

Using simulations for improved decision making in large scale chemical incidents

MDA, NICE, TTU, AIT

Background

Managing a large scale chemical incident is a complex task that presents many challenges to decision makers in the emergency services. Training for such events has been traditionally done using live exercise with great expense and interference with the habitant's daily lives.

Main goal

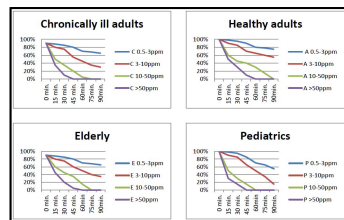
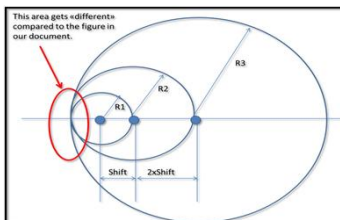
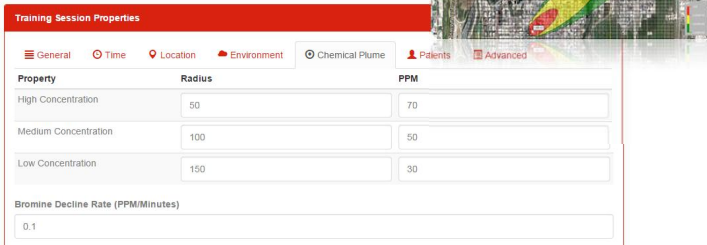
The aim is to plan and test various response alternatives using related tools and models, and observe the impact of decisions taken on the situation on the field.

The reference scenario

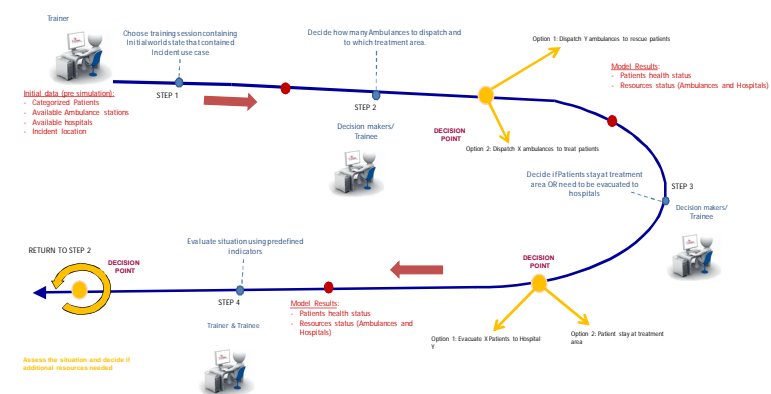
Simulate a large scale chemical incident in Ashdod port. The possible accidental scenario will treat a container transporting liquid BROMINE (Br₂). Patients are effected from Bromine related intoxication in different degrees of severity. Duration of exposure, location in the scene and patient category define the patients condition.

Models Used

Models representing the interaction between the resource and the patients.
Models representing the effect of exposure to Bromine on the patients/resources.
Models representing the plume behavior.
Models representing resources behavior.

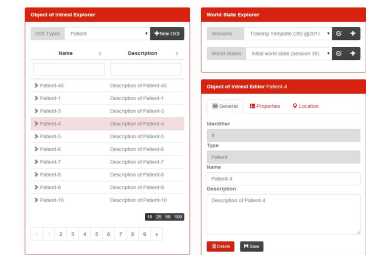


Typical training scenario



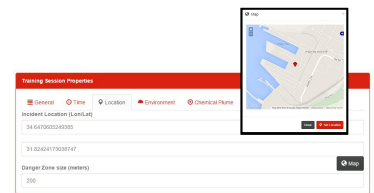
Admin' view

This tool enables the admin to create the "story board" for the simulation.



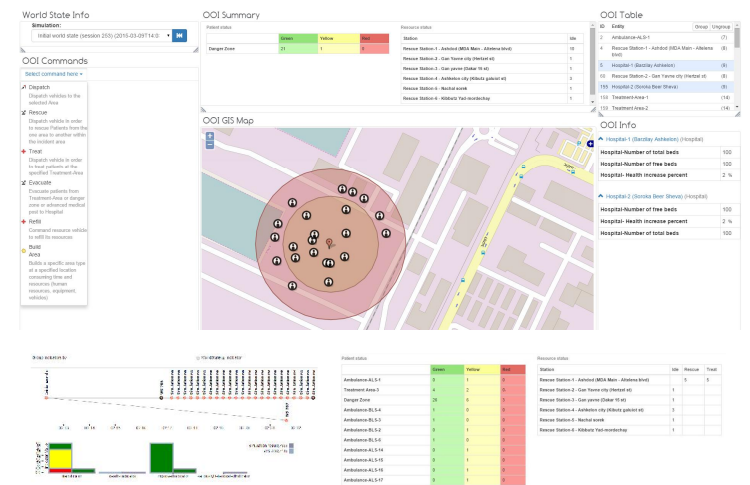
Setup view

This window gives the training manager an option to create different scenarios by changing the OOI's properties.



Training view

The trainee simulation view – presents patients and resources status boards, live map presentation and command tracker.



CRISMA Consortium

The CRISMA project (www.crismaproject.eu) is co-ordinated by VTT Technical Research Centre of Finland. The consortium counts 17 partners from 9 countries, representing end-users, research and industry. The project ends in August 2015.

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