Honeywell Forge | HCE | IX ROOM, CONNECTED INDUSTRIALS | SCRIPT

Scene	<u>Voiceover</u>	<u>Visuals & Interactions</u>
Welcome	[EVENT HOST WELCOME] Hi, everyone! Thanks for joining and welcome to the Immersive Experience Room! As you can see, we're surrounded by 360 degrees of screens and sound where we guide our customers through scenarios relevant to their respective industrial environments. Let's begin with a brief introduction to Honeywell Connected Enterprise – the software arm of Honeywell. [VIDEO PLAYS]	WELCOME TO THE IX ROOM WELCOM
Introducing Connected Building	[HCE INTRO VIDEO PLAYS – ENDS ON MENU SCREEN]	

MENU SCENE]

As you heard, Honeywell Connected Enterprise serves various verticals and their common need for visibility.

Optimizing industrial performance across a portfolio requires real-time insights that just aren't readily available.

Honeywell Forge Performance Plus for Industrials is intelligent operations software that can help provide these real-time insights needed to thrive, supported by our cloud-first strategy.

Within our Connected Industrials vertical, Honeywell serves several sectors including Chemicals, Oil and Gas, and Mining, Metals and Minerals.

Now, we'll dive into your industry to see how Performance Plus for Industrials works for **Oil and Gas**.

[TRIGGER - INDUSTRIALS]



AUTONOMOUS OPERATIONS

Let's begin by establishing a vision of the future.

The next frontier of industrial transformation is the journey toward intelligent, autonomous operations.

[TRIGGER - AUTONOMOUS OUTCOMES]

[PAUSE for LIST, THEN CONTINUE]

Autonomous Operations

HCE Verticals

Leaders are driving towards carbon neutrality, and autonomous operations provide a path to meet cost and performance objectives.

Digitalization is among the first steps towards autonomous operations - translating data to insights, and insights to action.

Once everything in an industrial ecosystem is connected and accounted for, it can be controlled by code and empowered with AI and machine learning to achieve smart monitoring.

Worker assistance protocols will promote competency and productivity, and support diversity and inclusion.



- ...by promoting zero-harm operations
- Improving sustainability
- Maximizing human potential
- Unlocking additional margin,
- and reducing downtime.

But most maintenance will be governed by AI and relegated to robots and drones.

Companies are already using them for diagnostics to remediate SME availability, reduce risk, and promote safety and operational excellence.

Now, let's talk about today's industry.

[NEXT SCENE]

INDUSTRY TRENDS

Here are some of the emerging pressures impacting Oil and Gas:

[L to R: TRIGGER EACH TREND, then speak]

- What's your vulnerability posture?
- Who's running the show?
- But despite these limitations, the show must go on.
- And yet, many operators are flying blind.

PROBLEM STATEMENT

To summarize the problems driving the state of the industry...

Dive into Connected Industrials

[TRIGGER - PROBLEM STATEMENT]

[PAUSE for LIST, THEN CONTINUE]

Uncertainty and complexity is a recipe for analysis paralysis.

[MOVE TO OUTCOMES]

So, what if operators could predict their capability and expenditure against customer requirements to maximize value?

Here are the key business-level outcomes we offer customers:

[TRIGGER - OUTCOMES]

- Improve your posture and performance
- Cut your energy by up to 5%
- Run the show. Increase productivity by up to 30%



- Need better visibility of safety risks
- Rapid loss of expertise
- Budgets are constrained with reduced resources and increased expectations
- · Lack of data-driven decisions



- Unpredictable energy prices and consumption impact global supply chain and labor
- Operational efficiency is needed to provide predictable service and support sustainability
- Poor visibility exposes companies to risk
- OT and IT data must be simplified to inform decision making



Safety and operational excellence

- Increase efficiency. Reduce maintenance and operation cost by up to 10%*
- Increase equipment uptime by up to 5%

And, how will Honeywell help you achieve all of this?

[TRIGGER]

• By empowering decision-makers with data.

Now, let's step into a day-in-the-life scenario to consider how Performance Plus connects an operations team at a petrochemical plant.

- Competency and productivity
- End-to-end optimization
 - Asset reliability
 - Analytics & insights

Sustainability

[NEXT SCENE]

[SCENARIO 1: HEAT EXCHANGER]

[MOVE to RELIABILITY ENGINEER]

Here we are in the Remote Operations Center with our Reliability Engineer.

Her most significant pain point is gathering and sharing complex and siloed data from across the enterprise.

Like many of our customers, she likely adopted Performance Plus based on an established relationship with Honeywell, or because of Honeywell's hundred-year-old, worldwide legacy of trusted OT expertise.

Remote
Operations
Center

Shortly after implementing Performance Plus, she receives a system alert of oscillation in variables, indicating poor heating conditions of the process stream.

She opens Performance Plus to investigate.

[PLAY movie]

This is when operators first clearly see and understand how their sites are performing.

Site performance allows her to conduct root cause analysis to quickly understand problems so she can coordinate with plant managers and assign repairs to the right team.

From active issues and cost targets to sustainability and energy usage...everything is visible and shared under one dashboard.



She can look at her active service cases and drill down into the details to find the root cause.

She discovers a failed heat exchanger.

So, the reliability engineer notifies the plant manager, and they begin troubleshooting.

[NEXT SCENE]

[SCENARIO 2: HEAT EXCHANGER]

Here we are, down in the trenches with the plant manager who shares the same problem of data wrangling and analysis.

She receives the reliability engineer's notification about the failed heat exchanger, and several other alerts.

At this point, she's feeling a little overwhelmed.

Now, she opens Performance Plus.

[TRIGGER - VIDEO DEMO]

But as the two compare notes, they realize these prioritized alerts and diagnostics will help them plan maintenance and avoid this kind of damage and downtime in the future.

The plant manager can view near real-time values and historical data for the heat exchanger.

Drilling into the root cause, the plant manager discovers fouling of the tubes.

The plant manager places a work order to dispatch the maintenance engineer.

[NEXT SCENE]

[SCENARIO 3: INSPECTION ROUNDS]

Scenario 3:
Worker
assist &
Inspection
rounds

Scenario 2:

Heat Exchanger

Here we are outside the plant with the maintenance engineer. He's used to working in a hostile environment with poor visibility.

He receives the work order from the plant manager on his mobile device.





1. TRIGGER – MAINT. ENGR. TO SHOW MOBILE SOLUTIONS, WORKER ENABLEMENT

[1. TRIGGER – MAINT. ENGR. TO SHOW MOBILE SOLUTIONS IMAGE]

The mobile capability connects the team to troubleshoot regardless of location, and promotes safety, inclusion and training regardless of skill sets.

The maintenance engineer follows clear steps to adjust the steam supply and overcome the swing of the heat exchanger.

[2. TRIGGER – TABLET TO SHOW VIDEO DEMO]

The managers follow his work status in Performance Plus and receive notification upon completion.

Over time, the system forms an optimized, early maintenance schedule based on history to reduce failures, cut labor cost and improve productivity.

Now, let's learn how Performance Plus has brought results to actual customers.

[NEXT SCENE]



2. TRIGGER – TABLET TO SHOW VIDEO DEMO and MANAGERS

REAL CUSTOMER DATA

[LUNDIN ENERGY]

Lundin Norway partnered with Honeywell engineers to optimize energy consumption and minimize carbon impact.

Visualizing data from the asset performance module, they compared real-time performance data against an ideal-state, digital twin model to diagnose and resolve asset inefficiencies.

And here are their outcomes:

[TRIGGER - LUNDIN ENERGY outcomes]

Notice, these are annual results.

Performance Plus empowers managers with the data to set targets and affect these outcomes.

Here's what Lundin Energy had to say about their experience with Honeywell.

[TRIGGER - LOGO to show VIDEO]



[LUNDIN ENERGY]

- \$1.2M annual energy savings
- 5.6KMT annual CO2 emissions reductions equivalent to 1.174 automobiles
- Met their environmental and emissions goals

[ADNOC L&S]

- \$3M annual productivity increase
- \$20-25M yearly projected benefit
- 1,000+ assets monitored
- 2,500 field operators connected



[MOVE to ADNOC]

ADNOC showcases the operational efficiency and ROI of a connected enterprise at scale.

Starting upstream in 2019 and expanding downstream in 2021, ADNOC Logistics and Shipping integrated operational awareness across 122 vessels with predictive maintenance, performance management, and worker assistance.

Here's some of what they've achieved and are continuing to accomplish:

[TRIGGER - ADNOC]

[PAUSE for LIST, THEN CONTINUE]

ADNOC L&S is projected to reduce 10% of emissions to improve compliance and help avoid penalties.

They also improved safety and efficiency by conducting predictive maintenance at port using inspection rounds and worker assist, reducing the chances of stoppages at sea by 30%.

[SUMMARY]

By investing early in intelligent operations, Lundin Energy and ADNOC are the kinds of companies steering the direction of the industry and creating future markets.

[NEXT SCENE]

[SCALING THE SOLUTION]

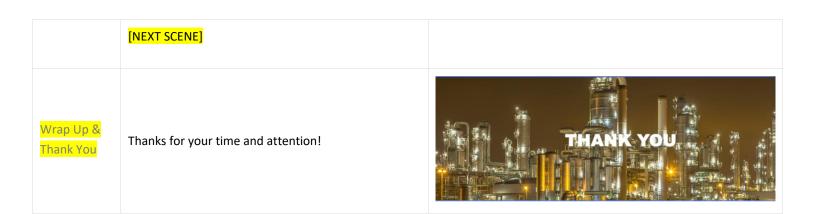
Our scenario with the heat exchanger at the petrochemical plant illustrates predictive maintenance at a single site.

Scaling the Solution

But as we learned with ADNOC, Performance Plus empowers the reliability engineer with awareness across the enterprise to support their Global Reliability Director and the Chief Digital Officer.

APM also scales for other industries including buildings and warehouses.





END OF VIDEO SCRIPT

LEGAL CITATIONS

INDUSTRIALS CITATIONS

*Average results based on over 100 Honeywell Forge Asset Sentinel installations and over 50, 000 assets monitored globally across Honeywell Industrial customers for 2018-2019

ALL CITATIONS

The information provided in this presentation provides a general guideline of what Honeywell software users can expect. Any case studies, testimonials, examples, and illustrations cannot guarantee that the user will achieve similar results. Your results may vary significantly based on individual factors.