

EMBEDDED SOFTWARE DEVELOPMENT

1 Development of Infotainment Systems 2017

Customer: Prestigious development partner for the automotive industry

Duration: 12 months

Turnover: €900,000

- Drafting of HMI specifications
- Programming of software components
- Creation of complete unit tests for securing all functions
- Weekly software releases as part of the HMI development process
- Weekly stabilisation of software deliveries

2 Gateway Control units

Customer: Prestigious development partner for the automotive industry

Duration: 11 months

Turnover: €150,000

- Functional validation of software updates
- Carry out and document test cases for securing the implemented functional scope
- Present revised test specification in DOORS as well as revised test details as Office documents.
- Identification of errors in and maintenance of the ticketing system

3 SW development middleware components

Customer: Technology group in drive and chassis technology / active and passive safety technology

Duration: 30 months

Turnover: €1,500,000

- Increase of MC/DC coverage for DTC_Wrapper component
- Testing the UDS component with a) MISRA- b) Naming-c) polyspace-ruleset and error correction
- Module regression of components SW_ID, UDS services, WLP_Wrapper, DTC_Wrapper

4 Integration Vector Basic Stack

Customer: Prestigious development partner for the automotive industry

Duration: 7 months

Turnover: €98,450

- Analysis of existing and development of new NXP configuration
- SW configuration of required modules
- SW configuration of all SLP10 modules
- Bugfix, review and release documentation

SOFTWARE TEST HIL

1 HIL Testing Middleware

Customer: Technology group in drive and chassis technology as well as active and passive safety technology

Duration: 12 months+

Turnover: €300,000

- Porting of new HIL platform Scalexio LabBox
- Increasing test coverage / automation tests for existing tests
- Setup of TAS sensor simulation
- Creation of Tests for SystemState, ClosedLoopControl (ModeControl), TorqueLimiting, CANOutput

2 Fusi Project Verification T2 ACO

Customer: International manufacturer of railmotive technologies

Duration: 19 months

Turnover: €380,000

- Execution of safety check for each single and multiple traction vehicle type
- Creation of the necessary test documents (test instruction / test protocol) from the provided test specification
- Carrying out vehicle tests
- Creation of the test protocol
- Communication and tracing / tracking of deviations

3 HMI Regression test

Customer: Prestigious development partner for the automotive industry

Duration: 9 months

Turnover: €100,000

- Bugfixes
- Double checking of error messages from other HMI development project partners
- Logs with the results of the tests carried out
- Documentation of found errors

4 Test software and networked functions

Customer: Prestigious development partner for the automotive industry

Duration: 7 months

Turnover: €70,000

- Testing of networked functions
- Test automation and vehicle simulation
- Testing software and networked functions
- HMI rule tests and HMI error board
- Project infrastructure

FUNCTIONAL SAFETY

1 Fusi Project Verification T2 ACO

Customer: International manufacturer of railmotive technologie

Duration: 19 months

Turnover: €380,000

- Executing safety check for each single and multiple traction vehicle type
- Creation of the necessary test documents (test instruction / test protocol) from the provided test specification
- Carrying out vehicle tests
- Creation of the test report
- Communication and tracing / tracking of deviations

2 EPB System Safety Engineering

Customer: Global supplier of active and passive safety technology for the automotive industry

Duration: 9 months

Turnover: €90,000

- Analysis of non-testable requirements and documentation in the Design Verification Report document (DVR)
- Identification of additional error types
- Reconciliation of values
- Analysis of change requests for security relevance

3 Autonomous Driving Safety Management

Customer: Leading technology group

Duration: 9 months

Turnover: €73,160

- Analysis of housing leak tightness (extruded housing)
- Safety assessment of steering motors for autonomous driving functions
- Preparation of safety audit

4 Safety Engineering

Customer: Global supplier of active and passive safety technology for the automotive industry

Duration: 5 months

Turnover: €70,000

- Review documentation for SPICE audit
- Support of safety documentation
- Optimisation of the test phase

FMEA MODERATION

1 FMEA Analysis

Customer: International automobile and commercial vehicle manufacturer

Duration: 2 months

Turnover: €40,000

- Preparation of an overall concept for the implementation of an FMEA
- Establishment of the FMEA working group
- FMEA implementation and moderation
- Documentation of the results
- Derivation of measures

2 FMEA- Creation

Customer: Worldwide automotive supplier for driver assistance systems

Duration: 1 month

Turnover: €20,000

- Preparing a concept for creating, using and maintaining standard P-FMEA modules and processing this in written form
- Preparing a concept (including checklist) for review and qualitative evaluation of the P-FMEA created and processing this in written form
- Creation of three standard P-FMEA based on existing technical standards for the processes Screws, Solder Paste Printing SMD and Greases

3 FMEA for Porsche projects

Customer: International automotive supplier for seat systems

Duration: 5 months

Turnover: €30,000

- Moderation of FMEA meetings
- Revision and error minimisation of the existing FMEA in the TDC-FMEA software
- Preparation and organisation of FMEA meetings
- Active and passive moderation of meetings
- Monitoring of the implementation of the defined measures for improvement

4 FMEA Electric drives

Customer: International joint venture for electric propulsion systems

Duration: 12 months

Turnover: €40,000

- FMEA mastery – methods in accordance with VDA and the APIS IQ-FMEA tool
- Introduction of the project members to the FMEA methodology
- Creation of the system tree, function and error network, allocation of measures

PLANNING TOPICS – LOGISTICS

1 Logistics planning Mannheim

Customer: International automobile and commercial vehicle manufacturer

Duration: 14 months

Turnover: €110,000

- Autonomous creation/changes of the packaging data sheets in Daimler System LTM
- Sustainable care in the LTM system according to Daimler guidelines
- Presentation of the feasibility results

2 Logistics planning

Customer: International automobile and commercial vehicle manufacturer

Duration: 13.5 months

Turnover: €190,000

- Creation of fine layout (Faplis) supermarket and engines/ gearbox – Sequence area
- Draft for the design of a logistically optimal CSW
- Technical specification and process planning of automated delivery and adjustment of motors and gearboxes / drives (FTF)

3 Logistics

Customer: International automobile and commercial vehicle manufacturer

Duration: 10 months

Turnover: €120,000

- Current state analysis & documentation of today's dress up processes and integration of further ranges / levels from product projects
- Evaluating possibility of achieving the ideal form of supply taking into account the material range and delivery frequency at the station
- Recommendation for order stimulus/order process optimisation
- Layout optimisation from new flywheel surface

4 Logistics Reusable container development

Customer: International automobile manufacturer

Duration: 2 months

Turnover: €23,000

- Reusable container construction with CATIA
- Load calculation
- Cost down analysis

PRODUCTION – MANUFACTURING (1/2)

1 Ensuring production start is on schedule for NAG3 assembly

Customer: International automobile and commercial vehicle manufacturer

Duration: 16 months

Turnover: €100,000

- Tracking the shipping acceptance test measures
- Monitoring of system installation including media connections
- Preparation for the first production test
- Preparation for the second production test and start of production
- Ensuring a comprehensive and efficiently working facility / system

2 C519 – Tool change over

Customer: International supplier for interior components

Duration: 8 months

Turnover: €100,000

- Analysis of planned machine usage for deployments with C519 while taking into account planned quantities and current production C346, C391, Actros C344/C520
- Analysis and optimisation of planned parts buffers for injection moulded parts and/or assemblies
- Analysis and optimisation of the necessary daily (weekly) tool changeovers
- Creation of a value stream
- Briefing of employee on the tool created

3 Tool planning Engine production

Customer: Supplier for alternative drive systems

Duration: 8 months

Turnover: €240,000

- Support for the program tools during completion at the vendor's site
- Schedule tracking, on-site problem solving with FCM
- Acceptance of machines/tools with measured sample parts

4 Relocation of extraction systems for the welding lines

Customer: International automobile and commercial vehicle manufacturer

Duration: 12 months

Turnover: €30,000

- Bidding phase
- Customer sign-off and commissioning
- Vendor tracking

PRODUCTION – MANUFACTURING (2/2)

4 QSB in technical Assembly and system planning

Customer: International automobile manufacturer

Duration: 24 months

Turnover: €350,000

- Committee management
- Document control
- Safeguarding

5 process BI and Method optimisation

Customer: International automobile manufacturer

Duration: 12 months

Turnover: €150,000

- Plant planning tool development
- Document control
- User training

6 IPMA

Customer: International automobile manufacturer

Duration: 18 months

Turnover: €80,000

- Document creation and control
- Test equipment monitoring

CONSTRUCTION AND ANALYSIS

1 Construction and FEM

Customer: International automotive supplier for cable and connection technology

Duration: 6.5 months

Turnover: €136,500

- Development and application of a 2-component release element for the plug connection
- Allowance for leak path, pre-stressing element and dirt seal
- FEM calculation of the 2-component release elements

2 Design and construction of water-cooling systems

Customer: Prestigious development partner for the automotive industry

Duration: 7 months

Turnover: €38,340

- Design of the water cooling systems
- Layout of the water cooling systems
- First detailed design of the water cooling systems
- Revision based on previous models

3 Concept development Steering column control

Customer: World's leading automotive supplier for electrically assisted steering systems

Duration: 10 months

Turnover: €271,442

- Development activities
- Construction activities
- Calculation activities
- Documentation activities

4 Construction Special-purpose Engineering

Customer: International production partner for the automotive industry

Duration: 17 months

Turnover: €500,000

- Design development (design and specification) of manufacturing concepts for alternative vehicle drives (battery, fuel cell, electric motor)
- Design with SolidWorks and NX
- Prototype construction

QUALITY & VENDOR MANAGEMENT

1 Advance quality planning

Customer: International automotive supplier for electronic components

Duration: 17 months

Turnover: €130,000

- Preparation and coordination of the customer-specific test plan for compliance according to customer standard GMW3172 and documentation in the customer database Cement
- Assignment and monitoring of assessment trials according to customer requirements (GMW3172)
- Support of test laboratories in creating GM test reports
- Discussion of test results with customers and suppliers

2 Supplier management Securing the error avoidance process

Customer: International automobile and commercial vehicle manufacturer

Duration: 6 months

Turnover: €9,500

- Analysis of the supplier's situation based on defined focal points
- Checking, analysing and optimising quality processes at the supplier's site
- Analysis and identification of improvement potential in the error avoidance process
- Assessing risk as project progresses and identify escalation needs
- Establishment of a regular reporting system & project plan as controlling instrument for increasing quality performance

3 Process Tooling

Customer: International automotive supplier for interior and exterior design

Duration: 10 months

Turnover: €420,000

- Supplier management during development
- Preparation of feasibility studies
- Monitoring of test results
- Sampling and process optimisation
- Testing support

4 Supplier and project management Seat development

Customer: International automotive supplier for seating and interior components

Duration: 12 months

Turnover: €600,000

- Project management
- Interface organisation in compliance with the KQT objectives
- Vendor selection

SOFTWARE ARCHITECTURE

1 System technology

Customer: Europe's largest automobile manufacturer

Duration: 37 months

Turnover: €1,230,000

- Functional responsibility for voice output
- Responsibility for speech testing
- MIB Gen3 system architecture
- Functional responsibility for complex, networked parking assistance functions

SEMICONDUCTOR DEVELOPMENT

1 Design Verification

Customer: Prestigious development partner for the automotive industry for chip systems

Duration: 10 months

Turnover: €140,000

- Design verification of FPGAs
- Development of the testing concept