



Technical Leader / Architect

Arnauld Van Muyswinkel

**Curriculum Vitae,
July, 2011**

Overview

Brief summary of my experience:

- **Junior Architect** (~3-4 years)
- **Senior Developer** (15 years)
- **Analyst (Technical & Functional)** (~10 years)
- **Medior Project Leader** (~5 years)

I have close to 20 years of experience working in international or European projects. I started my career by working on several international European research projects where I developed my C programming skills. Then I worked on several projects for the European Commission where I developed my skills in Oracle DB, web technologies and object-oriented Java programming.

In the last years I worked for an international bio-pharmaceutical industry where I increased my previous experience (Oracle DB, Java programming, web technologies) and added experience in XML technologies, open-source frameworks and tools, document management systems (Documentum), distributed architectures (Tibco and Web services), functional analysis (UML), and project management.

Lately, I worked for one of the main Belgian banking company, as a technical coordinator / team leader in a strategic project, part of the SOA initiative of the bank.

I also have strong capabilities in development management / technical team management, putting in place development procedures and standards, taking care of code versioning management, issues management, release planning, and technical tasks planning.

In parallel I also led two competence centers, first about SOA, then about Java & Open-Source development, where I developed my organizational skills while actively disseminating my technical knowledge. I'm currently the Lead Consultant for Architecture Center of Expertise.

I'm professional, methodical, multidisciplinary, autonomous, fast learner, and creative, using my skills to design flexible solutions giving agility to your business.

I'm looking to work chiefly as **software architect** or **technical manager** in enterprise projects.

Current status & Availability:

- employee
- not actively looking for a new position

^ Summary

[Personal information](#)

[Key qualifications](#)

- [Certifications](#)
- [Other trainings](#)
- [Methodologies](#)
- [Languages](#)
- [Middleware](#)
- [OS & Networking](#)

[Experience](#)

- [Sogeti \(Transiciel, Ariane II\)](#):
Banking company, SOA CC Leader, Java & FOSS CC Leader, Bio-Pharmaceutical company, Belgian Parliament
- [Dixite SPRL](#)
- [Woqats SA](#)
- [Atos SA](#)
- [ISFCE](#)
- [CRIF-WTCM](#)
- [TIME Lux SàRL](#)

[Other activities](#)

[Publications](#)

^ Personal information

| | |
|-------------------------|---|
| Name | Arnauld Van Muysewinkel |
| Birth | 24 th February 1970 in Berchem-Ste-Agathe (Brussels) |
| Nationality | Belgian |
| Private address | Weilandstraat / Rue du Pâturage, 25 B-1120 Neder-Over-Heembeek (Brussels) – BELGIUM |
| Web | Phone: +32 (2) 479.50.79 • Mobile: +32 (475) 62.70.16 E-mail: avm@pendragon.be Links: <ul style="list-style-type: none">• http://google.com/profiles/arnauldvm• http://twitter.com/arnauldvm• http://www.linkedin.com/in/arnauldvm• http://blog.pendragon.be (Personal blog) |
| Driver's licence | Yes: Car (1989) |
| Education | École Polytechnique at ULB "Université libre de Bruxelles" : <ul style="list-style-type: none">• 1988-1993: Electro-mechanical civil engineer (MSc equivalent), specialised in computer science (Great Distinction)• 1993-1995: Civil Engineer in Automatics, specialised in Robotics and Productics (The Greatest Distinction) |
| Languages | French (mother tongue), English (fluent - working language), Dutch (middle), Portuguese (few notions). |

Present occupation

Senior consultant at [Sogeti](#) (ex. Transiciel, ex. Ariane II) (see further)

^ Key qualifications

- ^ **Certifications**
- Project Management: Prince 2 Foundation (ISTYA - 09-Mar-2007)
-

- ^ **Other trainings**
- Enterprise Architecture (Sogeti - 2009)
 - Dutch (CLL - 2008)
 - Sogeti SOA methodology (Sogeti - Dec-2007)
 - SOA Featuring Websphere ESB (IBM - Jun-2007)
 - Dutch (CLL - 2007)
 - EPIC Editor Programming (Arbortext (PTC) - Jul- 2004)
 - Project Framework (Bio-pharmaceutical company - Dec-2003)
 - Content Intelligent Services (Documentum (EMC2) - Feb-2003)
 - Project Management (Ariane II (Sogeti) - Jan-2002)
 - Tibco Rendez-Vous API (Tibco - Sep-1998)
 - Dutch (CLL - 1996)
 - Dutch (KUL - 1993)
-

- ^ **Methodologies**
- Scrum
 - Prince 2, CMMI

 - Object Oriented Design and Programming (OO)
 - Design Patterns
 - UML
 - Unified Process (UP) (OMT, Use Cases, Two Track UP...)
 - Sogeti SOA Methodology
-

- ^ **Languages**
- Programming: Java (J2SE), C, C++
 - Occasional: C#, VB
 - Notions: BASIC, Pascal, Fortran, Lisp
 - Scripting: JavaScript, Perl, PHP, sh, csh, bash...
 - XML: DTD, XML-Schema, XSLT, XPath, XSL-fo...
 - Web: HTML, DHTML, DOM, CSS, JSP...
 - Communication standards: RMI, XML-RPC, SOAP, WS-*, REST, JSON
 - Databases: SQL, PL*SQL
-

- ^ **Middleware**
- Internet applications development
 - Web servers and applications servers (Netscape, Apache httpd, MS IIS, Oracle WAS, JRUN, Tomcat, WebSphere...)
 - LDAP servers (Netscape)
 - CGI, Servlets, JSP
 - TIBCO Portal
 - Frameworks and libraries: Apache, Spring, Hibernate, Guice, GWT...
 - Occasional: DOT.Net
 - Issues management: Mantis, Bugzilla
 - Build frameworks: Ant, Ivy, Maven, Gradle
 - Source control systems: Git, Subversion, CVS, RCS
 - *Occasionally*: Mercurial (Hg), CSS, ClearCase, Dimensions
 - XML
 - Apache framework (Xerces, Xalan)
 - Arbortext EPIC Editor
 - Databases
 - Oracle (RDBMS, Personal, Web Application Server, XML DB, OO DB)
 - JDBC, ODBC

- MySQL, HSQLDB
- EDMS (Electronic Document Management System): Documentum, Basis+
- EAI (Enterprise Application Integration): TIBCO EAI (Rendez-Vous, Active Enterprise) (*Old*)
- Collaboration: Lotus Notes (*Old*)
- Graphical library: GL from Silicon Graphics Computer Systems (*Old*)
- Off-line programming of industrial robots: ROBCAD Open System Environment (ROSE) from TECNOMATIX Technologies Ltd, Israël (*Old*)

^ OS & Networking

- Operating systems
 - UNIX (SUN, SGI (IRIX), IBM and Linux)
 - MS Windows
 - Protocols: TCP/IP, HTTP, LDAP, FTP, SMTP, DNS...
 - Real time operating system: Virtuoso (*Old*)
-

^ Experience

^ 01-Jul-2001 → now

Company Sogeti (Transiciel, Ariane II) (www.sogeti.be^[+])
Location Brussels
Position Senior Consultant

- Missions for a [Banking company](#), a [Bio-Pharmaceutical company](#) and the [Belgian Parliament](#)
 - Lead Consultant for Architecture Center of Expertise
 - Competence Centres Leader: first for [Services Oriented Architecture](#), then for [Java & open-source development](#).
-

^ Oct-2011→now: Missions for a Banking company

The mission currently covers the following project, in the Lending domain:

- [Requests management](#)

The mission has also covered this other project:

- [BPM Lending PoC](#) (proof of concept project)

Job description

- Project Management
- Technical Coordination
- Scrum Master
- Configuration Manager
- Java stack Architecture

Technologies used in those projects

- MS Project, CA Clarity, Prince 2, CMMI

- Java (J2EE, Spring, JAX-WS, JPA, Hibernate...)
 - Web (REST (XML over HTTP), IBM WAS Server)
 - Development tools (IBM RAD, Eclipse, Ant; junit)
 - Flex, ActionScript, Flash Builder
 - SOA (SOAP, WSDL, WS-* (Web Services), XML, XSD, XSL/XSLT)
 - TIBCO (Business Studio, iProcess, iDecisions, Business Works, ActiveMatrix)
 - Database (Oracle 10)
 - UML design
 - Dimensions and Subversion (SVN) source control systems
-

^ **Mar-2011→now: Requests Management**

Scope: This banking company is building an application supporting the end-to-end process of credit request for the lending department. The system to deliver will support the paperless office (electronic document management) and will enable distinct teams to collaborate by avoiding redundant data entry.

It's part of the new business integration strategy, using an integration stack based on TIBCO middleware technologies. It's also relying on the Business Process Modeling (BPM) and Business Rules Modeling approaches to flexibly align the solution with the requirements of the business.

Efficient editing of complex data will be enabled by a Rich Internet Application (RIA) based on Adobe Flex technology. The Software Development Life-Cycle follows the Scrum agile process and is done in collaboration with representatives of the business.

Tasks:

Team Leader / Scrum Master

Technical Coordinator: coordination of teams, technical issues management

Software Architect: Java stack architecture design, Solution architecture follow-up

Project Management: back-up of PM.

^ **15-Oct-2010→Feb-2011: BPM Lending PoC**

Scope: As a first step to the introduction of the BPM approach in the company, a proof-of-concept (PoC) project has been started. It consists of the end-to-end modelling of one business process using TIBCO Business Studio and of the implementation of the process using TIBCO iProcess. The system will be built jointly by business representatives and IT specialists in a new collaborative approach.

Tasks:

Project Manager: management of the project.

Technical Coordinator: coordination of teams, technical issues management

^ **May-2008→now: Java & open-source development competence center leader**

In this position, my role is to organize and animate one of the competence centers of Sogeti, around the theme of "Java" and "Open-source development".

This assignment is parallel to my missions for a [Banking company](#) and a [Bio-Pharmaceutical company](#).

^ **Oct-2006→Dec-2007: SOA competence center leader**

In this position, my role was to organize and animate one of the competence centers of Sogeti, around the theme of "SOA" (Service-Oriented Architecture).

This assignment was parallel to my missions for a [Bio-Pharmaceutical company](#).

^ **Sep-2001→Sep-2010: Missions for a Bio-Pharmaceutical company**

The mission covered the following projects, in the fields of the Medical Information (Knowledge Management) and of the Clinical Studies:

- [Audits Tracking Systems](#)
- [External Studies Tracking System](#)
- [New Knowledge Platform](#)
- [Knowledge Platform](#)
- [Case Report Tabulation](#)
- [Conversion to SAS datasets](#)
- [BASIS+ Front-End application](#),
- [Publications Portal](#) (pilot project),
- [Product Information Management](#) (pilot project)

Job description

- User requirements collection (business analysis)
- Analysis (functional, architecture, detailed design)
- Development (prototyping, re-engineering)
- Technical team management, Project management

Technologies used in those projects

- MS Project, company Project Framework (21 CFR Part 11), Validation & Qualification plans, OPX2
 - Collaboration platform (MediaWiki)
 - Java (J2SE, Apache libraries, Spring, Guice, GWT, Hibernate, JasperReports...)
 - Web (HTML, DHTML, CSS, JavaScript, Ajax, JSON, HTTP, Apache HTTP Server, Tomcat, IIS)
 - Development tools (Eclipse, Ant, Ivy, Maven, Gradle; junit, jmeter)
 - XML (CSS, XSL/XSLT, Web Services, Apple WebObjects, Arbortext EPIC Editor)
 - Tibco (RV, AE, SDK, Repository, Portal)
 - Databases & Documents Management Systems (Oracle 8i & 9i (OO, XML, full-text indexing), Basis+, Documentum)
 - UML design
 - CVS and Subversion (SVN) source control systems, Mantis and Bugzilla issues management system
 - Visual Basic, C#, DOT.Net
-

^ 01-Jun-2009→Sep-2010: Tracking Systems

Scope: The high level management of the company needs consolidated reports of the affiliates audits conclusions and departmental risks follow-ups.

Objectives: Before these projects, the recording of the information, and the reporting, were done independently by each manager using Office tools, and with different formalisms and lay-out. The several systems developed in this series of projects are used to track the data and record it into a centralised DB, and to generate uniform reports (tables and charts).

Tasks:

Software Architect: new application design; new database design.

Technical Manager: technical management.

Analyst-Developer: adaptation and maintenance of legacy code; development of new system instances.

^ 01-Sep-2008→Sep-2010: External Studies Tracking System

Scope: The company may, under some conditions, sponsor clinical and pre-clinical studies initiated by institutions independent from the company.

Objectives: This system is used to track the studies in a database, follow their evolution and status, and to generate reports and KPI's based on the recorded information.

Tasks:

Project Manager: management of the project.

Technical Manager: business requirements; define future evolutions of the system; issues follow-up; release planning.

Analyst-Developer: application maintenance; reports design.

^ **Sep-2007→Sep-2010: New Knowledge Platform**

Description: This project consists of developing a new platform for sharing publications in the company. The new system will be more accessible to a broad range of users, thanks to recent full-text search technologies. It will also help the management of the publications with new features like mass upload and automatic meta-data extraction, copyright check, thesaurus integration...

The scope of the project was later extended to become a corporate search, federating sources of information in the company.

Tasks:

Technical Manager: source management, issues tracking, release management, collaboration tools...

Analyst-Developer: technical analysis development and qualification of a documents repository under Documentum, including migration and replication with other systems (custom ETL framework).

^ **Dec-2006→Feb-2008: Case Report Tabulation & Conversion to SAS datasets**

Description: These systems are web based user interfaces used to pilot SAS processing for clinical studies "Case Report Tabulation".

Tasks: The responsibilities in these projects were to do the technical support of the system on the application server side.

^ Jun-2003→Sep-2010: Knowledge Platform

Scope: The company maintains a knowledge base of meta-data about all internal and external documents related to pre-clinical and clinical studies done on the company products. All these documents are stored in a Documentum server.

Objective: This project consists of replacing entirely the existing [BASIS+ database and its VB front-end](#) (see below), by a new system, based on more recent technologies and a service oriented design. Moreover, this new project had to follow the company validation rules (related to FDA – 21 CFR Part 11), which enforces strict constraints on the project framework.

Tasks:

Project Manager: budgeting; scheduling; relations with business and third party; qualification and validation planning.

Technical Manager: release planning; issues follow-up; organization of the team work.

Analyst / Software Architect: business requirements; functional analysis; system architecture (distributed architecture); database design; detailed specifications, test sheets.

Analyst-Developer: maintenance of the application.

^ Sep-2002→Dec-2006: BASIS+ Front-End application

Scope: The company maintains a knowledge base of meta-data about all internal and external documents related to pre-clinical and clinical studies done on the company products. All these documents are stored in a Documentum server, while the thesaurus based meta-data was stored in a BASIS+ database (OpenText www.opentext.com^[+]). A VB client application was used both to edit the information in the database and to make queries on it.

Objectives: The existing system, built on aging technologies, required numerous corrections.

The mission was also to make an audit of the existing front-end (VB), evaluate the risks linked to its current state (design, code quality, maintenance, vendor dependency), and propose future directions (re-engineering or migration to a new database platform or other). Depending on the conclusions of this first analysis, a new project (see [knowledge platform](#), see above) has been started to implement a new solution.

Tasks:

Software Architect: system audit and evolution analysis.

Technical Manager: release planning; issues follow-up.

^ **Dec-2001→Oct-2002: Publications Portal (pilot project)**

Scope: Interconnection of knowledge bases with Tibco

Objectives: The company selected Tibco as Enterprise Application Integration tool and wished to build a portal, bringing the user community as much as possible useful information about medical publications. Considering the availability of meta-data information in an existing [BASIS+ knowledge base](#) (see above), it was decided to start a pilot project to open this knowledge base through a Web Based user interface, using Tibco to interconnect the BASIS+ database, Documentum server, and company intranet.

Tasks:

Analyst / Software Architect: design of the system.

Developer: development of Tibco adapters.

^ **Sep-2001→Feb-2002: Product Information Management (pilot project)**

Scope: Product Information consists of documents that must be submitted before marketing a new pharmaceutical product.

Objectives: Information is maintained in Word documents. There is a high level of redundancy in those documents because a new document must be produced for each variation of the product (even if only a few details change). On the other hand the European Agency for the Evaluation of Medicinal Products "EMEA" has started to promote the use of an XML standard format for electronic exchange of the Product Information ("PIM").

The company decided to develop a web based pilot application for the management of Product Information. An Oracle DB was used to store the information while various XML technologies were used to manipulate the data and produce PIM files.

Tasks:

Analyst / Software Architect: business requirements; functional analysis; design of the system; development of the database.

Technical Manager: organization of the team work.

^ **Aug-2001: Mission for the Belgian Parliament (www.lachambre.be^[+])**

Job description

- **Scope:** Publication of information about parliament activities on the Internet and intranet.
- **Tasks:** Supporting the web team for the maintenance of the web site (development of new functions and migration of the server from Unix to Windows NT)

Technologies used in those projects

- Unix, HTML, Apache Web Server, Perl, and JavaScript.

^ **01-Oct-1998 → 30-Jun-2001**

Company Dixite SPRL (dixite.com^[+])

Location Brussels

Position Internet Consultant

This company has been created with two friends (Rudy Demo and Javad Heshmati, ex-employees of Atos Belgium like me) in Brussels in September 1998. We put together our expertise in the field of e-business to create the company, with the aim of providing customers with high-end dedicated solutions (project based work).

In 2001, I decided for personal convenience to go back to an employee status and left Dixite. Though, the time I spent in this company was very profitable, giving me the occasion to learn many new technologies, to improve those I already knew, and to be involved in all the steps of projects (from offer writing up to support, including also user requirements collection, design, development, installation, bug fixing...

Job description

- Writing of offers
- System Design
- Project Development
- Development of in-house libraries
- Code source management
- Management of the network infrastructure (intranet and Internet)

Technologies used in those projects

- OO technologies like OMT, UML...
 - Perl
 - Java (Servlets, RMI, JDBC, multi-threading...)
 - Web (HTTP, HTML, XML, CSS, CGI, Perl, SMTP, FTP...)
 - Directories (LDAP)
 - RCS (revision (source) control system)
-

Projects

2001: EUR-OP (European Office for Publications) CURIA project, on behalf of Enschedé – Van Muysewinkel (www.enschede.be^[+]):

Scope: Publication of the case-law of CURIA (The Court of Justice of the European Union) in multiple languages by Joh. Enschedé - Van Muysewinkel, a leading European printing company, who was working for the OPOCE (European Publication Office)

Objectives: The Court of Justice requested OPOCE that its paper collection of case-law should be:

- edited under a digital format;
- published on a CD-ROM media;
- in a cost-effective manner;
- searchable;
- for each of the (then) 11 European languages;
- using the same interface as the CURIA web site.

Tasks: Analysis and development, including building an HTML parser and an indexation engine.

Technologies: Java programming (HTML parser, text indexing, Java applet), HTML, DHTML, JavaScript, XML, CVS

2000-2001: Enschedé – Van Muysewinkel DWMS project:

Scope: Joh. Enschedé - Van Muysewinkel is a leading European printing company, who was working for the OPOCE (European Publication Office)

Objectives: Enschedé needed a production line monitoring and automation system for the composition process, to help them:

- collect periodically over a telecommunication channel a set of pre-formatted document processing requests;
- ensure appropriate processing including format validators, parsing, formatting and printing;
- package newly formatted documents;
- ensure the proper package transmission to OPOCE;
- in a cost-effective and fault-tolerant manner.

Tasks:

Analyst / Software Architect: End-user requirements; design and architecture of the system (distributed architecture); design of a custom framework.

Developer: Development of the system.

Technologies: OMT design techniques, advanced Java programming, XML-RPC, advanced Perl OO programming, CVS

1998-2001: MEMEUROP SA GDM projects "*Guide des Ministères – Gids der Ministeries*" (gdm.be^[+]):

Scope: MEMEUROP publishes the Belgian directory of the Belgian administrations. It developed an in-house solution to create and maintain its information repository.

Objectives:

- realise a technical change in order to better exploit its information on new media;
- produce and sell a searchable CD-ROM version of its directory;
- gain an extra market share by deploying its services using the Internet media.

Tasks: Analyst-Developer: design and development of the system

Technologies: HTML, CSS, JavaScript, Java applet, Perl, CGI, Personal Oracle V8

1998-2001: EEC DG-FISH (European Fisheries Directorate-General) project: Fides II "Extranet for Fisheries Data Exchange"^[+]:

Scope: The mission of the CEC-Directorate General for Fisheries and Maritime Affairs is to ensure the delivery of the Commission's political priorities in the areas of fisheries, the Law of the Sea and Maritime Affairs. FIDES enables exchange of fisheries information between member countries and European authorities.

Objectives:

- develop a complete system to automate the management of fisheries data using Internet technologies;
- using a technology accessible to national administrations in the EU member states and the European Commission;
- offering a wide range of telecommunications such as web, email, and file transfer;
- integrate data formatted in national based formats.

Tasks:

Analyst / Software Architect: design of the architecture (distributed architecture based on a custom service bus kernel); detailed design.

Developer: development of the system.

Technologies: n-tiers architecture, component-base approach, OO, Java, RMI, HTTP, X400, SMTP, FTP, LDAP, Oracle DB V7, HTML...

1998: EEC DG-CUST (European Customs and Taxation Directorate-General) project: CCN-CSI "*Common Communication Network – Common Software Infrastructure*", on behalf of Atos SA:

Scope: Custom and tax information exchange. The common secured network provides electronic transfer of custom and tax information between member countries and European authorities.

Objectives: A central repository was used to store the configuration of the system and manage it remotely. A web based tool was developed in order to allow the administration of the CC network using the LDAP protocol.

Tasks:

Developer: development of an Intranet-based Network Directory Management system for managing the configuration of the system.

Tester: execution of automated tests scenarios

Technologies: HTML, JavaScript, Perl CGI, LDAP

^ **01-Aug-1998 → 30-Sep-1998**

Company **Woqats SA, now EuropeanInvestor** (www.europeaninvestor.com^[+])

Location Waterloo

Position Internet Consultant

Job description

- **Scope:** Trading online
- **Objectives:** Implementation of a trading system over the Internet
- **Tasks:**
 - Setup and administration of an Internet Infrastructure
 - Analysis, design, development and setup of a Trading System over the Internet (Applications and Back End)

Technologies used in this project

- Java, Tibco EAI (RV API)
- Infrastructure: SUN servers, sendmail mail server, named DNS server, Apache web server, Oracle RDBMS

^ **15-Feb-1997 → 31-Jul-1998**

Company **Atos SA, now Atos Origin** (www.atosorigin.be^[+])

Location Brussels

Position System Analyst

Job description

- Development and integration of several Internet/Intranet services for the EEC (for DG FISH: MARSOURCE, FLEET, MIS; and for DG XVI) and for private companies (Cybèle).

Technologies used in these projects

- Apache httpd server, ORACLE DB and Web Application Server (OWAS), Perl...
 - UNIX and Windows-NT platforms
-

EEC DG-FISH (European Fisheries Directorate-General) projects:

MIS "*Market Information System*":

Description: Management of fishing market information from European member states (import, prices...).

MARSOURCE "*Maritime Resource*" MARIS "*Maritime Information Society Initiative*" project:

Description: Web site gathering all sort of information about fishing in the EEC.

FLEET Register "*Fishing vessels register*" project:

Description: Web based data mining on data from the European fishing vessels register.

Tasks: Analyst-Developer:

- debugging and improvement of existing code;
- development of new functions based on user requirements;
- development of web based user interfaces;
- development of an Oracle database;
- data extraction and reporting;
- migration of data.

Technologies: Oracle Web Application Server (OWAS), HTML, PL-SQL.

Cybèle, now Logic-Immo (logic-immo.com^[+]):

Scope: CybelImmo, the real estate media of Blitz Media, decided to develop a powerful on-line system to provide its customers a set of professional on-line services.

Objectives: Development of a web site publishing the advertisements, with advanced search capabilities, and:

- information dissemination through a multilingual media;
- improving the quality and pertinence of information;
- increasing visitor fidelity to the on-line services;
- providing real estate agencies a professional coverage of their real estate portfolio on Internet at a low cost.

Tasks: Analyst-Developer:

- development of the web site
- database design and implementation

Technologies: Unix, HTML, JavaScript, CSS, Perl, mSQL and Apache web server.

^ **01-Oct-1994 → 30-Sep-1997**

Company ISFCE "Institut Supérieur de Formation Continue d'Etterbeek"
(www.isfce.org^[+])
Location Brussels
Position Teacher

Job description

- Professor of "Système d'exploitation et administration d'ordinateurs (UNIX)" (Operating systems and computer administration (UNIX))
- This job was parallel to my job in [CRIF-WTCM](#) (see below)

^ **01-Aug-1993 → 14-Feb-1997**

Company CRIF-WTCM (www.crif.be^[+])
"Centre de Recherche de l'Industrie des Fabrications Métalliques"
(Research Centre of the Belgian Metalworking Industry)
Industrial Automation and Management Department
Location Brussels
Position Research Engineer

Job description

- Research and development: in the fields of Virtual Reality, Man Machine Interfaces, Industrial Robotics, Artificial Vision, network programming, Internet (and "Intranet") and workflow/groupware (collaborative software)
- Software engineering
- System and network management
- Direction of graduating papers of students from École Polytechnique at ULB
- Design and development of applications

Technologies used in these projects

- UNIX and MS-Windows NT
 - research projects: C programming, GL library, ROBCAD, Virtuoso, optimisation algorithms, Tk-TCL programming
 - Internet applications: MS Internet Information Server, MS ODBC Driver, MS Front Page
 - groupware applications: Lotus Notes and Lotus Notes Server
-

European Space Agency research project:

1995-1996: ESTEC (ESA) project: FAMOUS "Flexible Automation Monitoring and Operation User Station":

Scope: Re-usable and robust ground station to monitor space robots and safely operate them with high-level commands through a communication chain characterised by low bandwidth and appreciable end-to-end delays.

Objectives: Re-usability is achieved through implementation of a generic ground station or "framework" made of a series of pre-defined, general-purpose components from which an actual mission-specific control and monitoring station can be derived with a minimum of effort.

Tasks:

Project Manager: follow-up for CRIF work-packages since end 1995

Analyst-Developer: design of the system; implementation of client and server modules under TCP-IP, interfaces with TECNOMATIX's ROBCAD

Technologies: Unix, ROBCAD (TECNOMATIX), Tk/TCL

European Union research projects:

1994-1995: ESPRIT project 8433 (DG III): PASSWORDS "Parallel and real time Advanced Surveillance System With Operator assistance for Revealing Dangerous Situations":

Scope: Video surveillance system assistance

Objectives: The system includes the following functions: motion detection, detection of changes in the environment, analysis of crowd behaviour and interactions between individuals, crowds and the environment. The robustness and reliability of the system is an important consideration in the presence of varying illumination conditions and in natural outdoor environments.

Tasks: Software Quality Management, contribution to the design and the development

**1993-1994: TELEMAT 2 project TM48 (DG XII-D-1): INGRID
"Intelligent Nuclear Gantry Robot Integrated Demonstrator":**

Scope: Robot remote operation in nuclear plant

Objectives: INGRID is a robust mobile machine consisting of an integrated gantry and manipulator robot system which demonstrates computer aided tele-operation. The control system is fully integrated so that a wide range of hardware can be deployed on the gantry robot facility and simultaneously controlled from a single workstation. The system is to be capable of performing a broad range of representative remote handling tasks which are directly applicable to the operation of a nuclear plant and also transferable to many other hazardous robotic operations.

Tasks: Contribution to the realisation of a Path Planning Support System (Path Editor and Global Path Planner)
(The software developed for this project is now integrated as an option of TECNOMATIX's ROBCAD and sold to its users. ROBCAD is a CAD system for robotics station, developed and commercialised by TECNOMATIX (Israel)
(www.tecnomatix.com^[+]))

**1992-1993: ESPRIT 3 project 6068: ATHENA "Advanced
Teleoperation for earthwork Equipment Navigation":**

Scope: Mobile robot navigation

Objectives: Develop a remotely operated semi-autonomous vehicle for use in an unstructured environment, focus on an earth-working vehicle for sanitary landfill, which poses the additional problem that the environment is reshaped by the action of the vehicle.

Tasks: Development of a virtual reality (3D) based user interface

Technologies: Optimisation algorithms, Unix, Virtuoso (Real-time OS), ROBCAD (TECNOMATIX), SGI GL Library, C programming

[^] **01-Jul-1992 → 31-Jul-1992**

Company TIME Lux SàRL (www.timelux.lu^[+])
Location Luxembourg
Position Student job

Job description

- **Scope:** The company is specialised in structured information processing technologies and services. The company wanted to be able to use a graphical user interface for the formatting of textual data, using the SGML (Standard Generalized Mark-up Language) format, ancestor of XML.
- **Objectives:** The system must convert a SGML document into an RTF rendering and make possible for an end-user to describe how each SGML element will be rendered.
- **Tasks:** Analyst-Developer: Design of the system; implementation of the user interface.
- This was a student job.

Technologies used in this project

- C/C++ programming (MS Visual C++), SGML
-

^ Other activities

- 2006-*now*: Occasional contributor to Wikipedia free encyclopedia (French and English versions)
- 1997-*now*: I'm involved in two associations related to "Live Action Role-Playing" (LARP in short):

Be LARP (www.larp.be):

This association (ASBL) is the federation of all LARP Belgian associations, and it organizes the national Belgian LARP event (AVATAR) each summer.

I was one of the founders of this federation and has been a member of the board during several years, more specifically in charge of all game related developments (rules, scenarios...)

Then I reduced my involvement and participated only in the IT team, as manager of the document management system. Now I'm not an active member any more.

AMW "Another Medieval World" (amw.larp.be):

One of the oldest LARP association (ASBL) in Belgium. This club organizes major LARP events (up to 150 participants), historical (medieval) reconstitution, and incentives. In this club, I shared several responsibilities (event organization, rules, web site...) with other friends.

I'm not an active member any more.

- 1980-*now*: I'm fond of all sorts of simulation games (role-playing, strategy...)
- 1997-*now*: I occasionally do sailing.
- 1994-*now*: I do mountaineering and indoor/outdoor climbing (I love the mountains).
- 1993: teaching assistant as student at Analytical Mechanics Service at École Polytechnique (ULB)
- 1992-1993: member of the University board (ULB)
- 1991-1993: students delegate and member of the Faculty board at École Polytechnique (ULB)
- 1988: First prize of Belgian Mathematics Olympiads

^ Publications

Van Muyswinkel A.,

"Étude de faisabilité de l'application d'un algorithme génétique de groupement à la détection de primitives dans une image" (Feasibility study of the application of a grouping genetic algorithm to the detection of primitives in a picture)
Graduating paper ("Travail de Spécialisation") at CRIF, 1995, Université libre de Bruxelles

Van Muyswinkel A.,

"Path Planning Support System",
ROBCAD Report, Fall 1994. TECNOMATIX Technologies Ltd. Israël

Malotaux É., Falkenauer E. and Van Muyswinkel A.,

"The Motion Planning Problem: From Global to Local",
in *Proceedings of the 27th International Symposium on Automotive Technology and Automation (ISATA '94), dedicated conference on Lean Manufacturing for the Automotive Industries*, October 31 - November 4, 1994, Aachen, Germany. Automotive Automation Limited. England

Halbach M., Van Muyswinkel A.,

"Man Machine Interface for advanced teleoperated mobile robots",
in *Proceedings of the ORIA 94 International Conference, "From Telepresence
towards Virtual Reality"*, 5-6 December 94, Marseille, France. IRIAM -
Institut international de Robotique et d'Intelligence Artificielle de Marseille.

Halbach M., Van Muyswinkel A.,

**"Robotics Control Station: from teleoperation up to mission
preparation"**,
in *Proceedings of the IFAC Conference on Intelligent Autonomous Vehicles
95*, June 12-14, 1995, Helsinki, Finland. University of Technology.

Van Muyswinkel A.,

**"Conception et réalisation d'une interface graphique conviviale pour
la représentation graphique de l'environnement d'un robot mobile et
sa conduite au sein de cet environnement"** (Conception and realisation
of a user-friendly graphical interface for the geometric representation of the
environment of a mobile robot and its driving within this environment)
Graduating paper ("Travail de Fin d'études") at CRIF (project ATHENA),
1993, Université libre de Bruxelles
(The software developed for this project has been sold within a package to
FRAMATOME (France))

This page updated: 2010-07-29 21:21 CE(S)T