



Michaël CAMBAY
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Senior Software Architect – Project Manager

Information Systems, Object, Real Time, Embedded



Skills

OBJECT / C++ / C# / JAVA

- Design of UML architectures et sustainable systems.
- Design of C++ source code Generator.
- Design of Distributed Object Architectures.
- Design of Information Systems, certified CC & ISO27001.

Quality

- Promotion, Implementation of teamwork oriented tools
- Definition, Supervision of Validation and test plans.
- Traceable work: change request, bug tracking, versioning...

Real Time / Embedded

- Design of software/firmware, real-time, multi-processors
- Design of protocols over TCP/IP, I2C, SPI, SHDL... ..
- Design of Tools, Debugger, Disassembler, Spy, Validation suite
- Master of embedded software, digital electronics.

Project management

- Functional and Technical leader.
- Federation, Support and Training to teams.
- Wide culture (Industry, Security, Data, startup & big company)

Technologies

C, C++, Java, C#, PHP, Python, Asm, basic ...

MySQL, Sybase, Oracle, UML, Merise ...

Windows, Unix, Embedded OS, micro- Kernel OS...

ARM Cortex, AVR, 68xxx, x86, 8051 ...

Visual Studio, .Net, IAR, Eclipse, Netbeans ...

wiki, jira, subversion, doxygen, SourceForge ...

Professional Experience

15-19 SENIOR SOFTWARE ARCHITECT, PROJECT MANAGER

WISeKey

(ex-INSIDE SECURE) Meyreuil

Security, Internet-Of-Things, Bank, NFC.

Improve quality and collective efficiency of internal processes and data flows.

Achievement of A.M.S, an **information system**, passing CC et ISO27001 certifications.

Full Design and Implementation of its generic underlying **reusable framework**, object and generic.

Modeling of +100 data types, with life cycle, change log, status, request cycle, approbation, notification, etc

Dialog with all company services: customer, quality, business, R&D, design, marketing, hr, finance, security, IT ...

Responsible of A.M.S roadmap, developments, validations, deployments.

Responsible of A.M.S trainings (+70 users)

Management (1 people).

Expertise **Information System**, **smooth process migration**.

Expertise **PHP**, **SQL**, **HTML**, **CSS**, **AJAX**.

Expertise **Modeling**, **Object**

06-14 SENIOR SOFTWARE ARCHITECT, PROJECT MANAGER

INSIDE SECURE

Aix-les-Milles

Security, Embedded, Phone **NFC**.

Produce NFC chip firmware.

Functional and Technical Design of **NFC firmware** (NFC card & reader emulation + HCI router)

Technical leader of firmware projects MicroRead NFC v1 to v3.

Design of Software Architecture of MicroRead NFC v4 et v5.

Managing (6 people) et Recruitment (10 people).

Proof of Concept, Level 3 Support, Trainings to support teams.

Expertise **NFC** and **Embedded**.

Design of **HCI** (ETSI standard): communication and services architecture between phone, SIM and NFC chip.

Design of **NFC microcontroller software architecture**.

2005 SOFTWARE VALIDATION ENGINEER

Micro-kernel OS, Security, Validation.

Design a secure OS validation.

Definition of methods and test tools for a secure OS. Design of validation plan.

Expertise **Software validation**.



02-04 SOFTWARE ARCHITECT, PROJECT MANAGER

Digital Imaging, Scanner, Embedded, Object.

Debug a scanner prototype, Industrialize it.



- 🔧 Debug and Tuning of a 24x36 film scanner (integrated in mini-Lab).
Design and Development of a Scanner Calibration and Validation Software.
Management (2 peoples). Training for subcontractors and customers.
- 🏆 Expertise **Digital Imaging** (calibrations, filters, pattern search and recognition, sharpness, anti-dust ...).
Expertise Prototype **Industrialization**.

97-01 SOFTWARE ARCHITECT, PROJECT MANAGER

- 📍 Front Office, Reuter, Finance.
- 🎯 **Digitalize Front Office stock market transactions, Distribute then to Middle and Back Office.**
- 🔧 Development of (part of) an order routing and management system, worldwide deployed.
Design and Development of a C++ Source Code Generator, automating creation of 500000 code lines.
Design and Development of a middleware distributing heterogenic market object instances on secure intranet.
Management (1 people).
- 🏆 Expertise **Object**.
Design of **C++ Code Generator**.
Design of **Distributed Object Architecture**, CORBA-like with high speed optimization.



90-96 SOFTWARE DEVELOPER, PROJECT MANAGER

- 📍 Access Control, Embedded.
- 🎯 **Develop the company product n°1.**
- 🔧 Full Redesign (Basic to C) of the Software (driving 64 access control reader on a RS485 network).
Design of Spy tools, Test suites based on Badge Reader Simulator and Emulator.
- 🏆 Expertise **PC**, local **database** and **Real Time**.
Expertise Access Control.



86-90 REAL TIME SOFTWARE DEVELOPER

- 📍 Measurement, Embedded.
- 🎯 **Develop test machines.**
- 🔧 Software Development of an embedded Display/Keyboard interface (Intel 8051).
Software Development of an embedded Debugger/Disassembler (Motorola 68000).
- 🏆 Expertise **C**, **68000**, **8051**



84-86 REAL TIME SOFTWARE DEVELOPER

- 📍 Distortion measurement, Military, Embedded.
- 🎯 **Develop test machines.**
- 🔧 Hardware and Software design of Z80 CPU board (running without ram!).
- 🏆 Expertise **Assembler**, **Z80**.



1983 TEST SOFTWARE DEVELOPER

- 📍 Electronic and Piezoelectricity.
- 🎯 **Automate Quartz test benches.**
- 🔧 Software Development for quartz test benches (HP Basic).
- 🏆 **Tests** Automation.



Formation

2005 MASTER 2 COMMUNICATION AND COMPUTER SCIENCE

- 🎯 **"Summa Cum Laude" distinction, "Valedictorian"**.
- 🔧 Design and development of a Generic Bayesian Engine (using JAVA).
- 🏆 Expertise on **Bayes' theorem** used in fuzzy logic, anti-spam, experts systems.

1997 MIAGE T.I.C. (PARIS)

1983 BTS DIGITAL ELECTRONICS. (PARIS)



Personal Information and Activities

- 👤 Married, 3 children, French, né 12-7-1961
- 🏊 Scuba Diving, Level 3 FFESSM
- 🧗 Climbing, Roller.
- 📖 a novel [Le sens de l'air](#) →
- 📷 silver and digital photography
- 🤖 Robotic, [RainBot](#) project on SourceForge

