



2011-07

Combat Modeling Projects

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Session: NMSO Projects

Combat Modeling Projects

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Outline

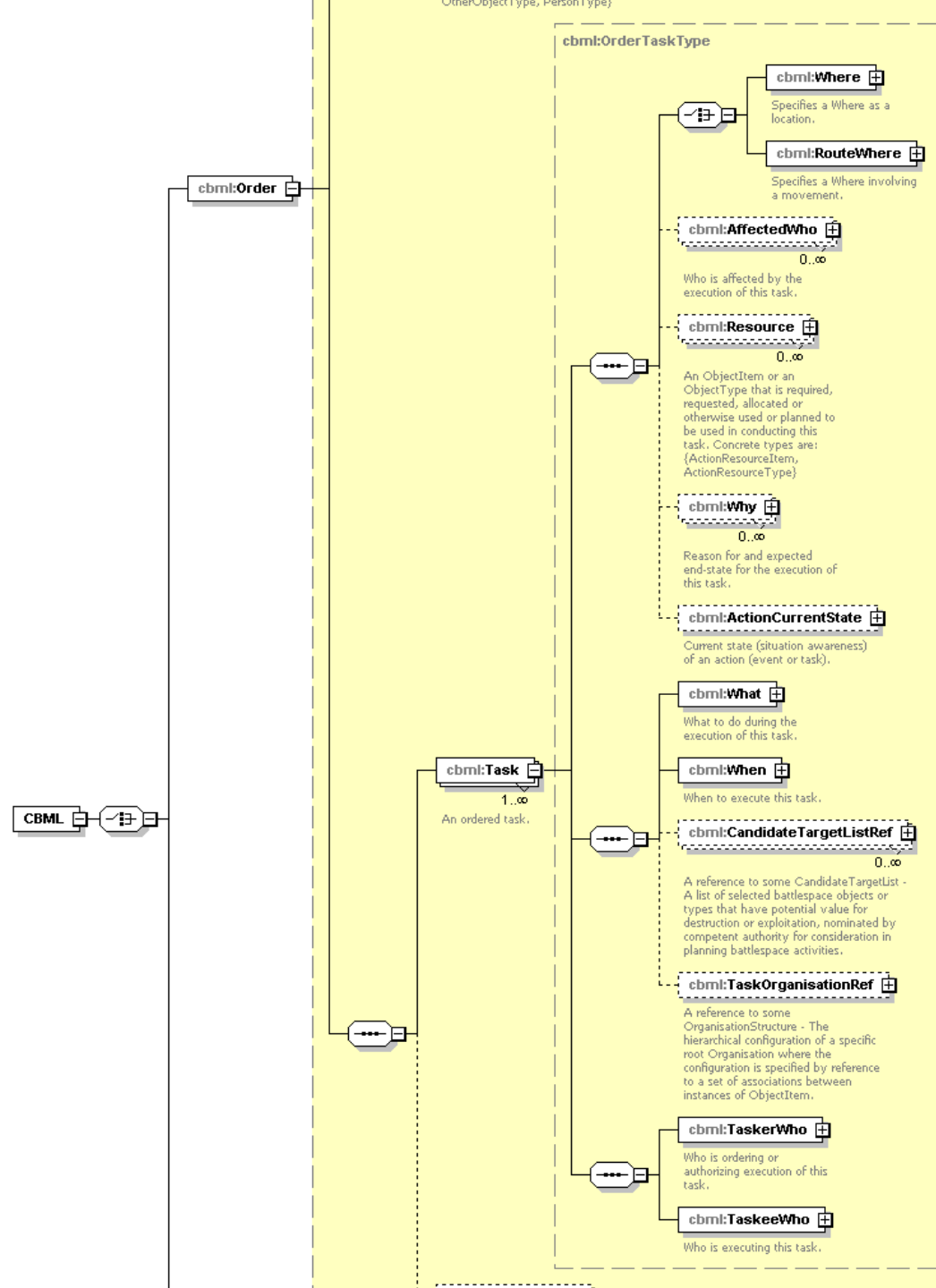
- Evaluation of Coalition Battle Management Language (C-BML) for the MAGTF Tactical Warfare Simulation (MTWS)
- Virtual Reality Modeling and Analysis Laboratory Stand-Up
- USMC Command Staff Irregular Warfare Training Requirements

C-BML and MTWS

- C-BML is an emerging standard for interchange of plans, orders, reports, and requests across C4I systems, simulation systems, and robotic systems.
- MTWS is a constructive simulation of Marine Corps land, air, and sea warfare used to support command staff level training.
 - Limited ability to interchange plans, orders, reports, and requests with other systems

C-BML and MTWS

- Basic 5W' s: Who, What, When, Where, Why
- Building blocks for plan, order, report, request expressions
- Currently working on encoding MTWS plans and orders into C-BML expressions
- Provides input to Trial Use evaluation of the standard
- Generalizes ability for MTWS to interact with other LVC systems

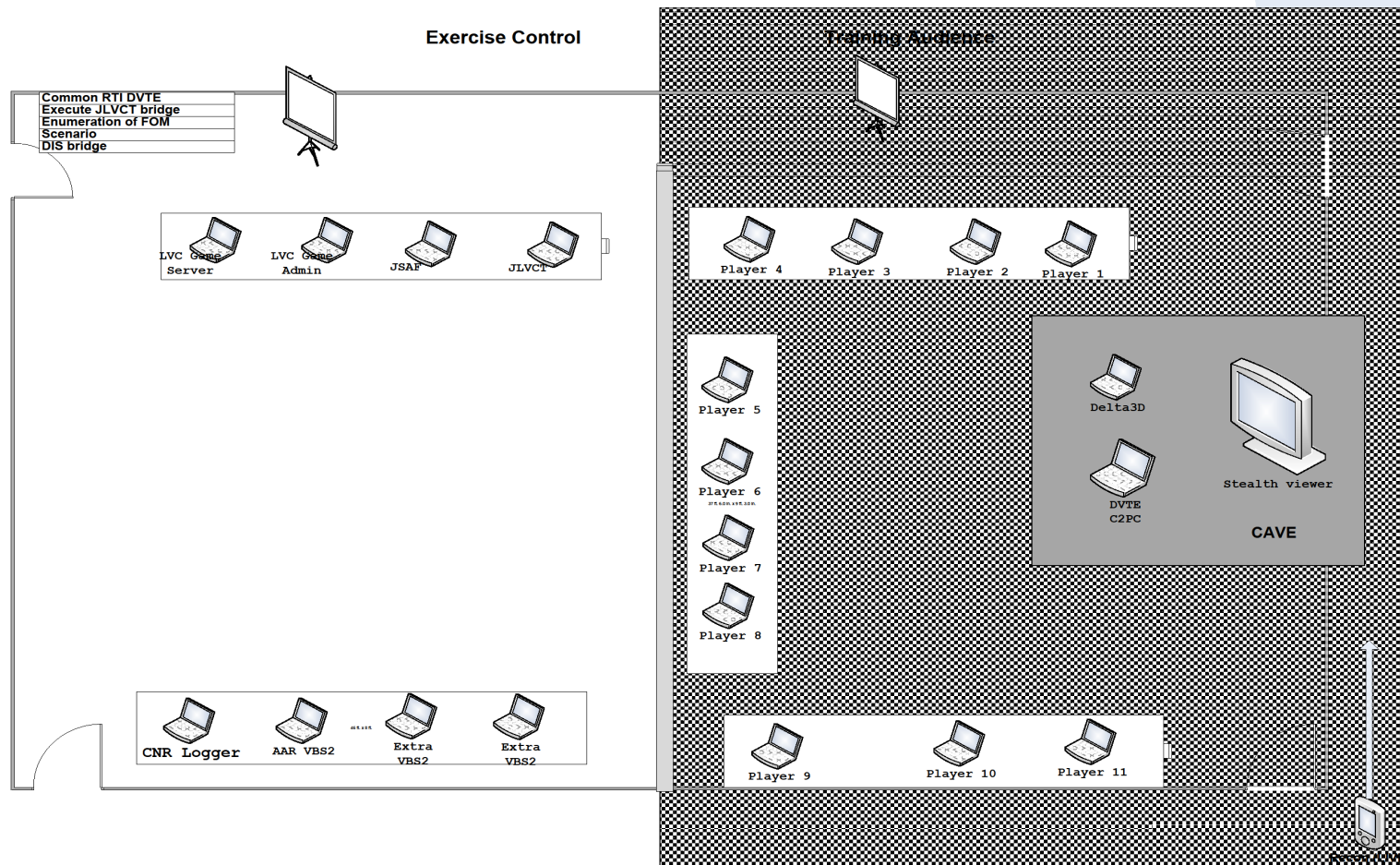


Virtual Reality Modeling and Analysis Laboratory (VR-MODAL)

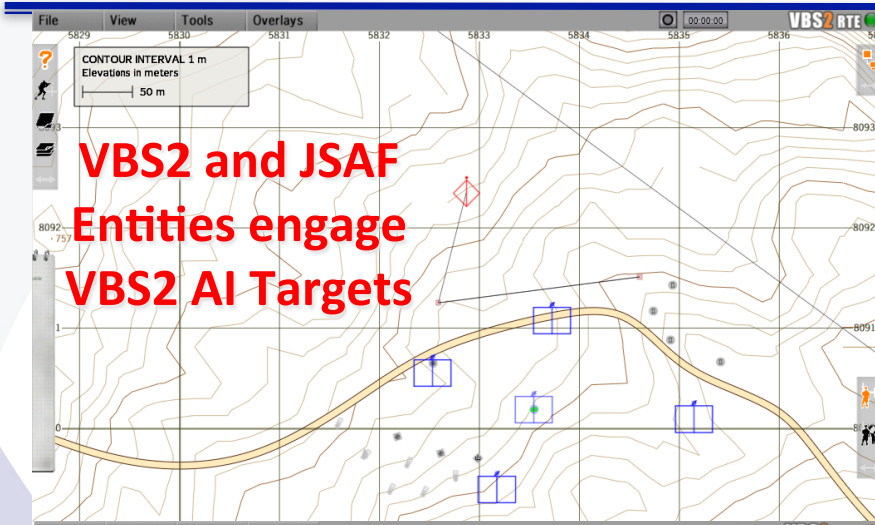
- Stand up a modeling laboratory to support faculty and student research, as well as educational and instructional projects
 - Multiple models, tools, systems, user interface devices
- Installed (or readily available for installation): MTWS, JCATS (from DVTE), PSOM, MANA, Pythagoras, UrbanSim, VBS2, JSAF, COMBATXXI, AUV Workbench, TRAC Cultural Geography model
- Possible: JTLS, JNEM, Athena, FLAMES, ...

Sample Student Project: Live-Virtual-Constructive Simulation Setup

- March 21-24, 2011: NPS Enrichment Week



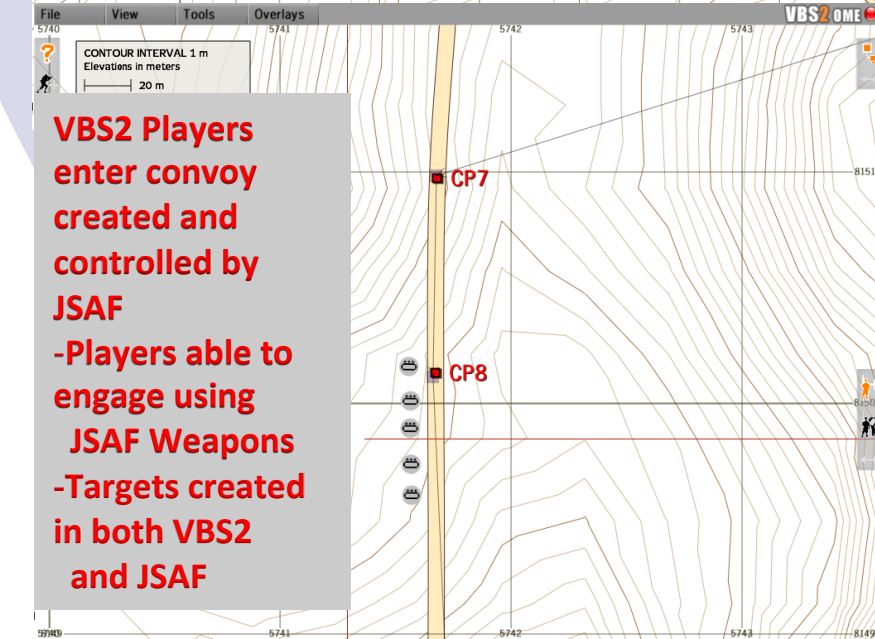
Sample Student Project: LVC Simulation Vignettes



**VBS2 and JSAF
Entities engage
VBS2 AI Targets**



**VBS2 Aircraft
engage JSAF
Targets**



**VBS2 Players
enter convoy
created and
controlled by
JSAF
-Players able to
engage using
JSAF Weapons
-Targets created
in both VBS2
and JSAF**



**Prep FIRES
from JSAF
on
objective
area
displayed
in VBS2**

USMC Command Staff IW Training Requirements

- Investigate how irregular warfare is being played in command staff level training events
 - Use of “injects” to stimulate players to achieve training objectives
- Studying the nature of the injects to determine:
 - What can be accomplished or added to existing models/simulations
 - What can be obtained by integrating or interfacing to other models/simulations
 - What can be provided through new models/simulations

Q & A