



DATA COLLECTION APPROACH AND SPECIFICATIONS

MIKE GRIFFIN⁺, SIMON OFFICER⁺, RAY KHALIQ[◇], MIKE PICKNETT[◇], ROD MCCALL[‡], NICOLAS LOUVETON[‡]

⁺Vector Command Limited (United Kingdom)

[◇]Cleveland Fire Authority (United Kingdom)

[‡] Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg (Luxembourg)

TRAINING AUGMENTED REALITY GENERALISED ENVIRONMENT TOOLKIT

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DELIVERABLE 1.02

INTRODUCTION

This document defines the designs of Workshop 1 & 2 for the benchmarking and final trials including agenda and format. These workshops start after a TNA has been performed, the system has been built and end users are familiarised with the Systems' use.

These workshops will allow the project to qualitatively and quantitatively assess how effective the TARGET system is, from both the trainers' point of view and also from the participants (students). The benchmarks that are applied have been developed from the preceding TNA process. Where possible quantitative measures will be used to allow for better analysis.

DESIGN OF THE USER TRIALS

Preconditions for the user trials

1. That all trial sites have been through the TNA process and that the benchmarking tool has been populated for their existing training approach for the identified training content.
2. That end user sites are confirmed as being prepared, all training staff confirmed as being suitably familiarised.
3. That suitable notice is given for participants (students) in the exercising process to ensure that their presence can be confirmed. This is particularly important for the Strategic and Tactical Level TC's as this will require 9 months' notice to get all the appropriate departmental heads together to play this strategic level exercise.
4. That notification is given to the consortium if trial sites wish to test exercises different from the TC that they are leading.

User Trials Pre-meeting Activity

To ensure that the trials are run effectively, the following activities are required.

EXECUTIVE SUMMARY

This document sets out the Data Collection Approach and Specification for TARGET. The approach sets out the design of the project internal user trials that will be used to validate the effectiveness of the TARGET Platform.

Each User Site leading a TC will be required to undertake two trials workshops. Workshop 1 – Trial of TARGET Platform V1 (M22). Workshop 2 – Trial of TARGET Platform V2(M35).

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User Trials Pre-visit activity:

1. Training designer and training manager's workshop to give necessary training to Organisations leading TC's.
 - a. 5 day course at a central location
 - i. Day 1 travel and then initial familiarisation with project
 - ii. Day 2 initial training on content development
 - iii. Day 3 develop own content (exercises)
 - iv. Day 4 showing how to run the system and example exercises
 - v. Day 5 conclusions / wrap up / travel home
2. TC Leads produce or modify their TC on their own.
 - a. Supported by Technical Team
 - b. User TC Leads Trainers will build their own scenarios
3. Notify that ethical consent is required and pre-sheet and consent obtained
4. Confirm date and resources are available
5. Confirm agenda of the trial days

User Trial Agenda

Once the preconditions have been satisfied, then the User Trials are a four day activity at each TC Leads site. The agenda is as follows:

Day 1 – Set Up & Testing

1. Survey Training Area and Set Up any recording Equipment
2. Test and Confirm that TARGET system is functioning properly
3. Refresh Trainers and Assessors to ensure that they are confident in running the system

Day 2 – Briefing & Start of User Trials

1. Introduction to TARGET project
2. Briefing on how we are going to do the exercising sessions
3. Briefing on how we are going to evaluate the system
4. Ethical brief on document and signing to obtain consent
5. Mock Exercise – a test TC Scenario is ran to test the platform
6. Debrief and further discussion to elicit further information

Day 3 – Continuation of User Trials

1. Ethics Brief Only
2. Proper TC Exercise is ran with direct and video observation used
3. Participants are asked to complete a questionnaire(s) focussing on user experience aspects
4. Interviews (individual or group) or focus groups examining user experience aspects
5. Senior player debrief

Day 4

1. Benchmarking of new system with Trainers
2. Structured Debrief
3. Group session
4. Wrap Up & Team Travels Home

User Experience Assessment

As noted within D1.01 the TARGET platform relies on trainees feeling that the mixed reality environments are believable enough for them to behave as if the scenario is real. This requires an understanding of aspects such as flow, presence and usability. During the requirements phase documented in D5.01 and the on-going D5.02, it is clear that significant challenges remain, in particular with realistic interaction with avatars and objects. There are also significant issues relating to how to integrate serious game like elements with security agent training, these extends to the ethical implications of providing particular scoring approaches for certain actions through to the long-term impacts of serious games in this domain.

The precise methods of assessment for presence, flow, usability and ethical issues will be defined as the project progresses. These will include the use of questionnaires, interviews, observation (direct and by video with post analysis). Certain training scenarios may also include bio sensors such as heart rate and body temperature. The project will therefore possibly explore the use of this sensor data as a method of exploring presence and flow with respect to user behaviours, in addition to subjective self-reported measures such as questionnaire and interviews.

CONCLUSIONS

For the workshop activities to be successful, this has to be preceded by the appropriate TNA, system development, content development, training and familiarisation activities. Significant notice will be required to ensure that the right participants are able to exercise with the system (most particularly for the senior roles). This may require up to 9 months' notice period.

It is recognised that all end users will need to be asked whether they wish to run other TC's other than the one they are leading on. This will need to be factored into the TNA and training processes.

The actual workshops will consist of two identical four day activities, with day 1 being dedicated to setup, testing and preparation, days 2-3 being devoted to the trialling and day 4 for the debrief and benchmarking activities.