

# PREPARE FOR A NEW ERA IN MODELING AND SIMULATION

Unmatched range of solutions for Modeling, Visualization, Simulation, HMI and Embedded Applications for

- Aerospace/Avionics
- Military
- Navy/Marine
- Air Force
- Automotive

- Aviation
- Urban Development
- Railways
- Police
  - Game Development

Real-Time 3D Visual Simulation techniques are used to make better decisions in a variety of creative ways that solves unique issues and requirements in Defense, Aerospace, Avionics, Automotive, Urban Planning, Air Traffic Control and Training applications.

EDS Technologies has been committed to offering leading simulation solutions to Indian market that are optimized to work together in highly complex real-time 3D environments using off-the-shelf hardware and open standards. EDST partners with world leaders in visual simulation fraternity to offer solutions for

- Pilot Training Simulators
- · Cockpit HMI Simulation
- Space Simulation
- Battle Filed Scenarios
- Gun Simulations
   Urban visualization
- Cabin Crew Training
- ATC Simulation
- · Heavy Vehicle Driving Simulation
- Tank Simulations
   Marine Simulations
- Automotive Telematics

# Solutions Portfolio

#### Database Modeling Creator, CTS, Terra Vista Visualization Vega Prime, Lyra, MÄK Stealth Simulation STAGE, MÄK VR Forces HMI Development VAPS, GL Studio **Human Simulation** DI-Guv Simulation Networking MÄK VR Link Behavior & Dynamics S-Mission, Vortex Game Development AI.implant, Virtools

## Our clients

- 515 Army Base Workshop
- Aeronautical Development Agency
- Aeronautical Development Establishment
- · Airbus India Pvt Ltd
- BAeHAI
- Bharat Electronics Ltd
- HALBIT
  - Hindustan Aeronautics Ltd
- Larsen & Toubro Ltd.
- National Aerospace Laboratories
- Research Centre Imarat

## **Our Partners**

PRESAGIS









# Database Modeling

#### Creator

Creator is the industry's leading software for creating highly optimized high-fidelity real-time 3D content for any application. Specifically designed for real-time 3D simulation, Creator streamlines the modeling process and increases the productivity by easily and effectively creating highly detailed 3D models and digital terrains. The powerful plug-in architecture together with the integrated and extensible toolset provide interactive real-time 3D modeling power for creating precise visually exceptional content and synthetic environments.



#### Key Features

- · Extremely high level of precision, control, and accuracy at all levels of the scene, from site level to vertex level
- · Native OpenFlight® output file format which is the de facto standard real-time 3D database file format

#### Creator Terrain Studio

The Creator Terrain Studio (CTS) terrain generation software manages the process and workflow necessary to face the challenges and complexities of generating scalable terrain environments for real-time 3D applications. Delivering tools for creating superior synthetic environments, it offers the freedom to design a terrain database generation workflow with a hierarchical, top-down approach. This extensible toolset offers the most advanced terrain and imaging solutions available for real-time 3D modelino.

#### Terra Vista

Terra Vista Base is the ideal software solution for meeting the most basic to the most sophisticated terrain requirements. It provides the highest level of correlation in more formats than any other terrain database product in the industry. Terra Vista Base product in the industry. Terra Vista Base for Modeling and Simulation applications through rulle-based construction methods, an easy-to-use GUI, template-based automation, parametric modeling techniques, and an expert systems-assisted configuration.



# Visualization

## Vega Prime

VegaPrime is a flexible extensible tool designed for creating and deploying visual simulation, multi-domain simulation and general visualization applications. With its cross-platform, scalable environment, VegaPrime is the most productive COTS toolkit for real-time 3D application development and deployment. It provides the framework needed to rapidly configure, create, and deploy advanced simulation applications and delivers the tools required for the optimal end-to-end solution. VegaPrime allows for the easy integration of new or existing code and offers tremendous cost and time savings by improving the asset utilization and re-use.



## Key Features

- An extendable architecture which supports a high degree of customization
- Delivers functionalities like environment effects, motion models, coordinate systems, virtual texture, and path/ navigator tools

## Lyra

Lyra is a high performance COTS image generator application for real-time 3D simulation, training and engineering. It delivers 60Hz performance that requires no additional programming. Developed Lyra operates on multiple hardware/operating system platforms and utilizes two host simulation interfaces, CIGI and FlightICD, to maximize compatibility with the existing simulators. And the GUI configuration tools in this ready to use application provide quick and easy configuration and deployment.

#### MÄK Stealth

MÄK Stealth, a 3D visualization tool, provides the most data about the networked virtual world, and presents it in a clear and easily accessible way. Using an intuitive navigation GUI, joystick, game controller, or keyboard controls, one can fly through a virtual world and attach to simulated entities to unobtrusively observe the action. MÄK Stealth is easy to use and runs out-of-the-box without additional configuration.

## Simulation

#### STAGE

STAGE provides unique tools for adding computer generated forces and high-fidelity platforms to any simulation - from training and operational analysis to simulation-based acquisition and research. The STAGE tool suite can be used to simulate any military or commercial exercise in highly realistic maritime, air, or urban settings.

#### MÄK VR Forces

MÄK VR-Forces is a powerful and flexible simulation toolkit for generating and executing battlefield scenarios. It has all the necessary simulation features for use as a tactical leadership trainer, threat generator, behavior model testbed, or Computer Generated Forces (CGF) application. It provides an intuitive GUI that allows non-programmers to build scenarios by positioning forces, creating routes and waypoints, and assigning tasks or plans with a simple point and click.



# HMI Development

#### VAPS

VAPS is the de-facto standard for the rapid prototyping, designing, testing, and deploying of Human Machine Interfaces (HMI). It is designed for the development of dynamic interactive real-time graphical HMIs for complex applications, including the displays and controls found in the cockpit of an aircraft as well as in automobile instrumentation. VAPS defines the look and feel of HMIs by drawing or importing graphics and supports both vector and raster based graphics.



## **GL Studio**

GL Studio, an object oriented Human Machine Interface (HMI) development tool, synthesizes photographs, 3D-models and behavior logic to create photo realistic 3D interactive real-time Reusable Software Objects (RSOs). Its powerful modeling system allows to rapidly create rich and interactive graphical user interfaces to prototype new interfaces or to simulate existing electronic and analog human machine interfaces. It brings the power of Open GL to HMIs.

# Human Simulation

#### DI-Guy

DI-Guy adds life-like, automatically animated human characters to simulated environments. Each character moves realistically, responds to simple commands, and travels about the environment as directed. It comes with hundreds of human characters, including different kinds of soldiers and an array of specialists, such as landing signal officers, plane captains, first responders equipped with gas masks and MOPP gear, and a variety of civillians and animals. DI-Guy comes with an extensive API for controlling all aspects of characters.



# Simulation Networking

## MÄK VR Link

With the VR-Link networking toolkit, one can quickly and easily network simulators and virtual reality applications using either the U.S. DoD's High Level Architecture (HLA) or the Distributed Interactive Simulation (DIS) protocol. VR-Link's powerful, easy-to-use programmer's interface, backed by expert technical support, reduces the risk, cost, and time necessary to maintain existing simulations or develop new ones.



## Behavior & Dynamics

#### S-Mission

S-Mission is the ideal solution for military/civil modeling and simulation, emergency management, and command and control that offers analysts, trainers, simulation users, and planners a full range of capabilities right out-of-the-box. S-Mission accurately calculates trajectories, flight characteristics, and weather effects because it is the only simulation toolset that works with all terrain databases to produce correlated output across all formats.

#### Vortex

The Vortex Simulation Toolkit is a comprehensive development platform for modeling physics-based vehicles, machines and robots for realtime simulation. It facilitates rapid development of environments, which require accurate motion, realistic interaction and real-time interactive behaviors for applications such as operator training, visualization, VR environments and more.



## Game Development

#### AI.implant

AI.implant from Presagis is a multi-platform artificial intelligence (AI) authoring and runtime software solution. It is ideal for populating video games, simulations, and training applications with computer controlled characters, including people and vehicles.



Virtools gives game studios the technology they need to develop complex, highquality 3D games in record time. Virtools seamlessly merges all aspects of the production process for efficient teamwork between developers, game designers and graphics artists.





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