



## REFERENCE LIST

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The reference list contains main projects implemented by Mallenom LLC and its affiliated company Mallenom Systems LLC in 2001-2019 in the following fields:

- Industrial machine vision
- Railcar identification, rail scales automation
- ANPR (LPR) and truck scales automation
- Intelligent systems, modeling systems



## 1 Industrial Machine Vision

Enterprise	Project
Robert Bosch Saratov	Machine vision system to control the size of spark plug gaps using Cognex smart cameras
Severstal	Machine vision system to control hot metal cutting using Cognex smart cameras in Sheet rolling shop №1
Joint Institute for Nuclear Research (Dubna, Moscow region)	Machine vision system for identification of nanofiltration membrane pore parameters
AIRS (Kazakhstan)	Printed products quality control system
Confidential (project for the enterprise of the military-industrial complex)	The system to identify industrial workpieces by surface texture
	The system for optical recognition of embossed text labels on industrial workpieces
Bodegas Valderpablo Neva	Machine vision system to control presence of excise marks on bottles of alcoholic beverages (Salvatore, Sangria, etc.)
Mars Markem Imaje	The system to read the marking of animal feed (Royal Canin, Whiskas и др.)
Pharmstandard-Tomskchimpharm	Tablet quality visual inspection system
Procter&Gamble – Novomoskovsk	The system for visual inspection of washing powder packaging
SmithKline Beecham – Biomed	Drug label reading system
Medical technologies Ltd	Machine vision system to automatically control positioning of rectangular silicon wafers docking with the gas clearance of 20 μm
ALROSA, Research and Production Enterprise “Bourevestnik”, CJSC	The system for automatic classification of rough diamonds by shape based on the optoelectronic method (with processing speed up to 20 diamonds per second)
ALROSA, Research and Production Enterprise “Bourevestnik, Inc.”	R&D: Software for the optoelectronic classification subsystem of the small-dimension rough diamond sorting machine by shape
	R&D: Software for the optoelectronic classification subsystem of the rough diamond sorting machine by color with increased productivity
	R&D: Software for the optoelectronic classification subsystem of the rough diamond sorting machine by clarity
Confidential (project for the nuclear power industry)	The software of the automated system for reading the identification numbers of fuel assemblies
	The software of the automated system for reading the identification numbers of worked-out fuel assemblies
ALROSA, Research and Production Enterprise “Bourevestnik, Inc.”	GUI software subsystem of the hardware and software complex designed to collect data on sorting results on diamond separation machines
Magna Automotive Rus	The system to control bumpers on the conveyor
Eberspaecher Avtovazagregat Exhaust Systems	Product tracking system based on DPM reading
Plastic Enterprise	The system for marking reading (explosion-proof)
BIOCAD	Track & Trace system to read and verify character marking and DataMatrix code

Enterprise	Project
	The system to read DataMatrix code from packages in the corrugated box
Novosibirsk Mechanical Plant “Iskra”	The system for reading ID numbers on the cartridge case
Tyssenkrupp System Engineering	Inspection of engine sealant for Volkswagen
Alcoholic beverages manufacturers (more than 20 implementations)	Product tracking system in accordance with the new legislation of the Russian Federation
ALPLA	Quality control system for plastic bottles
Rifar	Radiator section inspection system
Vyksa Steel Works	The system to read pipe marking

## 2 Railcar identification, rail scales automation

- ✓ Controlling shipment of products by railway transport.
- ✓ Commercial metering station for oil products shipped by railway transport.
- ✓ Automating enterprise’s railway checkpoint, monitoring the incoming/outgoing cars in the interests of the security service.
- ✓ High level software that integrates number recognition points into a single system.
- ✓ High level software that implements the functions of "signaling" to detect cars that leave the company facilities without being weighted, monitoring the movement of cars according to the "friend or foe" criterion.

- LUKOIL-Ukhtaneftepererabotka (Ukhta, RF)
- LUKOIL-Volgogradneftepererabotka (Volgograd, RF)
- Gazpromneft-Omsk Refinery (Omsk, RF)
- Bashneft-Ufaneftekhim (Ufa, RF)
- Novo-Ufimsky Refinery (Novoil) (Ufa, RF)
- Ufimsky Refinery, OJSC (UNPZ) (Ufa, RF)
- Ufaorgsintez (Ufa, RF)
- Krasnoselskstroyaterialy (Krasnoselsk, Belarus)
- Tobolsk-Neftekhim (Tobolsk, RF)
- Mozyr Oil Refinery (Mozyr, Belarus)
- Ilsky Oil Refinery (Krasnodar, RF)
- Kronospan (Moscow region, RF)
- UPNK-PV (Pavlodar, Kazakhstan)
- Stavrolen (LUKOIL) (Budennovsk, RF)
- Syzran Refinery (Rosneft) (Syzran, RF)
- Transneft (Novorossiysk, RF)
- Vladivostok Port (Vladivostok, RF)
- Severstal (Cherepovets, RF)
- RN-Komsomolsky Refinery (Rosneft) (Komsomolsk-on-Amur, RF)
- Zagorsk Pipe Plant (Peresvet, RF)
- Central Asia Cement (Aktau, Kazakhstan)
- Kazakhstan Aluminium (Pavlodar, Kazakhstan)

## 3 ANPR (LPR), truck scales automation

- ✓ Automarshal
- ✓ Automarshal.SDK
- ✓ Automarshal.Vesovaya
  - ANO “Transport Directorate of the Sochi Olympic Games”
  - Baltic Concrete Company, Kaliningrad
  - Ammophos, Cherepovets
  - Apatit, Kirovsk
  - Apatit, Cherepovets

- Ferronordic Machines, Moscow
- Greytek - a network of gas stations and car washes, Moscow
- Electronic Systems-SPb, St. Petersburg
- MPO-Rumyantsev, Moscow
- Aleksin cardboard and paper mill, Aleksin
- Chemical Equipment Plant, Armavir
- Bitum, Salavat
- Car Repair Company (Toyota Center), Surgut
- Matrix Cinema, Barnaul
- Taxi-Service, Cherepovets
- Transacta, Moscow
- Cleverflow, Moscow
- Tensoft, Moscow
- AmurAgroCentre, Blagoveshchensk
- Lunsin, Tuva
- Center for Building Materials 6 Kirovsk
- VMG Industry, Belarus
- RITEK, Kotovo
- Nor nickel, Norilsk
- Air Liquide, Kstovo
- MSW landfill in the Khanty-Mansiysk Autonomous Okrug - Yugra, Pokachi

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