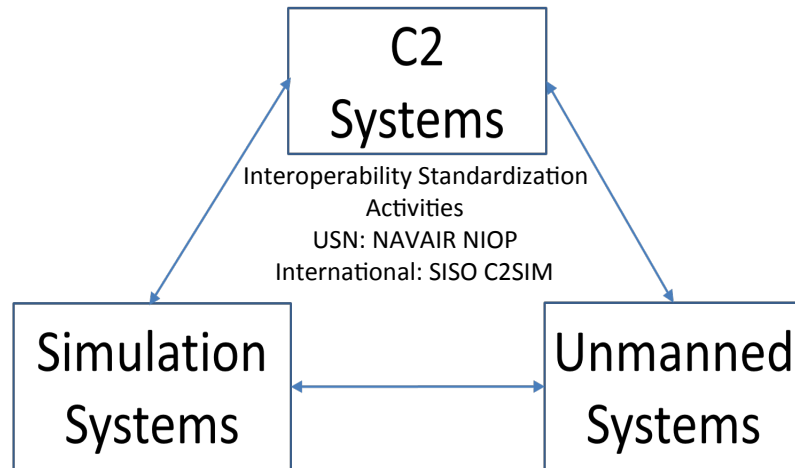
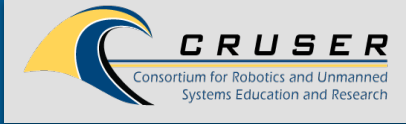


Unmanned Systems Interoperability Standardization: US Navy and International Community Activities



Opportunities Exist for CRUSER Support to Naval and International UMS Interoperability Standardization

- US and Coalition (international) standards development for UMS interoperability with C2 systems and simulation systems
- Deliverables:
 - US Naval Interoperability Profile (NIOP) artifacts
 - UMS Use Cases for international/Coalition C2 system to Simulation System Interoperation (C2SIM) extensions to core standard
 - UMS ontology extending the C2SIM core standard
 - Article for CRUSER Newsletter
 - Paper for 2019 Fall Simulation Innovation Workshop
 - Technical report summarizing development activities and products

- Participate in Naval unmanned system (UMS) interoperability profile (NIOP) specification work to fully understand Naval requirements.
- Develop use cases and information models (ontology) for a UMS extension to the Command and Control (C2) System to Simulation System Interoperation (C2SIM) international standardization efforts in the Simulation Interoperability Standards Organization (SISO).
- Participate in SISO C2SIM standardization efforts to ensure full integration and consistency of the UMS extension ontology representation with the C2SIM core ontology and other existing or in-development extensions (e.g., land warfare, C2) to the future standard.

- Interoperability gaps exist between Command and Control (C2) systems, Modeling and Simulation (M&S) systems, and Robot and Autonomous Systems (RAS).
- C2SIM (replacing the existing C-BML standard) is the only international standard addressing information interchange across all these systems.
- An unmanned system (UMS) extension to the core C2SIM ontology is needed to ensure there is effective information interchange across all systems.
- This work will apply and complement in-progress Navy interoperability profile development in NAVAIR and PEO(U&W).
- This work will ensure Naval UMS requirements are represented in the international interoperability standardization efforts.



FY19 Call for Proposals

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