
KSCO
The KSCO Community
http://ksco.info

KSCO Events

- KSCO-1999 – International Workshop on Knowledge-Based Planning for Coalition Operations, May 1999, Edinburgh, Scotland.
  - Working parties proposed series of Coalition Experiments and Binni scenario adopted for community experimentation.
  - Working Group on KSCO formed and first meeting held to plan community activities.
- Coalition experiments and multi-national joint experimentation encouraged across community.
- KSCO-2002 – Second Conference on Knowledge Systems for Coalition Operations, June 2002, Toulouse, France.
- IEEE Intelligent Systems, Special Issue on Knowledge Systems for Coalition Operations, Volume 17 Number 2, May/June 2002.
- KSCO-2004 – Volume of Papers on Knowledge Systems for Coalition Operations, October 2004. Planned conference in Pensacola, Florida, USA cancelled during active hurricane season (Ivan in September 2004).
- KSCO-2006 – Third Conference on Knowledge Systems for Coalition Operations, part of IEEE Workshop on Distributed Intelligent Systems (DIS-2006), June 2006, Prague, Czech Republic.
- KSCO-2007 – Fourth Conference on Knowledge Systems for Coalition Operations, part of IEEE International Conference on Integration of Knowledge Intensive Multi-Agent Systems Modeling, Evolution and Engineering (KIMAS-2007), May 2007, Waltham, MA, USA.
- KSCO-2009 – Fifth Conference on Knowledge Systems for Coalition Operations, March/April 2009, Southampton, UK.
- KSCO-2010 – Sixth Conference on Knowledge Systems for Coalition Operations, September 2010, Vancouver, BC, Canada.
- KSCO-2012 – Seventh Conference on Knowledge Systems for Coalition Operations, February 2012, Pensacola, Florida, USA

KSCO Working Group

- Jean Berger (DRDC, Canada)
- Liz Bowman (ARL, USA)
- Jeff Bradshaw (IHMC, USA)
- David Brown (MITRE, USA)
- Richard Davis (DSTO, Australia)
- Susan Davies (Southampton University, UK)
- Roberto Desimone (QinetiQ, UK)
- Jerry Dussault (AFRL, USA; TTCP Representative)
- Roozbeh Farahbod (DRDC, Canada)
- Dan Fayette (AFRL, USA)
- Scott Fouse (IS, USA)
- Nort Fowler (AFRL, USA; now retired)
- Uwe Glaesser (Simon Fraser University, Vancouver, BC, Canada)
- Vladimir Gordoteski (St. Petersburg Inst. for Info. and Automation, Russia)
- Adel Guitouni (DRDC, Canada; TTCP Representative)
- Jim Hendler (University of Maryland, USA)
- Justin T Henley (Dstl, UK)
- Jan Jelínek (Honeywell, USA)
- Vijay Kowtha (ONR Global/London, USA)
- Dale Lambert (DSTO, Australia)
- James Lawton (AFRL, USA)
- Paul Losiewicz (EOARD/London, USA)
- Barry McKinney (EOARD/London, USA)
- Rick Metzger (AFRL, USA)
- Jitu Patel (Dstl, UK; TTCP Representative)
- Michal Pěchouček (Czech Technical University in Prague, Czech Republic)
- Martin Rehák (Czech Technical University in Prague, Czech Republic)
- Tony Rathmell (DSTL, UK)
- Akexander Smirnov (Russian Academy of Sciences, Russia)
- Dan Sofge (NRL, USA)
- Niranjan Suri (IHMC, USA)
- Austin Tate (AIAI, University of Edinburgh, UK)
- Gerhard Wickler (AIAI, University of Edinburgh, UK)

KSCO Topics

- Innovative theory and techniques for formation of coalitions and similar "virtual organizations"
- Requirements for knowledge-based coalition planning and operations
- Knowledge-based approaches to command and control
- Knowledge-based approaches to coalition logistics
- Knowledge-based approaches to inter-agency and domestic operations
- Knowledge-based approaches to safety and security operations
- Knowledge-based decision support
- Coalition and inter-agencies modelling
- Applications and requirements for knowledge-based coalition planning
- Knowledge-based approaches to Operations-Other-Than-War
- Multi-agent systems and the concept of agency in coalitions
- Tools and techniques for knowledge-based simulation and modelling of coalition operations
- Security and maintenance of private information or knowledge in coalition operations
- Autonomous vs. centrally managed coalition operations
- Mobility, agile and autonomous computing in coalition operation
- Cyberspace issues for coalitions
- Complexity issues and scalability in coalition operations
- Cross-cultural issues in coalition operations
- Deployed systems, case studies

TTCP
The Technical Cooperation Program

- Australia, Canada, New Zealand, UK, USA
- TTCP C3I Group - Command, Control, Communication and Information Systems
- Technical Panel (TP4) – Dynamic Planning and Scheduling**
- Created Binni Scenario
- Encouraged KSCO and Coalition Experiments

- http://www.acq.osd.mil/ttcp/

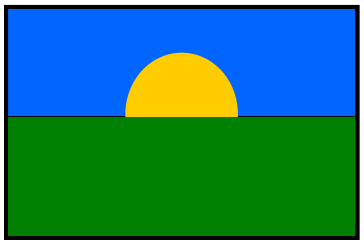
** Previously Action Group (AG1) – Dynamic Planning and Execution.

Binni - Gateway to the Golden Bowl of Africa

Rathmell, R.A. (1999) A Coalition Force Scenario 'Binni - Gateway to the Golden Bowl of Africa', in Proceedings of the International Workshop on Knowledge-Based Planning for Coalition Forces, (ed. Tate, A.) pp. 115-125, Edinburgh, Scotland, 10th-11th May 1999.

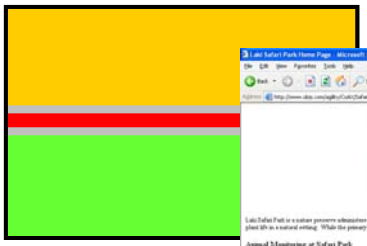
Binni Maps, Flags & Web Sites

Binni

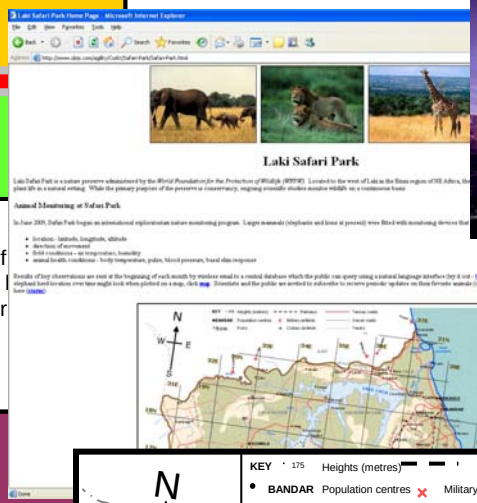


Represents the hopes of the Binni Founding Fathers that the Sun will rise and set in a cloudless sky over a lush and prosperous landscape.

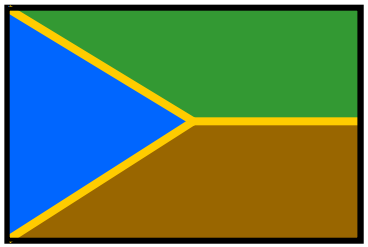
Gao



Reflects the anguish of
with nature alternating
plenty divided by the cr
of tribal conflict.

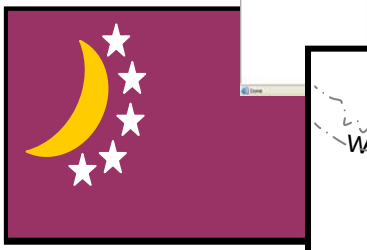


Agadez

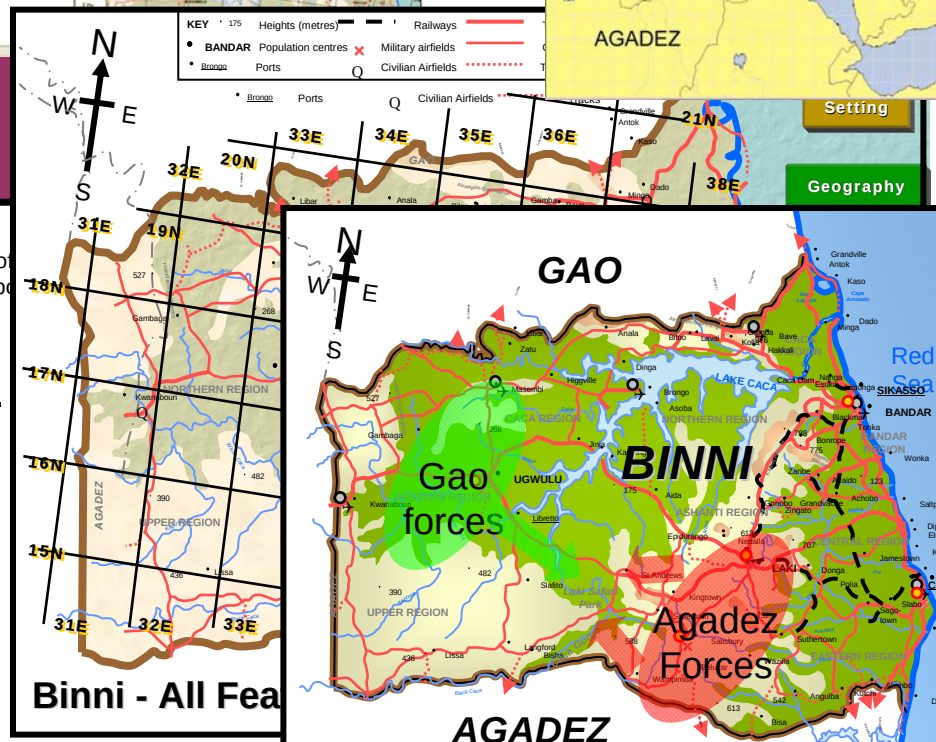


Represents the union of Mountain (blue), Upland (green) and Lowland (brown) peoples of Agadez each maintaining their independence yet united against all opponents.

Arabello



Represents the five fiefdoms of
under a sultan of wealth and po



Binni Scenario Materials

binni.org

or via ksco.info

Coalition Experiments

- Coalition Logistics 1, 2000 – San Diego, CA, US
- Coalition Logistics 2, 2000 – Malvern, UK
- CoAX Binni 2000 – Malvern, UK
- CoAX Binni 2001 – Malvern, UK
- CoAX Binni 2002 – Newport, RI, USA
- Coalition Search and Rescue, Binni, 2003-4
- Collaborative Operations for Personnel Recovery, Tunisia, 2004-2007

CoAX – Coalition Agents eXperiment

AIAI, BBN, CMU, Dartmouth, DSTO, GITI,
Lockheed Martin ATL, NRL, Potomac Inst., U.Maryland,
U.Michigan, QinetiQ, UT-Austin, UWF/IHMC

Support from AFRL, ARL, Boeing, DRDC, DSTL, ISX, MITRE,
MIT Sloan, NWDC, OBJS, Schafer, Stanford, TTCP, USC/ISI, USPACOM

http://www.aiai.ed.ac.uk/project/coax/


THE TECHNICAL COOPERATION PROGRAM
TTCP

AIR FORCE RESEARCH LABORATORY



NAVY WARFARE DEVELOPMENT COMMAND


DEFENCE
SCIENCE & TECHNOLOGY

DARPA

BOEING

MITRE

QinetiQ


TECHNOLOGY TO WIN

[dstl]

THE UNIVERSITY OF EDINBURGH

MITSloan

isx
ISX Corporation

LOCKHEED MARTIN

AIAI

BBN
TECHNOLOGIES
A Verizon Company

GITI


USC
INFORMATION
SCIENCES
INSTITUTE

THE UNIVERSITY OF TEXAS
AT AUSTIN

UNIVERSITY OF
18
56
MARYLAND

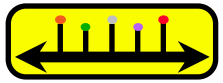
POTOMAC INSTITUTE
FOR POLICY STUDIES

Carnegie
Mellon
School of Computer Science

THE
ROBOTICS
INSTITUTE

Global InfoTek, Inc.

DARTMOUTH
1769

THE UNIVERSITY OF MICHIGAN
1817

Object Services and Consulting, Inc.

institute for
Human & Machine Cognition

CoABS

KSCO

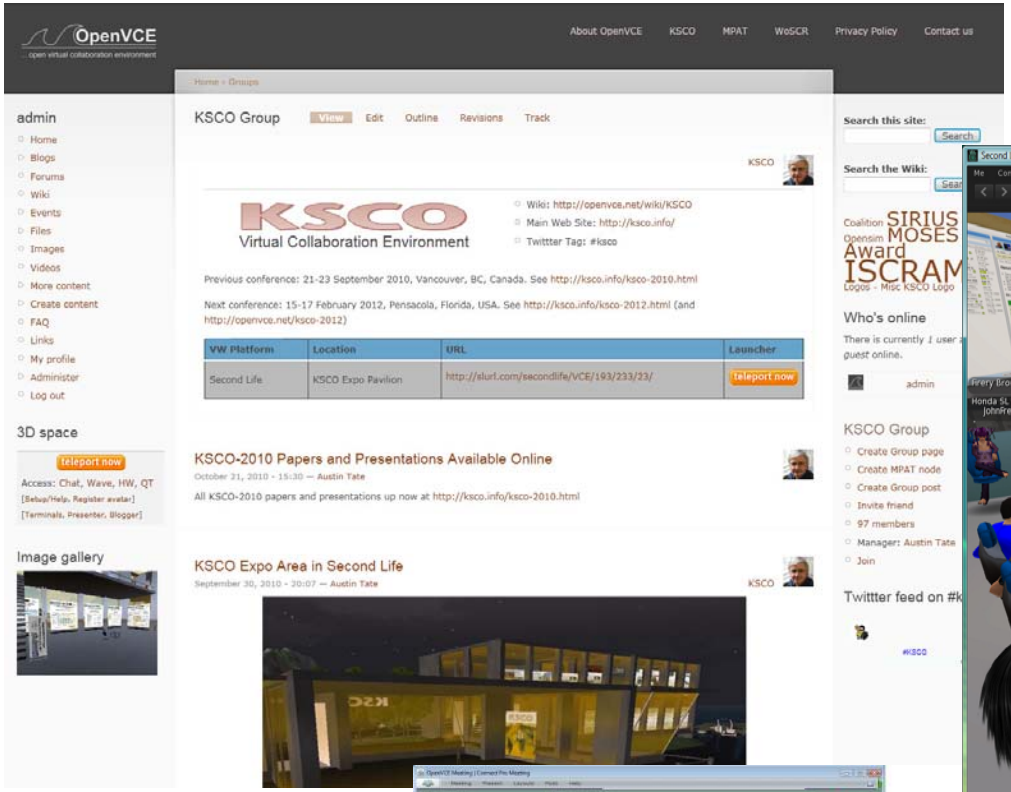
Schafer

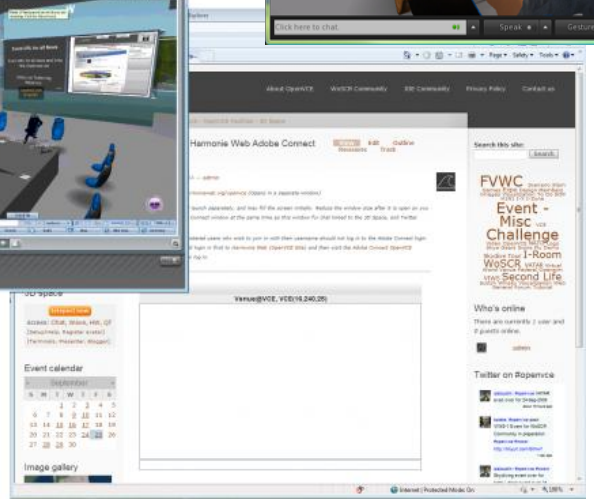
CoAX Technology Contributions

- AIAI's I-X Task, Process and Event Panel Technology
- BBN Technologies MPS - Mixed-Initiative Planning and Interaction Agents, Dynamic Agent Information Coordination Protocols, Airlift Mission Planning System Agent.
- CMU's Retsina Grid Agent Communications Visualisation and DAML-S Matchmaker. See here for more details.
- DSTO's Future Operations Centre Analysis Laboratory (FOCAL) and Logistics Planning using the ATTITUDE multi-agent architecture.
- Dartmouth College's Field-observation System and Mobile Agents for Medical Monitoring
- GITI/ISX CoABS Program Grid Infrastructure
- Lockheed Martin ATL's EMAA mobile agent technology, CAST information management agents, and I2AT agent development toolkit
- Michigan's Multilevel Coordination Agent
- MIT's Robustness Service
- NRL's Intelligent Agents for GCCS-M
- OBJS's eGents E-mail Agents and AgentGram
- QinetiQ's Decision Desktop and Master Battle Planner
- Stanford's Market Mechanisms Technology
- UMD's IMPACT agents for reasoning with probabilistic temporal information
- UTexas at Austin's Sensible Agent technology - Trust Evaluation and Organization Adaptation
- USC/ISI's Ariadne Project
- UWF/IHMC and Boeing's KAoS Technology
- UWF/IHMC NOMADS Technology


Maritime
SysAdmin
Australia-HQ

KSCO Virtual Collaboration Environment
http://openvce.net/ksco





Coming Up
KSCO Special Issue in IEEE Intelligent Systems

Roughly 10 years after 2002 KSCO Special Issue

Important Dates

- Submission deadline: 1 May 2012
- Acceptance notification: 2 Oct 2012
- Final papers deadline: 1 Nov 2012
- Ship to printer: Mid January 2013

Special Issue Editors

- Dr. James Lawton, EOARD, London for USAF, USA
- Dr. Jitu Patel, Dstl, UK
- Dr. Niranjan Suri, IHMC, Florida, USA
- Prof. Austin Tate, AIAI, University of Edinburgh, UK

KSCO Further Information and Involvement

- KSCO, Binni, CoAX materials and documentation:
  - http://binni.org
  - http://ksco.info
  - http://www.aiai.ed.ac.uk/project/coax/
- KSCO Virtual Collaboration Environment
  - http://openvce.net/ksco
- We encourage your participation…
  - In addressing key coalition and technical drivers
  - In seeking operational opportunities
  - In creating collaborative projects
  - In future experiments and integrated technology demonstrations