C2WT Simulink Library:

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Overview

- Motivation
- What’s included in matlab/matlab_utilities
  - Aerospace simulation library (aero_sim_lib.mdl)
  - Unmanned Arial Vehicle Utilities library (uav_utilities.mdl)
  - Federate Deployment library (federates_lib.mdl)
- Scenario 8 matlab federate excursion
  - HLA
  - Creating the UAV Federates
  - Creating the UAVOperator Federates
  - Creating the OperatorCommander Federate
Unmanned Arial Vehicle Utilities library

3D Mouse

STARMAC
Federate Deployment library
The Operator Commander Issues Assignments to UAV{1,2}Operator
The UAV{1,2}Operator Issues Waypoint Commands to UAV{1,2}
Physics Federate Sends out Truck Position Updates which UAV{1,2}Operator’s can be assigned to track. UAV{1,2} position information is sent to Physics federate to display on browser and allow UAV{1,2}Operators to track.
UAV\{1,2\} Federates
UAVOperator\{1,2\} Federates
Demonstration example

- We used a demonstration scenario built using the C2 Wind Tunnel
- Utilized the model libraries supplied
- Ran an experiment successfully with two UAVs, UAV operator, and an Operator Commander.
- Below are some screenshots from the successful execution of the experiment using these model libraries.
References

- OpenC2WT Wiki site: https://wiki.isis.vanderbilt.edu/OpenC2WT/index.php/Main_Page