BMD-Flex SIM Gateway

Enabling Distributed Simulation

The BMD-Flex SIM Gateway enables the BMD-Flex simulator environment to actively participate with other simulators in distributed simulation exercises.

Application Areas

The SIM Gateway is used to link BMD-Flex into integrated test beds, training environments and distributed simulation exercises.

- Joint multi-role scenarios including Land, Air and Naval simulators.
- Integrated training environments including CMS, C2, sensor and weapons simulators, and scenario generators.
- Distributed simulation between warfare training centers, training ranges and test sites.
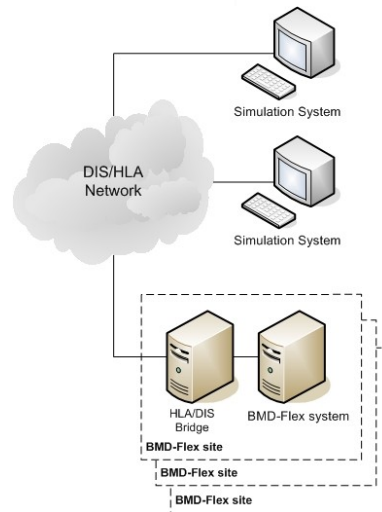- LVC: Live, Virtual & Constructive training environments.

Architecture

The SIM Gateway is designed to integrate simulation assets. The gateway translates run-time simulation scenario data and simulation control data between the BMD-Flex simulation environment and an external simulation network.

The SIM Gateway is installed within a BMD-Flex site and serves multiple BMD-Flex sites simultaneously.

Highlights

- Industrial, open standards
- Distributed simulation
- Flexible and adaptable
- Proven technology

Simulation System

DIS/HLA Network

Simulation System

HLA/DIS Bridge   BMD-Flex system

BMD-Flex site
BMD-Flex site
BMD-Flex site

Industrial Standards

The BMD-Flex SIM Gateway uses the Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) standards for run-time scenario data exchange.

DIS/HLA Specifications

The BMD-Flex SIM Gateway is based on IFAD's proven simulator networking platform supporting DIS and HLA with the Real-time Platform reference FOM (RPR FOM).

The SIM Gateway currently supports:

- DIS version 6 (IEEE 1278.1a-1998)

The gateway is prepared for but not limited to the following protocols:

- HLA 1.3, HLA 1516, HLA Evolved and several RTI's
- HLA SISO RPR FOM 1.0, 2.0 (draft 17)
- DIS version 5 (IEEE 1278.1-1995), version 4 (version 2.0 4th draft).

Interface Specification

The SIM Gateway translates the following simulation data to and from BMD-Flex:

- Vehicles: ground, surface, air and space
- Weapons: missiles
- Emitter systems: radar and IFF
- Weapon detonations

About IFAD

The BMD-Flex SIM Gateway is designed and developed by IFAD.

IFAD is an international supplier of simulation products and networked team training solutions. IFAD has 20+ years experience in providing networked simulation solutions and support to our customers.

IFAD Simulation Solutions

IRAS - Radio Training

The IRAS Product Family offers a number of radio simulation solutions for radio training and voice communication in real-time training simulators, including:

♦ IRAS*Trainer: is a complete simulation based radio communication training system for radio operator training and communication procedures.

♦ IRAS*Comm: is a DIS based simulated radio communication and intercom system for real-time training simulators.

♦ IRAS*Radio: is a suite of software emulated radios for stand-alone operation or integration with IRAS*Trainer, IRAS*Comm or 3. party applications.
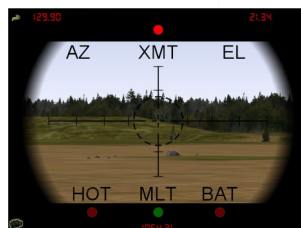
C-SIM - Naval Training

The C-SIM Training and Simulation solution is an integrated naval tactical trainer environment based on the IFAD Naval Tactical Trainer and Terma's C-Flex Command & Control system.

C-SIM is a powerful, flexible and scalable training solution based on well proven training concepts that meet naval officer's needs for advanced naval warfare training.

IFACTS - CAS Training

IFAD Forward Air Controller Training Solution is a deployable simulation solution that enables JTAC/FACs, TACPs and pilots to rehearse CAS missions in realistic scenarios.

... designed to customer satisfaction

IFAD in brief

IFAD is an international supplier of simulation products and networked team training solutions. IFAD has more that 20 years experience in providing networked simulation solutions and support to our customers

Solutions

IFAD provides simulation-based training solutions for Defense and Homeland Security.

♦ Naval Training Solutions
♦ Close Air Support Training
♦ Radio Communications Training
♦ Incident Command Training
♦ Combat Medical Training

Profile

♦ Simulation products
♦ Customer-specific training solutions
♦ Consultancy

Core expertise

♦ Live, Virtual, Constructive
♦ Team training
♦ Distributed simulaton
♦ HLA/DIS
♦ Geo-specific 3D terrain