

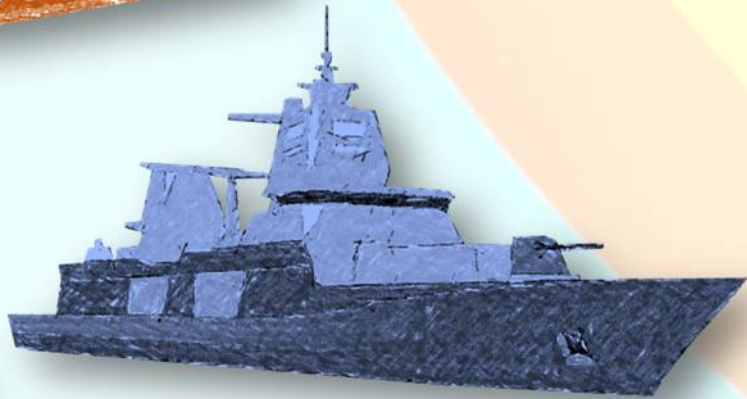
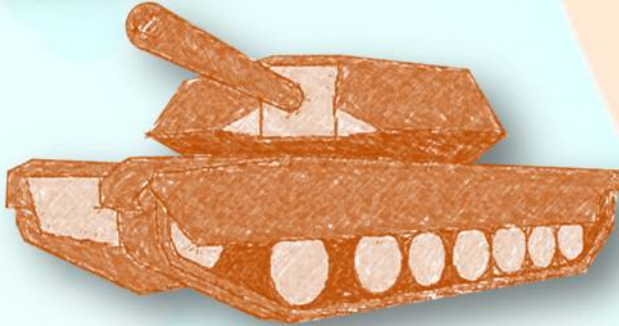
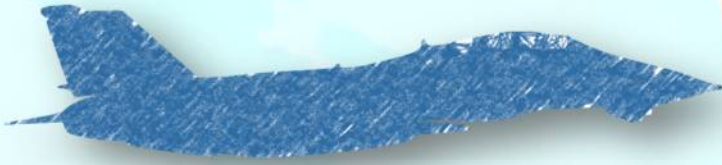


**Visual Simulation | Virtual Reality | Augmented Reality**

SIMLABS™ offers advanced, high-quality and cost-effective services and solutions in Visual Simulation, Virtual Reality and Augmented Reality technology space, for various requirements in wide spectrum of segments.



# VISUAL SIMULATION





## VISUAL SIMULATION SERVICES AND SOLUTIONS FROM SIMLABS

Simlabs Software LLP (SIMLABS™) is an active player in visual simulation market. SIMLABS™ offers both services and COTS solutions for wide spectrum of requirements across various industry segments.

The services offered by SIMLABS™ primarily include 3D models development, 3D terrains development and 3D application development. SIMLABS™ represents global simulation technology developers, in Indian region. The list of COTS software that SIMLABS™ offers include 3D object modeling software, 3D terrain modeling software, flight dynamics software, sensor simulation software, war gaming & electronic warfare simulation software, human machine interface simulation software, ocean & water simulation software and sky & cloud simulation software.

### INDUSTRY SEGMENTS



Aerospace



Army



Navy



Railways



Town Planning



Construction Equipment



Automotive



Games

Aerospace, Defence, Automotive, Construction Equipment, Town Planning/Urban Development, Gaming, and Railways are some of the segments where Visual Simulation services and solutions can be offered by SIMLABS™.

### APPLICATIONS

SIMLABS™ offers visual simulation technology based services and solutions for applications such as:

- War Gaming
- Sensor Simulation
- Pilot Training
- Electronic Warfare Simulation
- UAV/UAS Simulation
- Driving Simulation
- HMI Displays Simulation
- Weapon Training
- Mission Rehearsal
- Embedded Displays
- Infrastructure Planning
- Sand Room Simulation



## SERVICES

SIMLABS™ offers high-quality, cost-effective and flexible simulation technology services.

The partial list of visual simulation services that SIMLABS™ offers:

- **3D Models development**
- **3D Terrain development**
- **Visual simulation application development**
- **Desktop simulator development**
- **Onsite and offshore development, as required**
- **Deployment of skilled resources onsite, as required**



3D Terrains



SIMLABS™ partners with System Integrators or Technology Partners, on a case to case basis, to deliver the turnkey or competitive solutions. **Despite having own teams trained on simulation technologies, some of the system integrators, service providers and OEMs rely on us to leverage our expertise in 3D Visual Database Development and Application Development. It also helps our customers and partners to minimize costs and catch up with schedules.**

Why SIMLABS?

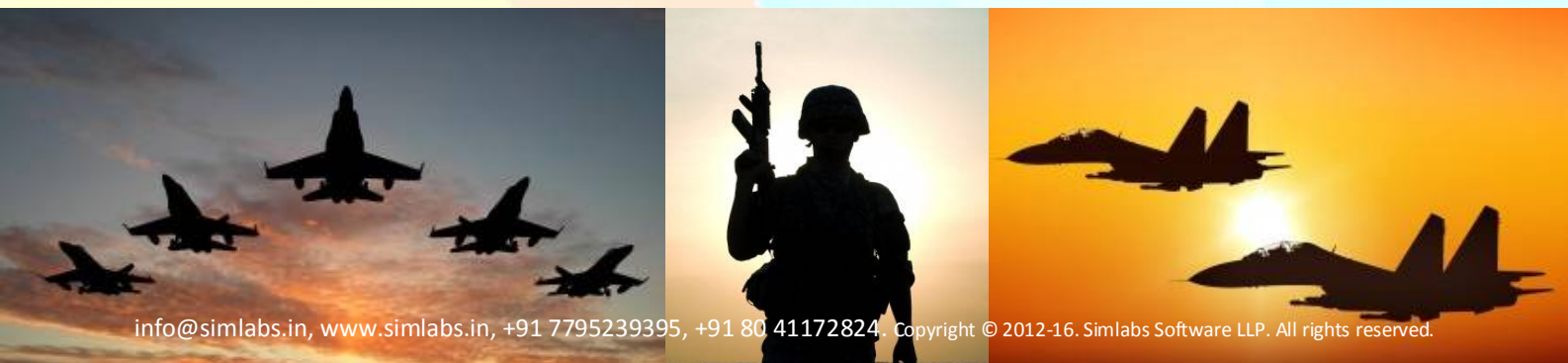
- SIMLABS™ offers cost-effective services
- Offers high-quality services
- Understands customer needs better, as it has good expertise and experience in MS&T domain

## SOLUTIONS

SIMLABS™ offers advanced, high-quality, cost-effective and flexible simulation technology solutions to a large spectrum of applications. SIMLABS™ represents global simulation technology developers, in India.

The list of COTS software that SIMLABS™ offers:

- **3D object modeling software**
- **3D terrain modeling software**
- **Flight dynamics software**
- **Sensor simulation software**
- **War gaming/Electronic warfare / CGF simulation software**
- **Human machine interface simulation software**
- **Ocean & water simulation software**
- **Sky & cloud simulation software**





The COTS software from technology partners, represented by SIMLABS™ in Indian territory, are as follows:

**Trian3DBuilder** (from TrianGraphics, Germany)

Trian3DBuilder is an innovative and intelligent terrain database generation software. Trian3DBuilder enables user to create large-scale detailed areas for real-time applications based on image, height and vector data in hours.

**Remo 3D** (from Remograph, Sweden)

Remo 3D™ is an advanced and cost-effective tool for creating and modifying 3D models intended for real-time visualization. Remo 3D's primary file format is OpenFlight®.

**FixedWingLib FDM** (from RT Dynamics, Germany)

FixedWingLib FDM® is a real-time C++ airplane flight dynamics SDK for flight training devices and flight simulators. FixedWingLib FDM includes a reconfigurable fixed-wing flight dynamics model.

**RotorLib FDM** (from RT Dynamics, Germany)

RotorLib FDM® is a real-time C++ helicopter flight dynamics simulation library for flight training devices and flight simulators. RotorLib FDM includes a mathematical model which can be reconfigured for specific helicopter type.

**FixedWingLib CGF** (from RT Dynamics, Germany)

FixedWingLib CGF offers high-fidelity maneuvers for air combat, close air support, ATC and other real-world military and civil manned and unmanned fixed wing operations.

**RotorLib CGF** (from RT Dynamics, Germany)

RotorLib CGF® is a real-time C++ SDK for simulating rotary wing computer generated forces. RotorLib CGF® control technology provides physics based helicopter models for CGF entities in real-time simulations.

**EWAWS** (from RT Dynamics, Germany)

EWAWS is a standalone real-time C++ library for radar, electronic warfare and weapon dynamics simulation. It provides ready to use and reconfigurable models for various weapons and EW equipment.

**Sensor Pack** (from JRM Technologies, USA)

**GenesisMC:** Genesis is an advanced-algorithm and semi-automated software tool for creating materially-classified-maps from remote-sensed terrain imagery or RGB-textured 3D models - complete with physical properties and boundary conditions for realistic physics-based sensor simulations.

**SigSim:** SigSim is an advanced signature synthesis and atmospheric propagation runtime library for radiometrically-correct sensor displays and Out-the-Window (OTW) visuals.

**SenSim:** SenSim is an advanced sensor modeling toolkit and run-time library for real-time sensor effects simulation of any optical sensor in the EO or IR pass band.

**GL Studio** (from Disti Corporation, USA)

GL Studio is a graphical development tool that enables users to create high fidelity, feature-rich 2D and 3D graphical interfaces for a wide range of product uses and domains. The tool can be used for development of HMI and infotainment applications for personal computers, embedded systems and safety critical systems.

**SiMAX/SSG** (from HarTech, Israel)

SiMAX/SSG is an advanced constructive simulation solution for war gaming, training and analysis. SiMAX (SSG) is a complete simulation solution for joint operations and it is a fully customizable and cutting-edge CGF tool.

**SilverLining** (from Sundog Software, USA)

SilverLining produces accurate skies for any given time and location, fast and automatically. Also, produces real volumetric, 3D clouds at real-time. SilverLining integrates into most engines with just a few lines of code.

**Triton** (from Sundog Software, USA)

Triton produces fast, realistic 3D Ocean and Water for OpenGL and DirectX developers. Produces automatic 3D oceans for any sea state, plus ship wakes. Triton can be quickly integrated with major simulation & gaming platforms.

**TECHNOLOGY PARTNERS**

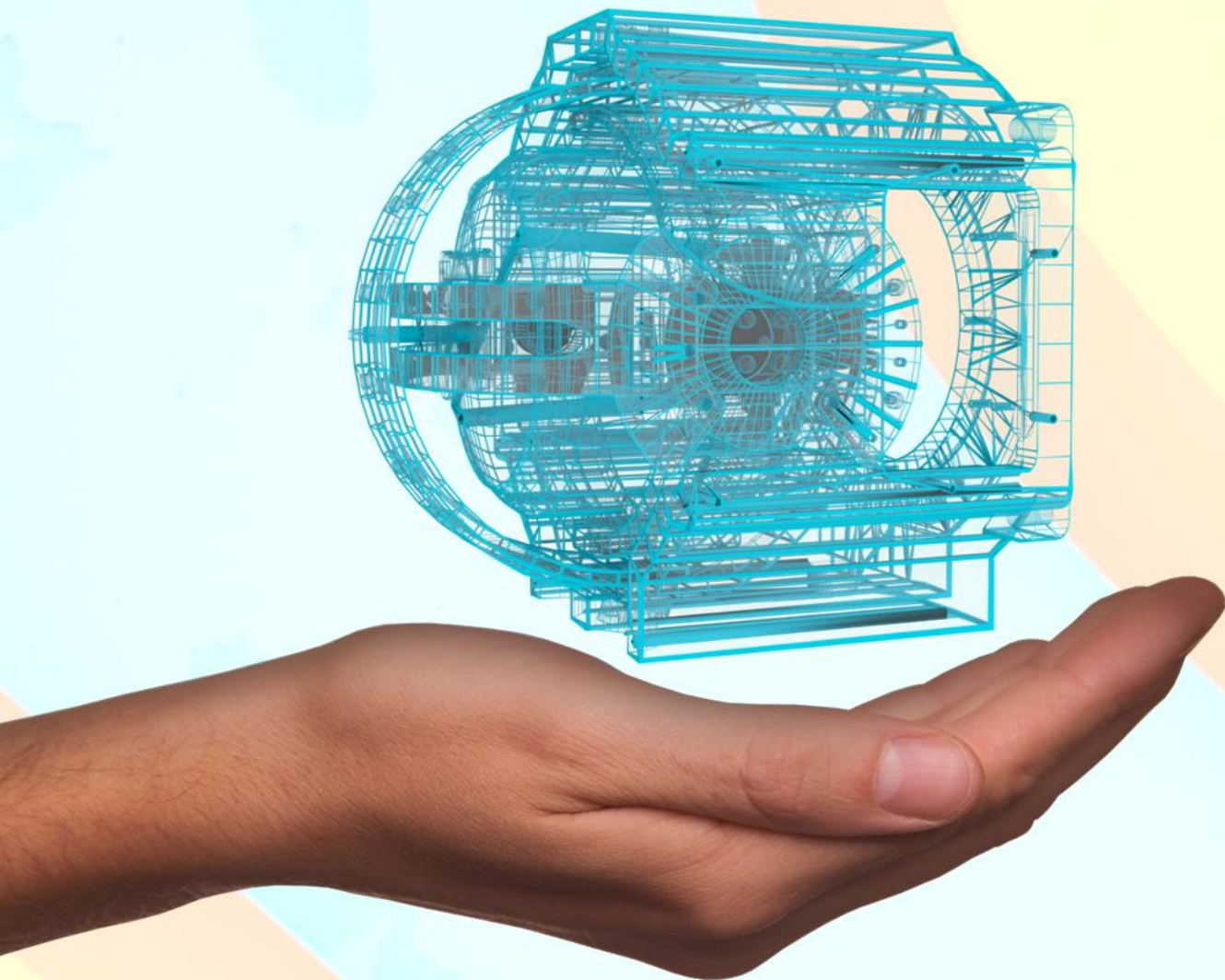


# VIRTUAL REALITY





## VIRTUAL REALITY SERVICES AND SOLUTIONS FROM SIMLABS



Virtual Reality is an emerging and fast growing technology adopted by many industries and people across the world for various kinds of applications, which include games, learning/training applications, marketing, virtual interactive experience and so on. Many global organisations are investing and actively working in this domain. As per reports published by market research firms, the virtual reality market is estimated to grow to USD 30 Billion by 2020, which include both software and hardware. The recent advancements in virtual reality hardware, mobile devices, computers and development software, have enabled many industries to start adopting virtual reality in their projects and thereby created many opportunities for application developers, product developers, content developers, hardware suppliers and system integrators.

**Simlabs Software LLP (SIMLABS™) is one of the active players in virtual reality based application development, product development and system integration. SIMLABS is actively working on training / learning applications, virtual interactive experience applications, Interactive visualization and marketing applications.**

## INDUSTRY SEGMENTS



Aerospace



Army



Navy



Healthcare



Railways



Architecture



Construction Equipment



Automotive



Games



Engineering

Aerospace, Defence, Automotive, Construction Equipment, Real Estate, Healthcare, Gaming, Railways, Education, Business, Oil & Gas, Mining, Shopping, Engineering Industries and Tourism are some of the segments where Virtual Reality based services and solutions can be offered by SIMLABS.

## APPLICATIONS IN GENERAL

SIMLABS offers virtual reality based services and solutions for applications such as:

- **Maintenance training**
- **Operational training**
- **Product manual**
- **Gaming**
- **Product visualization**
- **Concept visualization**
- **Interactive walkthrough**
- **Interactive learning content, etc.**



*Different apps in different environments*

## SERVICES AND SOLUTIONS

Virtual Reality based services and solutions that SIMLABS offers are available in two forms: Immersive and Non-immersive.

Services include **content development, tailor made application development, deployment of skilled resource on-site and on-demand.**

Virtual Reality based services that SIMLABS offers are available for wide variety of hardware and OS.

*Operating Systems Supported:* Windows, Web, Android and iOS.

*Application Hosting Hardware:* Windows Workstation, Multi-Touch Displays, Tab, iPad and Mobile.

*VR & Interactive Devices Supported:* Mouse, Joystick, Gamepad, HMD, VR Cardboard and Motion Tracker.



*VR with PC*



*VR with Mobile*



*VIL with Pad*



Solutions include configurable **Virtual Interactive Learning (ViL)** kit, **Immersive Virtual Interactive Learning (iViL)** kit, **Virtual Interactive Experience Walkthrough (ViEW)** kit and **Immersive Virtual Interactive Experience Walkthrough (iViEW)** kit.



Virtual Reality based solutions that SIMLABS offers: ViL, iViL, ViEW and iViEW are customizable to specific needs of customer.

*Operating Systems:* Windows, Web, Android and iOS.

*Application Hosting Hardware:* Customized hardware.

*VR & Interactive Devices Supported:* Mouse, Joystick, Gamepad, HMD, VR Cardboard and Motion Tracker.



### **BENEFITS OF ViL & iViL**

Research says that adults remember 20 per cent of what they hear, 40 per cent of what they see and hear and 80 per cent of what they see, hear and do. ViL and iViL solutions include all these three: **Seeing, Hearing and Doing**. Hence, these are very efficient and effective ways of learning.

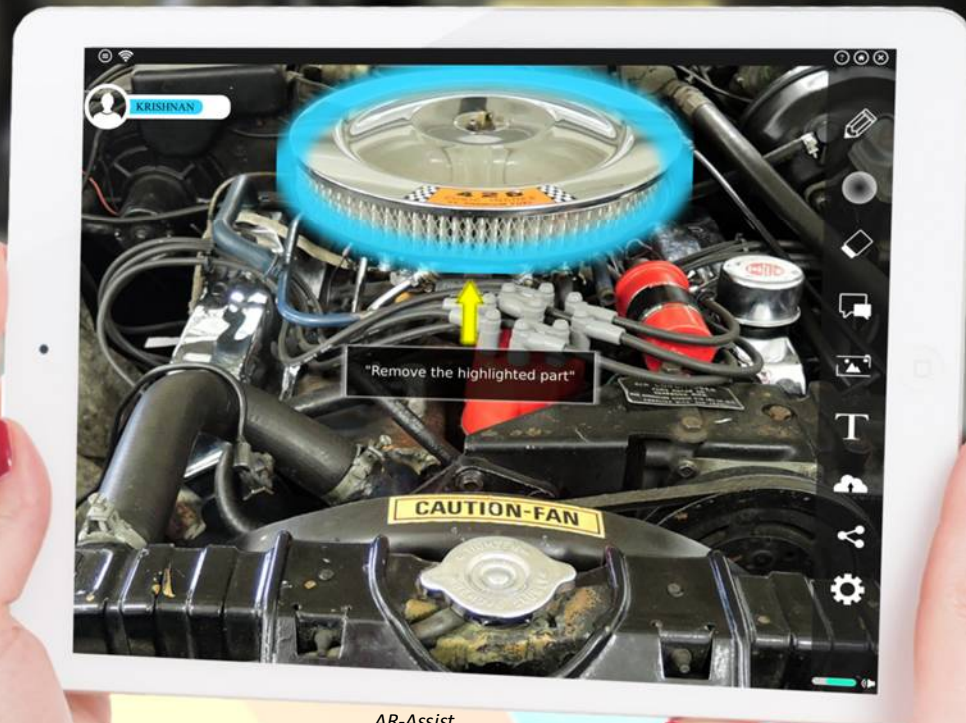
- Very effective learning methodology
- Increased student throughput
- Lower training or evaluation costs
- Safe learning environment
- Ability to inject faults
- Team/Collaborative tasks
- Multi-Configuration scenarios

### **BENEFITS OF ViEW & iViEW**

- Run-time interaction with content
- Run-time changes to look and feel of the content
- Add or remove parts/objects run-time
- Change position, orientation and size of contents
- Pre-view the system



# AUGMENTED REALITY



AR-Assist



## AUGMENTED REALITY SERVICES AND SOLUTIONS FROM SIMLABS

Augmented Reality is an upcoming and fast growing technology. This technology can be used in variety of applications, which include games, education, marketing, entertainment, shopping, product trails, architecture etc. Many industries and people across the world are investing and actively working in this domain. As per reports published by market research firms, the augmented reality market is estimated to grow to USD 90 Billion by 2020. The recent technology advancements in smart mobile phones, smart pads and development software, have enabled many industries to consider leveraging the benefits of augmented reality technology. The accelerated growth, business potential and benefits of augmented reality technology has created many opportunities for application developers, product developers, content developers, hardware suppliers and system integrators.

**Simlabs Software LLP (SIMLABS™) is actively working on augmented reality based applications development, product development and system integration. SIMLABS is currently focusing on services and solutions for maintenance training, education, marketing, architecture, entertainment, shopping and product trails.**

### INDUSTRY SEGMENTS



**Aerospace**



**Army**



**Navy**



**Healthcare**



**Railways**



**Architecture**



**Construction Equipment**



**Automotive**



**Games**



**Engineering**

Aerospace, Defence, Automotive, Construction Equipment, Real Estate, Healthcare, Gaming, Railways, Education, Business, Oil & Gas, Mining, Shopping, Engineering Industries and Tourism are some of the segments where Augmented Reality based services and solutions can be offered by SIMLABS.

### APPLICATIONS IN GENERAL

SIMLABS offers augmented reality based services and solutions for applications such as:

- **Maintenance training**
- **Product manual**
- **Gaming**
- **Architectural Designing**
- **Product trial**
- **AR Shopping**
- **AR Museum**
- **AR Book, etc.**



## SERVICES AND SOLUTIONS

SIMLABS™ offers augmented reality based services and solutions which include applications development, product development and system integration for maintenance training, education, marketing, architecture, entertainment, shopping and product trails. SIMLABS™ is currently working on product development. The list of products includes **AR-Assist, AR-Arch, AR-Mirror and AR-Decor**. These services and solutions are available for android, iOS and Windows based smart pads and phones.



AR-Arch



AR-Decor



AR-Mirror

## BENEFITS OF AUGMENTED REALITY APPLICATIONS

- Very effective and safe learning methodology
- Helps in remote assistance
- Buyer can try / experience products before taking a decision
- Can customize, without changing the actual product and visualize it
- Can use virtual content in real world environment

AR-Book





*For further information (or) to partner with us, please contact at:*

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