
COMMAND
PROFESSIONAL EDITION

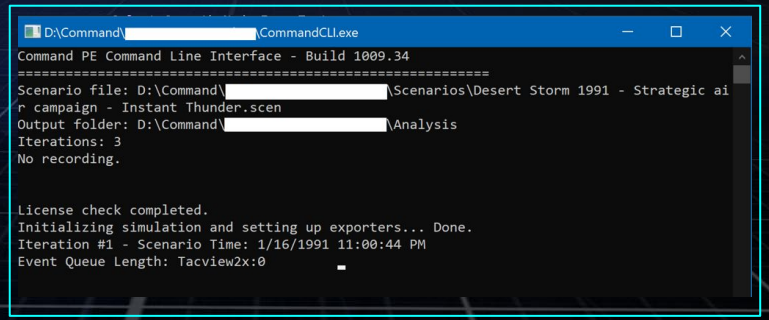
NEW UPDATE RELEASE: COMMAND PE 1.15

WEGO-STYLE MULTIPLAYER

Up To 16 Players - Vs & Coop - Umpire & Observer

COMMAND-LINE VERSION

Automating massive-scale analysis



WHAT IS COMMAND PROFESSIONAL EDITION?

01 CMANO

SUPERSET of Command: Modern Air/Naval Operations (CMANO)

02 Product

Physics-based Battlespace Environment Simulation tool.

03 Contractors

Currently In use by US & NATO military contractors.

04 Military

Logistics, training and analysis:
Currently in use by US & NATO Air and Naval Forces

BRIEF HISTORY OF CMANO

Voted commercial “PC Wargame Of The Year” at launch; 2013.

Designed for Warfighters, Military Analysts & Trainers.

A true “living document”, designed to simulate any post-WW2 air/naval conflict.

In continuous development since 2007.

BRIEF HISTORY OF CMANO

Hundreds of scenarios currently available, created by military personnel and the CMANO community.

Comprehensive platform database, including almost every platform and weapon system currently in use worldwide.

Complex physics/environment, sensors, weapons & AI models.

Continuously updated with new data, techniques, routines, hardware models etc.

BRIEF HISTORY OF CMANO

COMMAND Professional Edition,
used by military contractors, analysts, academic organizations & armed forces.

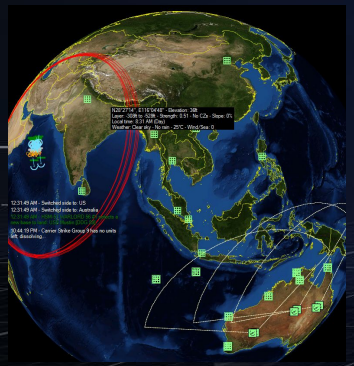
Detailed modelling, simulation, and analysis tool.

Flexibility, allows adaptation to suit your specific needs and classified data.

Run and test simulations as often as necessary; results instantly available.

COMMAND PE BUILDS ON TOP OF COMMERCIAL CMANO

1



Added-value features for the academic/mil/gov professional

2

Praised by the pros

USED & TRUSTED WORLDWIDE

Armed forces & defence contractors throughout US & NATO use CPE for analysis, planning & procurement

LOCKHEED MARTIN

BOEING

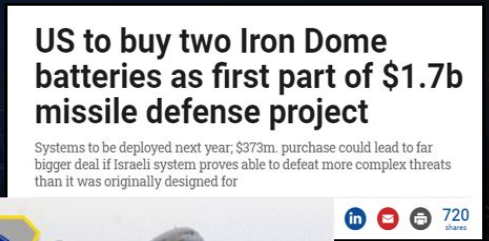
JOHNS HOPKINS UNIVERSITY

UDRI UNIVERSITY of DAYTON RESEARCH INSTITUTE

[dstl]

Luftwaffe

ROYAL NAVY



PRAISED BY THE PROS:

“Far surpasses anything I have ever seen”
“This should be issued immediately to the field”
“In my 34 years of service, I’ve never seen anything like this”
“The 505th Command and Control Wing needs this”

CSAF ACP Senior Leader assessments

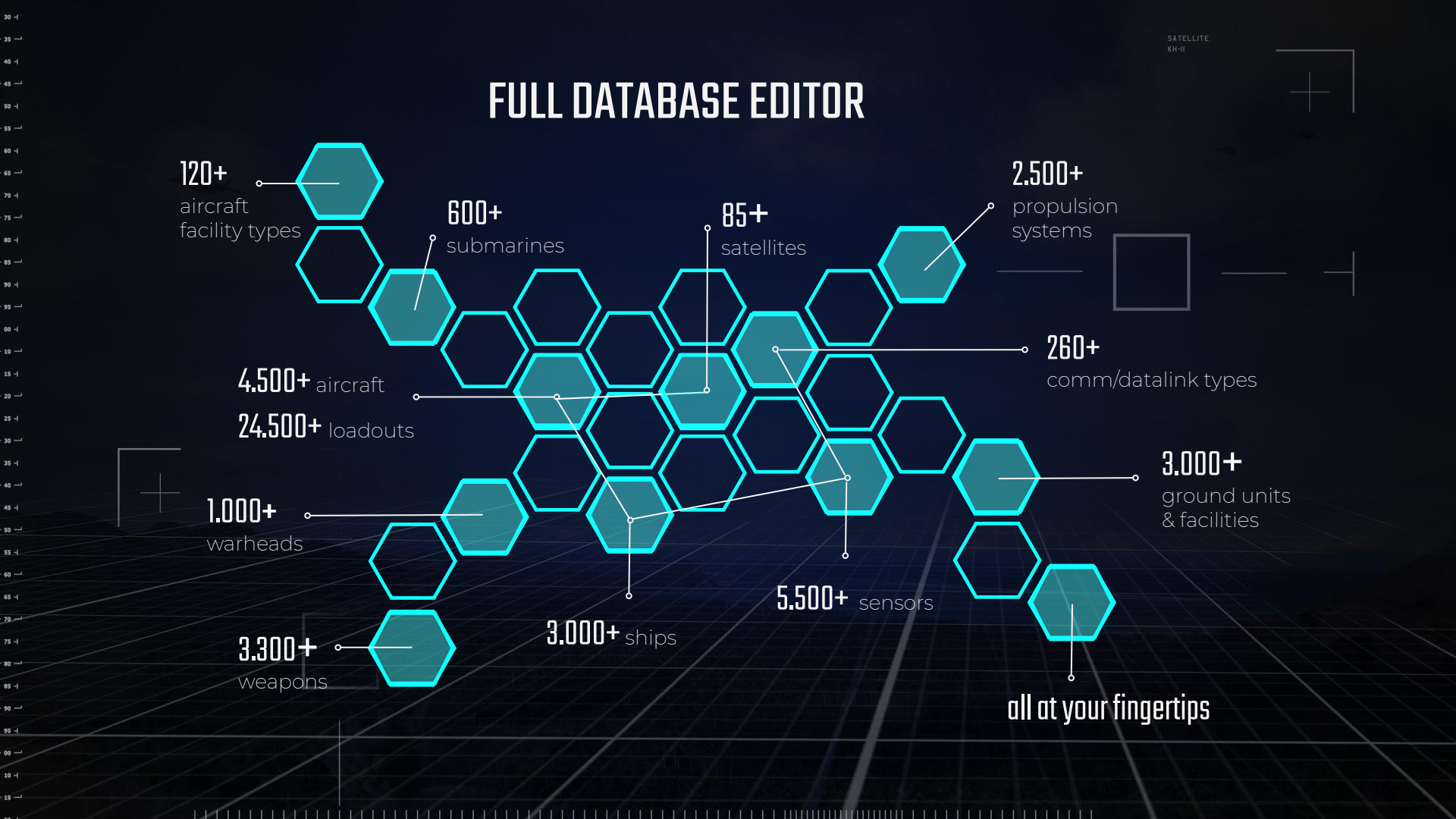
“Command will find a following not only among civilian gamers but might have value among military, government, and policy circles as a simulator of modern warfare”

US Naval Institute

“I would list the names of people who have been talking to me about this game for the last year, but I feel like I would be name dropping. Needless to say the range of people involved in beta testing range from an Admiral in the US Navy to professors at the US Naval War College to some distinguished Fellows of several think tanks”

Information Dissemination

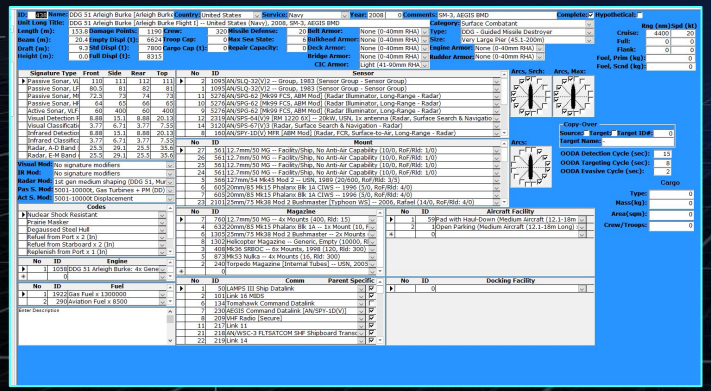
FULL DATABASE EDITOR

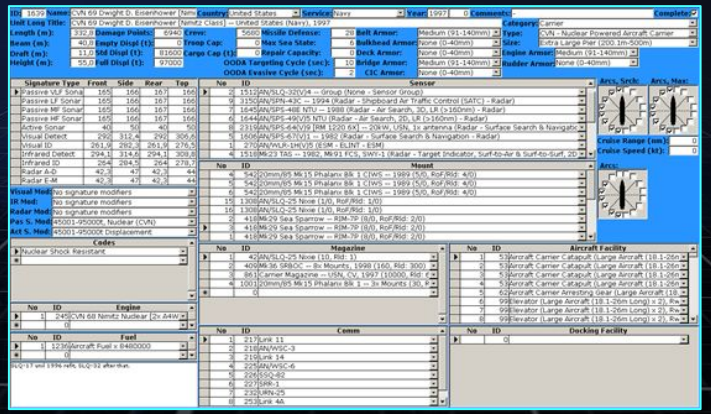


FULL DATABASE EDITOR

Modify existing systems or create entirely new ones

Rapid change-test-repeat cycle





MULTIPLAYER

WEGO Based Multiplayer
Client / server system

5-16 Players, including friendly, hostile, allied and commercial sides. Also includes umpire and observer modes.

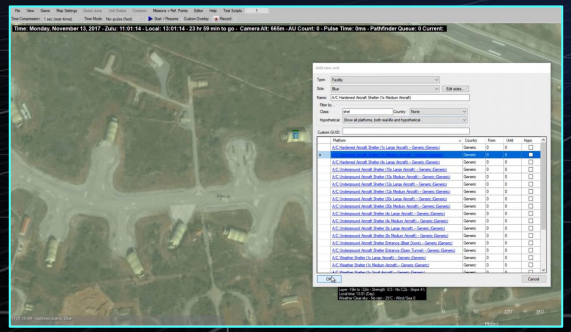
Can be used in an open or classified environment. Server hosted on clients premises.

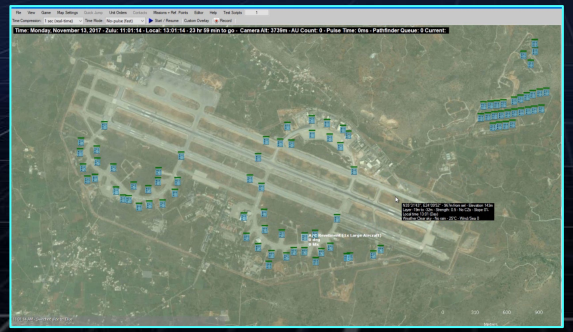
RAPID SCENARIO DEVELOPMENT

Powerful, GUI-driven integrated scenario editor allows creating elaborate scenarios in minutes

Save & re-use sprawling facility installations or nationwide defence complexes - or batch-import from your own data

Turbocharge creation speed with parallel development & scenario merging





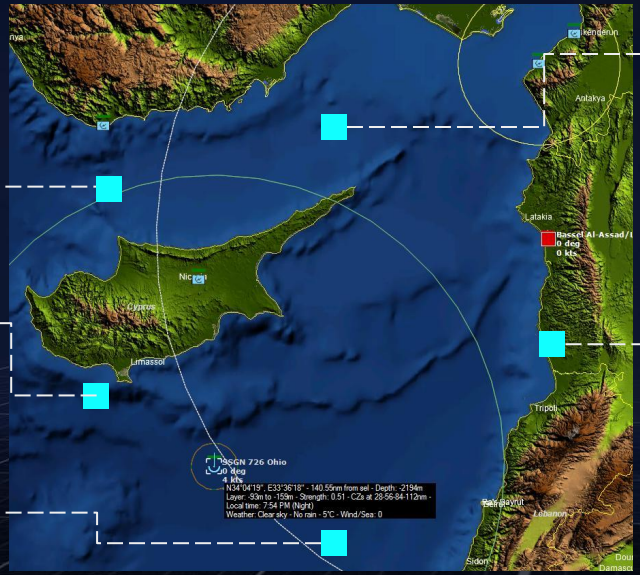
"Wargaming with Command is an Order of Magnitude faster than our previous tool."

ON-DEMAND FREE & COMMERCIAL IMAGERY

Bring your virtual battlespace to life with real-world imagery

Use publicly available, or commercial imagery sources, or utilise your own private datasets

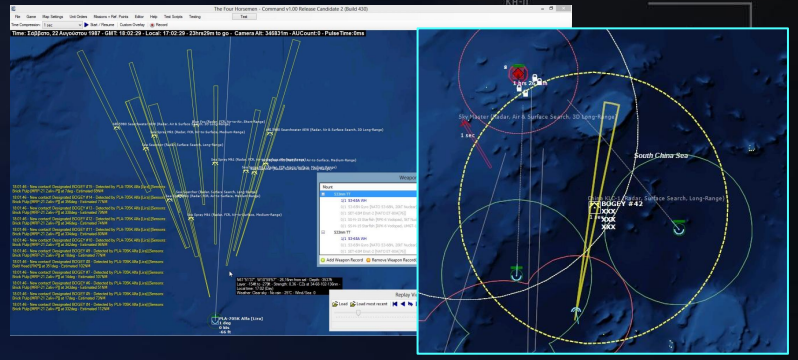
Place facilities at their real-life coordinates with pinpoint accuracy



Available Sources: MS Bing Maps, or any OpenStreetMap-compliant map source

Interfaces to additional sources can be implemented (e.g. Google Maps)

ANALYSIS: INTERACTIVE & MONTE-CARLO



Run any scenario 10 times or 100,000 times depending on need

High-performance simulation engine generates speedy results

Put your multicore supercomputer to good use with parallel execution

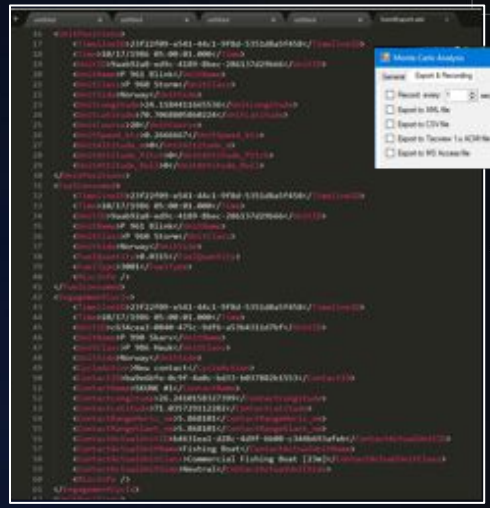
NEW IN v1.15: Command-line interface for superfast automated analysis

Use “butcher's bill” to assess losses and weapon expenditures, or drill-down deeper to examine events and their causes

EVENT EXPORT

Export various sim events for external analysis; unit positions & movements, fuel consumption, weapons fired, units hit/destroyed, fuel transfer and much more

Export to XML, CSV, MS-Access, Tacview, SQL-Server & SQLite

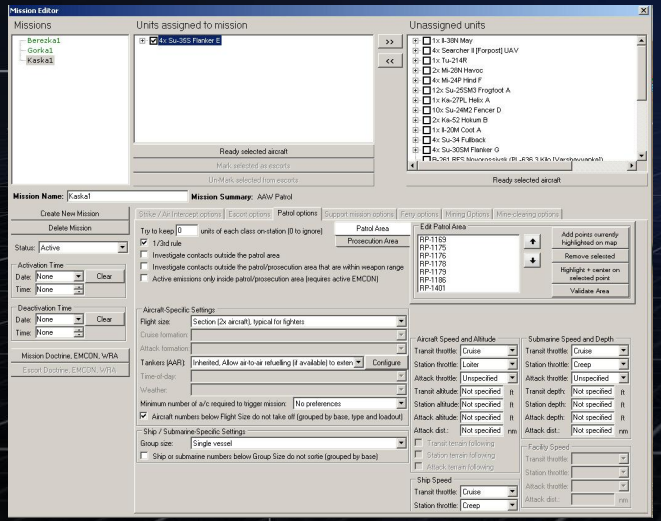


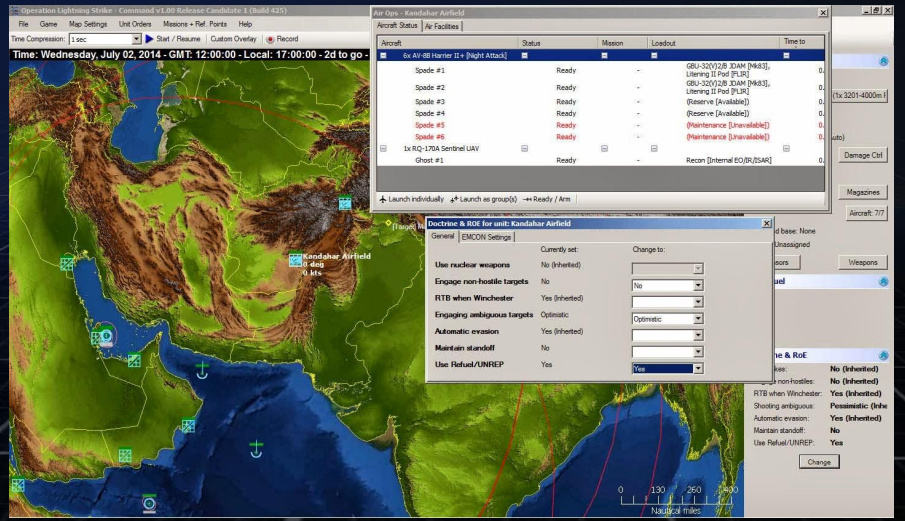
More destinations available on request e.g. SQL Server, Oracle etc.

EDIT & CUSTOMIZE THE SIMULATION

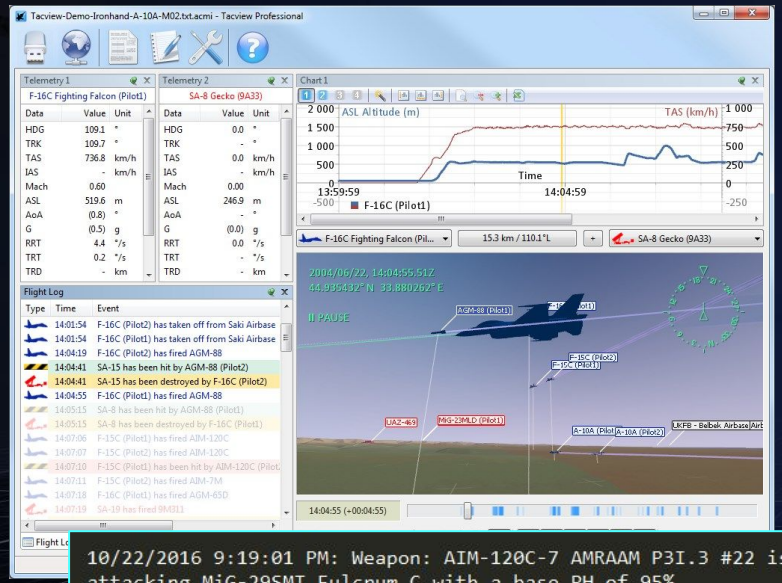
Multiple ways of customizing data & models:

- DB editor
- Mechanics overrides
- Lua plugin API
- Direct editing of raw scenario state (via XML)





PLUG-IN YOUR OWN MODEL: MECHANICS OVERRIDES




```
10/22/2016 9:19:01 PM: Weapon: AIM-120C-7 AMRAAM P3I.3 #22 is
attacking MiG-29SMT Fulcrum C with a base PH of 95%.
***AMRAAM PK OVERRIDE ACTIVE***
Weapon is AIM-120A/B/C and target is MiG-29; using override.
Inputs for high-fidelity model: Weapon speed: 2500 kts. Target
speed: 724.8661 kts. Impact angle: 91.65361 deg. Calling
external DLL..... Result: 82% probability.
Final PH: 82%. Result: 92 - MISS
```

Create and edit your own models & mechanics using Mechanics overrides, in-code, or remote connection to Lua API.

Overrides configurable per session - Additional methods can be added on request.

RICH 3d VISUALIZATION - EXPANDED OPTIONS

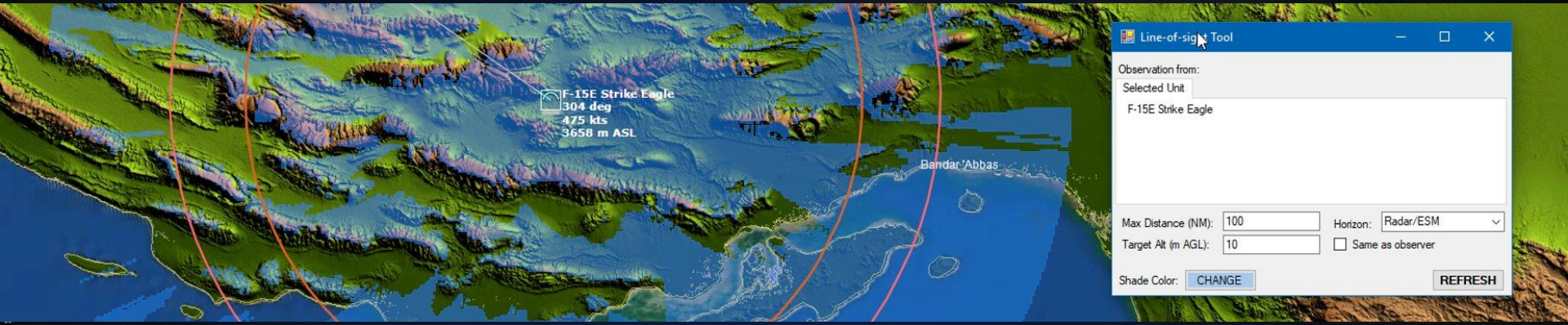
Export simulations to Tacview, SIMDIS or ANY DIS-compatible viewer for comprehensive, all-aspect 3D view of the battlefield

Go forwards or backwards in time and observe trends and subtle factors

Stand back and observe the big picture, or zoom-in for more detail or pan from a different angle to view a new perspective

After-action and real-TIme modes supported - CIGI support in future

LINE-OF-SIGHT ANALYSIS



Real-time los visualization

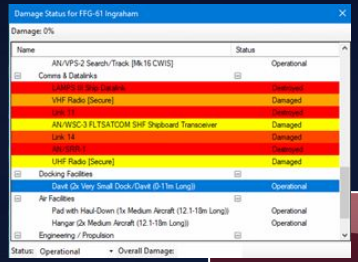
Analyze sensor/comms coverage & effects of terrain/geometry

Future growth: multiple-units los coverage

COMMUNICATIONS JAMMING & DISRUPTION

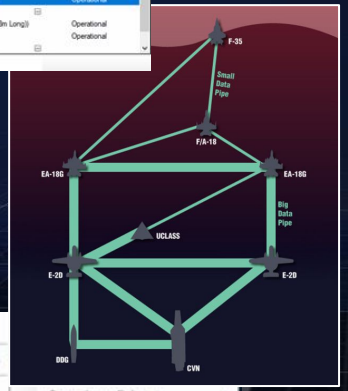
How well can your forces operate in the dark?

Communication jamming & disruption and out-of-contact units explicitly modelled



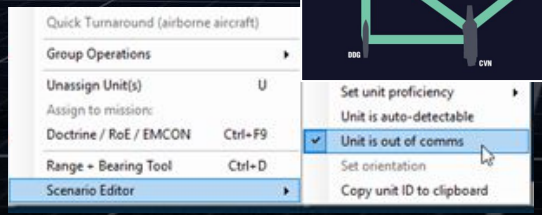
Units are not entirely blind, they can still fight alone, but the advantages of teaming, fire coordination etc. are lost; ops efficiency is severely degraded

Execute in different ways: either broadly via comms jamming, or more specifically through Lua scripting e.g. cyber/network attack!



Allows analysis of disrupted comms networks

Optionally override built-in comms model with outside simulation for high-fidelity comms (e.g. Exata network simulator)



Future options: Isolated local-area networks, variable comm quality/data rates

TACTICAL / OPERATIONAL LOGISTICS & CARGO

Getting your forces to the theater - and sustaining them

Units have finite weapons, fuel & stores - consider your staging ports & bases carefully

Rich cargo model places realistic volume/weight/personnel restrictions on your supply chain capacity

Amphibious landings and airdrops: Perform multi-dimensional, multi-domain manouvering to secure your objectives

DETAILED DAMAGE AND TURN-AROUND

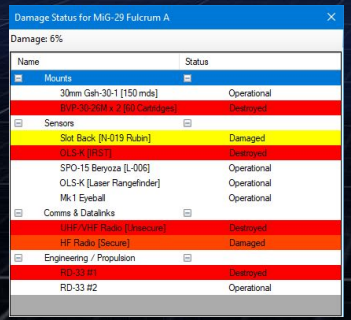
Live to fight another day

All platforms are complex systems made of discrete components - each individually damaged/destroyed

Surviving units may return to ports/airbases/carriers to repair, refuel & re-arm - But this costs time!

Discrete armour levels for hull/superstructure/fuselage etc. and per-component

Use Command's built-in ETIC & turn-around estimators, or override with your own data/models



WEAPONS OF THE PRESENT & THE FUTURE

New Weapon Types

1

High energy lasers - multiple subtypes, each with its own peculiarities

2

Tactical EMP weapons, both omni-directional “grenade” warheads and directional systems like CHAMP

3

Hypersonics: cruisers and boost-glide vehicles

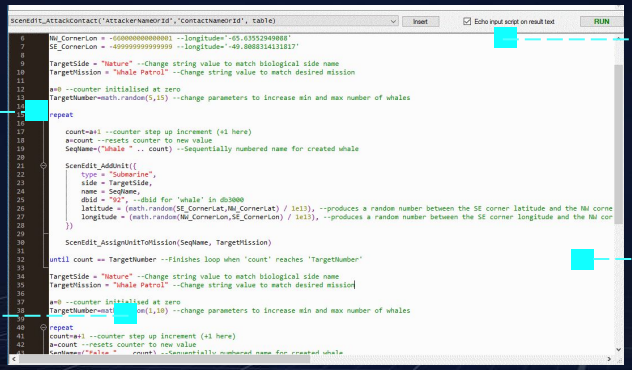
4

Railguns and HVPs

LUA SCRIPTING & PLUGIN API

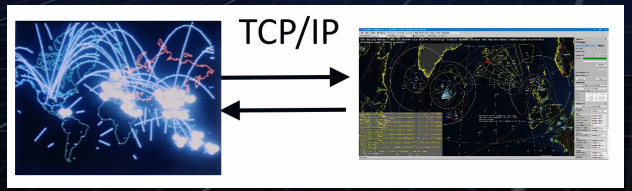
Go beyond the graphical interface

Built-in Lua console provides direct access to the internals of the running simulation



TCP/IP socket access to Lua API – remote-control Command from any external console or application

Script commands can be either human- or machine-driven (HAL or WOPR/Joshua as adversary!)



Lua I/O (optional) – use any of Lua's built-in input/output abilities to facilitate information import & export

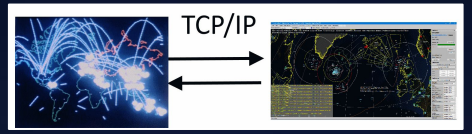
INTER-SIMULATION CONNECTIVITY & INTEGRATION

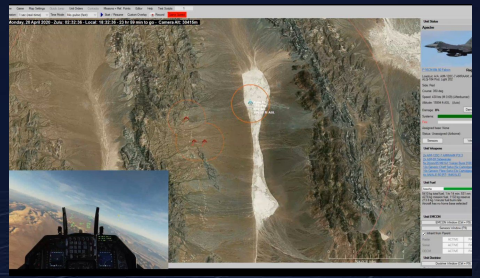
Talks to what you already use

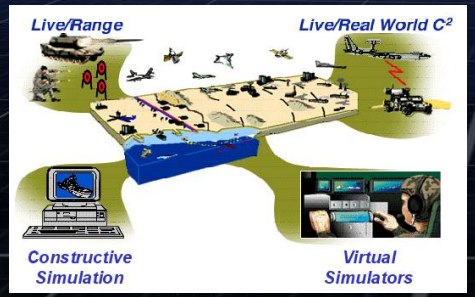
Join existing distributed simulations through DIS (v6 & v7 support)

Complete import/export of scenario state via XML: allows changes to everything

Rich event-export framework to output data to other existing systems







TCP/IP socket access to Lua API – remote-control Command from any external console or application

Mechanics Overrides: Use your siloed data & models directly inside Command

Future Growth: HLA, CIGI, other

LVC Integration with external simulations

CONTACTS

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