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Oil & Gas

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	Croatia	JANAF oil pipeline	Metering facilities	0,4 kV power distribution and hazardous areas	Design as built
2006.	Croatia	JANAF oil pipeline	Metering and calibrating facilities	0,4 kV power distribution and hazardous areas	Design for construction
2006.	Croatia	JANAF oil pipeline	Tank truck loading Omišalj	0,4 kV power distribution	Design for construction
2006.	Croatia	INA	Hydrocarbons storage facility Osijek	Extension and rehabilitation of control and supervision	Detail design
2006.	Croatia	INA	Tank truck loading and hydrocarbons storage facility "Sustjepan" Dubrovnik	Set-stop valves and electronic equipment	Design for construction
2006.	Croatia	INA	Hydrocarbons storage facility 'Osijek'	Control and supervision	Design for construction
2006.	Croatia	INA	Airport plane refuelling services	Level measuring and overflow protection	Design for construction
2006.	Croatia	INA	Tank truck loading Sv. Kajo and facility Vranjičko Blato - Solin	PLC controlled recirculation pumping	Design for construction
2006.	Croatia	INA	Tank truck loading Sv. Kajo - Solin	Dispatching and metering line LUS	Design for construction
2006.	Croatia	INA	Tank truck loading Sv. Kajo, Mala obala and Vranjičko Blato	Measuring equipment	Installation and implementation supervision

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	Croatia	JANAF oil pipeline	Berths 1 and 2	Tank truck loading - reconstruction and extension	Basic and design for construction - instrumentation, measuring and control
2006.	Croatia	JANAF oil pipeline	Petrol & diesel	Tank truck loading - reconstruction and extension	Basic and design for construction - instrumentation, measuring and control
2006.	Croatia	JANAF oil pipeline	Petrol & diesel	Manipulative pipelines - reconstruction and extension	Basic and design for construction - instrumentation, measuring and control
2006.	Croatia	INA	ETAN - IVANIĆ GRAD, storage of "i" and "n" penthanes	Tanks G3 - G7 modifications	Basic and design for construction - instrumentation, measuring and control - linking to central DCS
2006.	Croatia	MONTKEMIJA	LPG Storage and technical gases - Bakar	Fire detection	Detail design
2006.	Croatia	Harbour Vukovar	LPG - unloading, storage and dispatching	Berths, tanks, cars refueling and bottles refilling	Study required for legal permits - instrumentation and el. power
2006.	Croatia	INA	Oil refinery Sisak	Hydrogen purification - Section 301 PSA 1	Design for construction - instrumentation, measuring and control
2006.	Croatia	JANAF oil pipeline	Tank truck loading	Hydrocarbons storage, handling and additives dosing	Hazardous areas study, design for construction - measuring, supervision and control
2006.	Croatia	INA	Gas and compressor facility ŠANDROVAC	Moto compressors WOKESHA, MK-2	Design review, as-built design, preparation for technical inspection.
2006.	Croatia	INA	Gas and compressor facility LIPOVLJANI	Moto compressors WOKESHA, MK-5	Design review, as-built design, preparation for technical inspection.
2006.	Croatia	INA	Petrol station Marsonija jug	LPG vessels, pumps, flow measuring and distribution	Design for construction - LPG car refuelling facility
2006.	Croatia	JANAF oil pipeline	Terminal Sl. Brod	JANAF oil pipeline - reconstruction of slop system	Design for construction - slop system and piping
2005-6.	Croatia	PLINACRO	Gas pipeline system	6 metering facilities	Implementation of communication protocol IEC60870-5-101, programming and commissioning
2005.	Croatia	JANAF oil pipeline	Virje, Sisak, Melnice, Omišalj	Power distribution and hazardous areas	Design, hazardous areas, protection calculations
2005.	Croatia	JANAF oil pipeline	Compressor facility Omišalj	Reconstruction, power distribution	Design 6kV, 0,4kV
2005.	Croatia	JANAF oil pipeline	Tank truck loading	Fire detection and fire fighting sistem	Design, Detronix components
2005.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Gas dispatching - new tanks V903A/B/C	New levels control and supervision system - procurement, programming, commissioning
2005.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Column T-351 and new operator station	Procurement, programming, commissioning
2005.	Croatia	TANKER-KOMERC	Terminal Gaženica Zadar	LPG loading, storage and dispatching facility	Feasibility and economical study.
2005.	Croatia	DALMACIJA-CEMENT	Hydrocarbons storage Solin - "Sv. Kajo"	Crude oil storage facility	As built design - measuring and implementation supervision
2005.	Croatia	INA	Ships loading facility - Mala Obala Solin		Design review no. 1019-S-000-M01
2005.	Croatia	INA	Tank truck loading and storage facility "Bjeliš" Slavonski Brod	Set-stop valves and electronic equipment	Design for construction

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2005.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	LPG storage, additional tanks	Basic and design for construction - instrumentation, control and supervision - linking to central DCS.
2005.	Croatia	DIOKI-ETILEN	Process gases analyzers	Process analyzer for acetylene, hydrogen, methane and CO ₂	As built documentation - supervision and control.
2005.	Croatia	INA	I-butane plant	Process analyzer for "I" i "N" butane	Hazardous areas study, as built documentation - supervision and control, linking to central DCS.
2005.	Croatia	INA	Oil gathering facilities SS IVA 1 and SS IVA 2.	Crude oil processing	Design for construction - supervision, control and data transmission.
2005.	Croatia	JANAF oil pipeline	Tank truck loading facility	Fire detection system	As built documentation - fire detection and fire fighting system
2005.	Croatia	JANAF oil pipeline	Fixed submerged piping	Omišalj bay - crude oil pollution prevention	As built documentation - instrumentation, control and data transmission.
2005.	Croatia	JANAF oil pipeline	Dispatching pumping facility - terminal Omišalj	SLOP tanks	As built design, installation and commissioning
2005.	Croatia	ENEL ATM	LPG car refuelling facility	Hazardous areas, explosion protection, mechanical & process design, power distribution and lighting, instrumentation, fire fighting & protection	Type design
2005.	Croatia	PLINACRO	LNG metering & pressure reducing facility - Osijek 1	LNG temperature control system	Design for construction - instrumentation and control
2005.	Croatia	JANAF oil pipeline	Terminal Omišalj	JANAF oil pipeline - slop system reconstruction	Design for construction - slop system and equipment
2005.	Croatia	JANAF oil pipeline	Terminal Sisak	Metering and calibrating facility - storage and pumping facility reconstruction (petroleum, diesel and hyphenol)	Basic and design for construction - mechanical part - pipelines and equipment
2005.	Croatia	JANAF oil pipeline	Metering facilities - Slavonski Brod, Virje, Sisak, Omišalj	Piping installation for mobile flowmeter connection	Basic and design for construction - mechanical part - pipelines
2005.	Croatia	INA	Petrol station Ražine - Šibenik	LPG car refueling	Design for construction and implementation supervision
2004-5.	Croatia	JANAF oil pipeline	Metering facilities	Power distribution	Design and implementation supervision, 0,4kV
2004-5.	Croatia	JANAF oil pipeline	Oil pipeline metering facilities - Slavonski Brod, Virje, Sisak, Omišalj	Reconstruction & modernisation of measuring and control systems	As built design and implementation supervision
2004.	Croatia	HRVATSKE ŽELJEZNICE	Rail tanks discharging	Motors & drives, lighting, grounding, hazardous areas	Design
2004.	Croatia	INA	Dispatching terminal Šandrovac	Power distribution and hazardous areas	Design - hazardous areas study
2004.	Croatia	JANAF oil pipeline	Compressor facility	Motors & drives, grounding	Design - motors and drives, grounding grid
2004.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	ZONA 900 - gas storage tanks - level measurement and supervision system	Procurement, programming, commissioning
2004.	Croatia	INA	Hydrocarbons storage Solin	Installation of metering systems - fluids quantities	Conceptual design - tank farm measuring and implementation supervision
2004.	Croatia	TIFON	Diesel fuel discharging & loading facility Vukovar	Measuring and supervision	Design for construction

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2004.	Croatia	PROPLIN	LPG storage facility DC Osijek		Design for construction
2004.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	LPG truck and rail tank loading	Detail design
2004.	Croatia	INA	Hydrocarbons storage Osijek	Measuring	Design for construction
2004.	Croatia	INA	Hydrocarbons storage Solin (SV. Kajo and Vranjčko Blato)	Measuring	Design for construction
2004.	Croatia	INA	Underground gas storage Okoli	System for checking ribbon cables insulation and remote crane control	Design for construction - electrical power system
2004.	Croatia	INA	Oil refinery Sisak	PONO - maintenance management system (18 users)	Application programming and commissioning
2004.	Croatia	INA	Maziva Mlaka - Rijeka refinery	Bitumen plant - instrumentation and control - heater 203 H-001	Design, procurement, installation and commissioning
2004.	Croatia	INA	Underground gas storage Okoli	Gas quality and quantity measuring	Design for construction
2004.	Croatia	INA	CPS MOLVE - gas treatment plant	Dispatching - gas quality & quantity measuring	As built design & hazardous areas study
2004.	Croatia	INA	Maziva Mlaka - Rijeka	Air compressors facility - instrumentation, gas quality and quantity measuring	Design for construction - instrumentation
2004.	Croatia	INA	Maziva Mlaka - Rijeka	Wells B1, B2 and B3 - measuring and control	Design for construction - instrumentation
2004.	Croatia	JANAF oil pipeline	Terminal Omišalj	Hydrocarbons inlet, storage, handling and dispatching	Design for construction - supervision and control system
2004.	Croatia	INA	Compressor facility Lipovljani	Moto compressor MK-05	Design for construction - instrumentation, supervision & control and data transmission
2004.	Croatia	INA	Compressor facility Šandrovac	Moto compressor MK-2	Design for construction - instrumentation, supervision & control and data transmission
2004.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Fire & gas detection at tanks area 903 A to 903 C	Detail design
2004.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Gas tanks G-15 to G-18 and G-02 to G-04, storage of "n"-pentanes and dispatching	Basic and detail design - supervision and process control
2004.	Croatia	INA	LPG pipeline - facility Šandrovac		Design for construction - measuring and data transmission
2004.	Croatia	JANAF oil pipeline	Metering facility - Slavonski Brod	Turbine flowmeters and piping installation, metering line reconstruction and extension	Basic and design for construction - mechanical part - pipelines and equipment
2004.	Croatia	INA	Petrol station Žažina	LPG tanks, pumps, flowmeters and distribution	Design for construction - LPG car refueling facility
2004.	Croatia	INA	Petrol station Ražine - Šibenik	LPG facility	Gas transfer disturbances study
2003-4.	Croatia	JANAF oil pipeline	Hydrocarbons handling	Power distribution and controls	Detail design 0,4kV, modernisation, control and typical control solutions for JANAF facilities
2003.	Croatia	JANAF oil pipeline	Oil pipeline Sisak - Omišalj	Reversible oil pumping, 0,4kV, hazardous areas	Detail design & design for construction, 0,4kV, hazard & operability study
2003.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Column E-106N	Supervision and control system modifications - SW support for E-106N - programming and commissioning

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2003.	Croatia	INA	Oil refinery Mlaka	Heater 201-H-1	Design documents
2003.	Croatia	PROPLIN	LPG storage DC Metković		Design for construction
2003.	Croatia	PROPLIN	LPG storage DC Osijek		Detail design
2003.	Croatia	INA	Hydrocarbons storage Solin	Addition of set-stop valves and electronic devices	Design for construction
2003.	Croatia	INA	Hydrocarbons storage Osijek	Addition of set-stop valves and electronic devices	Design for construction
2003.	Croatia	DIOKI	Liquified ethilene system	INA Naftaplin to INA-OKI pipeline transport	Design review and ammendments
2003.	Croatia	INA	INA Naftaplin - CO ₂ test injection	Crude oil extruding	Design for construction - instrumentation, measuring and data transmission
2003.	Croatia	INA	Underground gas storage Okoli	Production "A" series - extension	Detail design - instrumentation, measuring and data transmission
2003.	Croatia	INA	Maziva Mlaka - Rijeka	Power plant - heater / boiler G-002	Basic and design for construction - measuring, boiler control and power supplying
2003.	Croatia	INA	Compressor facility Žutica	Moto-compressors MK-01 and MK-02 - control system	Design, procurement, installation and commissioning
2003.	Croatia	JANAF oil pipeline	Metering facilities - Slavonski Brod, Virje, Sisak, Omišalj	Pipeline reconstruction, measuring and controls modernization	Basic and design for construction
2002-3.	Croatia	PLINACRO	Regional gas pipeline	Gas metering and pressure reducing facilities	Maintenance and overhaul - for ABB Master and Opto22 equipment
2002.	Croatia	JANAF oil pipeline	Metering facilities Virje, Sisak, Slavonski Brod, Omišalj	Power distribution and hazardous areas	Detail design 0,4kV, hazard & operability study
2002.	Croatia	INA	Oil refinery Sisak	Power supplying system	Outage analysis
2002.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	New process equipment	SW support for new field equipment - programming and commissioning
2002.	Croatia	INA	Hydrocarbons storage facilities Solin, Rogotin and Osijek	Tank level measuring	Conceptual design
2002.	Croatia	PROPLIN	LPG storages DC Kaštela Sućurac		Design for construction
2002.	Croatia	INA	Oil pipeline OS Stružec - Oil refinery Sisak	Pipeline leaking detection system	Detail design
2002.	Croatia	INA	Hydrocarbons storage facilities Solin and Rogotin	Storage & dispatching of hydrocarbons - flow/quantities metering	Conceptual design
2002.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	NGL Etan - OS Graberje	Detail design - measuring and implementation supervision
2002.	Croatia	INA	Maziva Mlaka - Rijeka	Deparaffination and cristallization - reconstruction of temperature control and diluting flow	Design for construction - supervision and control
2002.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Fans EM-601/2, 601/7, 601/4 and 601/5	As built documentation - frequency converters
2002.	Croatia	GPZ	Telemetry RTU PMRS TE-TO 50/30 bar	Supervision and control	Design for construction
2002.	Croatia	GPZ	Telemetry RTU BS ELKA.	Supervision and control	Design for construction

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2002.	Croatia	GPZ	Telemetry RTU MRS Ivanja Reka.	Supervision and control	Design for construction
2002.	Croatia	INA	Oil refinery Zagreb	Condensate return to powerplant's feeding tank	Basic and design for construction - pipelines and equipment
2001.	Croatia	JASTREBARSKO	Gas pressure reducing facility	Power distribution and hazardous areas	Design and implementation supervision 0,4kV, hazard & operability study
2001.	Croatia	JANAF oil pipeline	Oil pipeline Sisak - Omišalj	Reversible oil pumping, 0,4kV, hazardous areas	Detail design - reversible oil pumping, 0,4kV, hazard & operability study
2001.	Croatia	GPZ	Telemetry RTUs: PMRS TE-TO 50/30 bar, BS ELKA, MRS Ivanja Reka	Supervision and control system	Design for construction
2001.	Libya	EL KHOMS - TRIPOLI	Gas pipeline	Supervision and control	Design documents
2001.	Croatia	INA	LPG storage DC Pula		Design for construction
2001.	Croatia	INA	Offshore gas platform Ivana B	Process control & safety system	Detail design
2001.	Croatia	INA	Offshore gas platform Ivana E	Process control & safety system	Detail design
2001.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Heater 15,1 MW	Design for construction - MCC and power distribution
2001.	Croatia	INA	Compressor facility Stružec	Reconstruction & extension	Design for construction - control and supervision
2001.	Croatia	INA	Oil field Žutica	Oil extraction - revamping proposal	Survey study
2001.	Croatia	ŽELJEZARA SPLIT	LPG Gas pipeline, Kaštel Sućurac	Gas pipeline from heat exchangers to "Željezara Split" plant	Basic and design for construction - mechanical part - pipelines and equipment
2001.	Croatia	INA	LPG distribution terminal - Kaštel Sućurac	Control and metering facility, heat exchangers, fire fighting and protection, truck and rail tank loading/unloading	Basic and design for construction
2000-6.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Distributed supervision and control system	Annual maintenance
2000.	BiH	HERCEGOVINA GRADNJA	Truck and rail tank loading/unloading, pumping facility, hydrocarbons tank farm	Power distribution and hazardous areas	Design for construction - 0,4kV, hazard & operability study
2000.	Croatia	INAGIP	INAGIP - gas offshore platforms Ivana "B", "D" and "E"	Power distribution	Design for construction - 0,4kV, nostrification, design review
2000.	Croatia	ETILEN	Hydrocarbons - tank truck loading	Power distribution and hazardous areas	Design for construction - 0,4kV, hazard & operability study
2000.	Croatia	INA	Petrol station Adžijina	Power distribution and hazardous areas	Design for construction - 0,4kV, hazard & operability study; hazardous area classification
2000.	Croatia	PLOČE PLIN	LPG storage, truck and rail tank loading/unloading, electrical substation 10/0,4kV	Power distribution and hazardous areas	Design for construction - 10/0,4kV, hazard & operability study
2000.	Kazakhstan	MONTMONTAŽA	Irrigation facility Kazakhstan	Power distribution	Design for construction - 10/6/0,4kV

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2000.	Croatia	INA	Oil refinery Sisak	Refinery products blending	Optimizing software - programming, HMI, commissioning
2000.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Oil heater 15.1 MW - control application	Programming and commissioning
2000.	Croatia	INA	CPS MOLVE3 - gas treatment plant	Distributed supervision and control system	HMI design & development; HMI conversion to ABB AS500 OS
2000.	U.A. Emirates	ASAB 2 - ABU DHABI	Oil wells - water injection	Distributed supervision and control system	Programming and commissioning
2000.	Croatia	INA	LPG storage DC Zagreb		Design for construction
2000.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Oil heater 15,1 MW	Design, supervision and commissioning; design for construction - power distribution 0,4 kV/ 300 kW
2000.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Gas analyzers "i" and "n" butanes and power distribution	Design for construction - process connections and DCS linking
2000.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Moto compressors WOKESHA	Design for construction - reconstruction of firing and overpressure control system
2000.	Croatia		LNG Gas pipeline	Underground LNG pipeline below Sava river - Sisak	Basic and design for construction - mechanical part - pipelines and equipment
2000.	Croatia	JANAF oil pipeline	Terminal Omišalj	Kerosine, diesel and petrol storage 5000 m3 - piping reconstruction	Basic and design for construction - mechanical part - pipelines and pumponica
2000.	Croatia	PROPLIN	LPG distribution center	LPG metering, heat exchangers and control facilities, pipeline and distribution gas pipeline - extension and reconstruction	Basic and design for construction - mechanical part - pipelines and equipment
2000.	Croatia	KONDAK	Residence complex "Lamele 1-5" - Metković	Gas distribution	Basic and design for construction, implementation supervision - mechanical part - pipelines and equipment
2000.	Croatia	JANAF oil pipeline	Terminal Sl. Brod	Metering facility oil pipeline Donja Vrba - Sl. Brod	Basic and design for construction, implementation supervision - mechanical part - pipelines and equipment
2000.	Croatia	JANAF oil pipeline	Terminal Sl. Brod	Metering facility oil pipeline Donja Vrba - Sl. Brod - oiled sewer system	Basic and design for construction, execution supervision
2000.	Croatia	CNP	LPG terminal - harbour Ploče	LPG storage 30 000 m ³ , pumping and filling, tanker berths etc.	Technical documents required for construction/location legal permit

Power Generation & Distribution

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	Turkey	PETKIM	Power plant - Aliaga	Supervision and control system - steam turbines, protections and auxiliaries	Application programming, HMI design & development, commissioning
2006.	Luxembourg	VIANDEN	Vianden - hydro power plant	Supervision and control system	Application programming, HMI design & development, commissioning
2006.	Costarica	BRASIL	Brasil - hydro power plant	Supervision and control system, linking ABB Advant controllers to Wonderware InTouch operator stations	Application programming, commissioning
2005.	Djibouti	EDD	Centrale de Boulaos, diesel power plant	Supervision and control system	Procurement, integration, application programming, HMI design & development, commissioning
2005.	Egypt	ASWAN	Aswan high dam - hydro power plant	High dam supervision and control system: VSINT	Procurement, integration, application programming, commissioning.
2005.	Morocco	JORF LASFAR	Jorf Lasfar - El Jadida thermal power plant	Supervision and control system	Service, program modifications and commissioning
2005.	Croatia	TE-TO	TE-TO thermal power plant 66MW, Zagreb	Supervision and control system	Service, SW upgrade, commissioning
2004.	Croatia	INGRA	Diesel power plant 3 x 1,25MW		Basic design - 0,4kV, 10kV
2004.	Iraq	AL SHEMAL	Al Shemal - thermal power plant	Circulating water system - supervision and control system	Procurement, integration, application programming, HMI design & development, commissioning
2004.	China	ERTAN	Ertan - hydro power plant	Distributed supervision and control system - modernisation / upgrade	Application programming, HMI design & development, commissioning
2004.	Croatia	INA	Maziva Mlaka - Rijeka power plant	Boilers G-001 and G-002 - steam turbine feeding TA 003	Design for construction - instrumentation
2004.	Croatia	INA	Maziva Mlaka - Rijeka - power plant	Steam pipeline for turbine TA 003	Design for construction - mechanical part
2003.	Syria	OMAR	Central Power Plant, OMAR - power generation & distribution	Supervision and control system - extension - new Frame6 generator and new AC450 controller	Application programming, HMI design & development, commissioning
2003.	Croatia	PLIVA	PLIVA Institute - Electrical substation	Supervision and control system	Application programming, commissioning
2003.	Croatia	HARBOUR RIJEKA	Harbour Rijeka		Design for construction - el. power, cable routing and installation
2002-3.	Syria	OMAR	Central Power Plant, OMAR - power generation & distribution	Supervision and control system, extension - distribution substation TANAK	Application programming, HMI design & development, commissioning
2002.	Bulgaria	MARITZA	MARITZA - thermal power plant	Coal unloading, transport and storage system	Conceptual design
2002.	Iraq	AL SHEMAL	Al Shemal - thermal power plant	Circulating water system - supervision and control system	Basic and design for construction
2002.	China	THREE GORGES	Three gorges - hydro power plants	Supervision and control system, "transit" AC450 process controllers and Information management system	Application programming and design specifications
2001-2.	Vietnam	YALI	Hydro power plant Yali	Supervision and control system	Application programming, HMI design & development, commissioning

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2001.	Syria	OMAR	Central Power Plant, OMAR - power generation & distribution	Supervision and control system, extensions - new turbine and generator GT504	Application programming, HMI design & development, commissioning
2001.	Mali	MANANTALI	Centrale Hydroelectrique de Manantali - hydro power plant	Supervision and control system	Application programming, HMI design & development
2000-5.	Morocco	JORF LASFAR	Jorf Lasfar - El Jadida thermal power plant	Supervision and control system	Application programming, modifications, commissioning
2000-3.	Egypt	ASWAN	Aswan high dam - hydro power plant	Power generation & distribution - supervision and control system	Design, programming, integration and assembly supervision, HMI design & development and commissioning
2000-2.	Syria	OMAR	Central Power Plant, OMAR - power generation & distribution	Supervision and control system, extension - el. substation MALEH	Application design, programming and commissioning
2000.	Germany	NIEDER-AUSSEM	Niederaußem - thermal power plant	Transport system	Workshop documents
2000.	Jamaica	PUBLIC SERVICE KINGSTON	"White River" hydro power plants	Jamaica Public Service Kingston, "White River" Hydro power plants, reconstruction of 3 facilities, supervision and control systems	Design documents
2000.	Iran	KARUN 1	Karun 1 - hydro power plant	Supervision and control system	Application programming

Chemicals

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2005.	Croatia	DIOKI	DIOKI	Compressors - exhaust temperatures measuring	Design, instrumentation detail design
2005.	Croatia	CHROMOS	Solvents storage	Levels measuring	Design for construction
2005.	Croatia	PLIVA	Novi Marof - hazardous materials storage	Protection calculations for lighting power circuits in hazardous areas	As built design - technical inspection preparation
2004.	Croatia	KEMIKALIJE	Tank storage area		Facility revamping - expertise & study, design for construction, reconstruction legal permits
2004.	Croatia	KEMIKALIJE	hydrocarbons storage	Measuring, supervision and control	Detail design
2004.	Croatia	PLIVA	PBF Zagreb	Distribution of deionized water	Project ZGF-381, Facility 53
2004.	Croatia	PLIVA	Savski Marof	Storage and cooling containers	As built design - hazardous areas, Ex protection calculations
2003-4.	Croatia	KEMIKALIJE	Chemicals	Hydrocarbons storage and distribution	Design 0,4kV, hazard & operability study
2003.	Croatia	KEMIKALIJE	LPG storage spherical tanks	Levels measuring	Design for construction
2003.	Croatia	PLIVA	Dry oral forms production	Dosing of purified water	Design, procurement, installation and commissioning
2003.	Croatia	PLIVA	Dry oral forms production	BIN inertization with nitrogen	Design, procurement, installation and commissioning
2003.	Croatia	PLIVA	Injections facility	Purified water connection to clean steam generator and redestilling system	Design, procurement, installation, "USE POINT" SW modifications
2002.	Croatia	DIOKI		Firm assets - DIOKI equipment utilizing in oil refinery Sisak	Feasibility study
2001.	Morocco	SOVRAM	SOVRAM	Phosphate transport system	Conceptual design
2001.	Croatia	DIOKI		Steam generation - steam supplying from PJ ETILEN for location DIOKI-Zagreb	Feasibility study
2000.	Croatia	CHROMOS	"Chromos boje i lakovi" d.d., Zagreb	Business management system - optimizing	Application design
2000.	Croatia	PLIVA	PLIVA - ZGF-272	Dosing of purified water	Design for construction, installation and commissioning
2000.	Croatia	PLIVA	PLIVA - ZGF-272	"BIN" - nitrogen treatment	Design for construction, installation and commissioning

Metals

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	China	JISCO	JISCO - steel mill	CAPL and DRAPL lines furnaces - distributed supervision and control system	Application programming, HMI design & development and commissioning
2005.	China	FENG HSIN	FENG HSIN - steel mill	Transport system for steel mill additives	Basic engineering
2005.	China	NINGBO	Ningbo HAPL - steel mill	Production line - distributed supervision and control system	Application programming, HMI design & development and commissioning
2004-5.	China	BAOXIN	Beilun-Baoxin - steel mill	Hot rolling line HAPL3 - distributed supervision and control system	Application programming, HMI design & development and commissioning
2004.	Turkey	ISDEMIR	ISDEMIR - steel mill	Transport system for steel mill additives	Basic engineering
2004.	China	SHAN TOU	SHAN TOU - steel mill	Vertical steel mill transporter	Conceptual design and design for construction
2002-3.	Algeria	ANNABA	Annaba - steel mill	Hot rolling - distributed supervision and control system	Application programming, HMI design & development and commissioning
2001.	China	SHANGHAI	SHANGHAI - steel mill	Transport system for steel mill additives	Basic engineering

Pulp & Paper

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2005-6.	Spain	HOLMEN PAPER	Madrid - Pulp & paper production - PM62	Supervision and control system	Application programming, HMI design & development and commissioning
2004.	Germany	LEIPA	Leipa - Pulp & paper production - PM6	Supervision and control system	HMI design & development.
2003.	Germany	PALM	Palm Papierfabrik - Pulp & paper production	Supervision and control system	Application modifications and commissioning
2002-3.	Germany	KARLSRUHE	Karlsruhe - Pulp & paper	Supervision and control system	Application modifications and commissioning
2002.	Germany	HÜRTH	Hürth - Pulp & paper prod.	Supervision and control system	Commissioning
2002.	Various ...	VARIOUS	Paper machines	"Parsytec" quality control system	Commissioning
2001.	Russia	SOLIKAMSK	Solikamsk - Pulp & paper	Paper quality supervision system	Application modifications and commissioning
1999-2000.	Germany	KIMBERLY CLARK	Pulp & paper production	Supervision and control system	Application programming, HMI design & development, commissioning

Cement & Glass

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2005.	Egypt	EGC - KAIRO	Float glass plant	Distributed supervision and control system	System survey, application modifications - improvements and maintenance
2002.	Croatia	DALMACIJA CEMENT	Facility "10 kolovoz"	Crude oil storage facility	Design for construction - measuring and supervision
2002.	Croatia	DALMACIJA CEMENT	Facility "Sv. Kajo"	Crude oil storage facility	Design for construction - measuring and supervision
2000-1.	Poland	DYCKERHOFF ZEMENT	Cement plant "Nowiny"	Distributed supervision and control system	Application programming, HMI design & development, commissioning

Food & Beverages

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2005.	Croatia	KARLOVAČKA PIVOVARA	Brewery		Energy audit
2004.	Chile	CHILOR	CHILOR	Sugar transport and storage	Design for construction
2003.	Croatia	SLADORANA - ŽUPANJA	Sugar production plant - Županja	Sugar transport and storage	Detail design
2003.	Croatia	PPK - OSIJEK	Gas pressure reducing facility		Ground grid design
2003.	Croatia	SOJARA ZADAR	Soybean processing plant	Distributed supervision and control system	Application modifications and commissioning
2002.	Croatia	LURA D.D.	LURA - Zagreb	Beverages storage	Conceptual design
2002.	Croatia	BUP BUZETSKA PIVOVARA	Brewery	Waste water treatment reconstruction	Detail design
2001.	Croatia	SLADARA - NOVA GRADIŠKA	Malt production	Gas pressure reducing - 0,4 kV distribution	Design for construction, execution supervision, hazard & operability study
2001.	Croatia	LURA D.D.	LURA d.d.	Dairy production facilities	Environment protection plans
2001.	Slovenia	SLOSAD	SLOSAD - Maribor	Measuring and control of syrup filling process	Design for construction
2000.	Croatia	LURA D.D.	Production facility Bjelovar	Ammonia storage	Hazard evaluation study

Transport Systems

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	Brasil	CARAJAS	CARAJAS	Reclaimer	Basic and design for construction
2006.	Brasil	SAMARCO	SAMARCO	Reclaimer	Basic and design for construction
2005.	Australia	WEIPA	WEIPA	Ship stacker / reclaimer	Basic and design for construction
2005.	Australia	ALCAN GOVE	ALCAN GOVE	Bridge reclaimer	Design for construction
2005.	Australia	ABBOT POINT	ABBOT POINT	Stacker / reclaimer	Basic and design for construction
2005.	Australia	DALRYMPLE 2	DALRYMPLE 2	Stacker / reclaimer	Basic and design for construction
2004.	Germany	KRUPP	Various	Transport bridges and transporters	Design for construction
2004.	Netherlands	CORUS	CORUS	Bridge reclaimer	Basic and design for construction
2004.	Engleska	IMMINGHAM	IMMINGHAM	Stacker / reclaimer	Basic and design for construction
2004.	Australia	DALRYMPLE	DALRYMPLE	Reclaimer	Design for construction
2003.	Australia	DALIAN	DALIAN	Stacker / reclaimer	Basic and design for construction
2003.	New Caledonia	DONIAMBO	DONIAMBO	Reclaimer	Basic and design for construction
2003.	Australia	DAMPIER	DAMPIER	Stacker / reclaimer	Basic and design for construction
2003.	Brasil	VITORIA	VITORIA	Stacker / reclaimer	Basic and design for construction
2003.	China	Tianjin	Tianjin harbour	Stacker	Design review
2002.	China	HSIN TA	HSIN TA	Portal reclaimer	Conceptual design
2002.	Australia	COMALCO	COMALCO	Stacker / reclaimer	Basic and design for construction
2002.	China	SHOUGANG	SHOUGANG	Tripper car	Design for construction
2002.	Australia	BHP	BHP	Tripper car	Basic and design for construction
2001.	Croatia	MEDIKA	MEDIKA Zagreb	Distributive storage	Detail design
2001.	Slovenia	HARBOUR KOPER	HARBOUR KOPER	Stacker / reclaimer	Basic and design for construction
2001.	Australia	Mt. ARTHUR NORTH	Mt. ARTHUR NORTH	Stacker	Basic and design for construction
2000.	Australia	CALLIDE	CALLIDE	Stacker	Basic and design for construction
2000.	Australia	WEST ANGELAS	WEST ANGELAS	Stacker / reclaimer	Basic and design for construction

Building Management

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	Croatia	HOSPITAL ŠALATA	Hospital Šalata, Zagreb	Pathology ward	Design - 0,4kV distribution
2006.	Croatia	ŠRC - SISAK	Boiler-room 5x500kW	0,4kV distribution	Design and construction supervision 0,4kV
2006.	Croatia	HOME - SISAK	Home for elderly persons Sisak	Connection to boiler heating facility ŠRC Sisak	Consulting and execution supervision
2006.	Croatia	ŠRC - SISAK	Boiler-room 5x500kW	Supervision and control system	Configuration, programming, HMI design & development, procurement, commissioning
2005.	Croatia	HOSPITAL - KARLOVAC	General hospital Karlovac	Boiler facility	Consulting and design - drives, hazardous areas
2003-5.	Croatia	INA	LPO building Lovinčićeva bb,Zagreb	Building management system	Consulting, design, procurement, configuration, application programming, HMI design & development
2003.	Croatia	CENTER STANČIĆ	Center Stančić	Boiler heating facility	Energy efficiency study
2003.	Croatia	PLIVA	Research institute building - electrical substation	Supervision and control system - extension	Application programming and commissioning
2003.	Croatia	INA	Oil refinery Zagreb	Products storage (grease, oil, lubricants)	Basic and design for construction - fire fighting & protection
2002.	Croatia	LESNINA	LESNINA - shopping mall	Boiler-room and HVAC - instrumentation	Detail design - instrumentation
2001-2.	Croatia	PLIVA	Research institute building - electrical substation	Supervision and control system	Design, application programming and commissioning
2001.	Croatia	HOSPITAL - NOVA GRADIŠKA	Hospital Nova Gradiška	Gas pressure reducing facility	Design and supervision 0,4kV, hazard & operability study
2001.	Croatia	HOSPITAL - NOVA GRADIŠKA	Hospital Nova Gradiška	Gas boiler-room 3 x 2 MW - revamping	Design 0.4kV, hazard & operability study, execution supervision
2001.	Croatia	INA	Headquarters building, Zagreb	Supervision and control system	Annual overhaul
2000-6.	Croatia	VARIOUS	Family houses, motels	Small LPG cylinders and distribution	Basic and design for construction
2000-1.	Croatia	CITY OF ZAGREB - MALEŠNICA	Residential area Malešnica	Low voltage distribution	Supervision of 0,4kV installation works

Other

Year	Country	End User	Plant - Facility	Scope - Segment	Engagement Description
2006.	Croatia	KAPLAST	Kaplast - Vojnić, painting facility	Renewal and reconstruction - electrical installations	Design 0,4kV
2005.	Croatia	BOHOR	Saw mill Bohor - Bjelovar	Energy consumption	Energy audit
2004.	Croatia	KONČAR	Končar - el. motors production	Electrical power distribution and installations, hazardous areas, drives and motors	Hazard & operability study, design - drives and motors, ESD system
2004.	Croatia	CENTER - SLOBOŠTINA	Medical center, Zagreb-Slobotina	Swimming pool	Consulting - swimming pool reconstruction
2004.	Croatia	KONČAR MT	KONČAR transformers - Zagreb	Production supervision and control system	HMI conversion-upgrade, integration and commissioning
2004.	Croatia	HARBOUR RABAC	Harbour Rabac - berths	Users registration, consumption monitoring and billing (water and electricity).	Application development & programming, HMI design & development, integration and procurement, commissioning
2003.	Croatia	AUTOKOMERC	FIAT - painting, varnishing and preparation works	Power distribution and hazardous areas	Design 0,4 kV, hazard & operability study
2003.	Croatia	HARBOUR PLOČE	Harbour Ploče	Wood terminal - water works revamping	Detail design
2003.	Croatia	HARBOUR PLOČE	Harbour Ploče	Waterworks and power supplying from TS Vranjak - installations along main harbour road	Detail design
2002-3.	Croatia	PLIVA	PLIVA institute	"Laboratory Information Management System"	Software application development
2002.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Extension of process control, business system and local area network	Basic design
2002.	Croatia	INA	ETAN - Ivanić Grad, gas treatment plant	Power supplying system and weighing bridge to existing LAN network connection	Technical documents
2001.	Poland	VOLKSWAGEN	Volkswagen Poznań	Car varnishing shop, SQL server	Program modifications and commissioning
2001.	Mexico	VOLKSWAGEN	Volkswagen Meksiko	Car varnishing shop, SQL server	Program modifications and commissioning
2001.	Croatia	HŽ - KNIN	Railcar diesel refueling system		Design for construction
2000.	Croatia	INAGIP	INAGIP - workshop container	Distribution 0,4kV	Design for construction
2000.	Croatia	ZGO	ZGO - compost plant Zagreb	Distribution 0,4kV	Design for construction
2000.	Croatia	3 MAJ	3 Maj Brodogradilište Rijeka	Instrumentation	Design for construction
2000.	Croatia	MEDICAL FACILITY ŠALATA	Ortopedija Šalata - Zagreb	BMS and structured cabling	Tender documents
2000.	Croatia	HARBOUR ZADAR	Harbour Zadar - protupožarna zaštita	Supervision and control system	Annual overhaul
2000.	Croatia	INA	Various	LPG - small containers 2.7 m3	Type design for construction

Customer Training

Year	Location	End User	Plant - Facility	Scope - Segment	Training Course
2006.	Italy	PETKIM	Power plant - Aliaga, Turkey	Supervision and control system - steam turbines, protections and auxiliaries	ABB 800xA for Advant Master, ABB AC160 Configuration & Programming
2005.	Djibouti	EDD	Power plant Boulaos, Djibouti	Supervision and control system	ABB DCS Maintenance and operation
2005.	Croatia	INA	Ethane plant - Croatia	Supervision and control system	Operator station ABB 800xA
2004.	Croatia	AL SHEMAL	Al Shemal CWS, IRAQ	Supervision and control system	ABB DCS Maintenance and operation
2003.	Croatia	ETAN	Ethane plant - Croatia	Supervision and control system	ABB AC400 configuration & operation ABB AS500OS configuration & operation
2002.	Djibouti	EDD	Power plant Boulaos, Djibouti	Supervision and control system	ABB Advant equipment operation and maintenance.
2002.	Germany	THREE GORGES	HPP - Three Gorges, China	Supervision and control system	ABB Advant equipment operation and maintenance.
2001.	Slovenia	ISKRA SYSEN	ISKRA Sysen, Slovenia	Supervision and control system	ABB AC400 - Configuration & Operation AOW AdvaCommand for NT - Config. & Oper.
2001.	USA	ASWAN	HPP - Aswan High Dam, Egypt	Supervision and control system	ALSTOM Computerized Control System Operation and Maintenance
2001.	Germany	KARUN	HPP - Karun, Iran	Supervision and control system	ABB AC400 configuration & operation