

How The University of Texas at Austin Optimizes Operational Efficiency with HanAra

CASE STUDY

The Challenge

Though The University of Texas at Austin Carl J. Eckhardt CHP Complex had employed a data historian since the early 2000s, the team began to identify problems with the existing historian software. The historian failed to keep up in the ever-changing technological environment, resulting in challenges with data archiving and loading speeds, incomplete and fragmented data, and data analysis. All of which limited the scalability of the software as the plant's needs expanded.

With data stored separately across multiple systems on offshore devices, it was impossible to monitor the plant in real time, share information easily with others, or analyze data without manual calculations.

- **Challenge 1:** Deficient data agility hindering efficient operation
- **Challenge 2:** Missing critical operational data leading to misguided decisions
- **Challenge 3:** Limited scalability, limited intelligence

*Combined heat and power (CHP) plant
with power capacity of*

135 MWs

4

chilling stations

9.5

million gallon chilled water thermal storage tanks

60,000-ton

*chilled water cooling system as the largest
electrical load on campus*

Peak demand as high as

33,000 tons

With
14,000 points

of historical data since 2009, The University of Texas at Austin utilizes HanPrism as its central gathering of data for analysis.

The Solution

Upgrading the Historian Server

The University of Texas at Austin decided to replace its existing historian at the Carl J. Eckhardt CHP Complex with HanAra Software's HanPrism. HanPrism **manages highly complex and extensive data** without any loss or interruption all while processing data **faster and more precisely**.

The HanAra professionals replaced the existing historian software with HanPrism in **six days**, which included preparation of the database and installation. HanAra Software integrated three historian data systems for the chilling stations, power plant, steam generation units, building meters, and SCADA system into a **single HanPrism server**.

However, UT-Austin had years of data that served as the complex's history. This data was a critical part of plant analysis, so HanAra professionals also migrated historical data. HanPrism has a built-in data migration tool, which **migrated more than 10,000 points from seven years of historical data** from the existing servers to the HanPrism server. After installation and usage, HanAra and UT-Austin worked together to add an additional 4,000 points to the HanPrism server with **no loss of historical data**.

Results & Benefits

With the implementation of HanPrism, HanAra Software provided UT-Austin with a centralized location for data which simplified management and back-up processes, and eliminated redundant maintenance and support costs for multiple systems.

HanPrism now provides the total data infrastructure for the Carl J. Eckhardt Complex, continually collecting and storing equipment and building data in real time.

Through improved data visualization and analysis, including Prism WebAPI (HanAra Insight Web API) and Prism Web (HanAra Insight), the team has the information to simplify and speed up the decision-making process.

Benefits of HanPrism:

- **Centralized data management in real time**
- **Enhanced scalability**
- **Actionable intelligence through analysis tools**
- **Reduced costs of managing and maintaining multiple data sources**
- **Increased speed of analysis from minutes to seconds**
- **Dashboard for monitoring data**

Our biggest concern in switching historian systems was the ability to migrate historical data points. The HanAra team replaced our existing software, configured it to our systems, and migrated more than six years of data onto a single server, all without any data loss.

The hallmark of HanPrism is just how user-friendly the system is. HanAra allows you to manage multiple data points quickly, all from one system.

– Juan Ontiveros
Associate Vice President
Utilities, Energy & Facilities Management

About HanAra Software

HanAra Software connects deep industry knowledge with innovative technology to provide integrated data management and predictive maintenance solutions for process plant management. Through the implementation of HanAra solutions, plants enjoy results including reduced costs, increased efficiencies, and ultimately improved plant safety. HanAra Software combines solutions with training and care programs to support clients every step of the way.

HanAra Software is the United States headquarters of South Korean-based BNF Technology. BNF Technology is a professional software development company that provides optimized software solutions for operational management of process plants. Coal-fired, combined-cycle, seawater desalination, and petrochemical plants use our solutions. For more than 17 years, BNF Technology has provided various solutions to more than 150 units across two continents to help them achieve operational excellence.

***To turn your data into actionable intelligence,
call: 737.209.9220
or email: info@hanarasoft.com***

About The University of Texas at Austin Carl J. Eckhardt Complex

The University of Texas at Austin campus operates one of North America's largest and most innovative campus energy plants. The Carl J. Eckhardt Complex includes a combined heat and power (CHP) plant with a 135-MW power capacity that provides 100 percent of the electricity, air conditioning, and heating to the University's main campus — a 431-acre site serving over 70,000 students, faculty, and staff.

The single largest electrical load on campus is the 60,000-ton chilled water cooling system that provides air conditioning to the campus, which has reached a peak demand of 33,000 tons. This campus-energy system includes four chilling stations and 9.5-million-gallon chilled water thermal storage tanks.