Operational Awareness
Driving Intelligent, Real-time Data Solutions Across Every Operation

Centralise, Visualise, Analyse and React
Live Operational Dashboard Solutions for Manufacturing

ICONICS
The Solution

Through a single user-defined dashboard, Operational Awareness aims to remove isolated data management across an operation by uniting any data source into a single ‘view of the world’ solution. Business decisions need to be made at all levels: within a plant, within a region, within a global enterprise, etc. This application allows organisations to make intelligent business decisions by providing them with an unprecedented level of monitoring and visualisation for all their assets. From a 50,000 foot view of all their global plants, all the way down to an individual meter or piece of equipment on a chosen manufacturing line, the solution is infinitely scalable.

Operational Awareness is not about replacing any existing software or systems. No, Operational Awareness is about providing intuitive visual displays that incorporate all the information and applications needed to identify problem areas, determine the root cause, and 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 that conventionally would never interact. By overlaying business rules and algorithms across these sub-systems, operational engineers and managers can suddenly become aware of potential disruptions to an operation minutes or even hours before a fault occurs.

Today’s Operational Challenges

Some of the biggest challenges right now in the operational world lie around our ability to rationalise disparate data to drive intelligent, business holistic decisions. Making the right decision at the right moment can be the difference between profit and loss across almost every business line and operation. Good decisions require instinct and intuition, but intelligent decisions also require a continuous, clear and accurate understanding of all aspects of an operation.

Unfortunately, most operational data is currently only available at the plant level, which often means data is not contextualised, difficult to access and spread across several applications/components. Visualisation, reporting and analysis are the three things that suddenly become too difficult and too time consuming to undertake in such a multifaceted environment. The paradox, of course, being that such data analysis and visualisation technologies are supposed to be supporting engineering efficiency and awareness; not complicating it.

In truth, these data challenges will only be embelished as we collect and store more and more data from more and more angles of our operations. From ERP and MES systems to SCADA software and BMS systems, the volume of data we gather is simply growing at an exponential rate. The only questions that should remain are what tools can help analyse all this information and what tools can support the diversity, complexity and time sensitivity of operational data? Independent data systems can provide us with focused evidence and statistics, but they cannot provide a successful platform for intelligent holistic decision making.

We believe the answers to improve plant performance reside within existing data and not outside it.

Ask Yourself, why do we allow our operational data to be managed autonomously?

- Automation
- MES
- Quality
- ERP
- Energy
- BMS
- HMI/SCADA
- Statistical Process Control
- Asset Management
Connect and Visualise Any Data Source...

Through One Configurable Dashboard

Commercial Benefits...
- Help improve operational performance
- Reduce downtime & increase OEE
- Prioritise tasks based on the financial implications to your company
- Rationalise disparate data to remove isolated decisions
- Drive labour efficiencies & continuous improvement
- Extend the life of your assets
- Monitor the whole of your global operation on any device
- Anticipate & respond to live weather forecasts for "IoT" purposes

...Key Features
- View operational data from multiple sources in real time
- Normalise data into measurable information & operational KPIs
- Custom business rules that analyse & action disparate data trends
- Geo-spatially map alarms, work orders & other operational data
- Monitor & reduce energy consumption through fault detection
- Mobilise data at anytime, anywhere & on any device
- Historical & real-time drill down analysis of operational assets

Available on Any Device
The Return on Investment

ICONICS understand that every plant and process has its own unique behaviour. Therefore, no product, solution or company can ever guarantee a predefined level of return on investment (ROI). However, what can be done is consider real life scenarios whereby actual savings have been made in order to intelligently deduce how similar savings could be made in similar operations.

ICONICS have seen consistent ROI figures at most customers of between 7-10%, however a number of high value production lines have delivered ROI statistics of over 250% within the first 12 months of operation. These statistical variances substantiate that, yes, ROI is process centric, but also that Operational Awareness can provide true cost saving potential across divergent operations.

An improvement in OEE, downtime, etc. aside, Operational Awareness has the potential to pay for itself through multiple scenarios:
- Through fault detection and predictive analysis, engineers can be deployed to an asset before a fault has even occurred thus shaving minutes if not hours of response times and the cost of asset damage.
- The prioritisation of tasks based on the financial implication to company can ensure that a defined cost is part of every decision, every day at every level of the business.
- The visualisation of key performance indicators across the manufacturing line allows internal teams to see what is happen now in real time, how issues are affecting performance and ultimately drive internal continuous improvement.

It is important to clarify that Operational Awareness is more than just a long-term software solution; it is a guarantee to all manufacturing organisations that they will be able to integrate, expand and innovate data technology without replacing their visualisation layer after a few years of life.

Flexible Architecture

Operational Awareness is a flexible solution that can scale to your business needs, operational period objectives and existing technology/infrastructure. As enterprise data will undoubtedly continue to grow, organisations can be confident that their chosen head-end visualisation tool will continue to optimise operational management capabilities with little to no disruption or alteration to existing systems and subsystems.

Operational 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

Mobilise Your Data through MobileHMI

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

ICONICS’ MobileHMI™ supplements Operational 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, pharmaceuticales, 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 stand-alone 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.

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