

2008 Defense Modeling & Simulation Conference (DMSC)

OneSAF Tutorial

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SAIC

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Report Documentation Page

Form Approved
OMB No. 0704-0188

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1. REPORT DATE 10 MAR 2008	2. REPORT TYPE N/A	3. DATES COVERED -	
4. TITLE AND SUBTITLE OneSAF Tutorial		5a. CONTRACT NUMBER	
		5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)		5d. PROJECT NUMBER	
		5e. TASK NUMBER	
		5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) DPM OneSAF; SAIC		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)	
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited			
13. SUPPLEMENTARY NOTES 2008 DoD M&S (Modeling and Simulation) Conference Presentations held in Orlando, Florida on March 10 - 14, 2008, The original document contains color images.			
14. ABSTRACT			
15. SUBJECT TERMS			
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	UU
			18. NUMBER OF PAGES 13
			19a. NAME OF RESPONSIBLE PERSON

Agenda

- **Program Overview** 10:30 – 11:00
- **Simulation Overview** 11:00 – 12:00
- **Small Urban Operations Demonstration** 12:00 – 12:30
- **Lunch**
- **JME Terrain Visualization Demo** 13:00 – 13:15
- **OneSAF Architecture Overview** 13:15 – 13:45
- **HUMINT Demo** 13:45 – 14:00
- **OneSAF Development Process** 14:00 – 14:30
- **ACRT Demo** 14:30 – 14:45
- **Handover process / summary / Q&A** 14:45 – 15:00



One Semi-Automated Forces (OneSAF)

- A composable, next generation simulation architecture supporting both Computer Generated Forces (CGF) and SAF operations
- Provides a full range of operations, systems, and control processes (TTP)
- Supports modeling from entity up to brigade level
- Supports DIS, HLA, MSDL, JC3IEDM and USA ABCS interoperability
- Provides variable levels of composability, fidelity and representation
- Supports multiple Army M&S domain (ACR, RDA, TEMO) applications.

• Urban Operations with Contemporary Operating Environment (COE) Focus

Software only

Platform Independent
(Linux / Windows)

• V2.0 Released Feb 2008

Capable of replacing US Army legacy entity-based simulations: BBS, OTB / ModSAF, CCTT / AVCATT SAF, Janus (A&T), JCATS MOUT

Software Distribution to:

- RDECs / Battle Labs / Active Duty Brigades & Battalions
- Service / Joint Organizations
- International Partners
- USG / Academia

The background of the slide is a faded, grayscale photograph of several soldiers in full combat gear, including helmets and rifles, positioned around a doorway in a stone building. The scene appears to be a tactical operation or a search of a structure. The overall tone is serious and military-oriented.

V2.0 Capability Highlights

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V2.0 Capabilities

Released 29 Feb 08

- **Scale up to 30k entities (4x improvement over v1.0)**
- **Improved data collection tool for experimental/analytical use case**
- **Improved parametric data loading (loading classified data direct from AMSAA)**
- **Improved terrain representations (SWA terrain with over 30k buildings, 300x300km, 250 Ultra-High Resolution Bldgs)**
- **Additional/improved COE behaviors (Hijack, sniper, IED emplacement, Unconventional infiltration, etc.)**
- **C2 stimulation (ABCS) by all entity fidelity types (v1.0 only allowed higher fidelity entities to stimulate C2 systems)**
- **SMDC (co-developer) additional satellite models integrated**

Scalability

V1.0 vs. V2.0 GAT Data Comparison

VERSION	TERRAIN	TILES	FEATURES (TRIANGLES)	BUILDINGS	UHRBS	ROADS	TRAILS
V1.0	NTC	4	12,993 (1,310,048)	136	9	8,834	732
	JRTC	4	11,969 (1,256,147)	444	21	3,017	0
V2.0	SWA	9	121,956 (5,372,947)	30,351	252	65,250	8,439

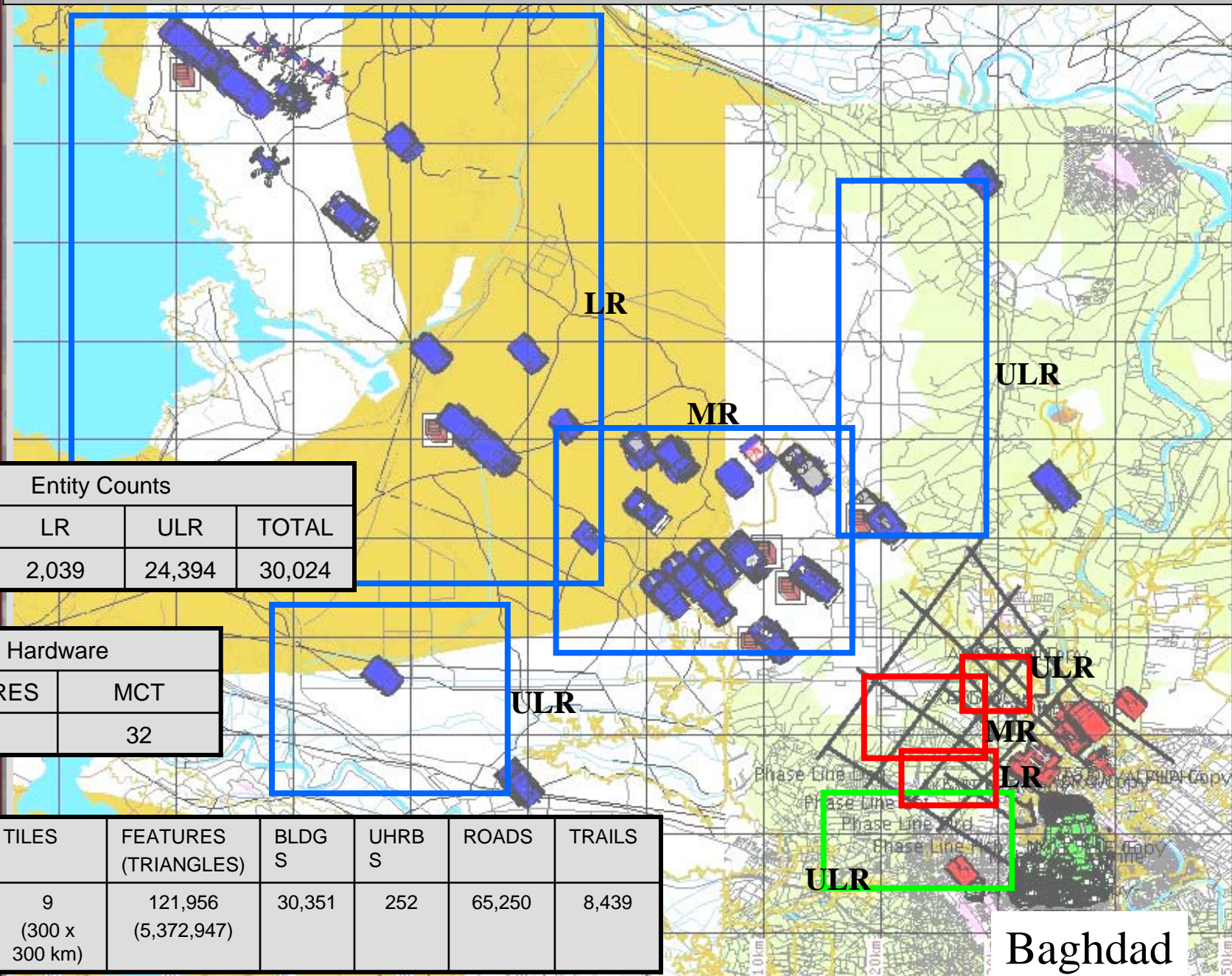
TERRAIN

VERSION	Large Scale Exercise Entities					HARDWARE	
	H R	MR	LR	ULR	TOTAL	SIMCORES	MCT (Workstations)
V1.0		2,332	4,453		6,785	19	50
V2.0		3,591	2,039	24,394	30,024	21	32

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STARTEX Snapshot of V2.0 GAT Large Bde Exercise



Entity Counts

MR	LR	ULR	TOTAL
3,591	2,039	24,394	30,024

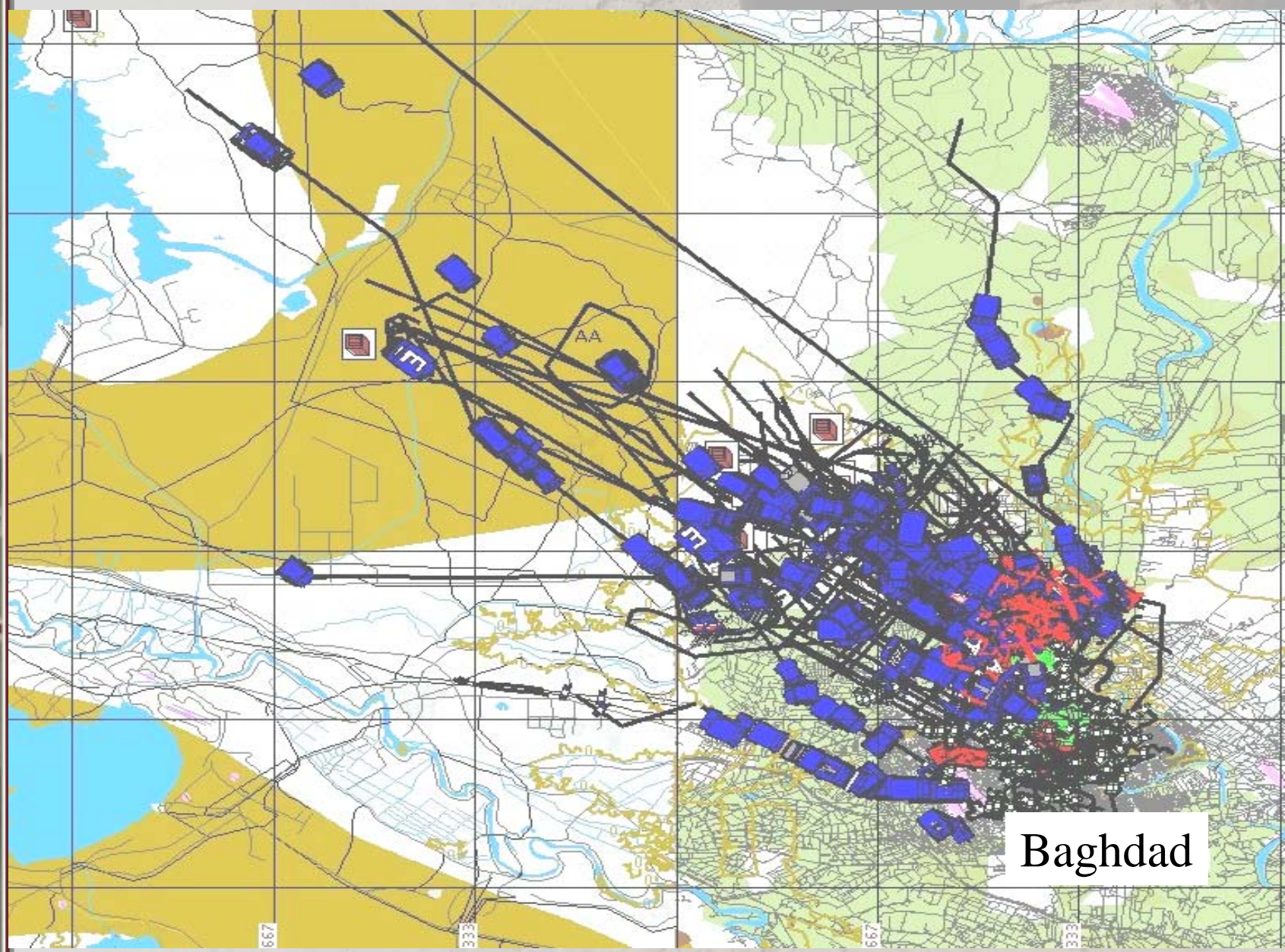
Hardware

SIMCORES	MCT
21	32

TERRAIN	TILES	FEATURES (TRIANGLES)	BLDG S	UHRB S	ROADS	TRAILS
SWA	9 (300 x 300 km)	121,956 (5,372,947)	30,351	252	65,250	8,439

Baghdad

ENDEX Snapshot of Large Bde Exercise (T+ 5 Hrs)



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Recent Accomplishments

- **FY07 SE Core successful handover/integration of first year required capabilities for AVCATT/CCTT (terrain, environment, COE)**
- **FCS utilization of OneSAF for Tactical Leaders Course training AETF Leaders on SO1 systems employment**
- **Air Assault Expeditionary Force (AAEF) utilization of OneSAF as ground combat model for Spiral D**
- **OneSAF International v1.0 fielded**
 - **ITSEC Partnership for Peace (PfP) Federation Demo**
- **C4ISR-On the Move Testbed (Ft. Dix – CERDEC) utilization of OneSAF as ground combat model for FY07 experimentation**
- **OneSAF fielded as ground model for USMC Combined Arms C2 Training Upgrade System (CACCTUS) – Used now for training at 29 Palms**

The background of the slide is a faded, grayscale photograph of several soldiers in full combat gear, including helmets and rifles, positioned around a dark doorway in a stone-walled building. The scene appears to be a military operation or a tactical briefing.

V3.0

(Highlights of Coming Attractions)

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FY08 Efforts

A Sample

- **Developmental:**

- BCS3 Stimulation (logistics C2)
- Counter IED Models
- Improved RWA/FWA Mobility models (supports SE Core/AVCATT work)
- Computer Network Attack Model (THREATS Requirement)
- Refined FCS system models (authoritative representations)
- Usability (new GUI for TEMO Use Cases)
- Robotics Models (RSJPO funded) for collective training
- Continued performance enhancements in urban environments

- **Events:**

- TRADOC Complex Web Defense (CWD) Experiment
- FCS Spinout One
- SE Core Integration for FY08 AVCATT/CCTT
- AAEF Spiral E

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Questions



One Semi-Automated Forces Spring 08 Users Conference April 7 - 11

Agenda Highlights



V2.0 Capabilities
Virtual Devices
Gaming Interfaces
Co Developer Briefings
New Release Information
Developer Q&A Sessions
Guest Speakers



Location: Holiday Inn Select UCF, Orlando

Registration: <http://www.onesaf.net/conference.php>

Additional Details: <http://www.onesaf.net/>