Panorama
H2

Tap into the memory of your installations

Store your data and analyze your performance

CODRA

Data is the gold of the 21st century

But what about yours? Are you getting the most out of your data assets?

In all cases, **collecting**, **archiving** and **analyzing** your data using an intelligent platform is no longer an option. You need to arm your teams with an intuitive, reliable and secure **data analytics** tool. Turn your data into your best ally for achieving your objectives and identifying new opportunities. Furthermore, by leveraging a proven solution, you will be free to focus on the results.

It used to be true that there were factors limiting the questions you could ask about the **performance of your facilities**: based on the quantity and quality of your data... But now you can push back those limits to just your analytical skills and creativity, which are increased when the tool you use is so simple and intuitive!

Harness your data and transform your business

In industry, the recording of production data (flow rate, valve position, temperature, pressure, etc.) makes it possible to analyze and **optimize processes** in order to improve productivity (operating and maintenance times, number of faults or incidents, etc.) and **performance** (number of units per hour, machine utilization, total downtime, etc.).

In the operation of buildings or infrastructures, data analysis relates to the **correct operation and maintenance** of equipment (HVAC, access control, fire protection system, etc.) and also draws on **environmental measurements** (temperature, humidity, light intensity, presence, door opening, vibration, etc.) and **energy consumption** data (water, gas, electricity, compressed air, etc.).

- Energy consumption (in UDD)
- Key performance indicators (KPIs)
- Quality improvement
- Return on investment (ROI)
- Productivity gains

With Panorama H2, discover the hidden gems contained in your data:

- Transition from energy consumption to energy efficiency
- Transition from corrective maintenance to preventive maintenance
- Transition from operating the process to optimizing the process
- Transition from applying regulations to managing compliance

Build up your knowledge and expertise by analyzing your data.

When you leverage a proven solution, you are free to focus on the results

From measurement to performance

To **optimize** the operation of your facility, first of all it is necessary to **measure** its main parameters. This involves recording data about the running of your **processes** and the **environment** in which they are operating.

The data collected is then organized and made accessible to your teams. The information extracted is sorted, filtered and compared to support your **decision-making**.

With data aggregation, statistical calculations and real-time data (from your Panorama SCADA applications or from elsewhere – we are open to other SCADA!), you continuously measure and improve your **productivity** as well as your **energy** and **raw material** usage.

Correlate information

Correlate your data to help you get a **clear perspective** of the information and identify tangible **areas of improvement**.

With SCADA applications, analytical tools such as Panorama H2 can be used to **post-process** so-called «cold» data.

The most obvious strength of a **Data Historian** is its ability to correlate data by time: day, week, season or phase of a process, but not only these ... Other analytical criteria can also be used: equipment in operation, appearance of alarms, reaction times, etc.

Panorama Studio

Simplify life for your technical teams.
Provide them with a single configuration workshop to create and update all your Panorama applications.

Panorama H2, Panorama's Historian solution

Collect and **archive** your operating data, and **"historize"** and **analyze** data in its operational context for maximum leverage of the information it contains.

Perhaps you already have a **data analytics tool** but would like to benefit from Panorama H2's capabilities?

No problem at all! H2 Server is designed to interface with other tools besides H2 Reporting.

H2 Reporting

- Explore
- Analyze
- Compare
- Share your information

H2 Server

- Collect
- Consolidate
- Process
- Store your data

Panorama H2

H2 Server

The solution's engine room

Rely on a powerful tool that **consolidates your data** coherently, contextualizes it and then processes it intelligently on a large scale.

The concepts of interoperability, quality, timestamping and performance are therefore central to our **Data Historian**.

Your data is collected intelligently
A **versatile**, **high-performance** and **open** solution:

▶ Compatible with applications handling between **100** and **300,000** variables

▶ Capable of handling **20,000+** value changes per second in nominal mode and **300,000+** in avalanche mode

▶ **SQL** database for greater openness to third-party systems (Excel, reporting and analytical tools)

▶ Work with **mixed data types**: binary and analog values, dates, alarms, statistical calculations, character strings, etc.

▶ Harness **mixed data sources**: PLCs, DCSs, RTUs, the proprietary interfaces of machines or measuring instruments and third-party systems (ERPs, CMMS, LIMS, Quality Assurance, Material Inventories, etc).

Process the data upon acquisition

Process data as soon as it is collected in order to prepare for onward processing and to facilitate its use:

CHARACTERIZE	USE	CONDUCT
your records (tree organization, unit, location, text categories, automatic entry rules, customizable coefficients)	filtering and sampling functions to optimize data acquisition volumes, storage and response times	pre-processing and calculations to combine measurements and to make them more relevant

Give your analysis perspective with Panorama archive data recovery

• Make use of your E2/P2 legacy archive data to increase your depth of analysis

• Take advantage of the exportability from the Panorama database

• Equip an existing installation without having to modify the SCADA system

Interoperability is right at the heart of our Data Historian

Consolidate now, save for ever

Historized data is stored according to its type in order to optimize overall performance (volume and speed), irrespective of aggregations. You can then perform statistical calculations and analysis based on the history records.

Similarly, alarm cycles are recorded in order to be able to replay entire operating sequences. Once stored in the database, the data can be further processed statistically to prepare and facilitate future analysis.

H2 Reporting

Harness the power of your data

Data analysis is not the sole preserve of "data scientists".

On our own scale and within the scope of our work, we are all **information consumers**. Whether our role is team leader, quality manager, production manager, process engineer, finance or sales, we all need data **to carry out our tasks**. That doesn't mean that we all relate to data in the same way or possess the same level of IT expertise. So why not opt for a simple, powerful web tool that natively takes this diversity into account?

Explore and present your results graphically

H2 Reporting is the Panorama H2 reporting module. Available in Web client or thick client versions, it allows you to provide your users with **simple** and **ergonomic analytical interfaces**. No SQL knowledge is required, as **queries** are generated automatically behind-the-scenes. Viewing of pre-existing reports, **creation** of new templates by "drag & drop" and **sharing** are core elements of the solution.

Unleash the potential of your teams

Even if a database is smart and optimized, without analytical tools it is of limited use. Powerful exploration and analytical tools are a necessity today. Plus, with Panorama **H2 Reporting**, you can easily build your own **dashboards and reports**.

A **dashboard** will summarize and display the status of your installation interactively.

The **reporting** function being used to view and create pre-formatted reports. These allow an operator or analyst to check on a particular status at a given moment in the form of a published set of results.

Non-specialists are able to easily build their own reports and drill-down into the data to refine the initial results by themselves.
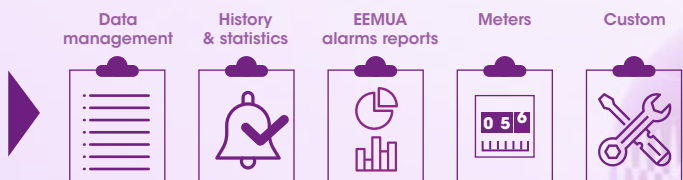
- Ease your decision-making
- Produce operating reports
- Control your production / operating costs
- Reduce your consumption levels

H2 Reporting allows you to view your own KPIs (for equipment, manufacturing lines, installations, etc.) and your alarm statistics in accordance with standards (EEMUA191, ISA 18.2, IEC62682, etc.) and in compliance with your regulatory environment (FDA / 21 CFR Part 11, RT2012, etc.).

50 ready-to-use reports available "out-of-the-box"

Data management	History & statistics	EEMUA alarms reports	Meters	Custom

H2 Cloud

CLOUD

DISTRIBUTED   STANDALONE

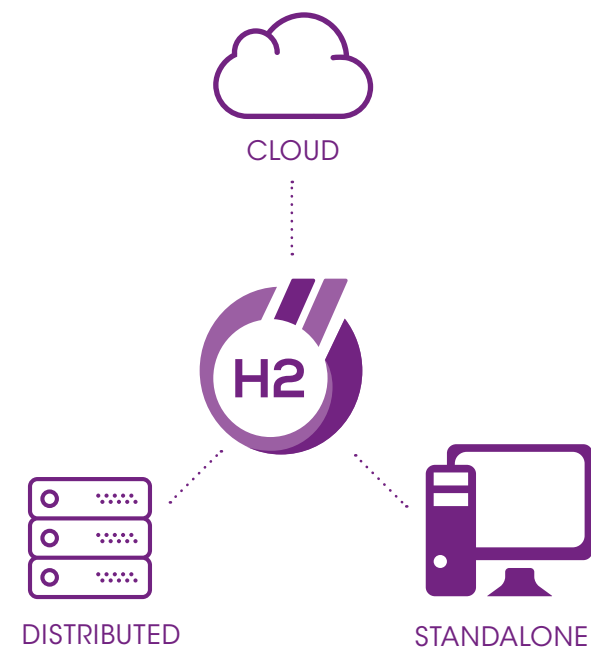## 1 Solution, 3 Architectures

As a standalone, distributed or cloud application, Panorama H2 offers great deployment flexibility. Choose the option that best suits your needs.

Supporting features include redundancy, store and forward, and fail-over. You are free to use all or part of the technical features of the H2 solution. User profile management is also integrated so that you can control functional scopes and access rights.

Why choose H2 Cloud?

• Enjoy all the power of **Panorama H2 in SaaS mode**,

• No investment, only a subscription that spreads your costs and **reduces your outlay**,

• Forget the constraints of system administration and choose an **optimized availability rate**,

• A regularly updated platform to give you all the **latest updates**,

• Available in **Private Cloud** or **Public Cloud** versions,

• Expand your analysis capabilities with the **H2 Cloud Energy** expert module,

H2 Energy, the energy extension for Panorama H2 Cloud

Are you looking for a solution devoted to Energy Monitoring and Energy Balance reporting?

Leverage the full potential of Panorama H2 Cloud and its H2 Energy expert module.

• **Analyze** water and energy consumptions,

• **Monitor** the performance of your plant and equipment,

• **Be alerted** to drifts in environmental and consumption values.

Based either on pre-defined business reports or starting from a blank page, utilize a tool dedicated to the energy sector.

• **Build** your own operational experience feedback,

• **Optimize** the operation of your installations,

• **Develop** collaborations between all the people involved in energy efficiency.

Energy efficiency: measure your performance!

The Panorama H2 Cloud energy extension adds a database and calculations directly linked to the **RT2012 regulation**. The performance data obtained and the KPIs monitored are automatically calculated and formatted in ready-to-use reports.

Primary energy   Used energy
Water CO_2
UDD   Overall performance
Detailed tracking   Configuration
Objectives and influencing factors

Cybersecurity: don't forget the basics!

• A secure and regularly monitored platform

• Integrity and confidentiality of data transfers

• Data segregated by client

Our experts, trainers and support teams are here to assist you throughout your project to enable you to harness the full power of Panorama H2. When you deal with Codra, you deal with the manufacturer.

Why choose a Panorama Maintenance Contract?

Improvements and new features

Through a Panorama Maintenance Contract (Extended Support and Software Warranty or CMP), you immediately benefit from the latest developments, innovations and hot fixes. Benefits include latest new features developed, natively open to third-party systems, as well as implementation of new communication protocols and support for the latest standards, etc.

Security can't wait

Computer technologies are evolving, hardware is changing and vulnerabilities are emerging all the time. Cybersecurity is a strategic issue not only for operators of Critical National Infrastructures but also for all companies involved with preserving their operational and production assets. Our close collaboration with ANSSI (the French Government's national cyber centre) and key centers of cyber expertise means we are committed to being at the front line in terms of vigilance in this area. By subscribing to a Panorama Maintenance Contract you will benefit from each and every security update for our software.

High-tech and state-of-the-art

In addition to unlimited access to technical support, the Panorama Maintenance Contract is an ideal way to support your hardware and software upgrades. By subscribing to the extended support and warranty, you will be assured of staying at the forefront of key new developments. The very best way to maintain a high level of system availability and safeguard against obsolescence.

To contact support: https://esupport.codra.net/ +44 (0)161 9554200

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