



## SUCCESS STORY

### PROFILE

- Subject : SCADA
- Process : Production of drinking water
- Client : Public bodies
- Integrator : Veolia Eau
- Date : 1992
- Installed base :
  - Panorama P<sup>2</sup>
  - 16 Schneider TSV premium controllers
  - Fiber optic loop
  - Ethernet
  - Windows XP

# Veolia Eau at Pont ar Bled

## 21 years of history with Panorama



New system using tubular ozone generators

### AIMS

Renovate the plant created in 1968 and benefit from the latest technological innovations.

Deploy an open-ended, long term SCADA system (1992 - 2013).

### BENEFITS

View and control the entire plant from the SCADA workstation.

Centralize the technical reports and data from the controllers.

Fully-fledged partnership: 21 years of follow-up, responsiveness and local support.

“La Compagnie des Eaux et de l’Ozone”, part of the Veolia Eau group, selected the Panorama SCADA system to control its drinking water production plant. All the technical equipment at the Pont ar Bled plant, which was created in 1968 near Landerneau in the Brittany’s Finistère region in France, was renovated in the early 1990s with the help of a French company: Codra. “La Compagnie des Eaux et de l’Ozone” was among Codra’s first clients and is a long-standing partner which has adopted all the technological innovations in the various Panorama versions.

The Pont ar Bled plant near Landerneau in France is the drinking water distribution center for 270,000 people in the Brest region. The facility was built upstream from the town of Landerneau in order to protect it from the tidal effects of the Elorn River.

In its current configuration, despite a production capacity of 55,000 cubic meters/day, the plant is authorized to draw off only 35,000 cubic meters/day from the Elorn. The annual averages remain very near that level, except under exceptional circumstances



Before:  
Manual control of facilities

After:  
Control room



when the Kerleguer or Moulin Blanc plants must stop operations. The Pont ar Bled plant requires four hours to transform raw water drawn from the river into drinking water redistributed to communities and associated areas.

**Codra is a long-standing, reliable and robust company that supports its clients for decades.**

**The project**

Prior to setting up the SCADA solution, technical equipment was monitored manually with Télémecanique TSX47 controllers communicating via Unitelway. Data was stored on recorders that provided paper output only.

The project began in 1992, and the choice of the SCADA software was obvious. La Compagnie des Eaux et de l'Ozone (CEO), true to its principles, wanted to work with a French company. It chose Codra, a young, small-to-midsize enterprise ready to break into the market in Brittany. CEO has never regretted its choice: it still continues to work with Codra twenty years later. Codra is a long-stand-

ing, reliable and robust company that supports its clients for decades.

CEO specializes in the treatment of drinking water, wastewater, and industrial wastewater. In 1997 it joined the Vivendi Group and then Veolia Eau. The Pont ar Bled plant remains free to make its own technical decisions, however, and it continues to use Panorama, the leading software in the SCADA market.

Panorama manages the entire plant:

- Stopping/starting pumps,
- Alarms for various thresholds,
- Forwarding of measurements,
- Real-time analysis,
- Archiving,
- etc.

The project involves traditional supervision of the treatment of drinking water. Operators can view archives in order to check river levels at a previous point in time, for example. On-call alarms are processed and acknowledged remotely from the SCADA software, etc... "The real benefit is for the maintenance team which can control the entire plant remotely from a single access point," says Philippe MIOSSEC, Maintenance Technician at the Pont ar Bled plant. "There are currently seven of us in the plant's maintenance team. There are no custom user profiles: all the staff are able to control the plant."

### The partnership

Today two people can program the Panorama development workstation. Philippe MIOSSEC received training in 2012 on Panorama P<sup>2</sup> version 10 in order to help his boss Alain LE PERSON – already a SCADA expert – enhance the application. New features are planned such as connecting the sludge circuit to the SCADA system. Codra guarantees upward com-

patibility of its solutions. "For now we are still using Panorama P<sup>2</sup> version 8. We plan to switch to version 10 when the Codra technical support team deems it necessary for compatibility with other equipment or operating systems. That is also one of Codra's strengths: their teams give us good advice," says Philippe MIOSSEC. "Moreover, there's no point for us to migrate to Panorama E<sup>2</sup> or other SCADA solutions. The only constraint would be if CEO in Brest wants to unify all the SCADA applications distributed across its sites in the Finistère region".

The managers of the Kerleguer plant visited the Pont ar Bled facilities before choosing their SCADA solution. They also selected Panorama, the

preferred SCADA software for water processing.

All the migrations since 1992 have gone smoothly: no particular issue has risen over the past 20 years. Only the evolution of the controllers, moving from single to double words, has caused certain read problems and made information somewhat more difficult to find.

### Extensions to the plant

A range of successive water treatment applications has been used at the Pont Ar Bled site since 1923, each adapting to changes in the quality of the raw water, as well as in drinking water standards and new techniques.



## HISTORY

1923 : Commissioning of the first plant (capacity: 10,000 cubic meters/day).

1959 : Capacity increases to 17,500 cubic meters/day.

1977 : Capacity reaches 35,000 cubic meters/day.

1982 : Set up of pre-ozonation and lamellar clarifiers, automation of reagents and the treatment system, commissioning of the sludge processing system.

1992 : Installation of Panorama SCADA.

1995 : Commissioning of remineralization and of two tubular ozone generator systems.

1997 : Interconnection with the "Syndicat du Bas Léon".

1999 : Granulated activated carbon (GAC) replaces sand in filters.

2002 : Mangagran replaces gravel in filters.

2007 : Overhaul of the ozone injection system.

2012 : Revamping of sludge processing with liming.

Drawing water from the Elorn River near Landerneau : 35,000 cubic meters/day





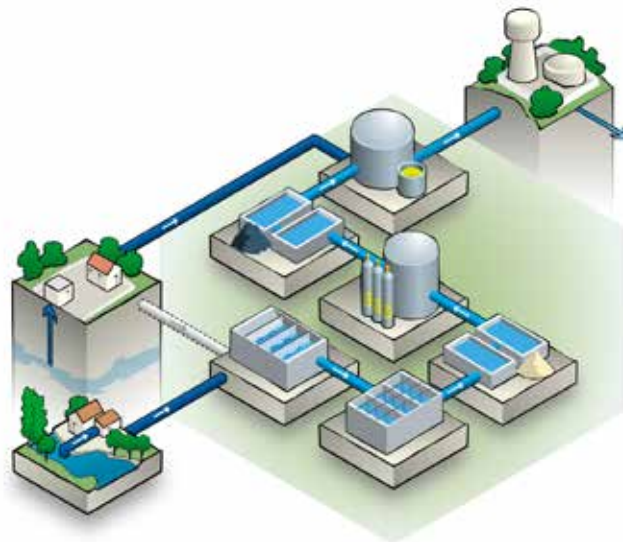
In the future projects, it is planned to both renew the activated carbon injection system and bring the plant up to the ATEX standard (explosive atmosphere a secure zone to ensure worker safety). As the plant evolves year on year, so does the Panorama

application: an open, adaptable, and adaptive solution.

Codra is committed over the long term, offering local support and powerful tools providing the latest technology and meeting all its clients' constraints.

KEY FIGURES

- 350,000 population equivalents
- Production capacity: 55,000 cubic meters/day
- Draw-off authorization: 35,000 cubic meters/day
- 5 pumps, each able to pump 800 cubic meters/hour
- 6 clarifiers, 175 sq. meters each
- 18 GAC filters, 26 sq. meters each
- 2 tubular ozone generators, each producing 5 kg/hour



Ozone injection: Water is disinfected using ozone, selected for its bactericide and antivirus properties. When this gas is mixed with water, it breaks the organic material down into small pieces. It also improves the color and taste of the water.

From industrial SCADA to a global information system

