



Press Release

15 October 2018

TARGET Training Augmented Reality Generalised Environment Toolkit

The types of challenges facing the police, counter terrorism and critical national infrastructure operators have undergone significant changes in complexity and frequency in recent years. Lone wolf terrorist incidents, cyber attacks on multi-national companies and European infrastructure and the recent nerve agent attacks in the UK mean even more than ever that the techniques used to train our police officers have to be continuously reviewed and developed.

Of course, nothing can replace real-life training, but increasingly the use of innovative technology is being explored in an effort to find ways to expand the training options available to Security Critical Agents (SCAs). The TARGET project has been exploring ways to incorporate Mixed Reality and Virtual Reality into the range of training options available. The core objective is quite simply to immerse trainees at operational, tactical and strategic command levels with scenarios that include tactical firearms events, asset protection, mass demonstrations, cyber-attacks and CBRN (Chemical, Biological, Radiological, Nuclear) incidents.

The practical and very tangible benefits of these MR and VR solutions include:

- Able to train more officers in a given period
- Fewer role players are needed for successful exercises
- Exercises are cost-effective and easily repeatable
- High levels of immersion seen during Trials

In real terms of course, these benefits can add up to significant cost savings and greater efficiencies. Needing fewer role players also means that officers are able to carry out their normal operational duties, which is perhaps particularly important in these times of austerity.

TARGET (Training Augmented Reality Generalised Environment Toolkit) is a project that has received funding from the European Union's Horizon 2020 research and innovation programme. As well as MR and VR, TARGET has developed CPX, a comprehensive command and control tool and exercise inject editor, an innovative interactive Assessment Engine and an image store of over 300 2D and 3D models, consisting of humans (first responders, civilians, injured



Press Release

15 October 2018

and fatalities), vehicles (police, fire, ambulance and civilian) and buildings, created through the use of high resolution drone photogrammetry.

It is almost a year since the V1 Trials of the TARGET solutions and the V2 developments were put through their paces in the field during September 2018. The Trials were used to test and evaluate the second versions of the Mixed Reality, Virtual Reality, Command Post and Assessment Engine solutions, as well as the Training Contents developed during the project. The feedback received from the end users will be used to make final adjustments in the V3 of the solutions before the conclusion of the project at the end of October.

There were six Trials in all, each one of which was hosted by the project's end user partners – police training colleges in Slovakia, Germany, Spain, France and in the gold command room of a UK fire and rescue service.

Further information is available from the project website at <http://www.target-h2020.eu>. If you would like to know more, please go to the Contact page on the website and send the team an email with your enquiry.

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TARGET V2 Trials Timeline – September 2018

TC3. Cyber Attack on a power grid – 6th September

A gold command, multi-agency, tabletop command post exercise focussed on a cyber attack on the regional energy grid, hosted by Cleveland Fire Brigade in the UK

TC6. Multi-jurisdictional mass road traffic collision – Wednesday 12th September

A major road traffic collision involving 90 vehicles on a motorway was the complex scenario in this command post and Virtual Reality exercise, hosted by Deutsche Hochschule der Polizei in Münster, Germany

TC4. Tactical firearms short exercises – 14th September

This scenario was a tactical terrorist firearms scenario in a confined, multi-room space, using the TARGET Augmented Reality solutions. Hosted by the Institut de Seguretat Publica de Catalunya (ISPC) with Guardia Civil in Barcelona, Spain

TC2. Large Civil Disorder / Riot Scenario – Thursday 20th September



Press Release

15 October 2018

Police protecting a Critical National Infrastructure location during a mass demonstration was the scenario used in this command post exercise, which will be hosted by Fachhochschule der Polizei des Landes Brandenburg, Germany

TC5. Territorial police encounter with an armed assailant – 20th September

Police officers at the École Nationale Supérieure de la Police near Lyon, France used Augmented Reality headsets to resolve a complex and threatening situation with an armed assailant after a car accident

TC1. CBRN forensics simulation – 27th September

A chemical, biological, radiological, nuclear (CBRN) forensics scenario was used to train specialist officers wearing Augmented Reality headsets. Hosted by the International Security and Emergency Management Institute (ISEMI) in the Slovak Republic

More about the TARGET project <http://www.target-h2020.eu>

TARGET (Training Augmented Reality Generalised Environment Toolkit) is a European Union research and innovation project, delivering a pan-European platform that features new tools, techniques and content for training and assessing the skills and competencies of Security Critical Agents (SCAs). These include counterterrorism units, border guards and first responders (police, firefighters, ambulance services, civil security agencies or critical infrastructure operators).

Bringing together the expertise of 16 organisations from the security and defence industry, from research and academia, SMEs, end-users and several European institutions and representatives from 10 EU member states, TARGET has received almost €6 million in funding from the European Commission under the Horizon 2020 Framework Programme throughout its three year duration, from May 2015 to October 2018.

Mixed Reality experiences will immerse trainees at operational, tactical and strategic command levels with scenarios that will include tactical firearms events, asset protection, mass demonstrations, cyber-attacks and CBRN (Chemical, Biological, Radiological, Nuclear) incidents. Trainees will use a combination of both real and training weaponry, radio equipment, command & control software, decision support tools, real command centres and vehicles. Social and ethical content will play an important role throughout all aspects of the project. If real-



Press Release

15 October 2018

source information is not available, it will be substituted by either MR or VR solutions (Mixed and Virtual Reality - multimedia, synthetic role players).

TARGET will deliver a realistic and flexible MR/VR simulation solution incorporating a range of dynamic and variable scenarios. The final outcome will be a highly immersive training solution, resulting in superior and more effective training experiences for SCAs. The distributed Open TARGET Platform will provide extensible standards-driven methods to integrate simulation techniques and MR/VR technology with existing SCA training equipment. It will be customisable to local languages, national legal contexts, organisational structures, established standard operational procedures and legacy IT systems. At key training points, real-time benchmarking of individuals and teams will be instrumented. TARGET will support inter-agency SCA exercising across the EU and will enable authorised agencies to share training material and maximise the re-use and efficiency in delivering complex exercises.

TARGET, combining training, content and technology expertise, will be co-led by users and technologists, mainly SMEs. Two successively developed and trialled versions of the TARGET system will support user-technologist dialogue. The TARGET Ecosystem will enable sustainable impact, commercial uptake and synergies at EU level. It is anticipated that SCA agencies and organisations will be able to benefit from a low initial capital expenditure with a subscription model, only needing to purchase certain equipment (hardware or software licenses) locally.

Contact Information

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CORDIS link: http://cordis.europa.eu/project/rcn/194852_en.html

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