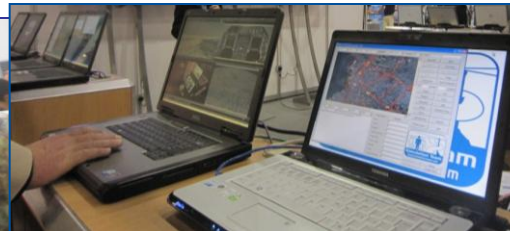




Skills Enhancement based on the Training: a Live Experience

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Serious Games vs. M&S

- **Professional People “Talking with” Game Developers**
- **Professional Software “integrated with “Game Engines”**
- **Professional Hardware “vs.” Game Devices**
- **Scenario Definition “vs.” Game Level**
- **High Fidelity “vs.” High Physics**
- **Training “vs.” Playing**
- **Cost/Unit: High “vs.” Low**
- **Few Users “vs.” Many Users**

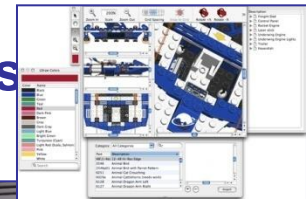




Simulation & Serious Games

There are different way to proceed in this sectors such as:

- New Virtual Environments
- Substitution of Interfaces with Game Devices
- New Opportunities by New Games Device
- Introduction of Massive Multiplayer On-Line Games
- New Web Games
- Physical Devices integrated by Games in Training
- Games as New Learning Approach





...an Evolution Roadmap for Training



Training on the Job

Simulation for Training

Experimenting on the Simulator

Many More Installations
Many More Users



New Utilization Modes

Serious Games for Training

Playing while Learning

Experimenting on Games



[Nuclear War]
..a strange game, the only winning move is not to play
Joshua in War Games Movie 1983

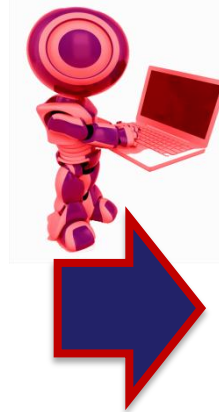
Distributed Virtual Experience and Exercise



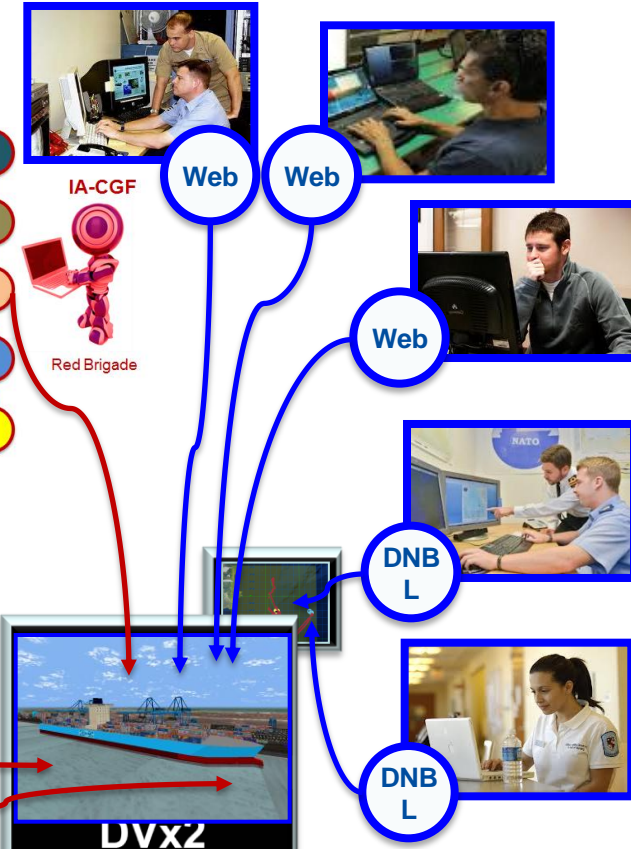
Terrorist Groups managed by **Intelligent Agent Computer Generated Forces**



-  Identify Target, Info Collection
-  Planning Attack
-  Preparing Resources
-  Executing Attack
-  Media Exploitation



COA Course of Action

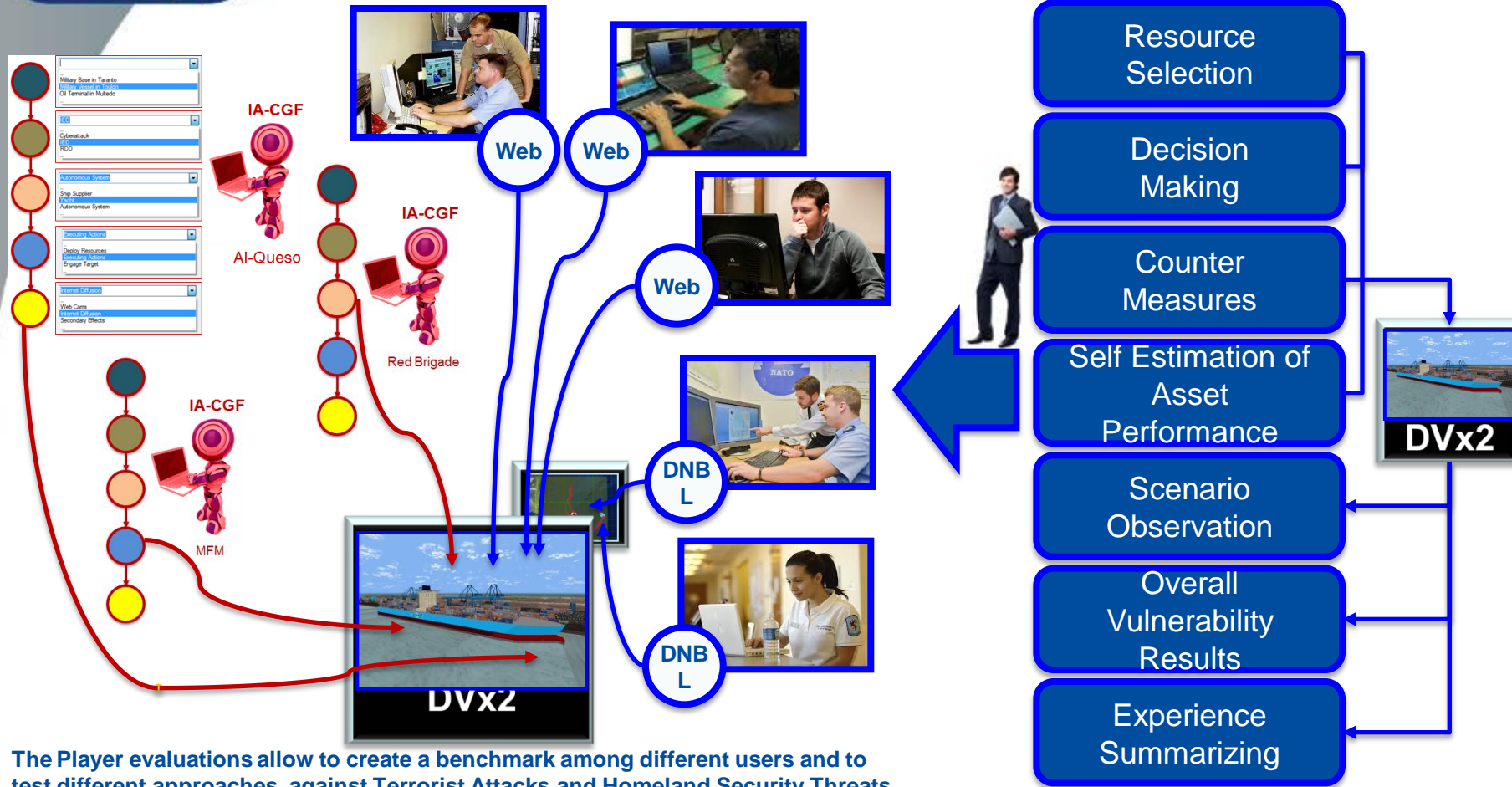


The Intelligent Agents drive dynamically the terrorist COA1 in DVx2 Game that simulates the related scenario evolution. The Human Players experience remotely DVx2 Serious Game by facing these threats with their Solutions; they provide to DVx2 their own Estimations and they obtain Overall Vulnerability Results

Distributed Virtual Experience and Exercise



Human Player access remotely



The Player evaluations allow to create a benchmark among different users and to test different approaches against Terrorist Attacks and Homeland Security Threats



Easy Learning by M&S and Serious Games

SIBILLA Web Multiplayer Serious Game on Homeland Security and Defense Against Terrorism



CTrain Serious Game for Port Operation Training in Military Logistics



SECSIM SECurity Simulation for Maritime environment and ports



CTSim Serious Game for Ro-Ro Operations



WILMA Warehouse Integrated Logistics Management Analyzer



MACS Manufacturing Analysis and Computational optimization based on Simulation





Learning by Listening, Seeing or Doing... Lets Do it!





Summarizing



- Education and Training are critical to guarantee the capabilities even more in the future complex scenarios
- M&S and SG are key enablers to guarantee this success within resource constraints
- We have to be ready to train and educate quickly a large amount of people acting in completely new Scenarios
- We need to create new Trans Disciplinary Teams combining Simulationists, SME, Users, Operational People in order to design new generation of Training and Educational Program
- We need to proceed in using emerging technologies as new resources in Education and Training



References



DIME

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