

## Personal

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## Summary

Geert has been active in the ICT sector since 2000 and started his company Bellekens IT in 2004. He always had strong focus on UML, modelling and analysis methodology.

Geert Bellekens has helped several of the larger Belgian organizations to define and document their modelling method, train and coach the modelers and develop supporting tools.

Geert Bellekens is an acknowledged Enterprise Architect expert and has written numerous add-ins for Enterprise Architect, including the free open source [EA Navigator](#) and the commercial [EA-Matic](#). He has been working with Enterprise Architect since 2005.

He is also one of the founding members and a regular speaker on the EA User Group events.

Since the beginning of 2015 Bellekens IT has become an official Sparx Systems [Value Added Reseller](#) which means that it is authorized to resell licenses and provide expert consultancy with regards to Enterprise Architect.

## Online references

- <http://bellekens.com> My website/blog
- <http://be.linkedin.com/in/geertbellekens> LinkedIn profile
- <https://github.com/GeertBellekens> My open source projects
- <http://community.sparxsystems.com/geert-bellekens> Sparx Systems (Enterprise Architect)
- <http://twitter.com/GeertBellekens> Twitter

## Experience overview

From	To	Company	Role
01/2015	Current	Atrias	Enterprise Architect Consultant
03/2019	Current	ACV-CSC	Application Architect
06/2004	Current	Bellekens IT	Owner and Enterprise Architect consultant
03/2008	03/2009	KBC	Modelling methods analyst/coach
05/2006	02/2008	LCM	Functional Analyst / UML Methodology Coach
02/2006	04/2006	Digipolis	UML Business Analyst
01/2007	04/2008	Aspects	Business Intelligence Analyst/Developer
06/2004	12/2005	BAI	UML Quality Assurance/ Functional Analyst
11/2001	06/2004	Softbrands Hospitality	Project leader – Functional Analyst
05/2001	11/2001	Interchain	Analyst Programmer
03/2000	04/2001	Aremisoft	Support, Trainer/Installer, System Administrator

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## **Languages**

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Very good Dutch and English  
Good French and German

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## **Studies**

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Higher education      Ace GroepT Graduaat Informatica  
(1/9/2000-30/6/2003)  
**Diploma A1 Graduaat Management Informatica**

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## **Skills**

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### **Software Development**

UML, MDA  
IAF, RUP, UP, TOGAF  
Business and ICT Architecture  
Very good knowledge of the OO paradigm  
Analyses and Design (from Business to Technical)  
GUI and core application development  
Database design

### **Project management**

Quality Assurance  
Reporting progress  
Estimates  
Change Management  
Communication

### **Personal**

Very analytic mind  
Good communication skills  
Strong leadership

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## **ICT Knowledge**

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### **Modelling**

UML, BPMN, ARCHIMATE, TOGAF

### **Modelling Software**

**Enterprise Architect**, MEGA, Rational Rose, Rational Software Architect

### **Programming**

C#, Java, VB, VBScript,SQL

### **DBMS**

MS SQL Server (+ SSIS, Reporting Services)  
Sybase SQL Anywhere  
MS Access  
MySQL

## Experience

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### Sparx Enterprise Architect Consultant

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**Customer:** Atrias  
**Project:** CMS  
**Period:** January 2015 to current  
**Reference:** Davy Dewinter

#### Project:

Atrias is a neutral consultation platform in the Belgian energy market that develops and optimizes the energy market processes and is currently realizing a federal Clearing House; an IT platform for structuring and exchanging data between the players in the Belgian energy market.

#### Responsibilities:

- **EA Setup and configuration**  
Setup of Enterprise Architect on a Citrix environment using SQL Server as a backend. We opted to setup security integrated with Active Directory to provide a minimum of certainty that no model parts were changed or deleted by accident.
- **Document Generation**  
Setup of several semi-automated document generation templates and scripts. The scripts are used to create the *virtual document* that contains the contents of the document. Each of the sections contains a reference to a specific model part and template. Generating the document itself is done manually using the standard document generation facility in Enterprise Architect.
- **Tooling**
  - Created several scripts to aid the users while documenting the business processes and functional design with Archimate, BPMN and UML. Some of these scripts automate some of the more tedious repetitive steps, or even automatically create overview diagrams.
  - Created a number of SQL searches to facilitate search of provide instant traceability views
  - Created UML Profiles and MDG technologies for Atrias' own definition of Requirements, and an implementation of a profile for modelling BAM (Business Activity Monitoring) as an extension to BPMN
- **Training**  
Provide training with regards to using Enterprise Architect and doing functional analysis using UML Use Cases.
- **Coaching**  
Hands on assisting the analysts in their daily modelling tasks, responding to questions and explaining the concepts in the modelling method.

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**Application Architect / Analysis QA**

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**Customer:** ACV-CSC  
**Project:** Horizon  
**Period:** March 2009 to current  
**Reference:** Peter Haeghebaert, Thierry Alexis

**Project:**

ACV-CSC is the biggest union in Belgium with approximately 1.6 million paying members. In Belgium it's the unions that are responsible to pay the unemployment benefits.

In order to manage the calculation and payment of these unemployment benefits ACV-CSC opted in 2003 to create a new application from scratch. Horizon is designed to completely replace the existing mainframe solution.

Horizon is based on Microsoft technologies using C# as a programming language and MS SQL Server as the data storage.

The analysis of this project was done using UML in Enterprise Architect

The total labour budget for this project, from it's inception to the roll-out is ~180 man years or about 25 million Euros.

**Responsibilities:**

At the moment I joined the team the Horizon project was on the verge of going into production. This meant that the project slowly was going from a "create" mode to a "maintenance" mode. My main assignment was to make sure that the UML analysis model was going to be a correct and useful source of information in during the maintenance of Horizon. This meant that the model had to be up-to-date, consistent, and well documented. In order to facilitate this I opted to approach this in several different ways:

- **QA Model reviews**  
Review parts the analysis model and suggest improvements
- **Documentation and improvement of the modelling method**  
The modelling method used in this project was not consistently documented, and was lacking some important aspects. I worked on a consistent documentation and improved the method were necessary.
- **Training**  
Give training sessions to new analysts, or refresh sessions for existing analysts about different aspects of the modelling method.
- **Coaching**  
Hands on assisting the analysts in their daily modelling tasks, responding to questions and explaining the concepts in the modelling method.
- **Tooling**  
I suggested and implemented several tools built upon Enterprise Architect to help the analysts maintain a consistent level of quality. These tools included a model validation tool, a documentation helper, and several productivity enhancements.

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**Modelling methods analyst/coach**

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**Customer:** KBC  
**Department:** ODA (Analysis and Design Advice)  
**Period:** March 2008 to March 2009  
**Reference:** Geert Larnoe

**Department:**

ODA is the department within KBC (head office) that is responsible for the analysis methods, the modelling tools and the training and coaching of the analysis skills.

KBC has a very elaborate modelling culture including following methods:

- Business Architecture
- Business Design
- ICT Architecture
- ICT Functional Design
- ICT Technical Design

The Business and ICT Architecture modelling method is based on IAF (Capgemini's Integrated Architecture Framework) to which KBC added modelling notation aspects based on the available notation in Mega.

ICT Functional and Technical Design methods are based on UML and the principles of Component Based Design.

**Responsibilities:****Methodology**

Analyse and implement the necessary changes to the modelling methods.

Specific projects where I was involved in:

- Implementation of "Component Based Design with UML"  
Introducing UML in ICT functional and ICT technical design.
- General Messaging Modelling method  
Introducing the concepts of integration and standard messages in ICT Architecture and ICT Design
- Enterprise Application Integration (EAI) modelling  
Translate the Word/Visio based "method" into the modelling methods used in ICT Architecture and ICT Design. Defining the concepts used, creating method documentation, guidelines and training documentation.
- Alignment Business Architecture/ICT Architecture.  
Investigate and document how the Business Architecture method could be aligned with the ICT Architecture method.

**Coaching**

Hands on assisting (business) analysts with their operational modelling tasks. Explaining the methods and responding to operational questions.

**Document generation tool**

Analysing and programming (VBA) a tool to create Word documents based on the Mega Model. This tool provides a flexible way to create custom documents allowing the user to select modelling objects and templates from different Mega models. This tool also allowed updating only selected parts of the document to reflect changes in the Mega model.

**Customer:** LCM (Landsbond Christelijke mutualiteit)  
**Project:** DMFA (Declaration Multifunctionelle Multifunctionele Aangifte)  
**Period:** May 2006 to February 2008  
**Reference:** Guido Bongartz (Domain coordinator)

**Project:**

DMFA is a project to automate the social security under the hood of KAFKA; the project to ease the burden of the administration. It tries to digitize all communication between the different partners in the social security. All documents that circulate currently between say the insurance institutions, employers etc. are replaced by their electronic equivalents. LCM as largest health insurer in Belgium plays an important role.

**Responsibilities:****Functional analysis**

Implement the functional analysis for several new features and change requests. Gathering the requirements through discussions with the department Infocel (LCM representation of the users). Developing the functional analysis using UML (Rational Rose). Driving and tracking of development. Testing and production monitoring.

**Develop UML analysis method**

The team worked analysts are more or less with UML, but in a non-structured manner. The analyses themselves were written in Word documents. UML was only used as an illustration. I changed this by:

- Adapting the standard method (derived from MacroScope) to the reality of the project.
- Set up a structure within which we can work, what elements do I put where, which UML elements to use for which concept.
- Prepare a specification document with a definition of the methodology.
- Setting up templates in Word to export the models.
- Training of the other analysts.

**Selection and implementation UML tool (Enterprise Architect)**

Because Rational Rose is "end of life" another UML tool had to be chosen. My role was:

- Drafting of a shortlist of candidates (Enterprise Architect and Rational Software Architect).
- Determining the needs of different users.
- Drafting of the selection and testing of the tools.
- Guiding the implementation and rollout.
- Creation of a number of tools for converting Rational Rose to Enterprise Architect and to generate Word documents from EA.

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**Business Intelligence Analyst/Developer**

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**Customer:** Aspects (commissioned by Q8)  
**Project:** Q8 PP reporting  
**Period:** Jan. 2007 – April 2008 (part-time)  
**Reference:** Sam Tulfer

**Project:**

Q8 PP reporting is a project for Q8 to bring the data pertaining to the plus points (Delhaize) from the different sources together and consolidate them/

This allows Q8, to compare the number of points reported by Delhaize with the number of points that that is reported by their own stations. This system also used for the optimization of the sales and marketing strategy.

For this project was chosen to work within the Business Intelligence package of MS-SQL Server. For importing data from various sources SQL Server Integration Services was used. The reports were created using SQL Server Reporting Services

**Responsibilities:****Analysis**

Translating the business requirements in a functional and technical analysis

**Development**

To develop the application, using the following technologies

- SQL Server Integration Services
- Transact SQL
- VB.NET
- SQL Server Reporting Services

**Testing**

Preparation of the test scenarios. Perform the unit and performance testing.

**Installation**

Installing of the application on site.

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**UML Business Analyst**

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**Customer:** Digipolis Antwerp  
**Project:** FMIS (Facility Management Information System)  
**Period:** February 2006 to April 2006  
**Reference:** Bert Gios (project manager)

**Project:**

The FMIS project involves purchasing a FMIS for the heritage maintenance department of the city of Antwerp. The role of Digipolis was to carry out a pre-analysis, preparation of specifications, selecting the best supplier and supervising the implementation.

**Responsibilities:****Business Analysis**

Executing the pre-analysis. Through discussions with end users and management define the requirements, business processes and data. This applies both to the current situation (AS-IS) and the future situation (TO-BE). The parts for which I was responsible were:

- Stock and Warehouse
- Acquisition
- Public procurement
- Construction

**Develop UML method**

The business analysts to recently worked with Visio and Word for their analyses. I have introduced the use of UML. That is to say:

- Introduce a UML case tool. In this case, we have chosen the open-source application StarUML.
- Set up a structure within which we can work, what elements do I put where, which UML elements to use for which concept.
- Prepare a specification document with a definition of the methodology.
- Setting up templates in Word to export the models.
- Training of the other business analysts.

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**UML Quality Assurance/ Functional Analyst**

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**Customer:** BAI (Business Architects International)  
**Project:** Rabobank CPL (Loans)  
**Period:** June 2004 to December 2005  
**Reference:** Kris Claessens (project manager CPL)

**Responsibilities:****Quality Assurance**

Ensure the quality of the UML models and make sure the quality keeps rising. Important elements in this are:

- Regular random checks of the work of the analysts and designers.
- Build and improve the automated QA tools.
- (Re) training of analysts and designers.
- Steer the analyses process to allow a more effective quality control of the models.

**Analysis-Design**

Using Rational Rose, translate the textual requirements into technically correct UML models. Very important in this aspect is to ensure that the rules of Object Orientation are respected.

Domains for which I had ownership:

- Framework: Everything to do with the persistence framework and support services (versioning, currency, time related...)
- Name-Address-Residence: All about parties, party roles, addresses etc...
- For these areas, I was the contact point within BAI, both on functional as technical level.

**Project management**

Develop the MDA methodology. Since the aim was to generate as much program code as possible from the model, there was very little freedom for analysts / designers. One of my duties was to help to draw up the guidelines for analysts. This "specificationstreet" describes exactly how the various UML elements are to be used, and what the semantic meaning is of each of those elements.

Within the design team provide guidance in the area of OO and the rules agreed within BAI. Training of (new) analysts.

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**Project leader – Functional Analyst**

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**Employer:** Softbrands Hospitality  
**Activity:** ICT systems for Hotels en Restaurants  
**Period:** November 2001 to June 2004  
**Customers:** Holiday Inn, Choice Hotel Group, Hotel Leopold Brussels,...

**Job description**

Functional analysis of new requirements, documenting and reporting bugs to developers. Collecting requirements from the EMEA and tracking them.  
Creation of tailored reports in Crystal reports and the necessary database changes (usually Stored Procedures) for the above.

**Management**

- Gathering requirements out of the EMEA.
- Judge and prioritise these requirements.
- Assemble minor release build from the requirements
- Create long term vision and scope for major builds.
- Setup development planning.
- Follow up development team
- Overall communication between development (outsourced) en SoftBrands
- Creating and communicating documentation for new releases...

**Analyses**

- Creating requirements documents.
- Convert requirements in well documented functional analyses documents.

**Training**

- Internal training on Medallion, Crystal Reports, SQL, etc...
- Education of trainers/installers

**Development**

- Creation of tailored reports in Crystal reports and the necessary database changes (usually Stored Procedures) for the above.

**Support**

- Last level worldwide support for the product.

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**Analyst - Programmer**

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**Employer:** Interchain Belgium  
**Activity:** "Chainware", a software solution for the transport and warehousing sector.  
**Period:** May 2001 to October 2001  
**Customers:** DHL Aviation, KatoenNatie, TNT, ...

**Product:**

Chainware is a standard software solution that focuses on transportation and warehouses. It provides for the processing of transport / storage orders, the entry of such order to invoicing. It works on a Unix system in which its own kind of mini-OS "Unims" is running. The programs are written in "Until" a C-generator which is also developed by Interchain. Within the company Until was described as a 3.5 GL.

The database is also their own product, not relational but fast. The entire solution contains about 1000 database tables and about 800 programmes.

Documents and lists are often written in UQL Report plus, their own version of SQL, which includes layout elements.

The system is also linked with amongst others EDI (Edifact or others), barcode scanners, etc ODBC...

**Job description:**

Chainware is standard software. If customers wanted a change in the operation, layout etc... of existing programs this was executed by the team programmers where I worked. My function was also, usually departing from a functional design, adjustment of the new programmes. This was always done in close contact with the customer such that his wishes were translated into the software. Another aspect of my function was to investigate and solve reported issues with the custom software.

**Employer:** Aremissoft Hospitality Group Belgium  
**Activity:** ICT systems for Hotels en Restaurants  
**Period:** March 2000 to April 2001

**Products:**

- LanMark  
LanMark is a software solution aimed at the larger hotels. It is a DOS application that works with a dedicated Novell server.
- Squirrel  
Squirrel is a restaurant that works with touch screens.
- Medallion2000  
Medallion2000 is the most recent hotel software that is focused on the smaller hotels (< 100 rooms). It has a Windows graphical user interface and works with a NT/W.2000 server. The connection to the Sybase SQL Anywhere database goes through an ODBC interface

**Job description:**

- Support Auditor  
As a Support Auditor it was my task to support the customers by phone when they had problems or questions about the software or hardware. This for all of the above products. The telephone contact was done mostly in English, but according to the customer this could also be in French or to a lesser extent in German. When the problem required it we connected to their system using PCAnywhere to correct the problem. The support team consisted of six people.
- Trainer / Installer  
Since I was in specialized Medallion2000 I was mostly responsible for the installation of this software. An installation usually meant that I would spend a week on site installing and configuring the product and training the staff in using the software.
- System Administrator  
At Aremissoft I was responsible for the internal network of the office. The network worked with NT and Novell and had about 20 workstations. My function was to create new users, install workstations etc...
- Interface Controller  
The various Aremissoft products are also linked with external systems such as telephone centrals, minibar, voice mail etc... The link is made through an rs232 serial connection. I was responsible for setting up these interfaces, testing, and maintaining contact with the outside companies if there were changes in existing interfaces or when a new interface was developed.