



Fact Sheet

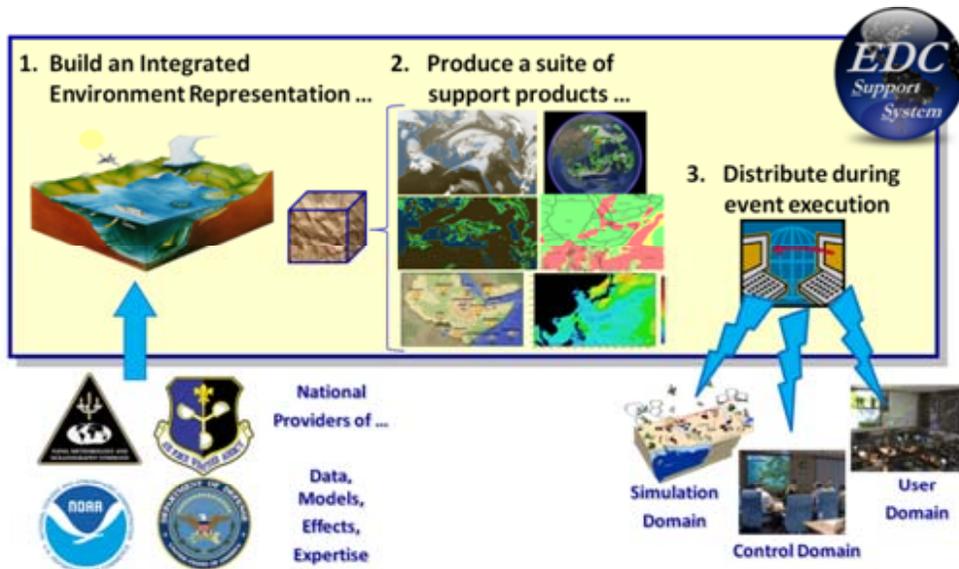
Guiding M&S for the U.S. Department of Defense Enterprise

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Environmental Data Cube Support System

Developing realistic environmental effects data for use in Modeling and Simulation (M&S) applications has traditionally been a complex and time-consuming process. The Environmental Data Cube Support System (EDCSS) is a production capability focused on generating products required to support M&S events performed by the seven DoD communities enabled by M&S.

EDCSS addresses the integration across all environmental domains by constructing environmental representations from national authoritative source data providers like the Air Force Weather Agency, Naval Oceanographic Office, and National Geospatial-Intelligence Agency. Using its scenario search capabilities, EDCSS allows for the selection of realistic historical scenarios as the basis of the environment representation. These data are used to generate a suite of products that support the simulation, control, and user domains. In addition to simulation-specific data sets, EDCSS delivers pre-computed environmental effects and system performance metrics; simulated operational products, such as satellite imagery, text observation reports, and forecaster products; and a wide range of graphic capabilities to support situational awareness within the control domain. EDCSS supports runtime distribution of products via the High Level Architecture standard and has a range of tools to facilitate effective use of these data by simulations and their supporting applications.



EDCSS is a joint project lead by the Air and Space Natural Environment Modeling and Simulation Executive Agent (MSEA), in coordination with the Ocean and Terrain MSEAs, to ensure an integrated environmental focus. EDCSS has been used to support major COCOM training events such as Terminal Fury and Austere Challenge, and is the enabling technology for environmental representations used by the Air Force's Distributed Mission Operation and Navy's Fleet Synthetic Training programs.