



LIMITED LIABILITY COMPANY

Mallenom Systems

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REFERENCE LIST

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The reference list contains the main projects implemented by Mallenom Systems LLC in the period between 2001 and 2022 in the field of:

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



Industrial Machine Vision

Enterprise	Project
Robert Bosch Saratov OJSC	Machine vision system to control the size of spark plug gaps using Cognex smart cameras
Severstal PJSC	Machine vision system to control hot metal cutting using Cognex smart cameras in the Sheet rolling shop 1
Joint Institute for Nuclear Research (Dubna, Moscow region)	Machine vision system for identification of nanofiltration membrane pore parameters
AIRS (Kazakhstan) LLP	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 CJSC	Machine vision system to control the presence of excise marks on bottles of alcoholic beverages (Salvatore, Sangria, etc.)
Mars LLC Markem Imaje LLC	The system to read the marking of animal feed (Royal Canin, Whiskas, etc.)
Pharmstandard-Tomskchimpharm OJSC	Tablet quality visual inspection system
Procter&Gamble – Novomoskovsk LLC	The system for visual inspection of washing powder packaging
SmithKline Beecham – Biomed	Drug label reading system
Medical Technologies LLC	Machine vision system to automatically control the positioning of rectangular silicon wafers docking with the gas clearance of 20 μm
ALROSA OJSC, Bourevestnik OJC Research and Production Enterprise	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 OJSC, Bourevestnik OJSC Research and Production Enterprise	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 OJSC, Bourevestnik OJSC Research and Production Enterprise	GUI software subsystem of the hardware and software complex designed to collect data on sorting results on diamond separation machines
Magna Automotive Rus CJSC	The system to control bumpers on the conveyor

Enterprise	Project
Eberspaecher Avtovazagregat Exhaust Systems LLC	Product tracking system based on DPM reading
Plastic Enterprise LLC	The system for marking reading (explosion-proof)
BIOCAD CJSC	Track & Trace system to read and verify character marking and DataMatrix code
	The system to read DataMatrix code from packages in the corrugated box
Iskra OJSC Novosibirsk Mechanical Plant	The system for reading ID numbers on the cartridge case
Tyssenkrupp System Engineering LLC	Inspection of engine sealant for Volkswagen
Alcoholic beverages manufacturers (more than 20 implementations)	The product tracking system following the new legislation of the Russian Federation
ALPLA JSC	Quality control system for plastic bottles
Rifar PJSC	Radiator section inspection system
Vykxa Steel Works LLC	The system for reading the pipe markings
Iskra-Service (Kazakhstan) LLP	The system for reading the identification number on shell casings
Imperial Tobacco Volga LLC	The system for reading Dot-Code and text labels from cigarette packs
VEROPHARM PJCS	The system for visual control of pills' quality
Ozon LLC	The system for visual control of pills' quality
BIOSYNTHEZ PJSC	The system for visual control of pills' quality. Training of BIOSYNTHEZ specialists to work with COGNEX equipment
Tyazhpromelektroproekt CJSC	The system for pipe tracking based on the text markings
Rester Pharmaceutical Company	The system for marking and tracking pharmaceutical drugs
BIOTECH LLC	The system for marking and tracking pharmaceutical drugs
EDAS LLC	The system for marking and tracking pharmaceutical drugs
CHEMREAKTIVKOMPLEKT JSC production plant	The system for marking and tracking pharmaceutical drugs
Armavir interdistrict pharmacy base LLC (2 production facilities)	The system for marking and tracking pharmaceutical drugs
RUSAGRO-Tambov LLC	The system for automatic evaluation of the quality of sugar beet (at the acceptance stage)
NIPPON STEEL TRADING CORP.	The system for pipe tracking based on the text markings
Steelamel LLC	System for automatic code reading from boxes
Severstal PJSC	System for monitoring the position of hot rolled coils on the production line

Railcar Identification and Rail Scales Automation

ARDIS is a system that utilizes railcar number recognition technology for railcar recognition, management of cargo dispatch by the railway, commercial railcar inspection, and control of railcar movement and location. This technology is implemented for metrology, logistics and security purposes commonly.

Enterprise	Project
LUKOIL – Ukhtaneftepererabotka OJSC	Commercial inventory of oil products dispatched by the railway. Integration with Mettler Toledo railcar weight scales. 2007-2008.
LUKOIL – Volgogradneftepererabotka LLC	Commercial inventory of oil products dispatched by the railway. Accounting for Archimedes’ principle when weighting the railcar. Integration with Mettler Toledo railcar weight scales. 2007-2008, 2013-2014.
Gazpromneft – Omsk Oil Refinery	Commercial inventory of oil products dispatched by the railway. Integration with Mettler Toledo railcar weight scales. 2008-2009, 2013, 2014, 2016.
Bashneft Oil Refineries: Ufaneftehim OJSC Novo-Ufimsky Oil Refinery OJSC Ufimsky Oil Refinery OJSC Ufaorgsynthes OJSC	Commercial inventory of oil products dispatched by the railway. Integration with Mettler Toledo, Schenk, “Izmeritelnaya Technica” railcar weight scales and Industrial control systems.
Krasnoselskstroyaterialy (Belarus)	Building materials dispatch automation via railcar weight scales. Integration with Mettler Toledo railcar weight scales. 2012.
Tobolsk-Neftehim LLC	Commercial inventory of oil products dispatched by the railway. Integration with Mettler Toledo railcar weight scales. 2013.
Mozyr Oil Refinery OJSC (Belarus)	Commercial inventory of oil products dispatched by the railway. Integration with Mettler Toledo railcar weight scales. 2015.
Ilsky Oil Refinery	Commercial inventory of oil products dispatched by the railway. Integration with Mettler Toledo railcar weight scales. 2015.
Kronoshpan LLC	Inventory of produced products dispatch by the railway. Integration with Mettler Toledo railcar weight scales. 2015.
UPNK-PV LLP (Kazakhstan)	Inventory of produced products dispatch by the railway. Integration with Mettler Toledo railcar weight scales. 2015-2016.
Stavrolen (LUKOIL) LLC	Inventory of produced products dispatch by the railway. 2015-2016.
Syzran Oil Refinery	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. 2016.
Tatneft PJSC	Utilization of thermal cameras to control the loading process. External visual examination and inventory of railcars for security purposes. 2017.
Mozyr Oil Refinery OJSC (Belarus)	Automation of net mass measurement and improvement of dispatch time. Integration with Mettler Toledo railcar weight scales. 2017.

Enterprise	Project
Vladivostok Sea Trade Port PJSC	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. Identification of containers based on railcar recognition. 2018-2019.
Severstal PJSC	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. Integration with Automated System of Railway Control. 2018.
Zagorsk Pipe Plant JSC	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. 2018.
Sizran Oil Refinery Plant (Rosneft) OJSC	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. 2018.
Central Asia Cement JSC (Kazakhstan)	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. 2018-2019.
RN-Komsomolsk Oil Refinery Plant (Rosneft) LLC	Commercial junction for petroleum products inventory for further transportation by the railway. Automation of weighting. 2018.
Kazakhstan Aluminum JCS (Kazakhstan)	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars for the security purposes. 2018
RN-Nakhodka Sea Terminal (Rosneft) LLC	Control for unloading of goods delivered by the railway. Integration with Mettler Toledo railcar weight scales. 2019.
Eastern Port PJSC	Automation of the railway checkpoint at the facility. Inventory of arriving and departing railcars to control the railcars location. 2019-2020.
Stavrolen (LUKOIL) LLC	Inventory of the products dispatched by the railway. Integration with Mettler Toledo railcar weight scales. 2019-2020.

ANPR (LPR) and Truck Scale Automation

Automarshall is a system for access control and account of vehicles based on the number plate recognition technology. Since 2007, Mallenom Systems has integrated more than 2000 systems across Russia, CIS, EU and other countries. Some of these integrations include:

- Vnukovo International Airport, Moscow
- Sofia International Airport, Sofia, Bulgaria
- Saint Petersburg International Economic Forum, Saint Petersburg
- Transport Directorate of Sochi Olympic Games, Sochi
- Fazer, Moscow and Saint Petersburg
- KRASHMASH Company Group, Moscow
- Moscow Narcology Center for Education, Research and Treatment of the Moscow Department of Health
- Perekrestok Distribution Center, Leningrad region
- Globus Shopping Center, Shelkovo, Moscow region
- Lotos Business Center, Shelkovo, Moscow region
- De Bosschen Business Park, Oud-Beijerland, the Netherlands
- Cottage village Aquatoria Istra, Moscow region
- Martin's Hotel, Louvain-la-Neuve, Belgium
- Warehouse complex, Prime Logistics LLC, Belgorod
- KIA dealership centre on Yougorsky tract, Surgut
- Oil field, NK Rosneft PJSC, Moscow
- VGM Industri IOOO, Mogilev, Belarus
- Pikanta, Astrakhan
- Container filling station GC Argosi, Samara
- Baltic Concrete company LLC, Kaliningrad region
- Apatit JSC, Kirovsk
- Ferronordic Machines LLC, Moscow
- Greytech LLC, franchise of filling stations and car washes, Moscow
- Rumyantsev intergovernmental organisation, Moscow
- Chemical equipment plant, Armavir
- Bitum LLC, Salavat
- Car repair company (Toyota Center), Surgut
- Matrix Cinema, Barnaul
- Moscow State University, Moscow
- Wildberries, Moscow
- Emerald's Valley residential complex, Moscow region
- Sweet Life LLC logistics complex

Automarshall.Weighbridge is a hardware-software complex that solves full range of tasks for weighbridge automation. These include the number plate recognition, automated net weight measurement, possibility of a complete autonomous operation, control of traffic lights, road barriers and illumination, automated generation of paperwork, video surveillance and more. Since 2013, Mallenom Systems has implemented almost 50 complexes at production facilities in wide variety of industries. Some of these implementations include:

- Baltic Concrete company LLC, Kaliningrad
- Apatit (Ammofos) JSC, Cherepovets
- PhosAgro-Cherepovets, Cherepovets
- Angarsk Polymer Plant JSC, Angarsk
- Amursk Oil Extraction Plant LLC, Belogorsk
- AmurAgroCenter LLC, Blagoveshensk

- Air Liquid Kstovo LLC, Kstovo
- Ammoniy JSC, Naberezhnye Chelny
- VGM Industri IOOO, Mogilev, Belarus
- RITEK OJSC, Kotovo
- Lunsin LLC, Kyzyl
- Ural Metal Company LLC, Magnitogorsk
- Stavropol Plant of Bread Products LLC, Stavropol
- Norilsk Refinery Plant, Norilsk
- Mettler-Toledo Vostok JSC, Moscow
- Department of Automotive Roads of Ulyanovsk region
- Ecolight LLC, Pokachi
- RITEK LLC, Volgograd region
- Design and Engineering Technological Bureau GAZENERGOPROEKT LLC, Nizhni Novgorod region
- Pikanta, Archangelsk
- Smerfit Kappa Saint Petersburg JSC, Vsevolozhsk
- ZapSibNeftekhim LLC, Tobolsk
- Agro-Center LLC, Belgorod region
- Niznekamskshina PJSC, Niznekamsk
- Basic Metals OJSC, Chukotka AO
- CSM LLC, Kirovs

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