WCC&M!

Wim Cranen, Controls & More!

Personal, education and experience:

Date of birth	:	**13 may 1956**
Languages	:	**Dutch, German and English in word and writing**
Education	:	**Secondary Technical School of Electrical Engineering**
	:	**Higher Technical School of Computer Science**
Courses include	:	**EMC for electrical panels and installations**
	:	**Hydraulics**
	:	**Pneumatics**
	:	**Novell Netware**
	:	**System management Windows NT**
	:	**AVR Microprocessor Technics**
	:	**PIC Microprocessor Technics**
	:	**Eagle PCB Design**
Software	:	**AutoCAD, MG Cad, Autolisp, Inventor, Solid Works, Philips P8,**
	:	**Siemens Logo - S5 - S7 – TiaPortal V11- V12- V13 with Advanced Safety**
	:	**Telemecanique TSX, Allen Bradley PLC2 - PLC5 - PLC250 -**
	:	**SLC500, Moeller Easy, Wonderware Incontrol, Sigmatek DIAS,**
	:	**Bosch-Rexroth (former Indramat) IndraLogic**
	:	**Fanuc RX3I**
DCS-Systems	:	**Yokogawa, Emmersson**
Higher progr. Lang.	:	**Fortran, Pascal, Visual Basic, C, (C++)**
Visualisation	:	**HMI's for Siemens, Telemecanique, Allen Bradley**
	:	**Wonderware**
Motion Systems	:	**Siemens NC 810 - 820 - 850 - 880 - 840D met Simodrive A / D - Sinamics**
	:	**Bosch-Rexroth (former Indramat) Visual Motion and IndraMotion / IndraWorks, Allen Bradley IMC 120 - 123, Anorad**
Frequencycontrollers	:	**Nord, Siemens, Mitsubishi**
Visionsystems	:	**Cognex and Keyence**

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1978 tot 1988 - Employer: Creusen B.V. in Roermond

Duty:

Responsible for the department production inspection and final inspection.

Daily duties:

- design of electrical motors for the "variants design";
- establishment and maintenance of the laboratory;
- research for the realization of a design for an automation for the final inspection;

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1988 tot 2001 - Employer: Hegenscheidt-MFD in Erkelenz (Duitsland) and Detroit - Michigan.

Duty:

Senior Electro engineer and senior controls engineer in the automotive industry.

Daily duties:

Leading large projects for several producers of car engines. (Project names: L850, L5/L6, I4/I5, W8/W12, Zetec-1 en Zetec-2, Puma, Lynx, Duratec)

Within the projects responsible for the following items:

- *At the offer stage;* responsible for the pre-calculation of the electrical side of machinery

- *In the negotiation stage;* technical negotiations with the customer regarding specifications and standards

- *At the production stage;* leading a team of electrical engineers, monitoring the progress in the manufacturing, designing and commissioning of hardware and software, composing and writing the manuals and preparation of the machines for the inspection (FAT and SAT) by the customer

- *In the acceptance stage (FAT and SAT);* monitoring the state of acceptance by the customer

- *in het afnamestadium (FAT en ook SAT);* voor de begeleiding van de afname door de klant

Lead engineer in a product team.

For each machine type there was composed a team of product specialists in various fields. In two of these teams, I was the control specialist for the hardware and software part. This product teams had the task to continue to develop the machine, to search for cost favorable solutions and to implement standardization and monitor production methods. One can see this as a forerunner of systems like e.g. 6-Sigma and Kaizen.

Development and introduction of ISO9000 certification.

For the introduction of quality management system ISO 9000 and derivatives it was necessary to create teams to describe predefined work standards in each department. For the electric engineering department, I played a leading role with regard to the quality standard for electrical work standards and the archiving of electronic data.

Introduction of CAD for electrical schematics and drawings.

Until 1993 electrical schematics were still drawn on paper. I made myself strong for the introduction of a CAD system with additional software. The choice was AutoCAD at that time, because this system was already known for the mechanical drawings and it also has the necessary flexibility. This is the lowest layer of the system. As a top layer the choice was MG-CAD. This MG-CAD extended AutoCAD with the necessary "intelligence" and functionality for electrical schematics. Thus, parts lists, terminal drawings, cable drawings, plug drawings etc. could be generated. This system is set up and administered by me for a period of approximately 5 years.

Design and implementation of a work standard for a subsidiary.

The company has a subsidiary in Detroit Michigan. Within the department control techniques (controls) the way of standardization at a lower level than in Germany, with bad calculable commissioning times and profitability. Together with a team of three colleagues we have introduced a working standard and monitored this way of working for 2 years.

Introduction and making use of PC´s and laptops instead of programming devices.

In order to reduce the diversity of the proprietary programming equipment we have investigated the possibility to use PC's and laptops instead. This has meant that since the year 1995, no proprietary programming device was used any more in this company, except for service on older controllers.

Adding recourses to the team of straightening programmers

The straightening roller computer was set up within a Siemens Sicomp microcomputer. The operating system used is R-MOS. The applications are programmed in C and C ++.

Hegenscheidt MFD

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2001 tot 2009, Employer: ACE Engineering Consultancy in Maastricht

Duty:

Lead engineer and later project leader controls.

History:

Company	:	**L.G. Philips Glassfabrik**
Activities	:	Inventory of the functionality of the cooling within the old analog
	:	concept. Programming of PLC's (Siemens S7-400),
	:	making changes in hardware and software, commissioning and
	:	trouble shooting of the machine (modules) for the production of
	:	cathode ray tubes.
Market/customer	:	Glass industry
Project name	:	Glass press Halle B
Time and duration	:	End 2001, 3 month
Assignment	:	Programming of modules for the product cooling during production
Way of working	:	Convert the functionality of the present analog mechanism to a
	:	digital design with powerful PLC (S7-400).
Value ACE	:	Adding extra knowledge of automation and control systems
Resources used	:	Siemens Step-7, professional
Acceptance	:	Beginning of 2002

Company	:	**Hysta Materials Handling Systems**
Activities	:	Support during the commissioning of a buffering system for
	:	AGV´s (Allen Bradley SLC500)
Market/customer	:	Logistics
Project name	:	FBH-Installation
Time and duration	:	Mid 2002, 1 week
Assignment	:	Learning to know this installation during commissioning, with the
	:	idea to assist the end customer during holidays of the system
	:	designer of Hysta inn case of an malfunction of the machine.
Way of working	:	Active response during commissioning
Value ACE	:	Having a competent partner in eventualities and an extra hand to
	:	solve problems.
Resources used	:	Allen Bradley, RS-Logics

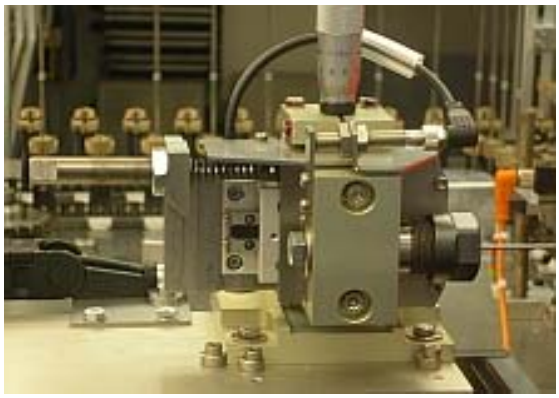
Company	:	**Weekers Industriële Automatisering**
Activities	:	Support at commissioning of a robot case packer, controlled
	:	with Sigmatek DIAS.
Market/customer	:	Automation for food industry.
Project name	:	Case Packer Jansen
Time and duration	:	Mid 2003, 1 month
Assignment	:	Acceleration of the commissioning while adding resourses.
Way of working	:	Pro-active presence during commissioning.
Value ACE	:	Adding man power and knowledge.
Resources used	:	Sigmatek PG50 en Visual Basic

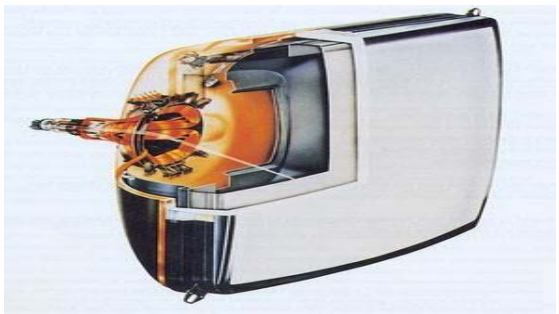
Company	:	**Philips Innovative Applications NV - Turnhout**
Afdeling	:	Global Techology Development (GTD)
Activities	:	Coordination and leading of the electro technical parts of service
	:	projects. Engineering and commissioning of hardware and software.
Market/customer	:	Industrial Lighting.
Project name	:	WE 010036
Time and duration	:	End 2006 until mid. 2008
Assignment	:	Coordination of the electrical part of internal service project.
	:	Mostly smaller extensions with a maximum cost of € 100.000,--
	:	on existing machines. On some cases also larger adaptions or
	:	prototype machines for a new product or process.
Way of working	:	On location of the customers site with the Philips way of working
	:	and standards for electrical design of hardware and software.
	:	(e.g. Philips basis software for S7)
Value ACE	:	Adding resources and engineering knowledge, and knowledge of
	:	servo controls and leadership.
Resources used	:	Siemens S7, ProTool, WinCC, Visual Motion, LogoComfort, Anorad
	:	Adjuster, Pilz Configurator voor PNOZmulti, Cognex Vision

Company	:	**Hegenscheidt-MFD**
Activities	:	Coordination and leading of the electrical part of an upgrade for
	:	four machines, delivered in 1994.
	:	Two turn broach machines and two rolling machines.
Market/customer	:	Machinery for the automotive
Project name	:	WE 292001 and WE292002
Time and duration	:	Mid 2008 until end 2008
Assignment	:	Design and development, coordination and implementation on site
	:	of the electro technical part of the upgrade on four machines.
	:	Two machines were equipped with new motion systems.
	:	The servo motors were replaced by newer and more modern types
	:	and the syste was expanded by two servo motors.
	:	The old servo controller system was completely removed and a
	:	totally new and modern system was placed instead.
	:	Also the programming of this system was performed as the
	:	communication between PLC and motion controller. The screens in
	:	the HMI are adapted for the new situation.
	:	The other two machines were equipped with a new system for
	:	analog stroke detection with associated adaptions.

Way of working	:	Ordering lists were handed over to the German customer.
	:	Electrical design was hand written and prepared.
	:	Software was prepared at the office and tested in a simulation.
	:	During commissioning at site in Spain, all four machines were re-
	:	tooled and commissioned tested and accepted within three weeks.
	:	Also capability tests were done on all product types.
Value ACE	:	Adding recourses and knowledge on engineering, servo and lead
	:	engineering. The customer is a former employer.
	:	There were no former colleges left with knowledge of these
	:	particular machines and known issues of the process. That is why
	:	Hegenscheidt went to ACE. Attracting an "old" employee was a
	:	good hit and worked fine for the end customer (Ford).
	:	Ford was worried in an early stadium due to the lack of expertise of
	:	these machines left at Hegenscheidt.
	:	Knowledge of C2C2C (construction to commissioning to capability).
Resources used	:	Allen Bradley, Bosch Rexroth IndraWorks and IndraLogic.
	:	Ford programming specification STEPS (later version of EDDI).
Acceptance	:	October 2008

INGENIEURS- & ADVIESBUREAU





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Medio 2009 until now, running my own company.

Projects:

Company	**:**	**Hegenscheidt-MFD**
Activities	:	Coordination and leading of the electrical part of an upgrade for
	:	four machines, delivered in 1994.
	:	Two turn broach machines and two rolling machines.
Market/customer	:	Machinery for the automotive
Project name	:	WE 292001 and WE292002
Time and duration	:	Mid 2008 until end 2008
Assignment	:	Design and development, coordination and implementation on site
	:	of the electro technical part of the upgrade on four machines.
	:	Two machines were equipped with new motion systems.
	:	The servo motors were replaced by newer and more modern types
	:	and the syste was expanded by two servo motors.
	:	The old servo controller system was completely removed and a
	:	totally new and modern system was placed instead.
	:	Also the programming of this system was performed as the
	:	communication between PLC and motion controller. The screens in
	:	the HMI are adapted for the new situation.
	:	The other two machines were equipped with a new system for
	:	analog stroke detection with associated adaptions.
Way of working	:	Ordering lists were handed over to the German customer.
	:	Electrical design was hand written and prepared.
	:	Software was prepared at the office and tested in a simulation.
	:	During commissioning at site in Spain, all four machines were re-
	:	tooled and commissioned tested and accepted within three weeks.
	:	Also capability tests were done on all product types.
Value ACE	:	Adding recourses and knowledge on engineering, servo and lead
	:	engineering. The customer is a former employer.
	:	There were no former colleges left with knowledge of these
	:	particular machines and known issues of the process. That is why
	:	Hegenscheidt went to ACE. Attracting an "old" employee was a
	:	good hit and worked fine for the end customer (Ford).
	:	Ford was worried in an early stadium due to the lack of expertise of
	:	these machines left at Hegenscheidt.
	:	Knowledge of C2C2C (construction to commissioning to capability).
Resources used	:	Allen Bradley, Bosch Rexroth IndraWorks and IndraLogic.
	:	Ford programming specification STEPS (later version of EDDI).
Acceptance	:	October 2008

Company	:	**Brandfort Holding**
Activities	:	Maintenance and adding functionality on a ERP/CRM system in
	:	Filemaker.
Market/customer	:	Engineering company
Project name	:	WCC&M20090814
Time and duration	:	Mid 2009, 3 year
Assignment	:	Maintaining the system after the designer of it, left the company.
	:	During time, smaller and larger adaptions were necessary.
	:	This system was an own design and customized for this particular
	:	company. In the beginning of 2011, the management decide to replace
	:	this system. A new of the shelf system was started during 2012.
Way of working	:	Processing questions from the field, using a VPN connection.
Value WCC&M	:	Flexibility and actions outside of office hours.
Recourses used	:	Filemaker 8.5

Company	:	**Grace Engineering**
Activities	:	Deputy administrator.
Market/customer	:	Engineering company
Project name	:	WCC&M20100415
Time and duration	:	Med 2009, 4 year
Assignment	:	Maintaining the ICT system on moments that the administrator
	:	has his holidays or while he is ill.
Way of woring	:	Processing questions from the field, using a VPN connection.
	:	Presence at the office to support the users in the network
	:	assistance in case of problems. Installing systems.
Value WCC&M	:	Flexibility and actions outside of office hours.
Recourses used	:	All common and un-common mains in ICT.

Company	:	**Hegenscheidt-MFD**
Activities	:	Re-commissioning a turn broach machine after major maintenance.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20090825.
Time and duration	:	Mid 2009, 10 days
Assignment	:	Acceleration the start of production while having knowledge of the
	:	process and the machines.
Way of working	:	On site (Ford – Dagenham) performing IO test and starting the
	:	machine in logical phases.
Value WCC&M	:	Knowledge of the machines and the components used on them.
Recourses used	:	Allen Bradley RSLogix500 and Visual Motion.

Company	:	**Mora – Ad van Geloven - Maastricht**
Activities	:	Adapting the functionality of a machine, producing spring rolls.
Market/customer	:	Food.
Project name	:	WCC&M20091020
Time and duration	:	End 2010, mid 2011, end 2012, and end 2014 for a few days.
Assignment	:	Remove old functionality that is unwanted, expanding new functionality.
	:	Adaption of the TPD and keeping it up to date..
Way of working	:	On site, during stand still and maintenance of the machine.
Value WCC&M	:	Knowledge of the machine and the used controls system.
Recourses used	:	Indramat, Visual Motion

Company	:	**Hegenscheidt-MFD**
Activities	:	Getting a machine type 7891-3NC to function again after a complete
	:	software failure.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20100723.
Time and duration	:	Mid 2010, a few days.
Assignment	:	Getting the machine ready for production process.
Way of working	:	Restauration of the software from a back-up dated from 2002.
	:	Missing parameters were looked up or measured from schematic and
	:	physical measures
Value WCC&M	:	Knowledge of the machine and the equipped controller.
Recourses used	:	Knowledge of Siemens 820T, Siemens Step5.

Company	:	**Hegenscheidt-MFD**
Activities	:	Re- commissioning a straightening rolling machine type 7892 after major
	:	maintenance.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20100816
Time and duration	:	Eind 2010, one week.
Assignment	:	Re-commission the machine with the latest software
Way of working	:	Performing an IO test according to the electrical drawings
	:	and restart the machine in phases.
Value WCC&M	:	Knowledge of the machine and the controls.
Recourses used	:	RSLogix5.

Company	:	**ACE Ingenieurs en Adviseurs**
Activities	:	Performing a feasibility study and design and build a prototype
	:	for measuring the profile (bevel) of tubing for oil extraction.
Market/customer	:	Engineering company, the end customer is offshore
Project name	:	WCC&M20101118.
Time and duration	:	End 2010until mid 2012.
Assignment	:	Research on the possibilities to measure the bevel of a tube and record
	:	the results in a way to analyze them.
	:	The best possible way was chosen and translated to a prototype, which
	:	was tested at the oilrig. Results were analyzed.
Way of working	:	Research with engineering tools ass FMEA and VA/VE to find the best
	:	possible ways to measure the bevel of a tube.
	:	From the list of possibilities, chose the one with the best chances in a
	:	harsh environment like an oilrig.
	:	The choice was translated to a working prototype which was tested in
	:	the field (oilrig). The measurements of the tests were analyzed.
Value WCC&M	:	Adding electrical recourses and knowledge to the team of engineers.
Recourses used	:	Keyence 2D measuring system, Eagle for PCB's, Embedded systems on
	:	the basis of USBizi, Visual Studio, C#, .NETMF.

Company	:	**Meerssen Papier**
Activities	:	Replacement of a defective and obsolete Panelview screen.
Market/customer	:	Paper industry.
Project name	:	WCC&M20101231
Time and duration	:	Beginning of 2011, a few days
Assignment	:	Try to repair a Panelview screen. If this is not possible order a new one
	:	and reinstall it on site.
Way of working	:	Investigation on site to get a clear view of the problem. Repair seemed
	:	be impossible, due of lack on parts.
	:	Ordered an new one and reinstalled the available information in the new
	:	screen, in order to restore its function.
Value WCC&M	:	Knowledge of the particular version of Allen Bradley Panelview.
Recourses used	:	The correct measuring devices. Panelview software.

Company	:	**Hegenscheidt-MFD**
Activities	:	Getting an universal straightening rolling machine type 7891-3NC to do
	:	the trick again after failure of the straightening computer.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20110119
Time and duration	:	Beginning 2011, two weeks including the travel time.
Assignment	:	Short: make it run again.
Way of working	:	On site (Sakamoto Kyoritsu Seiki – Japan), analyze the situation and
	:	replace the parts that failed in the computer.
Value WCC&M	:	Knowledge of the machine and the controls systems
Recourses used	:	Siemens Step5, TeraTermPro for communication to the computer.
Extra info	:	This was two weeks before the tsunami

Company	**:**	**ACE Ingenieurs en Adviseurs**
Activities	:	Develop a small prototype machine to produce a very small amount of gas.
Market/customer	:	Engineering company, the end customer is in the food/pharma and produces instruments and supplies for conservation.
Project name	:	WCC&M20110801
Time and duration	:	Mid 2011, 9 month
Assignment	:	Develop and build a solution (prototype) for the production of a very small amount of gas.
Way of working	:	By engineering tools as FMEA and VA/VE we researched the possible ways. The best possible way was chosen together with the end customer and four prototypes were build. These prototypes were tested in the field
Value WCC&M	:	Experience in building prototypes, knowledge of electronics and the possibility to build this small apparatus quick and costs effective.
Recourses used	:	Eagle PCB design, Visual Studio, C#, microprocessor with .NETMF.

Company	**:**	**Sitech B.V. Geleen**
Activities	:	Maintaining DCS systems
Market/customer	:	(Petro) Chemical Industry
Project name	:	WCC&M20110404
Time and duration	:	Beginning of 2011, 1 year
Assignment	:	Maintain DCS systems on site of the Chemelot Plant, performing small changes to optimize production methods and output. Preparation of minor and major maintenence.
Way of working	:	On Chemelot site by all applicable standards an safety procedures.
Value WCC&M	:	Adding resources to the team on site.
Recourses used	:	Hima Safety PLC, Emerson Delta-V, Yokogawa Centum

Company	**:**	**Marel Further Processing**
Activities	:	Bringing the pilot run of a machine for packaging of sausages to life and leading the tests at site in the UK with a prospect.
Market/customer	:	Engineering for the food industry.
Project name	:	WCC&M20120316
Time and duration	:	Beginning of 2012, 3 month
Assignment	:	Bringing a pilot machine to life, with the partly prepared software from a prototype machine. Supervison of the tests with potential customers and streamline the customers' needs for additional functionality.
Way of working	:	On site commissioning and talking to potential customers.
Value WCC&M	:	Adding resources to the software development team of the R&D department of Marel.
Recourses used	:	PLC-, servo- and inverter technics, Lenze (Codesys), vision system Keyence and an HMI which was programmed in QT-Creator.

Company	:	**Hegenscheidt-MFD**
Activities	:	Coordination and supervision of the electrical part of a synchronous
	:	of the spindle of a turn broach machine.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20110501 Ford Valencia DP45/OP30A.
Time and duration	:	Mid 2012 – 2 month.
Assignment	:	Develop, coordinate and commission on site of the hardware and
	:	software for a synchronous control.
	:	These machines had a rod connection between the chucks. While these
	:	machines were 17 year old, wear made it more and more difficult to
	:	adjust the machines for different crank shafts.
	:	By removing the rod connection and replace the old analog controlled
	:	motors and controllers by digital ones, it should be possible to keep the
	:	chucks in sync and make it more easy and quick to adjust.
Way of working	:	Replacing the old spindle controller by a digital controller and remove the
	:	rod connection.
	:	Programming and commissioning of the new system and the communica-
	:	to the available PLC. Programming HMI screens for the functionality.
	:	Preparing order lists for the German customer. Preparing the hardware
	:	drawings. Software was prepared at home and simulated in a model.
	:	During commissioning in Spain, all hardware was replaced in two weeks.
	:	After that commissioning of the software began.
	:	When commissioning was ready, it was proven that theory was right.
	:	Adjustment of the machine was much more easy. Also the capability
	:	of the machine almost raised to that of a new machine.
Value WCC&M	:	Adding recourses and knowledge on engineering, servo controllers and
	:	supervision.
	:	The customer is an former employer and had the difficulty that no one of
	:	the actual employee's was known with the process and the working of
	:	the turn broach machines. That is why Hegenscheidt went to WCC&M!
	:	The end customer (Ford Valencia) was very pleased, having the original
	:	designer and engineer of the machines on site.
	:	Ford was worried about the project in an early state, but was very
	:	with the way of working.
Recourses used	:	Allen Bradley, Bosch Rexroth IndraWorks and IndraLogic MLC40.
Extra info	:	This machine was retooled as a prototype. Further three machines
	:	have to be done in the future.
	:	Necessity is not actual, because of the changed way of production.

Company	:	**Hegenscheidt-MFD**
Activities	:	Retooling a crank shaft straightening machine from Siemens S5 with
	:	DIMOS and old computer to Siemens S7 and new computer.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20121015 PSA Trémery.
Time and duration	:	End 2012 – 2 month.
Assignment	:	Supervision of the electrical retooling and also the commissioning
	:	in France.
Way of working	:	This way of retooling was already performed several times.
	:	This time Sinamics was chosen as drive system.
	:	Software was prepared in the office.
	:	On site at PSA, all hardware was replaced and software was
	:	commissioned within one month.
Value WCC&M	:	Adding resources and knowledge of Siemens S7.
Recourses used	:	Step7, ProTool, Starter.

Company	:	**MA-IT**
Note	:	End customer is VDL (through VHE)
Activities	:	Writing modules in SA88/SA95 standard for a machine for printing of
	:	solar cells and foil screens.
Market/customer	:	Solar/screen industry.
Project name	:	WCC&M20130423 VHE Eindhoven.
Time and duration	:	Beginning 2013 – 3 month.
Assignment	:	Writing re-usable and standard modules for servo systems.
Way of working	:	On site and with a strong feedback to the end customer.
	:	A working situation as a simultaneous engineering process.
	:	Modules were tested in a complete test and simulation system on site.
Value WCC&M	:	Adding recourses and knowledge of Bosch Rexroth servo systems.
Recourses used	:	Indraworks.

Company	:	**Hegenscheidt-MFD**
Activities	:	Retooling a universal crankshaft roll machine from 810T (with old
	:	rolling computer) to a system completely legalized in Siemens-S7.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20130221 Itochu Japan.
Time and duration	:	Mid 2013 – 1 month.
Assignment	:	Supervision of the electrical changes (panel) and also perform the new
	:	commissioning of the machine.
Way of working	:	Started to replace the old controller by a new one with its components.
	:	Starting the commissioning after that with an IO test.
	:	After one month, the complet machine was ready for production.
Value WCC&M	:	Adding recourses and knowledge of Siemens S7.
Recourses used	:	Step7, ProTool, SimoDrive.
Extra info	:	also see WCC&M20110119, it is the same machine

Company	**:**	**Hegenscheidt-MFD**
Activities	:	Adding a 3rd crank shaft type on 9 turn boach machines and two
	:	rolling machines.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20130220 Ford Bridgend.
Time and duration	:	Mid 2013 – 1 month.
Assignment	:	Adding a 3rd type selection on the existing machine with communication
	:	to the loader system.
Way of working	:	On site with end customer in Bridgend-UK, during “summer shutdown”.
Value WCC&M	:	Adding resources and knowledge of Allen Bradley and Indramat.
Recourses used	:	RSLogix5. RSLogix500, Panelview1400, RSView Studio, VisualMotion.

Company	**:**	**Larditron**
Note	:	The end customer is Volvo Torslanda (through Valiant B.V. - Belgium)
Activities	:	Preparing software for several PLC’s, which communicate with ABB
	:	weld- and manipulation robots and many ProfiNet accessories on fixtures
	:	and turn tables (in total > 100 PN Devices per PLC)
Market/customer	:	Volvo Sweden – Automotive bodywork
Project name	:	WCC&M20130916 Larditron Maastricht Airport
Time and duration	:	End 2013 – 7 month
Assignment	:	Adapting the standard software to an active live system
Way of working	:	Preparation on site and in a later stadium the commissioning at Volvo
	:	in Torslanda, Sweden
Value WCC&M	:	Adding resources and knowledge of Siemens systems
Recourses used	:	TIAPortal V11, V12 en V13 met Advanced Safety, Starter and WinCC Flex
Extra info	:	It is the body work production for the new Volvo XC90

Company	**:**	**Hegenscheidt-MFD**
Activities	:	Changing a universal crank shaft roll and straightening machine from
	:	Fanuc controller to Siemens-S7-319DP/PN and straightening computer
	:	version EWS6.2 to version EWS8.63-v7
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20140415 General Motors Yantai - China
Time and duration	:	May 2014 – 1 month.
Assignment	:	Supervision of the electrical changes (panel) and also the commissioning
	:	of the new installation.
Way of working	:	Never performed before. First time all over the world.
	:	During commissioning in China, all of the machine was changed and
	:	brought into production again within one month time.
	:	This was done in cooperation with an German colleague, also a Chinese
	:	colleague was trained to do the hardware part.
Value WCC&M	:	Adding resources and knowledge of Siemens S7, and Indramat DIAX4
Recourses used	:	Step7, ProTool

Company	:	**MA-IT**
Note	:	End customer is VDL (through VHE)
Activities	:	Writing modules in SA88/SA95 standard for a machine for printing of
	:	solar cells and foil screens.
Market/customer	:	Solar/screen industry.
Project name	:	WCC&M20140528 VHE Eindhoven.
Time and duration	:	July 2014 – 6 weeks.
Assignment	:	Writing re-usable and standard modules for servo systems.
Way of working	:	On site and with a strong feedback to the end customer.
	:	A working situation as a simultaneous engineering process.
	:	Modules were tested in a complete test and simulation system on site.
Value WCC&M	:	Adding recourses and knowledge of Bosch Rexroth servo systems.
Recourses used	:	Indraworks.
Extra info	:	Follow up of WCC&M20130423

Company	:	**Hegenscheidt-MFD**
Activities	:	Changing a universal crank shaft roll and straightening machine from
	:	Fanuc controller to Siemens-S7-319DP/PN and straightening computer
	:	version EWS6.2 to version EWS8.63-v7
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20140526 Dongan Harbin - China
Time and duration	:	Aug 2014 – 3 weeks
Assignment	:	Supervision of the electrical changes (panel) and also the commissioning
	:	of the new installation.
Way of working	:	During commissioning in China, all of the machine was changed and
	:	brought into production again within three weeks time.
Value WCC&M	:	Adding resources and knowledge of Siemens S7, and Indramat DIAX4
Recourses used	:	Step7, ProTool

Company	:	**Hegenscheidt-MFD**
Activities	:	Searching a failure in a machine type 7893 crank shaft rolling.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20140820 Feuer Powertrain, Nordhausen
Time and duration	:	Aug 2014 – 2 weeks
Assignment	:	This machine as delivered in the year 2000 to Weber in Markdorff and
	:	was bought by Feuer at the beginning of this year. Feuer maintenance
	:	people couldn’t get this machine to work. It was my task to help them.
Way of working	:	During preview, we saw the the machine had more than one problem.
	:	There were problems on mechanical and on electrical side of the machine.
	:	A list off all problems was made and handed over to Feuer. With this list
	:	Feuer ordered spare parts and was able to commission the machine
	:	themselves with the delivered parts an information.
Value WCC&M	:	Addind resources and knowledge of Siemens S7, and Indramat DIAX4
Recourses used	:	Step7, ProTool

Company	:	**Hegenscheidt-MFD**
Activities	:	Faultfinding in a machine type 7892 crank shaft rolling.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20140901 Audi - Györ.
Time and duration	:	Sept 2014 – 2 weeks.
Assignment	:	This machine had recently been maintained and had problems while
	:	being in production. Make the machine OK for production again.
Way of working	:	Firstly composed a list of problems together with the customer. Then
	:	prioritized this list. Then solved all problems according to the priority
	:	list.
	:	It proved necessary to order some extra parts that have not been part of
	:	the major mainainance.
Value WCC&M	:	Adding resources and knowledge of Siemens S7, and Indramat DIAX4
Recourses used	:	Step7, ProTool

Company	:	**Hegenscheidt-MFD**
Activities	:	Adding a new method for data matrix check
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20140822 Deutz - Köln.
Time and duration	:	Oct 2014 – 2 weeks.
Assignment	:	Deutz is changing it's way of DMC to an new DMC code.
	:	The new code is considerable longer than the old code and both codes
	:	shall be used in parallel during a certain time to prove the new code.
Way of working	:	Translated both specifications of the to a software model and integrated
	:	this model in the software. Tests were successful.
Value WCC&M	:	Adding resources and knowledge of Siemens S7.
Recourses used	:	Step7, ProTool

Company	:	**Hegenscheidt-MFD**
Activities	:	Changing a universl crank shaft rolling machine from Siemens S7-
	:	316 to Siemens-S7-319DP/PN and from straightening computer EWS6.2
	:	to an in the PLC integrated solution.
Market/customer	:	Engineering for the automotive industry.
Project name	:	WCC&M20141002 Francaise de Mechanique, Douvrin
Time and duration	:	Nov 2014 – 1 month.
Assignment	:	Supervision of the electrical changes (panel) and also the changes in the
	:	hardware and the commissioning of the software.
Way of working	:	Never performed in this way. First time ever.
	:	During commissioning in France, all hardware was changed and the
	:	software was commissioned within one month.
	:	Work was done with a team of four people who were active in different
	:	parts of the machine. Every two days these parts were integrated to one
	:	program.
Value WCC&M	:	Adding resources and knowledge of Siemens S7, and Sinamics
Recourses used	:	Step7, ProTool, Starter.