

Solving the terrain puzzle



Antycip Simulation solves terrain puzzle

Antycip Simulation, now a subsidiary of ST Electronics (Training & Simulation Systems) Pte Ltd., has been involved with terrain database generation systems for well over a decade. Antycip Simulation has adapted as a company during this period to the ever changing and challenging requirements of its customers and their applications.

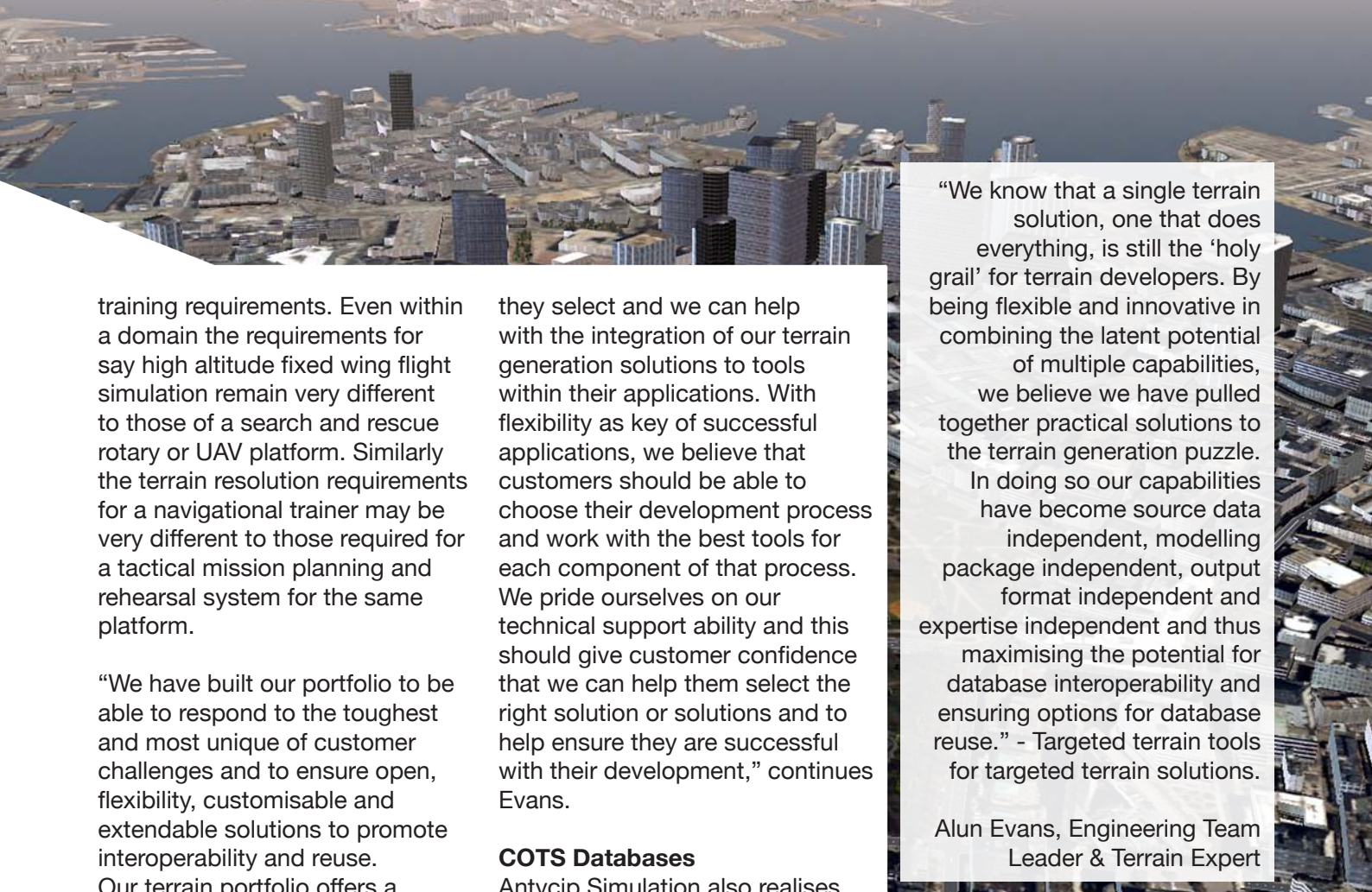
“We know that our customers face great challenges and that despite consistent and continuous improvements from the leading COTS solution providers, terrain database generation is not a trivial exercise,” says Alun Evans, Terrain Expert, Antycip Simulation.

Usability and performance enhancements have been matched by increasing demands for increased detail, larger scale and enhanced precision

for the databases that need to be produced. In parallel, user requirements for correlation and reuse across formats and applications have challenged traditional approaches and capabilities. Ultimately, detailed terrain database generation requires expertise, knowledge and appropriate tools for users to be successful. There are an increasing number of COTS approaches to terrain generation fuelled by ever changing user requirements, PC and image generation enhancements, new application areas and the increasing availability of COTS GIS based source data. It is an exciting time as new terrain generation paradigms like the dynamic and procedural approaches take root and the more traditional polygonal and tiled approaches mature and specialise.

COTS Toolkit Based Approach - Supported, Customisable & Extendable

Although it would be great if one tool fitted all applications, the different COTS toolkit paradigms all have unique strengths (and weaknesses) and so increasingly it may be that the best solution may actually be in the combination of the approaches. The unique strengths may be connected with the application or the application domain e.g. air/land/sea, the toolkit requirements in terms of user expertise, or with the input or output formats the user requires for their particular



training requirements. Even within a domain the requirements for say high altitude fixed wing flight simulation remain very different to those of a search and rescue rotary or UAV platform. Similarly the terrain resolution requirements for a navigational trainer may be very different to those required for a tactical mission planning and rehearsal system for the same platform.

“We have built our portfolio to be able to respond to the toughest and most unique of customer challenges and to ensure open, flexibility, customisable and extendable solutions to promote interoperability and reuse. Our terrain portfolio offers a comprehensive set of solutions to address all areas of the simulation market,” says Alun Evans.

“We believe that all aspects of the terrain workflow are an important part of the process. For example, this includes source data selection/optimisation, modelling, interoperability and image generation support. The application runtime/scene graphs or computer generated forces capability are the heart of successful simulations but the terrain fidelity and correlation is key and increasingly this means our customers need support for multiple formats and multiple applications.”

“A main focus for us is to help our customers with the toolkits



they select and we can help with the integration of our terrain generation solutions to tools within their applications. With flexibility as key of successful applications, we believe that customers should be able to choose their development process and work with the best tools for each component of that process. We pride ourselves on our technical support ability and this should give customer confidence that we can help them select the right solution or solutions and to help ensure they are successful with their development,” continues Evans.

COTS Databases

Antycip Simulation also realises that in some cases customers may want to use a COTS or customer built database. The company has therefore put in place a range of off-the-shelf databases including the WED and can provide database creation engineering services for customers that need a specific database build to kick-start their projects and programmes.

For more information about Antycip Simulation COTS terrain tools, source data and engineering services, please contact your local team.

“We know that a single terrain solution, one that does everything, is still the ‘holy grail’ for terrain developers. By being flexible and innovative in combining the latent potential of multiple capabilities, we believe we have pulled together practical solutions to the terrain generation puzzle. In doing so our capabilities have become source data independent, modelling package independent, output format independent and expertise independent and thus maximising the potential for database interoperability and ensuring options for database reuse.” - Targeted terrain tools for targeted terrain solutions.

Alun Evans, Engineering Team Leader & Terrain Expert

Antycip Simulation, a subsidiary of ST Electronics (Training & Simulation Systems) Pte Ltd., is the European leader in the distribution and support of modelling and simulation COTS tools. The company also designs and creates projection solutions. With over 10 years of presence in visualisation, simulation and training, Antycip Simulation has regional offices in France, the United Kingdom, Germany, Sweden, Italy and Spain. www.antycipsimulation.com

