

The Helpful Environment

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The creation and use of task-centric virtual organisations involving people, government and non-governmental organisations, automated systems, grid and web services working alongside intelligent robotic, vehicle, building and environmental systems to respond to very dynamic events on scales from local to global.



Co-OPR: Collaborative Personnel Recovery Training

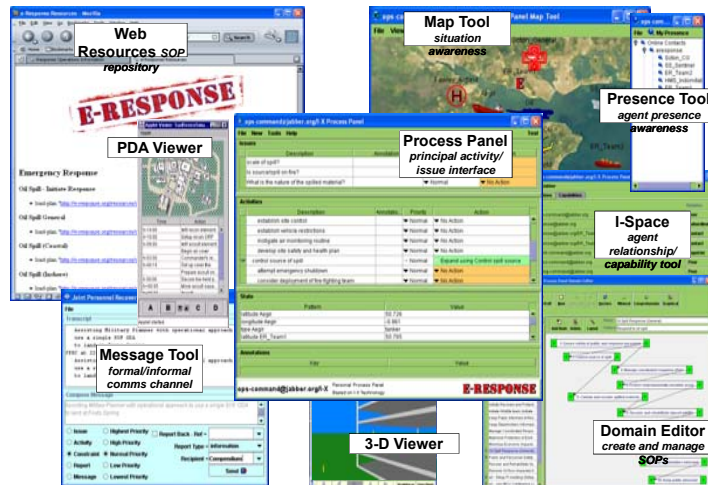


- Using an I-X application to support personnel recovery centres in training mode
- Support for four phases:
 - Setting up the multiple rescue coordination centres
 - Distributing and maintaining the status of resources
 - Dealing with isolated personnel or rescue incidents
 - Preparing a shift handover briefing
- Technological enhancements:
 - Import tool gives access to existing SOP resources
 - I-Sim tool for simulating training exercises
 - Improved interfaces and customised state viewers
- Evaluation:
 - Series of experiments involving USJFCOM and US Personnel Recovery Education & Training Center

<http://www.aiai.ed.ac.uk/project/co-opr/>

I-X: Intelligent Systems for Emergency Response

- I-X Technology**
 - "I" = {intelligent, intelligible, issue-based, integrated}
 - "X" is the particular tool or application
- I-X is a framework for creating intelligent multi-agent systems for collaborative tasks**
 - Agents can be humans, robots and computer services
 - I-X tool suite provides basic human interface tools
 - All agents adopt a task-centric view of the current situation
- <I-N-C-A> constraint model provides common 'language' for communicating and dealing with elements of the task**
- I-X approach based on 30 years of AI planning research and experience**
- Application focus on complex and large-scale emergency response situations**



<http://www.aiai.ed.ac.uk/project/ix/>



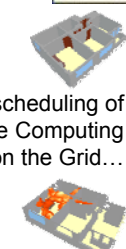
Robust relay and integration of data from advanced sensor networks...

FireGrid

...emergency response Command, Control Communications and Intelligence using I-X...



...allocation and scheduling of High Performance Computing resources on the Grid...



...dynamic selection and modification of simulation models to fit emergency...

... 'super real-time' simulation of fire spread, egress, building integrity...

...decision-making support for emergency responders.



<http://firegrid.org/>

