CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

Welsh Government Road Weather Monitoring Network

Campbell Scientific has been working with the Welsh Government, in conjunction with Amey, Costain, Centregreat Limited and ERH Communications to provide road weather monitoring solutions across Wales.

In 2014 Campbell Scientific were selected as the preferred supplier of road weather systems for the Welsh Government trunk road network. Consisting of over 1,000 miles (1,600 km) of roads, the Welsh trunk road network is a vital component of the countries transport infrastructure, and during the winter months Campbell road weather systems play an important role in keeping the road network clear of snow and ice.

The compact, modular and sensor agnostic design of Campbell data acquisition systems enabled much of the existing roadside infrastructure and sensors from the legacy network to be re-used with the new Campbell Scientific systems. This flexibility helped to lower project costs and has provided the Welsh Government with a future proof platform that can flex and scale to meet future requirements.

Installation and maintenance of this network is carried out by the Welsh Government's road service contractors with technical support from Campbell Scientific. The network comprises of over 60 stations, and data from each station is wirelessly collected and managed using Campbell Scientific's LoggerNet software, providing real-time data directly to the road authority. This data is forwarded to the Welsh Government's preferred forecasting provider to enable road forecasts to be issued that assist with critical operational planning during the winter months.

About Campbell Scientific

Campbell Scientific data acquisition systems are the trusted heart of critical monitoring systems globally, helping transform accurate and reliable measurement data into actionable insights. Data from Campbell systems provides a platform for decision makers to make fully informed, safety critical decisions from positions of confidence across multiple industries including surface transportation (roads, railways and airports), weather forecasting (national meteorological and hydrological monitoring networks) and critical infrastructure monitoring (roads, bridges, buildings and dams). When measurements matter, trust Campbell Scientific.

Case Study Summary

Application:
Road Weather Monitoring

Location:
Various locations across Wales

Authors:
Vim Mistry, Francesco Casule, David Hammond

Contracting Agencies/Organizations:
Welsh Government, in conjunction with Amey, Costain, Centregreat Limited and ERH Communications

Campbell Products Used:
CR1000, Loggernet Admin, RTMC Pro, HC2S3, RAD10, Windsonic1, RD01, Lufft IRS31 Pro-UMB, NIRS31-UMB, PS200, PS150, SDM-SIO1A, NL120, CS-GPRS, CS-3G, ENC 14/16, COM220, AC-ADAPT2, PSW12, CC5MPX, CS120A and CH200.

Communication Link:
Various methods (TCP/IP, dial up and direct).

Measured Parameters:
Temperature, humidity, wind speed, wind direction, rain, visibility and road state.

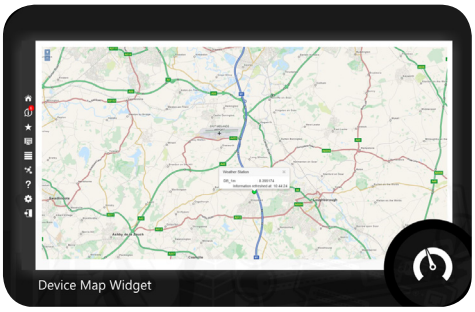
Website Link:
http://www.traffic-wales.com

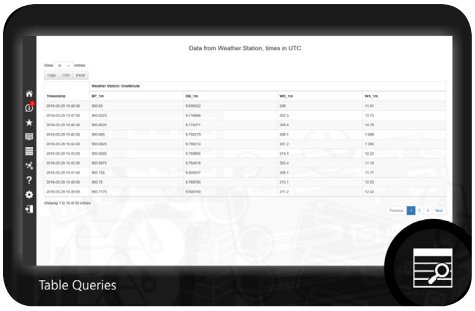
Cloud-based data management system

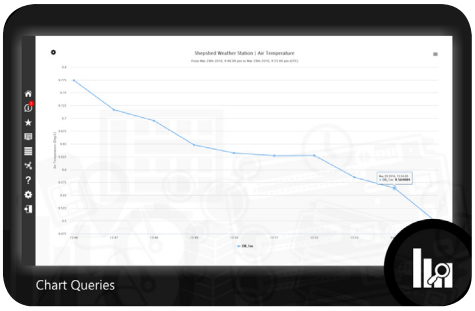
Konect Data Services from Campbell Scientific provide a simple way to collect and visualise measurement data from connected dataloggers or sensors in the field.

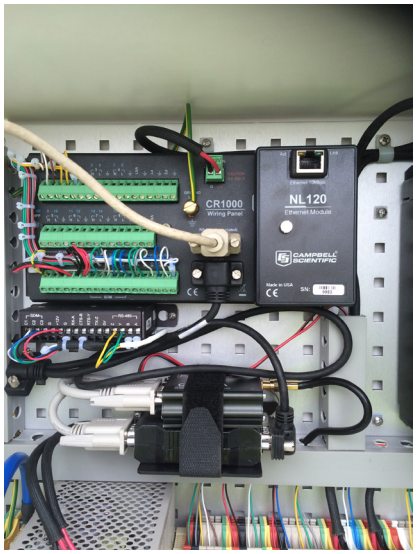
Offering exceptional data security and resilience, Konect provides a platform for cost effective data driven decision making with real time and trend data available at your finger tips.

Konect is accessible from any internet enabled device via any browser, can collect and display data from virtually every sensor or measurement parameter on the market and provides an exceptional platform for remote or on-site monitoring.









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