Graeme Humphrey is the Principal Consultant at Sword's engineering-led application development business, producing high-quality bespoke software systems. With over 25 years' experience in software engineering, Graeme focuses on developing solutions that help energy organisations to make data driven decisions.

Graeme Humphrey

Using Momentum to solve data driven challenges

Industry challenges

How well a thriving organisation adapts to harness data driven technology is key to success in the energy industry. Technology investment is often driven by the need to address out-growing systems suited to smaller organisations, or when recognising that efficiencies are needed to make informed business decisions.

It is common knowledge that off-the-shelf software solutions don't always fulfil customers' needs alone, which can lead to a compromise on how well the solution tackles business challenges. Organisations can be lumped with extra costs from continuous product upgrades and increasing licence costs with additional users leaving them with no choice but to fork out for a system that doesn't do everything they need it to do.

On the flip side, many organisations don't have the budget available for a full bespoke software development when addressing a business challenge. Additionally, bespoke software development can be time consuming and due to the rapid change of pace in our industry organisations are looking for new solutions with shorter timescales.

The nature of energy industry organisations growing to involve multiple sites, assets and locations adds a layer of physical complexity meaning localised solutions no longer meet operational needs. The need for central database systems or software solutions often arises to rationalise procedures across different areas of the business.

Sword's Solution

At Sword, we have developed a template-based software development solution, Momentum. Momentum is a starting point for bespoke software projects with a variety of web-based templates, which are fully customisable to each project. Momentum allows the build of software solutions that sit between off-the-shelf products and bespoke solutions.

The templates are based on proven, existing architecture that we know performs well over slower network connections. Customers have the security of a protected log in, and we can create applications hosted in the cloud that meet our customers' needs.

Momentum is centred around business operations primarily involving people, stock and assets, and manufacturing. We understand that companies have personnel and equipment procedures and should be able to manage this through a single database system that unify operational procedures across all sites.

Momentum in Action

Our software templates have three primary uses; personnel, stock and assets, and manufacturing.

Personnel management is a key focus in many of our customers where growth has led them to find talent acquisition increasingly complex. We have helped organisations implement software solutions that help to manage their recruitment process, using Momentum templates as the base, building bespoke code to create a solution tailored to their own processes.

Asset and stock management is another area where the software template concept comes into its own. As with any business process, every organisation does things slightly differently, but the core purpose of the process is similar in the outcomes needed. Utilising Momentum's

We treat momentum projects as bespoke, as the base templates act as a 'boost' to project timescale'

approach, our software engineers can build bespoke systems to suit each organisation's asset and stock management requirements.

Production planning in manufacturing is the third area where our software templates have proved useful, allowing significant divergence between project applications, but achieving the outcomes needed to enhance operations.
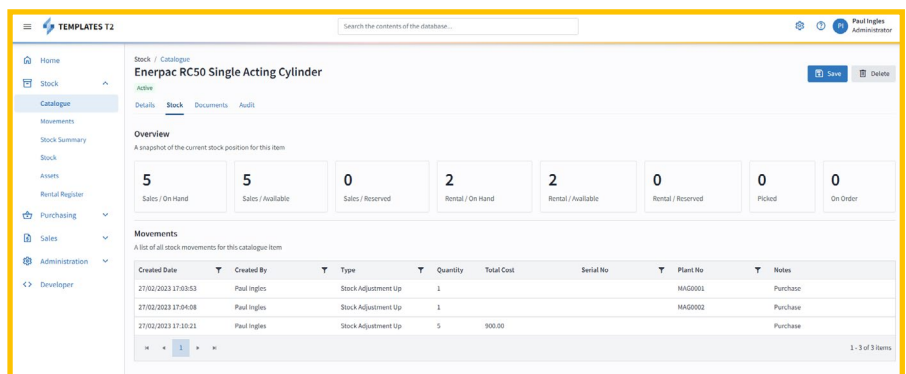
Benefits of Building with Momentum

As the source code is already built and doesn't require starting from scratch, a Momentum project can take as little as 8 weeks. As the process is considerably quicker than full bespoke projects and carries no licensing cost, there is a significant reduction in expenditure.

We treat Momentum projects as bespoke, as the base templates act as a 'boost' to project timescales, with source code then being tailored to individual customers without restrictions as the project unfolds.

Enabling a Data Driven Future

Investing in tailored, solid technology systems that are fit-for-purpose is proving to be the key for many energy industry organisations in building data driven foundations. Integrating processes across office functions and operations allows insights and analytics to enable informed data driven decisions on everything from recruitment to asset maintenance.

For more information, visit www.sword-group.com