Renewable energies

ÖKOBIT:
Fermentation process monitoring with ALERT

ÖKOBIT, German expert in planning and construction of biogas plants chose ALERT as the standard solution for process monitoring and alarm distribution in its factories. There are currently 11 plants throughout Germany that are equipped with ALERT and the company plans to deploy other sites, not only in Germany but all across Europe.

Reliable monitoring of processes and flexible distribution of alarms - from idea to realization

Changing needs

Seamless monitoring of processes has always been an objective and even an absolute necessity for ÖKOBIT. Builder and operator of biogas and bio methane plants, the company relies on experienced and flexible technology concepts. The biogas production process occurs in a tank, and must be carefully monitored by measuring equipment, and controlled by an efficient monitoring system. In case of failure, the biogas plant maintenance teams must be informed as soon as possible and in the most reliable manner, because an accumulation of errors would result in stopping the production plant.

Previously, ÖKOBIT used a basic tool integrated in the supervision system to inform the maintenance crews by email in case of failure. In 2011, the company decided, for strategic reasons, to change the whole system. In order to better meet its specific needs for process monitoring, ÖKOBIT began developing its own system of monitoring, in cooperation with its strategic partner. This is how

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

ALERT & ÖKOBIT
PROJECT OVERVIEW

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants

Objective:
process monitoring and distribution of alarms in 11 biogas plants

Data source:
SCADA "Freelance" (ABB) via OPC-DA Interface

Alarm dispatch media:
SMS on Smartphone Android

Number of alarms:
25 - 50 high priority alarms per site

Operating system:
Windows 7

Troubleshooting time with ALERT:
<30 minutes

Immediate benefits using ALERT:
time saving, better security and cost effectiveness of plants
"Freelance", a new process monitoring system dedicated to the needs of biogas plants, was designed.

During the test phase of Freelance, in the test and research plant of ÖKOBIT located in Bad Hersfeld (Investor & operator: City of Bad Hersfeld and the Fraunhofer Institute for Wind Energy and Energy Systems Technology), there was a need to improve the treatment of specific alarms to ensure better traceability of incidents and responsiveness of maintenance teams. To meet this need, ÖKOBIT decided to link Freelance to a third solution - ALERT being the first choice.

**ALERT in operation**

Freelance visualizes control and periphery equipment used during the fermentation process. ALERT retrieves data provided by Freelance via an OPC-DA server. In case of malfunction or deviation of some parameters on temperature, pressure or fill level, ALERT immediately transmits information by SMS to the concerned maintenance team. Depending on the call schedule, the right person is alerted. The messages and alarms can be acknowledged with a combination of keys. If messages remain unanswered, relief operators or higher authorities are alerted. All events are recorded in ALERT.

«Since using ALERT, incident management has become easier» says Egon WESSLER, automation engineer at ÖKOBIT. «Our maintenance department can respond more quickly and thus save valuable time for other tasks. The recording of incidents and interventions in ALERT is also very useful. It gives us clues about a possible improvement of facilities. Another highlight is the intuitive operation of the software. »

The increased safety of installations and responsiveness of the teams have convinced ÖKOBIT to use ALERT as a standard solution for process monitoring and distribution of alarms for all biogas plants. Next planned installations: 3 biogas plants in the northeast of France, built by Agrogaz France, the French subsidiary of ÖKOBIT.

The company

As a pioneer manufacturer and planner of biogas plants, ÖKOBIT is among the most popular full service providers on the market, with over 140 national and international. Founded in 2000 in Germany, the company develops and builds biogas and bio methane plants, technologically intelligent on flexible substrates, which optimally meets the individual requirements of its customer’s site.