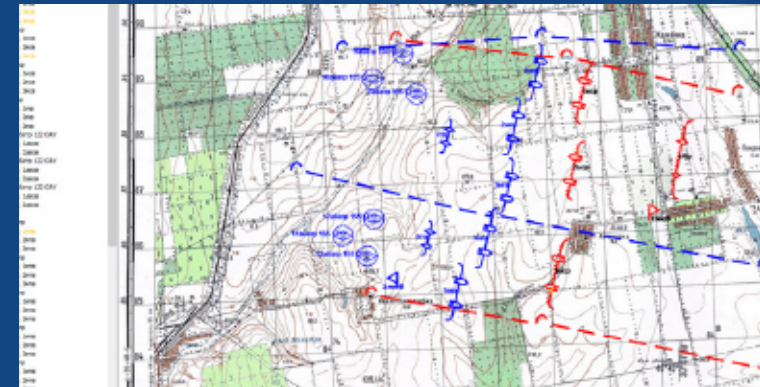# MPS
modern
professional
simulators

COMPANY PROFILE

We are always open for new business opportunities.

We have successful experience in the development of Full Flight Simulators (FFS) / Full Mission Simulators (FMS), Air Traffic Control simulators and Tactical Simulator for officers' staff

So we are glad to propose development of simulators software that meets your needs and fully fits your requirements.

1) Our primarily option is the development of software for the companies that produces computer appliance simulators.

2) Another option is producing cost-effective computer-based trainings.

3) We also have partners that can produce computer-appliance simulators. In this case you can get a turnkey hardware + software solution. We can discuss this option too.

4) Our company can consider offers for producing other types of Simulation & Modelling software for other industrial branches. So, we are open for any propositions and offers that are related to applied software development.

5) We are also ready to communicate about investments into our company.

So, we are open for a discussion. Please, do not hesitate to contact us

Cost effective solutions

We can provide you with our c*ost effective* software development and expertise with our development center *in Ukraine.*

Military domain professionals

Ukraine has lots of highly skilled technical specialists: programmers, engineers, subject matter experts in the field of aviation and army. This is a result of our history: Ukraine was a part of the USSR and the second USSR republic by army power. The USSR had the development of a powerful army as one of the priority tasks, that's why education in the USSR was military oriented. As a result there are many experts in the military sphere that work in Ukraine. Besides, there were a lot of technical universities in the Ukrainian Republic of the USSR, and they still train a lot of good technicians. Furthermore, this company has been founded by two Masters of Science graduating from System Design Department of National Technical University of Ukraine "KPI". So, *working with us means that you will get both highly qualified programmers and engineers in military/aerospace domain.*

Experience and Expertise

You do not have to hire common programmers and engineers and train them in the military and simulators knowledge domain. We have 5+ years of expertise in military simulators software domain and can solve your tasks with minimal efforts and man-days. We have programmers, electrotechnical engineers and subject matter experts. *Working with us you will get not only programmers. You will get our experience and expertise.*

Turnkey solutions

You can outsource to us some task or project, and you will get a result on turnkey basis. You do not have to waste your resources for managing a team and solving operational tasks within your operational structure. *You will get a solution for your problem by outsourcing the whole task to us, and we will manage it for you*

Gate to Ukraine's outsourcing market

Ukraine's software outsourcing market is one of the best in the world. Low rates and at the same time highly skilled professionals can make high quality software for low price. *Our company can be your gate to the Ukrainian Software outsourcing market*

MPS modern professional simulators

Core Business: Simulator's software development
Founded: 2008
Main R&D center: Kiev, Ukraine
Number of employees: 26

We are company with 5+ years of expertise in the field of software development for computer appliance simulators.

Our mission is to be the company that produces high quality Modelling & Simulation software solutions that maximally satisfy customer's needs.

Having a high qualified team of system architects, developers, analysts, engineers and subject-matter experts we successfully develop Modeling & Simulation software with necessary level of quality.

As we have a development center in Ukraine, we can provide you with cost effective but high-fidelity solutions, as the professional level of ukrainian IT specialists is high.

OUR PORTFOLIO

- MI-8/MI-17 helicopter Full Mission Simulator (FMS)
- Aero L-39 airplane Full Mission Simulator (FMS)
- Air Traffic Control Simulator
- Tactical Simulator for officer's staff
- Computer Based Trainings

OUR SERVICES

- FFS (Full Flight Simulators)
- FMS (Full Mission Simulators)
- AI & Virtual Reality Worlds
- Tactical Simulators for Officer's Staff
- Terrain Generation and Modelling
- Air Traffic Control simulators
- Geospatial programming Computer Based Trainings / Training Procedure Devices
- 3D Visualization
- Web development

OUR PRODUCTS

- FFS/FMS Simulators Skeleton
- Air Traffic Simulation Skeleton
- HLA Framework
- On-Board Systems Framework
- On-Board Systems testing framework
- Digital vector maps based world generator
- Relief modelling framework
- 3D Visualization Framework
- Virtual Reality Engine
- AI (Artificial Intelligence) Engine
- Extended Digital Vector Maps Framework
- Remote Application Launcher Framework
- Solution Testing Framework
- Self-Made Data Framework (Plasticine)
- UI Framework
- Automatic UI generation module
- Responsive Event-Driven UI Framework
- Exercises preparation center (Characteristics editor, Environment editor, Mission editor)

MPS modern professional simulators

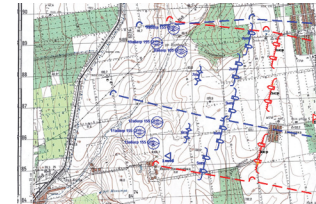### Mi-8/Mi-17 helicopter Full Mission Simulator (FMS)
Aero L-39 aircraft Full Mission Simulator (FMS)

These simulators are HLA-based computer appliance Full Mission Simulators (FMS) with 6 degrees of freedom motion platform, hardware copy of cockpit with realistic copies of all devices, sound effects and cockpit device illumination system, instructor operating stations, media classroom and spherical display for Outside World visualization.These simulators are network-based and can act in a shared virtual environments with each other, dispatcher center simulator workplaces and other simulators using HLA protocol.

- Simulation of flight dynamics
- Modelling of atmospheric effects and weather
- Procedural and flight operations
- Network interactions using HLA 2010 protocol
- HLA integration with dispatcher center simulation

- Simulation of on-board systems
- Integration with different types of motion platforms
- Different types of cockpit visualization systems
- Instructor operating stations
- Realistic modelling of a real-world terrain area

Tactical Simulator for officer's staff

Tactical simulator allows officers to train and improve their tactical skills of commanding formations in combat conditions.

This is a collective training where a team of officers from both sides takes part in simulator training using a computer network. Officers study to plan and fight a battle, with possibilities of what-if tactical analysis and after-action review.

- Planning and fighting simulation modes
- Possibilities for what-if analysis
- Units from different military branches
- On-map visualization
- On-map drawing mode

- Instructor operating station
- Debriefing and after-action review
- Network based simulator
- Mathematical modelling of physics processes
- Real-time simulation

MPS modern professional simulators

Air traffic control simulator

This simulator has a set of workplaces for dispatchers or air control officers where each of them can train to control the air traffic and solve different air traffic problems.

Also this simulator have powerful Instructor Operating Station for exercises preparations, controlling and after action reviewing.This simulator is network-based and trainees at workplaces can act in a shared virtual environment with each other, man-in-the loop aircraft simulators and instructors using voice hardware and HLA protocol.

- Realtime air traffic modelling and management
- Man-in and computer in-the-loop aircrafts
- Modelling of airport-related environment
- Radar work simulation with visibility zone
- Realistic modelling of flight dynamics and trajectories

- HLA based network simulator with FMS interactions
- Instructor Operating Station
- On-map and 3D views
- Editors for configuration of airport-related environment
- Debriefing and after-action review

Computer Based Trainings

As part of FMS and Air Traffic Control simulators development, we developed Computer Based Trainings (CBT) for cost effective trainings.

Due to our architectural principles, same software is used both for Full Mission Simulators and Computer Based Trainings. So, we made less expensive training solutions based on low-fidelity hardware but still with high-fidelity software.

- All the same features of hardware simulators
- Cost effective solutions
- Software emulation of all the hardware
- low-fidelity hardware but still high-fidelity software
- HLA based network simulators
- Shared HLA environment with FMS simulators

- Used by instructors for playing up to trainees
- 2D and 3D visualization of emulated hardware
- Huge amount of simultaneously operated simulators
- Easy extendable solutions

MPS
modern
professional
simulators

Vitaly Baranovsky, Founder & CEO

- 12 Years of total software development experience
- Master of science (System design)
- 8 Years of management skills
- Establishing and managing own M&S company for 5+ years
- Heading all the company Project and Product Management activities
- Heading Sales and Marketing activities

Dmitry Yavorsky, Founder & CTO

- 11 Years of total software development experience
- Master of science (System design)
- 8 Years of software architecture skills
- Strong technical background in M&S solutions
- Solution architect in own company for 5+ years
- Technical ideologist of all simulators and M&S products of company

Having high qualified team of system architects, developers, analysts, engineers and subject-matter experts we successfully develop software for different simulators with necessary level of quality.

Subject-matter experts

- Aerodynamics modelling experts
- Flight modelling expert
- Radar expert
- Airfield equipment and traffic expert
- Infantry and artillery tactic specialists

Engineering staff

- Programmers staff
- Electro-technical engineering staff
- 2D and 3D Designers
- 3D Visualization developers