

# Inraz Ltd. Company Profile



#### Inraz Ltd.

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# **Business profile**

Since its founding in 2003 by Ynon Raz, Inraz worked for big companies on large scale projects.

Inraz provides software and hardware professional development solutions and consulting on a wide variety of projects in the military and civilian sectors.

Inraz gather a rich experience in developing project from the grounds up using cutting edge technologies on a wide range of platforms.

We emphasize on excellence and perfections.

For more information please visit our web site: <a href="http://www.inraz.com">http://www.inraz.com</a>

## **About**

Inraz provide professional software and hardware projects development and consulting. Inraz provides services in every aspect of software and hardware development, including testing, consulting, outsourcing, training and deployment, infrastructure services and hardware.

Inraz customers are leading organization in Israel from industry, eCommerce, military, medical and internet sectors.

#### About the founder - Ynon Raz

Has over 25 years of experience in the field of software development and consulting, Worked with many military companies in Israel such as Elbit Systems, Refael and TAAS. Worked and lead tens of projects for many companies in the private sector dealing with all aspects of software and hardware products development.

In 1996 he worked as the CTO of startup company developing voice inscription application using DSP technology, in 1998 he taught at the college of administration. Subsequently In 1999 he founded and act as the active manager of EyeTEC 3D, a startup company developed an innovative patentable technology for streaming 3D content on narrow band networks.

In 2003 he founded Inraz Ltd.

He also acts as a board of director's member in cooperated companies.



# **Expertise**

Inraz develops software for wide variety of areas, and participate in all aspects of development: Requirements specification, technologies selecting, system engineering, architecture and design, testing, documents writing, development, integration and support.

The following are our main development expertise

#### **Military applications**

Inraz has huge knowledge of air and land military application. Inraz participated in many land and air trainer development and many airborne and simulated avionic applications for fighter jets, light aircrafts, military and civilian's airplanes and helicopters, Inraz CEO is a licensed pilot. Our unique experience helps us participate in early stages of system engineering and design.

#### **Simulations Engine**

Beyond system unit tests Inraz develops devices simulators which simulate the real behavior of the real thing. The simulators communicate with the test unit via standard connections such as discrete, analogs, arinc, muxbux, tcp/ip etc.

#### Software debugging and profiling

Consulting and solving on complex software crashes and performance problems.

#### **User Experience**

Inraz has many years of experience in developing Man Machine Interface (MMI) in all its aspects of design, integration and efficiency.

- advance 2D
- Video
- WPF/HTML5 advance UI design and integration with applications
- 3D engine and optimization

Inraz has its own cutting edge UI platform based on WPF or HTML5 front-end and C++ back-end. This platform provides a clear separation between Business logic developer and MMI design, this unique architecture approach let companies concentrate and develop their own core business applications.



#### IT and Networking

Inraz has experience in Information Technology in all its levels and managements. Area of activity includes:

- Web sites development, using cutting edge technologies (SPA, Angular, react)
- Information management
- Advance network security
- Databases, big data (ElasticSearch)

#### **Drivers & System internals**

Inraz has unique knowledge on developing special low level component for Microsoft Windows and Linux kernels. Also a vast knowledge on developing drivers for all kind of PCs peripherals hardware devices:

- Graphic and Multimedia: Video and Audio
- Storage
- Buses (PCI, Compact PCI, VME, SCSI, USB, CAN)
- Communication (Ethernet, ATM, Serial, Parallel, Optical)
- System Controllers
- Interrupt Controllers

Inraz also consults on system optimization for performance, memory efficiency and networking.

#### Dot .Net

Microsoft Dot Net technology has grown and supported not only in Microsoft windows platform, Inraz keep to be updated. C#, ASP.NET, web objects etc.

#### **Quality Assurance**

Inraz conduct manual and automatic tests, our QA use tools for testing wide variety of system aspects, including documents writing and ATP procedures.



# **Customers and Project**

The following is a partial list of our customers and completed projects begins with the latest

#### **B-Wise Ltd**

A social network application for 50+ expert.

Web application developed with Angular2, server side is a C# application interface with ElasticSearch NoSQL database.

## Samsung R&D Ltd

X-Ray medical application: Image processing Matlab code to high performance OpenCL C++ code

## **Elbit Systems Ltd**

- Vector Map editor: graphical application for displaying, manipulating and exporting 2D vector map data.
- Boing F18 aircraft's MPCDR host simulation: W-RAM Editor & Simulator application.

The Multipurpose Color Display (MPCD) is a graphical engine intended to display formats. The objective of the W-RAM Simulator application development is to establish a host-simulation for the development of the display formats.

The W-Ram host simulation provides the following capabilities:

- ✓ Create, edit and display W-RAM macros file & Radar serial data sets
- ✓ Read external W-RAM dump & external radar data sets dump
- ✓ Export W-RAM parameters data to dynamic data injection (DDI) application
- ✓ Export Radar serial data sets parameters to dynamic data injection (DDI) application
- ✓ Export macros to W-RAM files
- ✓ Export radar serial data sets
- ✓ Create and display disassembly of W-RAM macros & of Radar serial data sets
- ♣ F5-Brazil: ACMI applications
  - √ 3D engine integration and enhancements.
  - ✓ Real time 3D simulation for missiles and aircrafts.
- ♣ IR99 Aircraft: Avionic devices simulation using SimEngine application. (Romanian Air force)



JHMS Night project: SimEngine application for Blocks and Element editor and runtime injection.

The objective of the JHMCS NIGHT supporting tool application development is to monitor and control the on the JHMCS EUs' DPR via RS232 communication interface.

The application provides the following capabilities:

- Read data from specified address via RS232 protocol.
- ✓ Write data to specified address via RS232 protocol.
- Create, edit and delete element data sequence.
- ✓ Save and load previously created element data sequence setups.
- ✓ Record and play data transferred to/from target.
- ✓ Create (record) and edit script files.
- UAV: Digital Video Recorder (DVR) façade controlling component via TCP/IP HTTP standard communication port.
- Virtual combat Arena Generator: over MAKs <u>VRForces</u> application, creating and managing of virtual and real forces in runtime.
  - QT platform GUI
  - MAP 2D drawing
  - STL Database optimization
- ♣ Tank Team trainer (Merkava 3,4): team leader for tank team trainer system, the Tank team trainer is a complete solution for simulating virtual combat arena for the Israeli Mercava Mark 3 and Mark 4 tanks, the trainer plugs in the tanks hardware systems and simulates combat arena by injecting virtual signals and synthetic 3D and 2D visuals.
- UAV Shelter maintenance system, has the following capabilities:
  - network setup,
  - · oracle database management
  - system diagnostic

The maintenance system has the following subsystems, One MMI application controlling several PCs, VxWorks, Video Muxers, Switches and routers. Utilizing, TCP/IP, RS232.

- Migration of Elbit 2D and 3D Map core system to embedded CE. Map core is the main visual component for Elbit Systems avionic and ground station application.
- AZIT4 project, Air traffic control system: Front End enhancements and trackers models.

# Samsung medial



Matlab algorithm migration to effective RT C++ code

#### Cathworks Ltd.

- UI development and integration using Inraz's UI propriety platform,
- ♣ 3D renderers (with shaders) for Cine and 3D vessels.
- Algorithm translation into CUDA

# **HumanExtension Ltd.**

Synthetic 3D robot simulator for medical trainer.

## Mediguide Ltd.

Inraz Participant in the development of the new version of Mediguide System, and variety of demos and sub components.

## Philips medical systems Ltd.

develop and Consulting for optimizing Philips medical application in MMI and data management.

#### **BVR Ltd**

Consulting for system migration from Microsoft windows running on PC104 to Integrity RT operating system.

# **Technion Incubator**

- CRM applications.
- Variety of medical applications.

#### PlayIL Ltd.(startup company)

- Internet multi player 3D Game application.
- Flash Client for 2D game
- Multi Servers layout environment, utilizing Internet communication and MS-SQL.
- ♣ Dot.Net Internet secure sites

#### REFAEL

♣ Development of variety of supporting components.



Participant in the development of project name CANDY, MMI application that controls, setup and diagnostic of remote stations and radios.

## **Enigma Ltd.**

Development of audio encryption device over land lines and cellular communication, the development was under Texas Instrument and Analog Devices DSPs.

## Eyetec 3D Ltd. (startup company)

Startup Company developing patentable 3D streaming content utilizing special developed 3D renderer engine.

## Muscle Tech Ltd (startup company)

Developing orthopedic medical application for displaying and controlling medical mechanical device via USB.

The Orthopedic application designed to assist in evaluation and treatment of patients suffering from movement impairment