RT are based on Honeywell’s corrosion prediction models which are field-proven and based on data developed with—and used by—the world’s largest oil, gas and refinery operating companies.

Over two decades, our Joint Industry Programs (JIPs) have collected data and developed models for corrosion problems identified by our customers. With every JIP sponsored by operating companies with a global footprint, we’ve been able to combine exhaustive laboratory research correlated with unique access to real-world refinery data. The result is predictive models able to forecast corrosion rates with high levels of confidence for most refinery and oil and gas operations.

Honeywell JIP partners have deployed these corrosion models across major refineries around the world—with some performing for more than a decade. Based on feedback from model users we’ve refined and verified every model to ensure predictions are sufficiently conservative to eliminate risks of any unexpected corrosion damage while ensuring models offer comprehensive data insights to flexibly manage refinery specific feedstock opportunities.
A Complete Service to Maximize Your ROI

When you become a Predict-RT licensee, our team of expert consultants will work closely with your engineers to identify your unique corrosion needs and challenges. Our scoping exercise is designed to link your process data to models, to pinpoint your existing corrosion hotspots and identify key areas of future risk to ensure the most effective monitoring.

Protecting and enhancing your existing investments, Predict-RT integrates seamlessly with the plant’s existing process historian. Your existing notification or alarm system can therefore leverage this new “Corrosion Intelligence” so that the right people can be informed when safe corrosion and operating limits are breached.

With access to Honeywell’s Connected Plant™ Technology Solutions, you also have access to our Benefits Guardianship program. Drawing on Honeywell’s worldwide network of local support, our expert engineers will help you maximize your investment in technology over the long term.

By choosing Honeywell, you gain from decades of experience in refining, a global footprint, market leading innovation and a comprehensive portfolio of solutions for oil and gas production and refining industries.

For more information
To learn more about Honeywell’s Predict-RT Corrosion Management solution, visit www.honeywellprocess.com or contact your Honeywell account manager.

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