

*Since 2006* 

**Product Catalog** 



## **Product Catalog**

#### **About Us**

Simsoft was established in 2006 to develop R&D projects related to simulation systems, military software, and serious gaming applications. Simsoft has produced many simulators used by national and international civilian and military organizations and has delivered its software products developed in various fields to internationally renowned organizations.

Simsoft has followed a continuously growing success graph since its establishment and has been awarded "Turkey's 50 Fastest Growing Technology Companies" in 2015, 2017, 2019, and 2020, and as one of the top 500 technology companies in the Europe, Middle East and Africa (EMEA) region in 2015 and 2019, according to research conducted by Deloitte. In 2017, ASELSAN won the "Software Design", Crystal Pixel "Best Serious Game" and I/ITSEC (the world's largest modeling, simulation, and training conference) "Best Mobile Game" awards. It was selected among "Turkey's Top 500 Service Exporters" by the Turkish Exporters Assembly (TIM) in 2017 and 2018. Simsoft was the first and only company to be awarded TÜSİAD Digital Transformation Projects in Industry for three consecutive years between 2018 and 2020. Since 2016. Simsoft has been a strategic solution partner of ASELSAN and was deemed worthy of the "Strategic Business Partner" award by ASELSAN in 2021. In 2022, Simsoft commissioned the SIMMER facility in HAB OSB to increase its capacity to produce original, domestic, and national products. Simsoft won the "Women Entrepreneur Company with the Fastest Increase in Exports" award at Turkey's Entrepreneurial Women Power Competition organized in cooperation with TOBB KGK and TEPAV.

Simsoft, which has been on the list of Turkey's "Top 500 IT Companies" for many years, has maintained its



SIMULATOR SYSTEMS

success with new exports in 2023 and has become one of the rising values of the Turkish economy by ranking in the "Software and IT Services" category of HİB Service Export Champions. It was also deemed worthy of an award in the "International Project" sub-category of ASO's 60th anniversary awards.

Simsoft holds a CMMI Level 3 certification and operates in five main areas: Simulator Systems, Defense, Aviation and Space Systems, Visual Systems, Gaming & Simulation. The SIMMER (Next-Generation Simulation Development, Training, and Testing Center), initiated in 2023, has also been incorporated into these groups. Our company offers superior services and products based on advanced technology in each area of operation, supported by a domestic and national infrastructure.

Simsoft's head office is at METU Technopolis in Ankara/Türkiye and it has also offices and subsidiaries in Bilkent Cyberpark Ankara/Türkiye, Hacettepe Technopolis Ankara/Türkiye, Teknopark İstanbul/Türkiye, SİMMER Ankara/ Türkiye, Florida/USA, Qatar Free Zone Doha/Qatar.



- Air Defense Training Simulator
- Firearms / Combat Training Simulator
- Marine / Bridge Training Simulator
- Rail Systems Training Simulator
- Convoy / Ambush Simulator
- Heavy Vehicle / Armoured Vehicle Simulator
- Firefighter / Ambulance Simulator
- Bus / Truck / Vehicle Simulator
- Construction Machinery Training Simulator
- Advanced Driving Techniques Simulator

#### **DEFENSE, AVIATION & SPACE**

- Land Platform and Weapon Systems Software
- Avionic Software
- Naval Platform Systems Software
- Electronic Warfare and Communication Systems Software
- Test Software and Testing Services
- Embedded Simulation Systems

#### **VISUAL SYSTEMS**

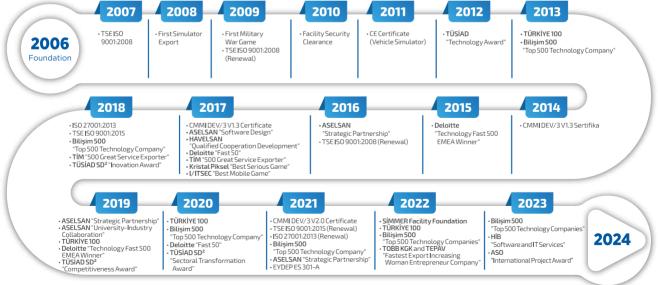
- High Performance Image Generator
- Virtual Maintenance Trainer
- Computer Based Training System
- Interactive Electronic Technical Manuals

#### **GAMING & SIMULATION**

- Border Security War Game Simulation
- Naval War Game Simulation
- Aircraft Rescue / Firefighting Tactical and Operational Training Simulation
- Classroom Simulation
- Business Process Simulation
- 3D Space Simulator
- Anatomy Training Simulation
- Entrepreneurship Simulation
- Mine VR Simulation
- Fire Extinguishing Simulation
- Earthquake VR Simulation
- Virtual Reality / Augmented Reality Based Simulation Systems
- Augmented Reality for Maintenance and Repair
- Remote Support Systems
- Artificial Intelligence Framework

#### **SİMMER TEST & INTEGRATION**

- Electronic Cards
- Moving Platform Production
- Mechanical Design, Test & Integration



\* Outstanding achievements and awards in the corresponding years are shown.





#### **VEHICLE SIMULATOR**



Simsoft develops simulator systems for vehicles that are heavily in use at public and private sectors on sensitive and critical missions.

- Basic Driving Training
- Advanced Driving Training
- Safe Driving Training
- Mission-Oriented Driving Training
- Fuel Economy Driving Training
- Reducing Maintaining Costs Driving Training

#### MARITIME/BRIDGE TRAINING SIMULATOR

Simsoft develops simulators for diving and floating marine platforms. Efficient training systems are provided for corporations through real lifelike all kind of geographic, meteorological conditions and incident based scenarios.

- Full Mission Bridge Simulator
- Ship Simulator
- Damage Control Simulator
- Engine Room Simulator



#### **CREW TRAINING SIMULATOR**



Simsoft offers Crew Training Simulators for training crew members such as commander, gunner and driver using synthetic tactical environment.

- Safe Driving Techniques
- Shooting Techniques
- Target Identification
- Track & Target Surveillance
- Effective Usage of Sensors
- Team Coordination

### SHOOTING & COMBAT TRAINING SIMULATOR



Shooting and Combat Training Simulator provides end to end training solution for defense industry, private and public sectors.

- Training with IR and Visible Laser
- Training with Real Bullets
- 3D Residential Area Combat Scenario
- Indoor Combat Scenario
- Ambush and Counter Ambush Scenario
- Video-Based Scenario

#### **CONVOY SIMULATOR**

Convoy Simulator is a system that provides training for armoured and unarmoured vehicles and weapon systems in a controlled and realistic virtual simulation environment.

- Urban and Rural Driving Simulator
- Shooting Simulator
- Tactic Simulation
- Image Generator
- High Resolution Urban/City Model/Animation



## CONSTRUCTION EQUIPMENT TRAINING SIMULATOR



Vehicles behaviors on various grounds and working environments are being modelled in high fidelity level and real vehicle hardware is being used on simulators.

- High Fidelity Vehicle Driving, Engine Dynamics
- Programmable Artificial Intelligence
- Adjustable Evaluation Infrastructure
- High Resolution Visualization
- Multi-Display Support
- Record and Replay



#### AMBULANCE SIMULATOR



Ambulance Simulator is developed for accomplishing safe driving and first aid in ambulance trainings.

- Scenarios for Advanced Driving Techniques
- Special Missions for Accident Scenarios
- Fire and Tanker Accident Scenarios
- Virtual Urban and Rural Environments
- Realistic Weather Efffects
- Day/Night Driving Conditions

#### RAIL SYSTEMS TRAINING SIMULATOR

Simsoft aims to train, evaluate and increase operational skills of train drivers in 3D environments.

- High Fidelity Vehicle Driving, Engine Dynamics
- Programmable Artificial Intelligence
- Adjustable Evaluation Infrastructure
- High Resolution Visualization
- High-reality Modelling of Rail Line
- Record and Replay



#### FIREFIGHTER SIMULATOR



Simsoft develops simulation systems for the firefighter vehicles in order to train personnel cost effectively, with high quality and efficiently through the benefits of the simulation technologies.

- Seperated or Integrated Use of Simulators
- City and Rural Environment Models
- Driving Various Environment Conditions
- Tactical Training for Intervention to the Fire
- Usage Scenarios for Different Equipments

#### **HEAVY VEHICLE / BUS SIMULATOR**



Simsoft develops Heavy Vehicle / Bus Driving Training Simulators in order to reflect simulation technologies benefits to bus driving trainings and to train qualified personnel efficiently, with high quality and cost effectively.

- Maintenance Costs Reduction Driving Training
- Fuel Economy Driving Training
- Perception and Reflex Training
- Safe Driving Training

#### ADVANCED DRIVING SIMULATOR

Ambulance Simulator is developed for accomplishing safe driving and first aid in ambulance trainings.

- Scenarios for Advanced Driving Techniques
- Special Missions for Accident Scenarios
- Fire and Tanker Accident Scenarios
- Virtual Urban and Rural Environments
- Realistic Weather Efffects
- Day/Night Driving Conditions



## VIRTUAL REALITY BASED WORK MACHINE SIMULATORS



VR Based Bridge Crane Simulator has;

- Operator Cabin & Seat
- Customizable Plug & Play Control Consoles
- High Fidelity Visual & Sound System
- Optional Motion Platform
- Instructor Station with CCTV
- Digital Signage Display



#### **STAMP / STOP TRAINING SIMULATOR**



It is an appended simulator system that enables remote-controlled weapon systems such as STAMP and STOP to turn into a high-fidelity simulator by simply putting them in training mode and integrating a laptop computer.

- Capability of Training using Real Hardware
- Marksmanship Training for Different Mission Types
- Reporting, Recording and Replay Opportunity

#### AIR DEFENSE ARTILLERY SIMULATOR SYSTEM (ADASS)

Simulator aimed at training 20 mm and 35 mm air defense gun shooters. The system consist of radar, gunner, commander and trainer modules. Through the trainer console, scenario and field data can be entered, situations can be injected into trainees, performance measurements and various analyzes can be made. With replay module, real-time end-of-activity review is provided to trainees. With simultaneous desktop applications, unit training can be given at different levels such as battery, battalion, and more.



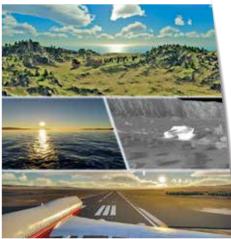


## **VISUAL SYSTEMS**



## **VISUAL SYSTEMS**

#### HIGH PERFORMANCE IMAGE GENERATOR (SimIG)



SimIG offers an high quality image generator system for the most complex visualization needs while combining performance and high reality.

- High Resolution Visualization
- Multi-Channel Visualization
- Advanced Multi-Texturing Techniques
- Advanced Visualization of Atmospheric Conditions
- Lighting and Shading
- Sensor Simulation

#### COMPUTER BASED TRAINING SYSTEM (CBTS)

The aim of this course is to provide training supporting international standards for training of personnel and technicians through visual and auditory objects in a computer environment.

- User Management and Content Visualization Module
- Word, Ppt, Pdf, Flash, Video
- Question Preparation and Exam Module
- Chat and Forum Module
- Questionnaire Module
- Reporting and Analysis Module



#### VIRTUAL MAINTENANCE TRAINER (VMT)



Virtual and augmented reality interactive training systems that enable the provision of realistic training on vehicle, component, parts and equipment models transferred to the virtual environment.

- Maintenance Documentation and Monitoring
- Interactive Repair Operations and Procedures
- Trouble Shooting and Control Procedures
- Troubleshoot Techniques

## **VISUAL SYSTEMS**

#### **VIRTUAL & AUGMENTED REALITY TECHNOLOGIES**



As Simsoft, we integrate the Virtual and Augmented and also Mixed Reality Technologies to our training systems, especially for our operational level trainings.

In Virtual Maintenance Trainers, effective training is provided when disassembling, installing, diagnostics, etc. are enhanced with Virtual, Augmented and Mixed Reality technologies.



## **DEFENSE, AVIATION & SPACE**



## **DEFENSE, AVIATION & SPACE**

#### AIR DEFENSE SYSTEM SOFTWARE



Simsoft develops and delivers software for air defense systems, artillery and surface to surface missiles. Following capabilities have been developed in this context:

- Air Defense and Weapon System Components
- Weapon Control Systems Management and Target Allocation Algorithms
- Sensor Systems Software
- Target Detection Algorithms
- User Interface Software

#### WEAPON SYSTEM SOFTWARE

Simsoft develops and delivers software for surfaceto-surface missiles and artillery systems. Following capabilities have been developed in this context:

- Sensor Systems Software
- Data Fusion and Target Detection Algorithms
- Weapon System Components
- Weapon Control Systems Management and Target Allocation Algorithms
- User Interface Software



#### AVIONICS SOFTWARE

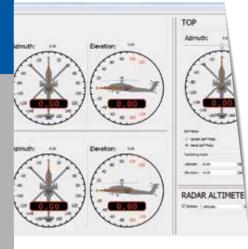


Avionics software employed in electronic systems of aircraft, satellites and space vehicles that comply with regulated safety and reliability requirements is developed by Simsoft.

- Real-time Operating Systems
- Mission-critical System Software (DO-178B)
- Embedded System Software, Hardware and Integration
- Database Management Procedures
- Sensor Mapping Analysis
- Graphical Analysis
- Mission Data Transmission/Reception



## **ROTARY WING AVIONICS SOFTWARE**



High-reliability avionics software employed in electronic systems of helicopters is developed by Simsoft.

- Real-time Operating Systems,
- Mission-critical System Software (DO-178B),
- Embedded System Software, Hardware and Integration
- Development of Symbology Library,
- GIS-based Mission Planning, Mission Analysis
- Database Management Procedures,
- Sensor Mapping Analysis,
- Mission Data Transmission/Reception

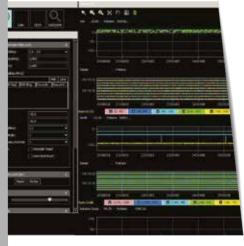
### NAVAL PLATFORM SOFTWARE

System software that collects data from related subsensors in required format and frequency, records and displays this distributed data is being developed. Capabilities in this domain include the following:

- Serial Bus Ethernet Communication Software
- Data Control and Display Units
- Data Control System Power Unit
- Data Control Software
- User Interface Software
- Data Recording and Analysis Software



## RADAR, ELECTRONIC WARFARE & COMMUNICATIONS SYSTEM SOFTWARE



Simsoft develops communication software for transmission of messages, audio and video recordings and data in other formats between platforms, weapon systems and operation centers. Capabilites include:

- Electronic Support (ES) / Electronic Attack (EA) Mission Analysis Software
- Target Management
- User Message Management
- Data Transformation between Different Equipment / Message Systems (INS, GPS, LRF, etc.)



## **DEFENSE, AVIATION & SPACE**

#### **TEST SOFTWARE AND SOFTWARE TESTING SERVICE**



For Mission and Safety Critical Projects, there is a test unit within Simsoft that only provides test services and produces test software in order to ensure that the relevant tests can be carried out by third parties. The capabilities of this unit include:

- Unit Testing Software and Services
- Test Stubs
- Test Automation
- CMMI-3 Procedure
- MIL-STD-498 Documentation
- MIL-STD-973 Documentation

#### EMBEDDED AND APPENDED SIMULATION SOFTWARE

Embedded and appended simulation software are being developed for operator training of platform and weapon systems.

Embedded weapon simulation software is hosted in weapon systems software and can be activated by putting the relevant systems into training mode. Appended simulation software, on the other hand, is generally developed after the production and commissioning phases for any desired system and can be activated by connecting a tablet or laptop computer to the relevant system.



#### MILITARY DECISION SUPPORT SYSTEMS



Decision Support Systems are developed for effective military analysis and decision-making activites.

- Data Collection
- Data Mining
- Advanced Analytics
- Specialized Mathematical Modeling
- Simulation
- Future Prediction
- Impact Analysis

18 Simsoft

## **DEFENSE, AVIATION & SPACE**

#### COMMAND AND CONTROL INFORMATION SYSTEMS SOFTWARE

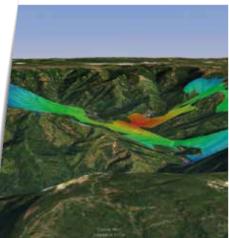


Command and Control Information Systems are developed for automatisation of battlefield command and control activites.

- Personnel Information Systems
- Intelligence Information Systems
- Operations Information Systems
- Logistic Information Systems
- Communication Information Systems
- Presentation of Information in Different Formats and Reports

#### **GEOGRAPHIC INFORMATION SYSTEM (GIS) SOFTWARE**

SIMGIS is a GIS Mapping Application that can be utilized by military application software. Main objective of the application is to display visual map information to users. User can align the maps, create text and graphics in accordance with MIL-STD-2525 B standard, store, modify and erase these graphics and conduct various analyses and measurements.



#### ATLAS SIMULATOR AND TEST AUTOMATION SUITE



ATLAS enables automatization of test simulator generation, test planning and test script development, test input creation, test execution and result evaluation, test report generation and provision of test results to software development applications for avionic and other complex systems.

- A Hardware Simulator and Emulator Environment with a Distributed Architecture
- Modeling Messages of Devices with Various Protocols and Implementation of Device Behaviors
- Hardware Adapters and User Interfaces Support for Multiple Buses



# **GAME & SIMULATION**



## **GAME & SIMULATON**

#### WAR GAME SIMULATION



Simulation systems are developed for improving deciding, managing, analyzing and evaluating skills of leading personnel in every forces on the field and actions under their responsibilities through tactical and strategic level.

- New Model and Behavior Support
- 100+ User Support
- Limitless Scenario Creation Capability
- Touchscreen Control Support

#### **AIRCRAFT RESCUE & FIREFIGHTING SIMULATION (ARSIM)**

Tactical and operational training simulation system for aircraft rescue & firefighting.

- Two Stage Training
- Computer Based Training Support
- Multi Touch Screen Support
- Tactical Training
- 2D / 3D Visual Content
- Game Based Learning
- Content Creation, Test Database & Test Creation
- Performance Evaluation and Feedback
- Student and User Management



## FIREFIGHTING SIMULATION SYSTEM (TOPFIRE)



Tactical and operational training system for firefighting.

- Route Planning
- Fire Notice / Rescue
- Scenario Creation / Multiplayer Mode
- Weather Effects
- Decision Making / Build Your Own Environment
- 3D Vehicles / Fire Stations
- Disaster Management
- Inter-team Communication



## **GAME & SIMULATON**

#### **EMERSIM - MINEVR MINING SIMULATION**



MineVR-Mining Simulation; the training of the personnel working in the underground mines in a risk-free environment with advanced scenario options and the possible emergency situations of the personnel aims to raise awareness.

- Training System with Virtual Reality
- 3D Real Environment Models
- 3D Vehicle and Equipment Models
- Single Player / Multiplayer Training System
- Game Based Learning

#### FAYSIM EARTHQUAKE TRAINING SIMULATION SYSTEM

FaySIM offers real life experience in a risk-free environment with earthquake scenarios.

- Training with VR Based Earthquake Application
- Earthquake Bag Preparation Scenario
- Earthquake Scenario for 7-12 Years
- Earthquake Scenario for Adults



#### SIM IN CLASS CLASSROOM SIMULATION



Virtual and augmented reality based, education system to train teachers.

- 3D Virtual Classroom Environment
- Game-Based Learning / Creating Scenarios
- Single Player and Multiplayer Mode
- Quick Feedback
- Use Of Technology in Learning Environment
- High-Fidelity Artificial Intelligence
- Classroom Management
- Pedagogical Approaches



## **GAME & SIMULATON**

#### MEGA CAPITAL ENTREPRENEURSHIP SIMULATION



Mega Capital - Entrepreneurship Simulation is a simulation that aims to allow the player to experience entrepreneurial adventures while having fun.

- Realistic Adventure of a Startup
- Motivation-Oriented Mechanism
- In-Depth Strategy Game
- 3D Charts
- Leaderboard
- Reporting Support
- Management Information System

#### **EMERSIM - FIREVR FIRE EXTINGUISHING SIMULATION**

FireVR is an interactive virtual reality simulation aimed to provide realistic and operational level training in fighting for A, B and F class fire types with a real fire extinguishing.

- Configurable Hardware Units
- VR Headset and Controller
- Fire Extinguisher Usage
- CAVE
- Air, Smoke & Fire Modeling
- Visualization on Digital Signage



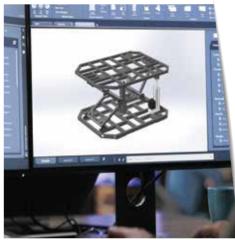


## **SİMMER** Next Generation Simulation Development, Training and Test Center



## SİMMER

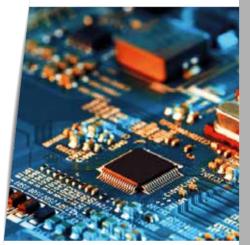
#### MOVING PLATFORM PRODUCTION



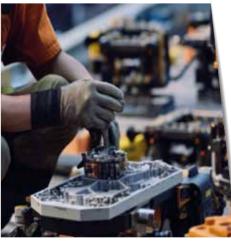
In our SIMMER facility, which operates as a production, integration and test centre for new generation simulators, we continue to work on the design and production of the 2/3 DOF motion platform and the 2/3 DOF upper table. Thanks to our technological infrastructure, we successfully design and manufacture the high-precision electromechanical and electronic systems required for these platforms. In this context, we offer innovative and reliable solutions suitable for the needs of military and civil platform simulators.

#### **ELECTRONIC CARDS**

In our SIMMER facility, which operates as a production, integration and test center for new generation simulators, we also continue our electromechanical product design and production activities.



#### MECHANICAL DESIGN



In our SIMMER facility, which operates as a production, integration and test centre for new generation simulators, we continue our console and trim mechanical design, crew/personnel cabin design and production activities. Thanks to our technological infrastructure, we successfully carry out the production, integration and acceptance tests of training simulators. In this context, we offer innovative and reliable solutions suitable for the needs of military and civil platform simulators.















**ODTÜ (HQ)** ODTÜ Teknokent SATGEB **ANKARA / TÜRKİYE**  **BİLKENT** Cyberpark, Cyberplaza ANKARA / TÜRKİYE HACETTEPE Hacettepe Teknokent ANKARA / TÜRKİYE

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