Rt**DUET**

—

CONTEXT & INSIGHT THROUGH ROBUST OPERATIONAL ANALYTICS.

Outage Tracking

IEEE/NERC Compliance

Equipment Monitoring

Standardized KPI

RtTECH SOFTWARE

Stop Guessing. Start Tracking.

RtDUET

Realize the operational efficiencies that can be achieved from a centralized data system and common performance measures.

With real-time information on how assets are performing through outage and de-rating event monitoring with associated equipment, problem, cause and category. RtDUET allows for standardized reporting across multiple generation facilities, with configurable out-of-box reports for maintenance and capital planning.

Alignment with international standards for power generation (NERC and IEEE) and a single data repository to support the system across all sites simplifies reporting procedures.

OWN YOUR OPERATIONS.
Extended functionality for users of the AVEVA® PI System®.

Push power-gen to the max with outage and derate event monitoring with operational analytics including EFOF, EFOR, EMOF, EPOF, EAF and FOR and others.

COMPLIANCE

MULTIPLE SOURCE MONITORING
Integrates with devices via a data historian aggregating environment, production, and operation data.

LOGBOOK INTEGRATION
Automated data collection and classification workflows plus integration with process logbooks.

KPI CALCULATION ENGINE
Calculates standard power-gen KPIs including EFOF, EPOF and FOR using simple as well as complex triggers.

RtDUET

From control-room to board-room.

OUTAGE + DERATE TRACKING
Stop guessing. Start tracking.

Clients tell us that prior to RtDUET they had short outage or derate events that were completely missed. Even insignificant events add up to significant productivity loss. Outages are usually tied to equipment failures or breakdowns, but includes any unplanned event that stops or slows down generation.

Track outages and derates using RtDUET's operator-friendly event dashboard. Further integrations stream RtDUET data directly into your process logbooks, which means even less human interaction within the process. After an event is captured - classify, split, or have a supervisor verify. Concerned about certain type or length of downtime? Set an automatic alert.

IEEE + NERC COMPLIANCE
Simplified reporting + compliance.

RtDUET is in full compliance with NERC and IEEE standards for power generation. NERC Reliability Standards define the reliability requirements for planning and operating the North American bulk power system and are developed using a results-based approach. Meanwhile, IEEE is an independent standards association committed to global standardization to protect public health and safety.

RtDUET is configurable with your time usage classifications and KPI calculations to comply with the NERC and IEEE international standards for power generation.

EQUIPMENT MONITORING
Relying on unreliable data?

Did the plant go down at 3:10 or 3:20? Is the derate costing $10,000 or $100,000 in lost capacity? Without accurate duration and classification, how can you know?

Equipment monitoring has replaced manual downtime recording. Reduce the time required for your operators to record downtime events, and increase data accuracy with automatic fault codes and standardized classification of your downtime. With RtDUET, be proactive to improve your operator's productivity and operate more efficiently with more accurate data, faster, to determine the best course of action.

STANDARDIZED POWER-GEN KPIs
Compare lines. Compare sites.

Benchmark your performance against industry standards, against other corporate sites or within your own site by department and line.

The power of a robust analytic app means that information from any PLC, DCS, data historian, or sensor can be aggregated, organized and presented to empower every level of your organization. Empower operators with ownership of their equipment, empower supervisors to optimize processes and promote KPIs that have been standardized across multiple sites, to key stakeholders.

RtDUET

CASE STUDY
AGL

While AGL had been an established energy provider to Australia since 1837, a series of power generation acquisitions, facility constructions and other investments fuelled rapid growth of the company's generation portfolio from 300 to 10,000 Mega Watts over nine years.

Realizing the operational efficiencies that could be achieved from a centralized data system and common performance measures, AGL sought out a business tool for downtime, uptime and asset management.

RtTech's RtDUET solution was an easy choice for AGL as it integrated seamlessly with their new data historian, AVEVA'S PI System. Furthermore, RtDUET was configurable with AGL's time usage classifications and KPI calculations to comply with the NERC and IEEE international standards for power generation.

AGL is one of Australia's leading integrated renewable energy companies and is taking action to gradually reduce its greenhouse gas emissions while providing secure and affordable energy to its customers. Drawing on over 175 years of experience, AGL serves its customers throughout eastern Australia with their energy requirements, including gas, electricity, solar PV and related products and services. AGL has a diverse power generation portfolio including base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources including hydro, wind, solar, landfill gas and biomass.

CHALLENGE

Rapid growth from 300-10,000 MW

Required ability to share data across sites and ensure industry compliance (IEEE + NERC)

RtDUET

Asset health and asset performance management.

Integration with existing process log-books

Standardized KPI calculation across sites

SOLUTION

Increased data accuracy

Compliance with industry standards (IEEE + NERC)

Now successfully deployed in two of the company's business units, AGL reports an initial increase of 5% data accuracy after a few months. They're also in the process of decommissioning the costly reporting systems that RtDUET has replaced.

RtDUET provides AGL with an IoT-connected solution that offers:

- Standardized reporting system and automatic KPI calculations
- Alignment with international standards for power generation (NERC and IEEE)
- A single data repository and supported system across all sites

"We have ensured data precision in terms of asset performance and can now chase improvements because we know they are real."

DAVID BARTOLO
Head of Operational Systems and Technology
AGL Energy

Features
for the
way you work.

MONITOR

Asset monitoring
Monitors equipment 24/7 for any stoppages and/or production delays.

Track your KPIs on any time frame from hourly to yearly. Can also be based on batches or other triggers.

CONTROL

Event Functionality
Merge and un-merge events and split events manually or automatically.

Back Calc Capabilities
Set an auto back calc in the event of historical data changes or pick a range of time to recalculate events.

GET OUTAGE VISIBILITY.

MONITOR EQUIPMENT HEALTH.

SHARE PERFORMANCE KPIs.

ALIGNMENT WITH STANDARDS.

MAX PROFIT WITH MORE OUTPUT.

IMPROVE DATA ACCURACY.

LOWER MAINTENANCE COSTS.

INFORM

Operational Insight
Contextualized data is formatted to easily prioritize high-cost pain points and detect root cause.

Out-of-the-box configurable reports
Configure reports to reflect 24 KPI calculations in a clear, concise manner.

Automated KPI calculation engine
Calculates 24 standard KPIs including OEE, Utilization, MTBF using simple as well as complex triggers.

Utilize Existing PI Tools
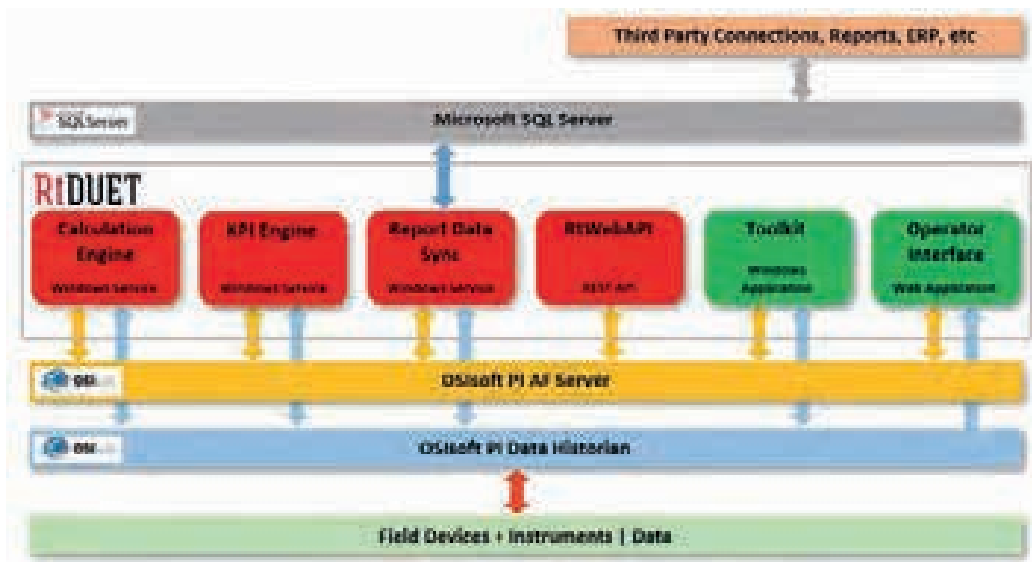Leverage the existing PI tool set including PI Vision and Datalink.

VISUALIZE

KPI dashboard
Real-time visualization of production performance.

Information timeline
Events displayed chronologically to analyze asset performance and repairs

Web-based interface
Reports and dashboard are accessible anytime via secure web application.

ANALYZE

Auto-classified downtime
Downtime events can be automatically classified when event meets predetermined criteria

RtDUET

Designed for use with the AVEVA® PI System®.

SYSTEM ARCHITECTURE:

RtDUET provides extended functionality for users of the AVEVA® PI System®.
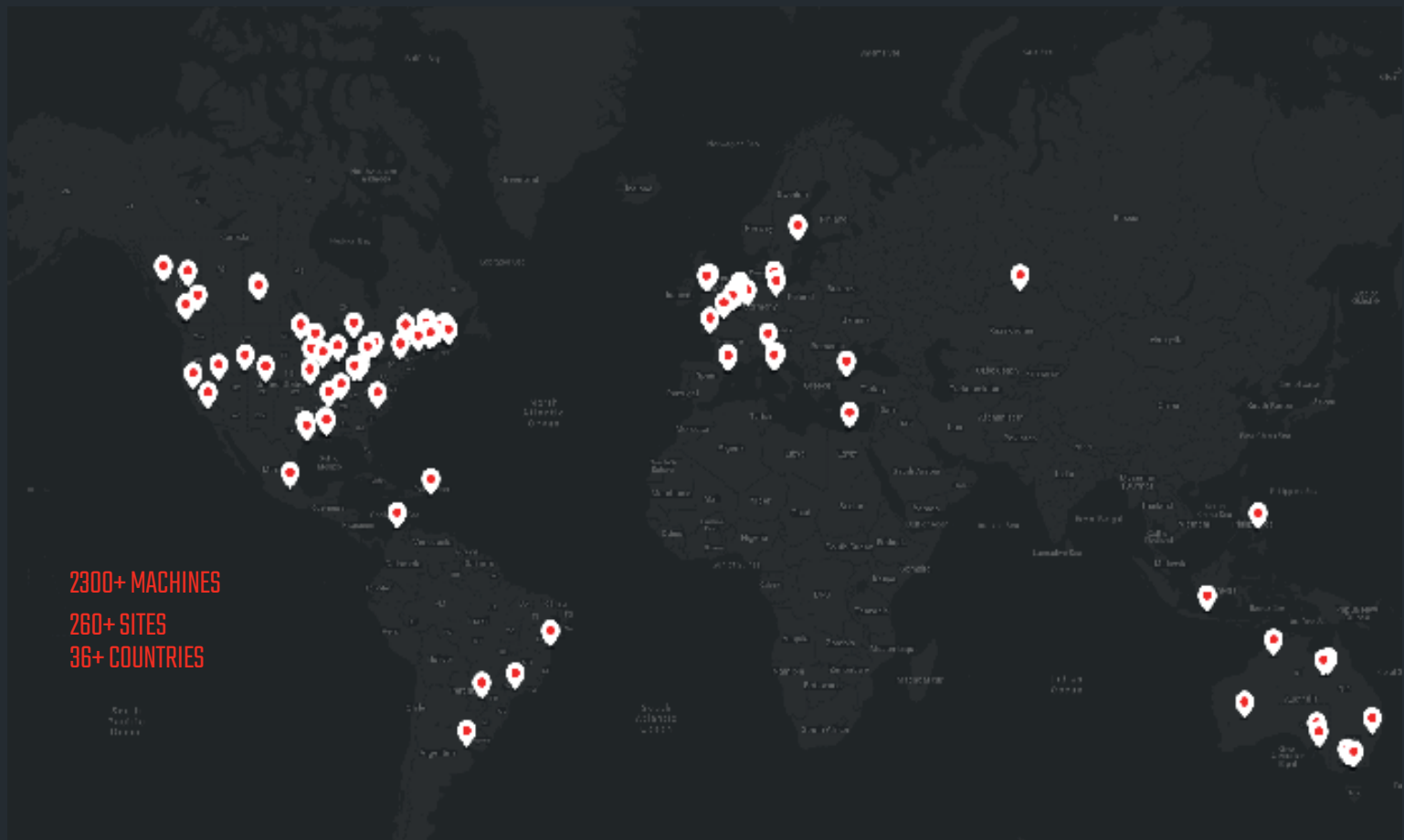
RtDUET also provides easy access to the underlying data records for downtime events and KPIs through advanced analytics. With simple out-of-the-box reporting and integration into on-site systems, accessing data can also be achieved through standard reporting tools such as Power BI, Tableau, and Excel. RtDUET comes complete with our custom add-in application for Microsoft Excel.

RtDUET utilizes AVEVA PI system® data from tags as trigger inputs to assets. The AVEVA® PI AF SDK® is utilized for configuration and storage of downtime and KPI records in the event frame subsystem as well as a database for reason tree, time usage configuration and asset hierarchy.

"RtTech stood out because they had good experience in industrial environments, (the solution) worked off the AVEVA® PI System® nicely and they were able to meet our timelines."

ANDREW COOPER, P. ENG
Energy Specialist, New Afton Mine
New Gold

2300+ MACHINES
260+ SITES
36+ COUNTRIES

Installations around the globe.

Our footprint spans across the globe, helping companies in 36+ countries get the most out of their operations by maximizing productivity and reducing energy costs.

We'd love the opportunity to be your partner in operational improvement!

Stop Guessing. Start Tracking.

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