

COPE – COMMON OPERATIONAL
PICTURE EXPLOITATION

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PROGRAMME

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Collaborative project



CROSS PROJECT WORKSHOP FOR COMMON OPERATING PICTURE EXPLOITATION

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Abbreviations

C ²	Command & Control
COP	Common Operational Picture
COPE	Common Operational Picture Exploitation
ESC	Emergency Services College
HMD	Helmet Mounted Display
MARIUS	Mobile Autonomous Reactive Information system for Urgency Situations
OASIS	Open Advanced System for dISaster and emergency management
RUNES	Reconfigurable Ubiquitous Networked Embedded Systems
TSO	Tactical Situation Object
U-2010	Ubiquitous IP centric government & enterprise next generation networks vision 2010



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1 Summary

The COPE Cross Project Workshop was designed as an information sharing exercise between projects of a similar nature to COPE both previous to COPE and those running concurrently with COPE. The aim of this was, primarily, to learn from the challenges and achievements of the other projects as well as ensure that COPE is not repeating existing research. Secondly, the purpose of this exercise was to pass on the aims and intentions of the COPE project to any other projects currently working in similar areas.

All presentations given at the workshop are available on the VTT hosted DOHA system in the following location:

[Projects\COPE_Partners\WP1_Exploitation\Cross-Project Workshop May 12-13.08\Presentations](#)

2 Workshop

The Cross Project Workshop was held over the 12th & 13th May 2008 at the Stirling Square London offices of BAE Systems. The event was hosted by BAE Systems UK and invites were extended to all the partners within the COPE consortium. Presenters were invited from the projects described in the following sections. Each presenter was asked to give a description of their project along with some of the achievements and challenges faced throughout the project.

2.1 COPE

Presenter: Paula Savioja

Company: VTT

Website: www.vtt.fi/vtt/index.jsp

Very briefly, Paula spoke about the objectives of the COPE project in that it is trying to improve the performance and situational awareness of the C² (Command & Control) elements of emergency response networks, primarily by creating a COP (Common Operational Picture). It is also trying to improve the flow of information up and down the C² chains as well as laterally across teams and organisations.

2.2 Emergency Management

Presenter: Aapo Immonen

Company: ESC (Emergency Services College)

Website: www.pelastusopisto.fi/pelastus/home.nsf/pages/index_eng

The ESC (Finland) provides training for fire and rescue training work for Finland's emergency and rescue services. A quote from the college website reads

“The Emergency Services College provides education and training in its special field under the supervision of the Ministry of the Interior. The College plans and arranges basic and advanced education and training in fire and rescue work, civil defence training and other training in emergence operations.”

As an aside from this the college is responsible for the coordination of the country’s rescue services research as well as processing external research from other organisations, agencies and countries.

Aapo gave a presentation on the importance of engaging with the end-users throughout the project and clearly defining the problems to be solved and agreeing on how to solve them. An example was given of a project that faced these issues, EMS ICT. This project had a number of issues such as not really addressing user needs, not understanding the contributing parties, trying to make the problem fit the available technology as oppose to making the technology fit the problem etc.

This was a clear guide that the project should be end-user focused with a clear understanding of the information flowing into and out of the system and how it will be used. A clear understanding of the current problems should be acquired and engagement with the end-users should be maintained throughout to ensure that the proposed solutions match the end-user needs.

2.3 EU Flood Command

Presenter: Rod Stafford

Company: Vector Command Ltd

Website: www.emergencycommandsystem.com/index.php

EU Flood Command was an EU project aimed at developing technology and procedures within a framework to aid closer cooperation in civil protection to help member states prevent and minimise the consequences of major coastal flooding disasters.

Rod spoke about the aims of the project as described in the previous paragraph as well as the technology that the project produced, a software based system to integrate Maritime Search & Rescue services across member states and provide a coordinated response to a flooding emergency.

2.4 MARIUS

Presenter: Andrew Howe

Company: BAE Systems (Defence Avionics)

Website: www.baesystems.com

MARIUS (Mobile Autonomous Reactive Information system for Urgency Situations) was a project tasked with producing a system that could be deployed in the first few hours after a major disaster that can be used to provide vital information to first responders who have to make life saving decisions. Once the full disaster

management systems are in place and operational the system would then hand over to them.

Andrew gave a description of the MARIUS project and focussed on the C² system and how it interfaced with the various first responders and external sensors. This followed with a description of the final trials, achievements and lessons learned. One of the main lessons learned from the MARIUS trials was that the main trial was too large for the project to cope with and things went wrong that impacted the success of the trials.

2.5 Mobile Augmented Reality

Presenter: Simon Julier

Company: UCL (University College London)

Website: www.ucl.ac.uk

Simon has not been working with a specific EU project however he has been undertaking work within fields that have uses within the first responder bracket. Simon spoke about research into COP environments and the difficulties in interpreting sensor information as well as his research into Mobile Augmented Reality systems and the ability to draw conformal symbology on HMD (Helmet Mounted Display) systems and the ability to register the symbology against real world objects.

2.6 OASIS

Presenter: Allan Cullen

Company: BAE Systems (Advanced Technology Centre)

Website: www.baesystems.com

The OASIS (Open Advanced System for dISaster & emergency management) project was tasked with developing systems and a suite of tools to interface between the different emergency response agencies in local, regional, national and international environments to improve response coordination and situational awareness.

Allan gave a description of the project and its aims and objectives as well as an overview of the conducted trials. This focussed in particular on the event named the 'Shropshire Trial'. The presentation included a brief on the backbone of the interfacing tools, the TSO (Tactical Situation Object), which is a data dictionary item that allows the interpretation of data items between legacy emergency response systems. It was indicated that the Shropshire Trials were a success with heavy involvement from end-users with a well controlled set of scenarios.

2.7 RUNES / U-2010

Presenter: Prof. Peter Kirstein

Company: UCL

Website: www.ucl.ac.uk

The RUNES (Reconfigurable Ubiquitous Networked Embedded Systems) was tasked with looking at the networking abilities of embedded systems and building a middleware layer that would allow applications to run on a variety of embedded systems.

The U-2010 (Ubiquitous IP centric Government & Enterprise Next Generation Networks Vision 2010) was tasked with providing the most capable means of communicating and best means of providing information to, and between, the various personnel involved with any large scale incidents or disasters whilst using existing telecommunications infrastructures.

Peter gave a briefing on his work with the RUNES research and a description of the project as well as how that fitted in with the U-2010 framework. It focussed mainly on the networking infrastructures, particularly network topologies. This presentation illustrated the advantages of re-using existing research within the COPE project.

3 Conclusion

Presentations were given at the workshop from a variety of people both outside and within the COPE project. A few, but not necessarily all, of the common themes coming from each of the presentations are listed below:

- Understand the problems that the project is trying to solve.
- Engage with the end-users continuously from an early stage in the project.
- Do not try and solve a problem that does not exist.
- When planning trials be careful not to extend beyond the means of the project.

Attendees at the workshop will all have undoubtedly gained a variety of different messages from the excellent presentations however this report has picked up on but a few of the common views.