IFAD develops and markets training solutions for mission-critical defense applications.

IRAS

RADIO SIMULATION

IFAD offers a number of radio simulation solutions for radio training and voice communication in real-time training simulators.

Flexibility

The IRAS products are highly flexible and can be used individually or combined, integrated with 3. party applications or tailored to customer specific solutions and requirements.

Realism

The IRAS products are designed to provide both realistic communication equipment operation as well as communication experience.

COTS

The IRAS software solutions run on standard COTS hardware with Windows or Linux and standard audio equipment.

Communication in Training Environments

Communication is a cornerstone in any team training environment from low cost serious games to high end dedicated training devices. The IRAS products are designed to meet the communication requirements in military training simulators.

The IRAS products provide the perfect building blocks for basic radio training solutions to complete communication infrastructures in team training environments including integration of live and simulated radio nets and distributed communication over wide area networks.

The IRAS products were developed out of the need for highly flexible, scalable and configurable software solutions for simulated radio communication in team training environments.

Communication Features

IRAS provides voice communication on standard PCs running Windows or Linux with standard audio equipment for a large number of communication stations operating concurrently over a TCP/IP based network. Communication is initiated by Push-to-Talk.

IRAS allows for a large number of radios per communication station. Communication stations can listen to all radios available on the station concurrently. When listening to multiple radios in the same ear/side the outputs of the radios are mixed.

Radios and intercoms can be created and removed dynamically. All radio parameters can be set and monitored.

IRAS allows for independent communication in multiple concurrent exercises.

Radio Simulation

IRAS provides simulated communications for HF, VHF, UHF and SATCOM radio systems. The radio communication network simulates the radio signal propagation and audio effects, including background noise and SATCOM range dependent delays.

The signal to noise value depends on frequency, modulation with sideband selection, bandwidth, transmit power and ranging determined by geographical positioning. Communication is prevented if a mismatch of radio parameters occurs, such as incompatible modulations, sidebands and carrier.

For communication in the HF frequency band the signal to noise ratio is influenced by time of day, time of year and world position.

IRAS provides a range of radio simulation features like squelch, antenna attenuation, analogue and digital voice, crypto, frequency hopping, relay radios and more.

IRAS Product Family

IFAD offers a number of radio simulation solutions for radio training and voice communication in real-time training simulators.
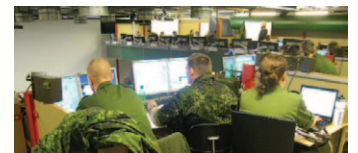
IRAS Trainer

is a complete simulation based radio communication training system based on the IRAS Comm infrastructure and IRAS Radio emulated radio panels. IRAS Trainer enables basic and advanced radio operator training, procedure training as well as rehearsal of complex communications scenarios for a large number of different radio systems and operators.
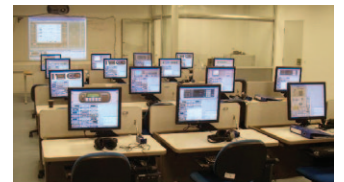
IRAS Radio trainer

IRAS Comm

is a DIS based radio simulation and intercom system designed to provide realistic voice communication in training simulators. IRAS Comm enables communication (talk and listen) on multiple radios and nets simultaneously. IRAS Comm can be used on a stand-alone basis, integrated with external simulators through DIS/HLA or embedded into 3rd. party simulators through a Control API.

IRAS Radio & Intercom system

IRAS Radio

is a suite of software emulated radio devices for stand-alone operation or integration with IRAS Trainer, IRAS Comm or 3. party applications. All devices have been simulated with functionality as their real counterparts. These simulated radio devices have been designed to provide a realistic operator experience on touch input devices. The devices are ideal for operator training or radio panels in training simulators.

IRAS Emulated Radios
Harris, Rohde&Schwarz, Sailor

IRAS Touch

is a stand-alone communication and control device with touch display, various I/O connections and network running IRAS software radios and Windows or Linux. IRAS Touch is ideal for wall mount or integration in consoles or tables etc.

IRAS Live

is an interface systems used to integrate live and simulated radio nets. IRAS Live provides a bidirectional interconnection between external systems, like real radios, and simulated radios on the IRAS Comm DIS/HLA network.

IRAS Live and Virtual Radio
communication

About us

IFAD is a professional provider of

- Simulation & training solutions
- Networked simulation solutions
- Customer specific training solutions

to Defence and Homeland Security markets.

Our values

Knowledge

IFAD is an 24 years old knowledge-based company located in Odense, Denmark. The company is 100 % Danish owned.

Leadership

IFAD was founded on quality, technical excellence, and leadership. Building on 25+ years of innovation, IFAD assists companies and organizations world-wide in getting the best out of their mission critical software applications and human training programs.

Motivation

IFAD is recognized as a very loyal, motivated and competent partner supplying quality solutions and products that meet or exceed our customers' expectations.

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