



# Hyper Historian™

High Speed, Reliable, and Robust Plant Historian



# ICONICS Data Historian Solution

Advanced Big Data Plant Historian for Any Application



**Remote Data Collection**  
Leverage rapid collection for enterprise-wide storage



**Data Merging**  
Merge and integrate information from any data source

- All Facilities
- Foxboro
- Minneapolis
- Jacksonville
- Atlanta
- Raleigh

Outside Air Temperature 76.4 °F

Outside Air Humidity 30 %RH

Steam Pressure 75.00 psi

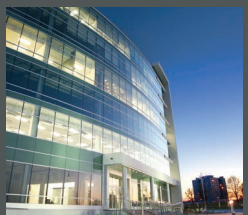
EUI kWh/ft<sup>2</sup> \*

Delta Pressure 7.00 psi

Electrical demand (totalized) 574 kWh

Chilled Water Temperature 40.1 °F

Chilled Water Delta T 15.9 °F

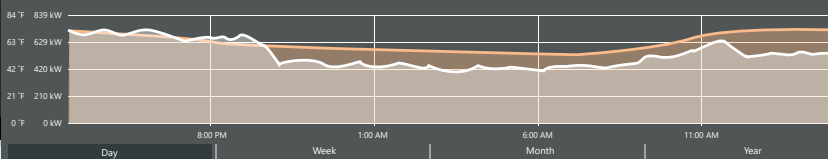


Fault List Active Faults: 13 AHU List

Top 10 Site Active Faults by Severity

Severity	Fault Name	Building	Unit
3	Status Mismatch Rule	Raleigh	CP2
3	Status Mismatch Rule	Raleigh	HWP4
3	Baseboard Heat Off Rule	Raleigh	SB-2-112
2	Hot Water Valve Stuck Closed Rule	Raleigh	AHU-20
2	Simultaneous Heating and Cooling...	Raleigh	AHU-20
2	Simultaneous Heating and Cooling...	Raleigh	AHU-11
2	Hot Water Valve Stuck Open Rule	Raleigh	AHU-06
2	Hot Water Valve Stuck Open Rule	Raleigh	AHU-18
2	High VAV Reheat Fault Rule	Raleigh	AHU-15
1	Undercooling Rule	Raleigh	Glycol System

Demand and Outside Air Temperature









**Real-time and Historical Data**  
Replay real-time and historical data

**Hyper Historian™** is an advanced, 64-bit, high-speed, reliable, and robust data historian. Designed for the most **mission-critical** applications, Hyper Historian delivers unparalleled performance with very efficient use of resources. Combining a high compression, advanced algorithm, and designed to **leverage 64-bit hardware** and software architectures, Hyper Historian can access more CPU power and memory than traditional 32-bit based historians, providing the **highest performance** possible on all standard PC-based platforms.

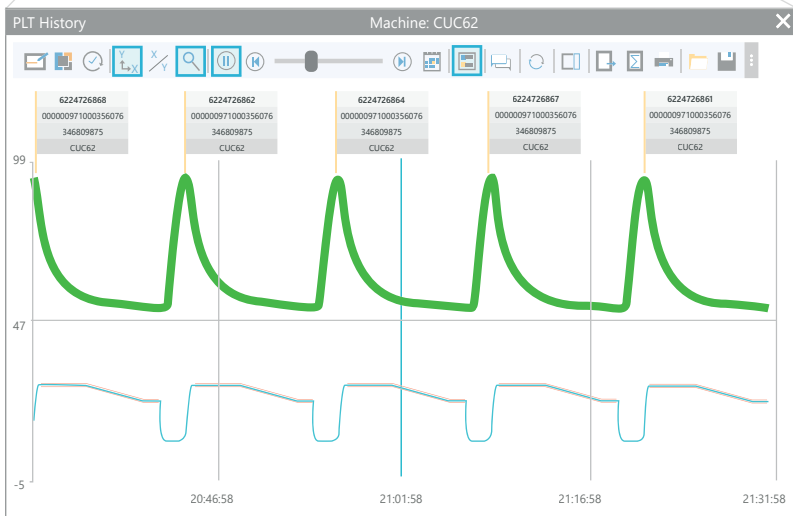
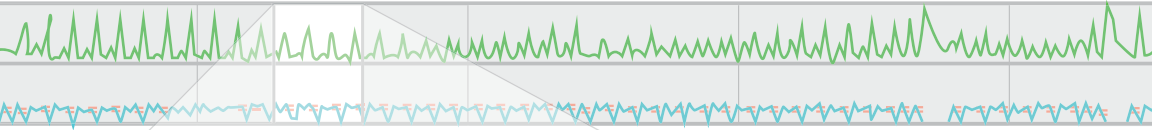
Hyper Historian easily connects with all **ICONICS AnalytiX®** applications to provide a level of **advanced data analysis**.

## Hyper Historian Key Features

-  High speed data collection from any PIC's, IoT devices, building equipment and more
-  Replay real-time, historical, and archived data
-  Store and forward critical data
-  Use insightful trends and charts for proactive decision-making
-  Leverage rapid collection for enterprise deployments
-  Export data to Azure Data Lakes, Hadoop, and other cold storage

# Unattended Data Archiving and Backup

Hyper Historian uses an advanced [Swinging Door](#) data compression algorithm for high speed data collection that can reach over [250,000 data events](#) per second on reference hardware, for all real-time, enterprise-wide information. With a unique [automatic archiving](#) feature, Hyper Historian allows for routine or triggered scheduling of data archives, freeing up disk space and backing up files for [long term storage and retrieval](#).



Hyper Historian includes an industry standard [SQL Query Engine](#) for reporting and [bulk data editing](#), enabling tight integration with any SQL compatible database.

# Industry Standard Connectivity, Integration, and Performance Calculations

Hyper Historian uses **advanced data integration**, providing connectivity to any device via OPC DA, OPC UA, OPC HDA, OPC XML, SNMP, BACnet, or database values. Easily collect information from multiple plants, factories, and enterprise equipment. Data sources such as PLCs, I/O devices, HMI applications, and network devices can be **collected and stored** for reporting and analytics.



**Data Integration**

Industry standard data connectivity



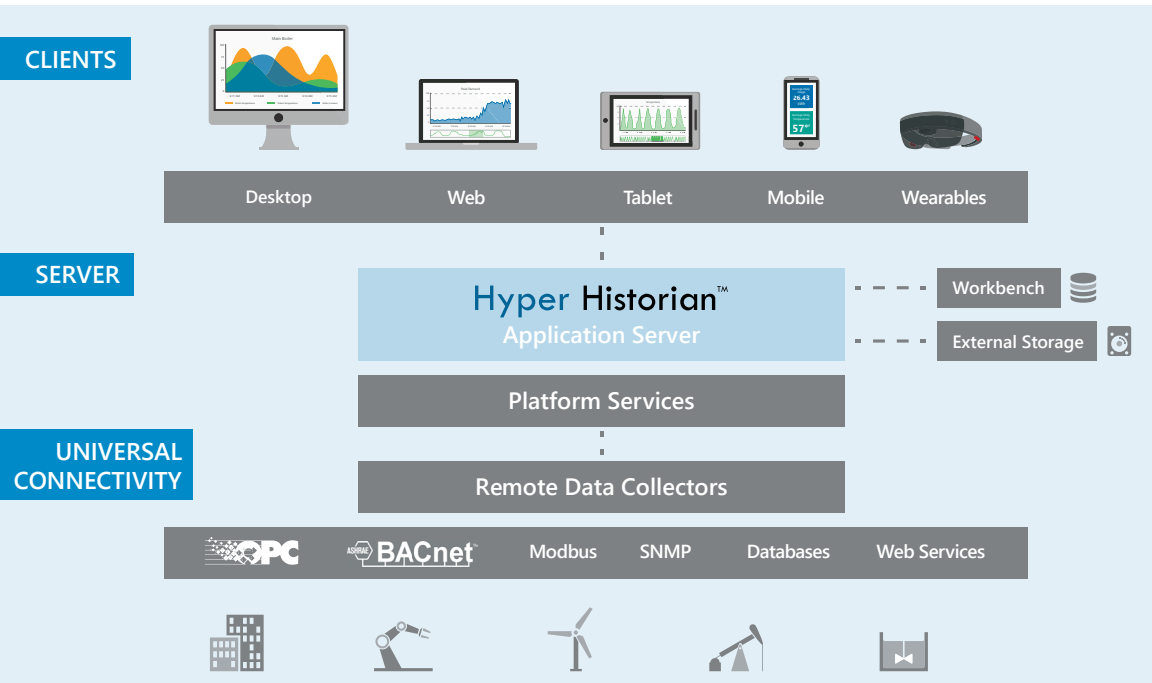
**Data Archiving**

Archive data from unattended operations

# Designed for Demanding Applications, On-Premises or in the Cloud

**Hyper Historian** includes a module for automatic or manual insertion of data, empowering users to import historical or log data from databases, other historians, or intermittently connected field devices and equipment. Leverage Hyper Historian on Microsoft Azure for maximum **scalability** and **reliability**.

Architected as a distributed, enterprise-wide historian, Hyper Historian utilizes **remote collectors**, which allow for historical data collection from dispersed locations. Remote collectors ascribe by ICONICS' **universal connectivity capability**, including integration with OPC UA, BACnet, and SNMP protocols.

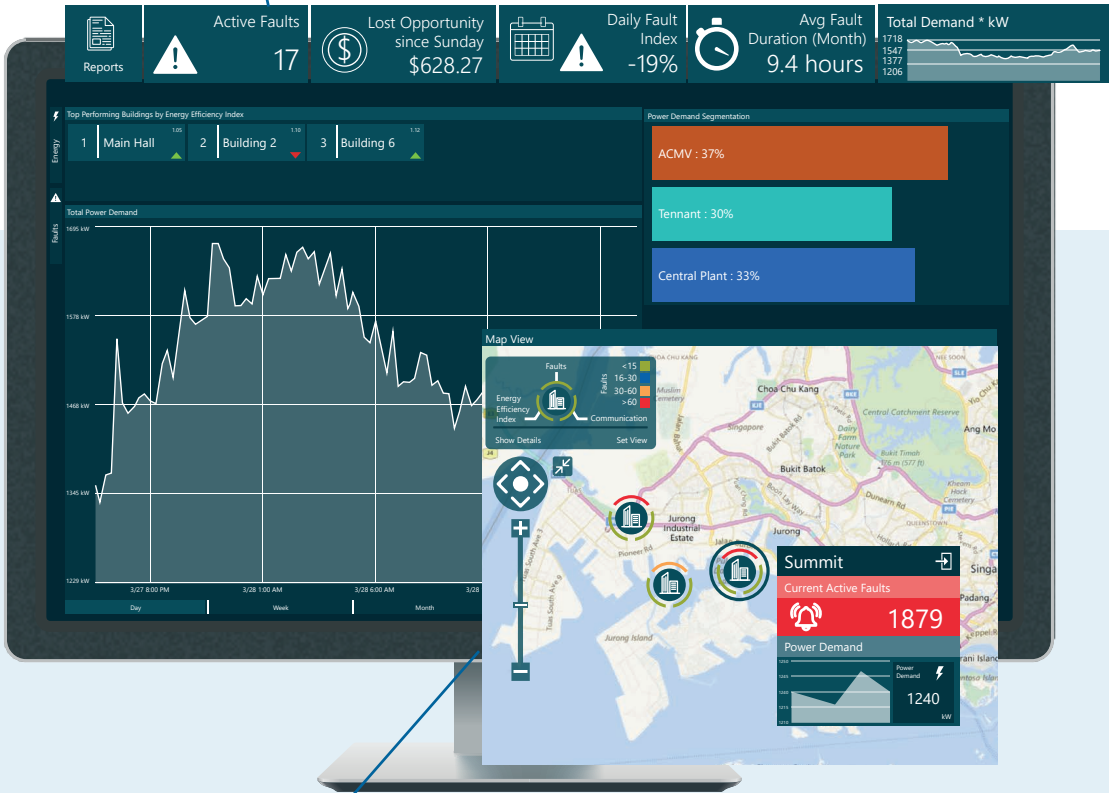


Data can also be viewed in **tabular formats** with the ability to enter **operator comments** as well as **manage lab data** and **audit trails** in accordance with **21 CFR Part 11** policies.



## Performance Calculations

Integrate performance calculations to deliver insightful data



Interactive 2D and 3D charts, trends, and grids  
Choose from the preconfigured library of 2D and 3D charts



## Custom Trends Customize trends and charts



1 Hour 8 Hours 3 Day 1 Day 1 Week 1 Month

Description	Last Time	Last Value	Cursor Time	Cursor Value	Units
Chilled_Water_Valve_Command	7/25 11:45AM	100.00	7/19 11:15AM	48.88	%
Return_Air_Temp	7/25 11:45AM	72.65	7/19 11:15AM	72.29	°F
Outside_Air_Damper_Command	7/25 11:45AM	0.00	7/19 11:15AM	0.00	%



## Diagnostics and Event Logs Trace diagnostic data with event logs



# Industry Challenges and Opportunities

Plant operations are faced with the need to **perform better** and to be more competitive with fewer resources. For plant-level operations, systems need to connect to dispersed sources for **data collection** with the ability to analyze and visualize data in **real time**.

ICONICS and its Hyper Historian enterprise-wide plant historian allows managers to gain a **competitive advantage** by organizing all data sources across their enterprise.

## Ideal for Any Industry

For over three decades, ICONICS industrial automation software solutions have met and exceeded real customer needs in multiple industries, including:



Automotive



Power, Utilities and Energy



Building Automation



Shipping and Logistics



Food and Beverage



Sustainability and Renewables



Pharmaceutical



Oil, Gas, and Petrochemical



Transportation



Manufacturing



Water and wastewater



Government and Military

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