

Computer Engineering

InBev Bremen – Collecting and reporting energy data

Monitoring energy and consumption data histories for electricity, water, gas, etc.
Generating and delivering reports automatically
Simatic IT Historian, Report Manager

DaimlerChrysler Berlin – Scanning installation for attached parts

Processing Datamatrix codes, interface to PPC system
C/C++, web-based application in PHP, Siemens Moby-I

DaimlerChrysler Berlin – Host computer for test facility

Management of test adapters, archiving test results, data analysis
Oracle database server, XML interfaces, web-based application

Lear Corp. Bremen – Quality Management Server

Recording, archiving and analyzing quality data of several production lines
Oracle database, web-based application
Links to Atlas Copco Toolsnet and customer-specific diagnostic devices

Eisenmann / Lear Corp. Bremen – Material flow monitoring

Host computers for several lines, links to PPC and PLC, workstation computers,
commission terminals, Oracle database, programmed in C++, VB, PL/SQL

LSW / DaimlerChrysler Berlin – Host computer for engine assembly

Processing of production orders, task schedules and production data
Interfaces to SAP, automatic guided vehicles, customer-specific servers
Links to Soft-PLC, test devices, power screwdriver controls and robots
Programmed in C++, VB, S5, various visualizations

Graphic user interface for CNC controls

Component-based, configurable graphic user interface for CNC controls and special
machines
Programmed in C/C++ under OS/2, links to CNC controllers via field bus protocols

DC Bremen – Upgrading of host computer systems

Change from MAP/MMS to TCP/IP, new interfaces for commercial controllers and
PLC
Recording of cycle times and fault data, control of the shift plan for the PLC
Programmed in C/C++ under OS/2

DC Bremen – Car body information system

Recording and archiving of the car body flow in body shell work
Programmed in PHP and C++ for MySQL and Linux.
Solutions fully implemented with open source software.

DC Bremen – Management information system

Analysis of production data for quantities curves and fault data
Programmed in VisualBasic

DC Bremen – Deficiency database

Database system for the maintenance department for managing deficiencies and tasks
Programmed in VisualBasic

VW Emden – Head controllers (BMS-K) for the paint-spray line

Controlling the car bodies according to PPC orders
Interfaces to PPC and PLC
Programmed in C under OS-9

GAG Bremen – Biochemical mass analysis

Recording, archiving and analyzing DNA data
Programmed in C++ and PHP (web-based) under Linux

Visualization modules for machine tool surface

Analysis of power screwdriver data, programmed in C++

Schierholz Bremen / Nokia Finland – Installation & factory visualization

Visualization and data base linking with FactoryLink and MS Access

Lear Corp. Bremen – Quality management system according to ISO/TS 16949

Web-based management of the *Business Process Descriptions*
Programmed in PHP and Oracle PL/SQL

EU joint research project – Optical milk quality sensor

Electronics and software for the optical analysis of milk ingredients
Programmed in C under real-time operating system

BMBF research project – Sensor and control systems for intelligent grinding disks

Recording and processing of sensor data, calculation of corrections for optimal grinding process
Programmed in C++, real-time data recording hardware

Automotive Industry

TMS / DC – R203 Shell production DC Bremen

Initial start-up support

FFT / DC – R230 Shell production DC Bremen

Schneider operation computer: application development
Pilz security controls: application development
Initial start-up of seven production units

FFT / VW – T5 Hannover shell production

Complete electrical engineering
incl. initial start-up of KUKA robots

FFT / DC – R171 DC Bremen shell production

Complete electrical engineering
incl. initial start-up of KUKA robots

LSW / DC – Engine assembly line DC Berlin

Complete Soft PLC / ABB robots
Assembly host computer

LSW / VW – Gear line Kassel

Control application

GM – Engine assembly line

Operation computers – software programming
Indramat servo actuators, robots

GM – Engine assembly line Alabama

Nematron-Flopro – software programming

Opel – Engine assembly line Kaiserslautern

Nematron-Flopro – software programming

GM – Engine assembly line Hungary

Electrical project planning

Ford – Engine assembly line Mexico

Electrical project planning



Selected References

Automotive Industry

VW – Paint-spray line in building 17 Emden

Exchange of 984-PLC for Quantum

VW – Tank farm Emden

Liquid level measurement, controlling the tank farm

Quantum-PLC, E+H measuring data computer, Intouch visualization

VW / Eisenmann – UBS facility VW Hannover

Schneider operation computer Software and initial start-up

Food

Masterfoods / Italy – Pouch packer and loader

Complete electrical engineering Quantum-PLC, Lexium servo technique, KUKA robots

Masterfoods / USA – Pouch packer and loader

Complete electrical engineering Quantum-PLC, Lexium servo technique, KUKA robots

Göbber – Palletizer for glasses

Complete electrical engineering

Göbber – Filling station

Software upgrade and optimization

Göbber – Waste volume tracking

Modicon PLC and Intellution control technology

Beck & Co. – Input terminal for operating data

Modicon PLC, KATSYS 201 Industrial terminal

Beck & Co. – Terminal for a Treber filling station

Modicon PLC, KATSYS 201 Industrial terminal

RABA Waste reprocessing

Complete electrical engineering Siemens PLC and Intellution control technology

Fraunhofer Institut – Surface coating

Siemens S7 PLC program