ABB Process

Supporting facilities in industrial and technology environments requires a high level of integration of facilities data to support critical production processes. As ABB Germany has found, its CAFM choices are strategically vital in the demanding engineering and automotive sectors.

Total Quality Management (TQM) is one of the most significant influences on business practice for organisations of every kind. It is leading them towards a profound re-evaluation of the way they manage their goals, people, assets and processes and the way in which these elements could interrelate to deliver better customer service through ever-tighter integration.

It is having an impact on every aspect of the enterprise – particularly in the industrial and technology production industries – and instigating a rethink of the methodologies that underpin their measurements and benchmarks. And it is causing them to demand a far more integrated offering from their FM service providers, with the evidence of its effectiveness to back it up.

Increasingly, CAFM is the glue that allows those service providers to deliver the proof their customers want to see. Companies like ABB Germany, one of the Europe's leading building and environment service providers, are discovering that their CAFM choices are strategically vital in meeting these demands. CAFM allows the FM function to draw on the full breadth of relevant information generated across a plant or site by buildings and asset management systems, workflow automation and staff themselves. But success depends on finding a CAFM partner who understands both the complexity of the underlying automated systems and the needs of the ultimate FM professional who simply wants to access clear, consistent and usable information, via an accessible and intuitive interface, that helps them to better manage the assets and environments for which they are responsible.

Driven by the same profound changes in market demands that have brought FM to the heart of cross-industry business strategy, ABB has evolved from being historically a project-based building design technology company to its 21st century status as a major building services organisation. In an increasingly competitive market, its clients expect ABB to demonstrate and deliver the business benefits of integrating the diverse data collected by their Facilities Management and



Buildings Management systems. Integration ultimately turns the data into a powerful asset, capable of giving an instant, consistent and detailed picture of any aspect of an ongoing building development or management project, from raising plant equipment breakdown alarms to automated workflow, production management and performance evaluation.

In 2005, the time had come for the company to find a way to achieve the level of multiperspective observation that new – and prospective – clients, particularly those in the engineering and automotive sectors, where the performance of a company's production processes is vital – were demanding. "We realised that to do this to support our FM projects, we would need a fully integrated database that could collect information from across the board," says Werner Mattes, IS manager. "The FM task consists of so many different styles of data – isonumeric (letters and numbers), graphical (Computer-Aided Designs and plans, for example), data generated by automated devices and systems, and information generated by people – that we needed a way to access it in a consistent and integrated manner."

As a long-time client, ABB turned to CAFM specialist FSI (FM Solutions) Limited, to help integrate their Concept™ system with its own, in-house buildings management system, which had no FM links of its own. "Potential clients want us to show how we optimise a project," says Mattes. "So we were looking for ways to generate ideas from data that would improve the progress on any future projects. We knew it would also be a great help for us to be able to collect information about specific assets, to know exactly how often an asset has a breakdown in relation to an ongoing maintenance programme."



Interface

The challenge was to create an interface that could generate, with a few mouse-clicks, information about any aspect of a project from both the FM and the building management sides, enabling ABB to define and populate new contracts, poll the systems continuously for alarms about asset failure, and automate and monitor the progress of service calls.

"The reality is that to do this, many different systems would be involved. They deliver too much information for a non-IT specialist to understand, so the challenge was to make it easier for FM professionals to access and interpret the data," says Mattes. "Of course, you need more complex tools in the background, but with an integrated interface it becomes possible to manage a more complex architecture and gather information from different sources. Integration becomes the bridge between the FM and the building management worlds."

The main objectives of the project, apart from achieving central and consistent access to the data, included a number of key ABB and client business requirements:

- Transparent documentation of asset performance
- Integration of process chains
- Reduced resource overheads
- Scope for the simple addition of new systems
- Continuous process improvement and warranty follow-up (the most important requirement from an ongoing management point of view).

FSI designed an integrated solution that uses the Concept™ Workflow module to link Concept™ with ABB's original BMS and imports data into its own database. Not only does this help ABB to establish historical timelines for the buildings it manages on behalf of its clients, but it also provides a platform for planning maintenance management, constantly highlighting areas for potential improvement.

"To be honest, we had no idea that it would be possible to implement such a system, although we'd been using various tools from the Concept™ range for many years," says Mattes. "But FSI spent a lot of time with us here, in Germany, refining it and making it run smoothly. It gives us an IT architecture for our FM services that has been designed in an ideal style, and will really help us to convince non IT- specialist clients that we have different systems, working together, and accessing one consistent database."

As a result, the company has generated significant competitive advantage over other players in the market who

have yet to achieve a similar degree of integration with its associated business benefits. "When you are competing in an industrial sector, you need a good argument to show that you can monitor critical production processes consistently," explains Mattes.

"For example, if an elevator in a normal office isn't running for some reason, it's a nuisance but it doesn't necessarily have an immediate consequence



for the company's bottom line. However, if an asset on the production line goes down, the client will start losing money immediately. We need to show we understand the FM requirement for such a technical environment."

Mattes explains that potential clients with this level of industrial background approach an FM service provider with an understanding of TQM issues increasingly on a level with the philosophies and practices that are emerging from Japan. "In Germany, they will ask detailed questions about our approach, and how it is supported by our IT infrastructure," he says.

"The degree of integration that we have achieved puts us in an excellent position when it comes to answering those questions and providing evidence that it works."

Mattes says the introduction of FSI's Workflow system into the FM business equation is a very important step forward, and makes the integration project a significant strategic development for the company. "To be able to create pages of information drawn from the various systems, to define the pattern of breakdown calls and run reports, and to use the database in more versatile ways are important advancements," he says.

"The next step will be to formalise our automation strategy even further, using the database to generate suggestions about what can be done better, showing the history of an asset, defining the maintenance cycle and using the information to reduce costs in our projects. In due course, we will be able to show real cases where we are saving tens of thousands of euros for our clients because we are running such measurements with the help of our integrated database.

"We already have some projects where we need to demonstrate deep knowledge about the client's production management process. For example, if a factory room needs to be a particular temperature over a certain length of time in order to produce a certain quality of goods, it's our business to make sure that happens. And we are now able to demonstrate that we can."



