

CASE STUDY

Military Exercise Management

Supporting the British Army's Collective Training Exercise Management

Background

Collective Training (CT) at the British Army is planned, programmed and largely designed at Collective Training Group (CTG) and delivered at a number of distributed Collective Training Establishments (CTEs) predominantly across UK, Germany, Canada, Kenya and Belize. Ensuring that training data flows smoothly and securely between CTG and the CTEs and from Live, Virtual and Constructive Simulations is a major challenge. Relevant data must be available at the point of need in order to facilitate evidence-based decision making and to ensure exercises are as efficient and effective as possible. A single, digitised, end to end Collective Training and Exercise Management System (CTEMS) was a requirement.



Customer

The British Army maintains contingent forces at high readiness and deploys forces on Operations across the globe; these must be appropriately trained through a directed, dynamic and assured training progression across a wide variety of training environments utilising a blend of Live, Virtual and Constructive (LVC) Training methods.

Challenge

Meet the British Army requirements for a Collective Training Exercise Management capability. It must support the training design, delivery and assurance tasks necessary to ensure the Army meets the training readiness requirements directed by UK Defence.

Solution

Since 2014, Exonaut® has been the British Army's solution of choice to meet this requirement. Exonaut enables users to plan, design and deliver training against specified objectives, assess performance, track training progression, dynamically manage exercises, and provide hard data with which to make evidence-based training decisions. It enables the exploitation of best practice and training lessons.

How we do it

Exonaut has been developed by 4C Strategies (4C) and configured, in partnership with the British Army's Collective Training Group (CTG), to meet the evolving requirements and specific training regime of the British Army. 4C's largely ex-military consultants support CTG and its subordinate training sites throughout the training lifecycle.

Best-in-class training

According to 4C Group Military Director Brigadier (Retd) David Paterson; "The British Army has always been respected among its peers for its training. Based on individual and specific role-based training, soldiers typically spend a year undergoing a Collective Training progression before being certified for High Readiness."

Lifecycle training and exercise management

In 2014, the UK's Collective Training Group (CTG) was looking for an innovative digital tool to connect the training ecosystem for improved combat readiness. Exonaut was initially procured to manage complex exercises across

the LVC spectrum but it quickly became apparent that it could enable, manage and track progression across a series of exercises – providing commanders and the training audience with a real-time view of performance, progression and training risk. Fully realising this meant working together in partnership to incorporate existing and future needs into the software.

Data-driven training

"Since 2014, Exonaut, and the British Army's use of Exonaut, has changed considerably", explains David. "The software has been developed as requirements have evolved. We originally provided a tool that generated data. Exonaut is now much more data-driven to facilitate better, evidence-based decision-making. It connects all the processes within exercise and training, plotting a path to the successful outcome of exercises, based on defined training objectives."



"We are determined to ensure the British Army's collective training paces the evolving threat and help it to adapt to meet it. A significant part of our approach is to exploit, through our Exonaut software, the increasingly sophisticated data which we are able to draw from the Army's exercises. This assures validation of their units for current and future operations, but also has the power to better drive the development of tactics and procedures, what they need to buy and how they will use it."

Andreas Hedskog
Chairman and Founder, 4C Strategies



The progression management and associated data visualisation tool allows commanders and trainers to vary the complexity of training to meet the training audience requirements. It enables them to train to the point of failure, analyse what went on, reflect, retrain and learn. Equally, new developments in the software support exercise planning across the

spectrum of LVC and act as an integration / management spine across the enterprise. New capabilities are also being developed to allow a degree of automation in the presentation, set up and resourcing of scenarios to take the training audience to the next level.

“Commanders will be able to set one or multiple objectives, based on the current capabilities of the training audience – which they can visualise in the software as historic and current data. Exonaut will then determine which exercises across the live-virtual-constructive spectrum are best suited to meet those required objectives and the conditions required to reach certification. These can then be executed with, and monitored in, Exonaut.

Monitoring the objective data gathered in Exonaut from deployed Observers and from data gathered from the simulations will inform Commanders whether success is expected, and if not, what should be done, i.e., restart or rejig the exercise, to achieve success. This is a big advantage that saves the army a lot of time and costs and, most importantly, helps ensure soldiers make the grade and learn along the way.”

David Paterson
4C Group Military Director

Five reasons why military trainers use Exonaut

- ✓ Exonaut is built for military personal by ex-military personnel, ensuring focus remains on combat readiness and military requirements.
- ✓ Exonaut is accredited to NATO SECRET, this means data remains safe.
- ✓ As a platform solution, innovations are available to all parties while development costs are greatly reduced.
- ✓ Training plans and budgets can be developed according to evidence based reports.
- ✓ Exercises can be reused and soldiers are trained on the fastest and most effective track to certification.

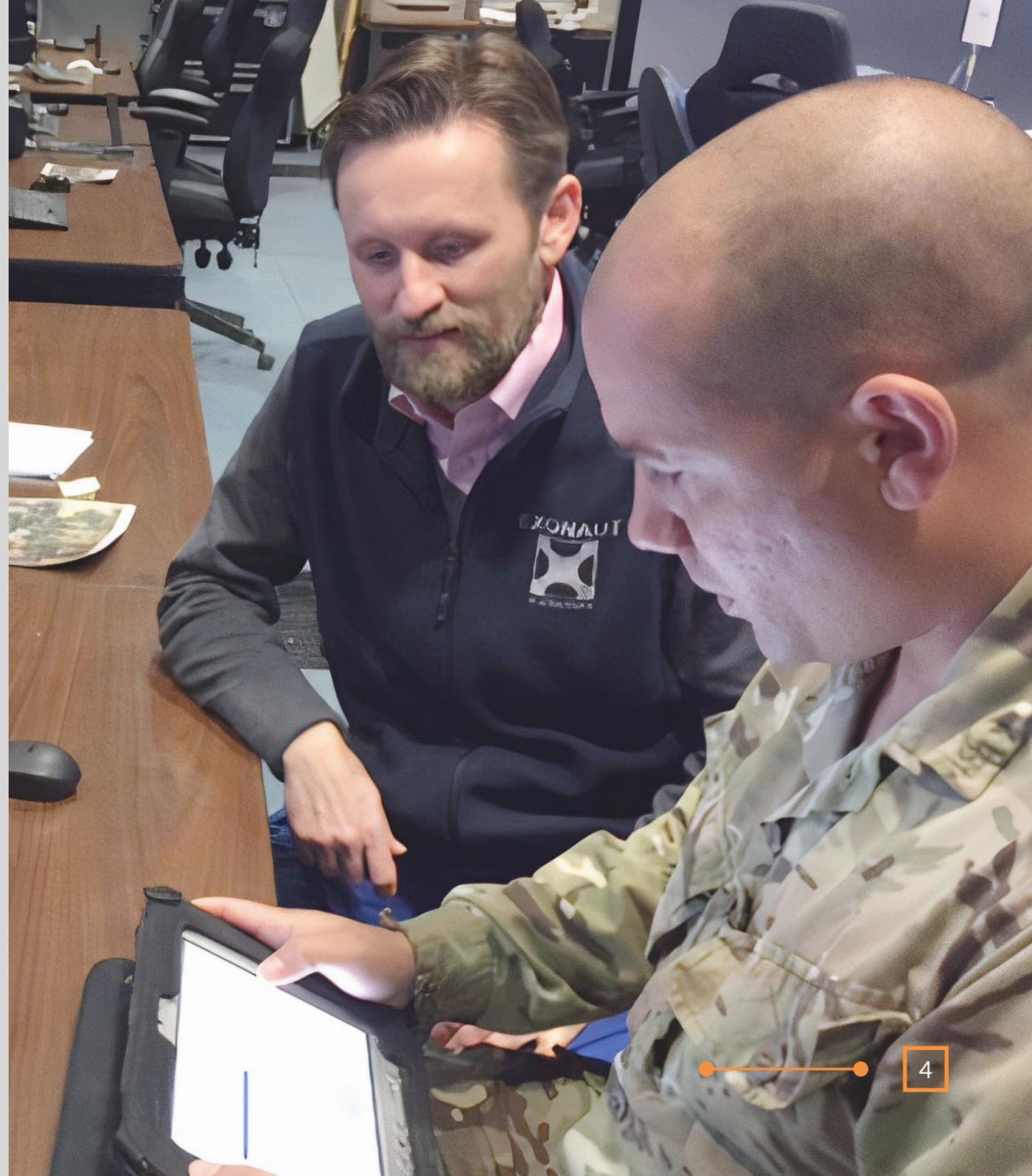


EXONAUT®



Dedicated support team

4C Strategies provides much more than software to the British Army; the company also has a team of full-time embedded consultants – many of whom are ex-military. 4C provides a dedicated Capability Manager who works closely with the British Army to identify new value-adding software capabilities as well as managing their development and implementation as part of an agile development process. The Capability Manager also liaises with other 4C staff to ensure new doctrines are incorporated and that dashboards, views and reports are tailored to meet any changing army requirements. An embedded Project Manager ensures 4C meet the delivery requirements of the Army and manages the direct support provided by 4C to the Army's Collective Training Group (CTG). Delivery consultants support exercise planning writing weeks, user training, as well as assist in the design, development and execution of exercises. 4C also provides technical software support in the form of updating servers, running installation tests, fixing bugs and handling enquiries.





Collaborative innovation

Many of Exonaut's military innovations have been developed as a result of requests from the British Army or our other military clients. Suggestions from 4C military consultants and input from the 4C development team are also an important source for new innovations. Military customers test new features or updates, and any feedback is incorporated into the software before they are rolled out for common platform use. Exonaut, configured by the British Army for Data Collection and Training Validation as the **Mimir** solution, is an excellent example of this; combining the power of objective, data driven metrics with subjective observations and exercise context, provides a powerful evidence base for display and exploitation through our visualisation tools.

One of the latest Exonaut innovations currently being explored together with the British Army is how to digitally involve individual soldiers in a similar fashion to the motivation methods used in many training apps; we are calling this **MyMimir**. Soldiers do the exercises, but the results are aggregated, analysed and viewed by Command. Providing soldiers with access to their daily metrics – such as their personal lethality, accuracy, suppressive effect, physical efficiency, etc. – will enable them to track their own training progression. This will increase their personal involvement in the exercise and their motivation to succeed.



“This is typical of the way we work. In partnership with the British Army, we explore the art of the possible to deliver improvements in training and training management in order to better prepare soldiers. At the same time, we’re conscious of the need to help reduce costs for the Army, which is why a system that pinpoints exactly which exercises have to be conducted to achieve certification makes sense. Basically, Exonaut enables military forces to train soldiers to the best of their capabilities in the most efficient manner. It’s what makes Exonaut the de facto standard for military training and exercise management and why so many military forces choose it.”

David Paterson
4C Group Military Director





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