Situational Awareness
Driving Intelligent Water and Sewage Management
The Solution

Through a single user-defined dashboard, Situational Awareness aims to remove isolated data management by uniting any data source into a single ‘view of the world’ solution. This application provides water-based organisations with an unprecedented level of monitoring for their assets, from a 50,000ft view all the way down to the individual pump or valve asset in a chosen district metering area.

Situational Awareness is not about replacing any existing software or systems though. No, Situational Awareness is an overarching solution that aims to provide intuitive visual displays that incorporate all the information and applications needed to identify problem areas, determine the root cause, and ultimately, take rapid remedial action. The software works by accessing and integrating large volumes of historical, real-time and predictive data from internal systems and external feeds. Water and sewage organisations are now able to draw event-based correlations between points of information across space and time.

There is no longer a need for the typical multi-screen control room with each corporate subsystem accessed through its own dedicated user interface. Imagine being able to see real-time incident alarms, customer service request data, live work order progress, pipework, vehicle tracking, meter data, flow rates and much more on just one screen. In fact, imagine being able to see all this information not only on one screen but mapped geospatially with live weather forecast data overlaid on top.

Situational Awareness is proving that it can positively enhance one’s ability to achieve ‘Outcome Delivery Incentives’ (ODI’s) set by Ofwat. One example of how SA can help the industry reach their specific ODI’s is by mapping SCADA and customer call data geo-spatially; water authorities are able to identify the difference between central causes and secondary effects due to intelligent data integration and visualisation. Over time the potential is to make significant operation cost savings and turn ODI penalties towards rewards.

Industry Challenges

One of the biggest challenges right now in the Water industry is the ability to rationalise disparate data to assist in monitoring performance and meeting regulatory targets. The majority of water companies have growing volumes of data from inside and outside their business. From spreadsheets and databases to ERP and GIS systems, the wealth of data the industry is collecting is growing exponentially. The question that remains is, are the tools being used to analyse this information able to support diversity, complexity and time sensitivity? For most water companies, the answer is ‘probably not’. Most data sources conventionally sit independently within siloed sub-systems taking time to collate, rationalise and ultimately act on the data.

The traditional role of a water control room epitomises these data challenges; control room engineers are too busy handling alarms, taking customer calls and keeping field staff informed to even think about being ‘predictive’ in the way they work.
Connect and Visualise Any Data Source...

Through One Customisable Dashboard

Commercial Benefits...
- Help improve your regulatory performance assessments (ODIs)
- Reduce incident and response times
- Prioritise tasks based on the financial implications to your company
- Anticipate and respond to live weather forecasts
- Rationalise disparate data to remove isolated decisions
- Drive labour efficiencies and reduce operational costs
- Extend the life of your assets
- Proactively inform your customer of potential service disruptions

Key Features
- Real-time visualisation of current and future weather conditions
- View data from multiple sources in real time
- Intelligent real-time analysis of business KPIs
- Geo-spatial map alarms, work-orders and customer data
- Feed incident data proactively to your customers via SMS or email
- Mobilise data at any time, anywhere and on any device
- Historical data analysis of chosen assets
- Identify and predict asset performance issues over time
Flexible Architecture + Data Connectivity

Whether ‘On Premise’ or ‘in The Cloud’ (Public or Private), Situational Awareness is a flexible solution that can scale to your business needs, Asset Management Plan (AMP) period objectives, existing infrastructure and future technology roadmap. As enterprise data will undoubtedly continue to grow, organisations can be confident that the head-end visualisation tool will continue to optimise asset management capabilities; this optimisation can be enhanced with cross-industry live KPIs to drive processes change and influence management thinking.

Situational Awareness’s universal data connectivity design is built on industry open standards such as OPC Classic, OPC Unified Architecture, BACnet, SNMP Modbus, DNP3 and Web Services. Put simply, these open standards allow you and your business to connect to any piece of equipment.

Open Standards Connectivity

Any Glass, Anytime

Mobilise Your Data through MobileHMI

Not only are businesses able to visualise all their data in one place through Situational Awareness, they can now access this data at anytime, anywhere and on any device.

ICONICS’ MobileHMI™ supplements Situational Awareness by addressing the growing need for connectivity away from the control room, allowing personnel to access information from anywhere and reducing the time it takes for issues to be recognised and fixed. The fully HTML5-ready mobile solution provides executives, managers and engineers the ability to stay connected to all their real-time data wherever they may be. MobileHMI™ is a mobile application that automatically renders and scales to any Apple, Android or Windows device.  The simplicity of MobileHMI™ is in its installation, configuration and operation. The consistent user experience across all devices enables operational teams to “go mobile” without requiring upfront investment in device standardisation.
Founded in 1986, ICONICS is an award-winning independent software developer offering real-time visualisation, HMI/SCADA, energy, fault detection, manufacturing intelligence, MES and a suite of analytics solutions for operation excellence. ICONICS solutions are installed in 70% of the fortune 500 companies around the world, helping customers to be more profitable, agile and efficient, to improve quality and be more sustainable.

ICONICS products are used in building automation, oil & gas, renewable energy, utilities, water/wastewater, pharamaceuticals, automotive and many other industries. ICONICS’ advanced visualisation, productivity, and sustainability solutions are built on its flagship products: GENESIS64 HMI/SCADA, Hyper Historian plant historian, AnalytiX solution suite and MobileHMI mobile apps. Delivering information anytime, anywhere, ICONICS’ solutions scale from the smallest standalone embedded projects to the largest enterprise applications.

ICONICS promotes an international culture of innovation, creativity and excellence in product design, development, technical support, training, sales and consulting services for end users, systems integrators, OEMs and Channel Partners. ICONICS has over 300,000 applications installed in multiple industries worldwide.

Further Information:  
www.iconics-uk.com/situationalawareness