# Hospice général builds its occupational standards system with Rational System Architect

# IBM

# Rational System Architect Case Study

## The client : Hospice général – Geneva Institution for Social Action

Tasked with putting in place the social policy for the Canton of Geneva, the <u>Hospice général</u> devotes most of its activity to social assistance for the most disadvantaged and to receiving asylum seekers, all while providing assistance, prevention and information for the entire population. The institution also comes to the aid of more than 20,000 people, by means of social aid in the majority of cases, and asylum for some 4000 people. The conditions for assistance are defined carefully to ensure that all beneficiaries receive equal treatment. The 1000 professionals that provide assistance do so with the concern of preserving the dignity of those in



need, and helping them to gain back their autonomy. The Hospice général develops its activities in accordance with the Canton's legal framework; mainly the constitution and cantonal laws and regulations. The constant evolution of the laws and regulations obliges the Hospice général to constantly adapt itself, as well as its information system, which, at the same time, faces the partial outdating of its software.

# « The suitability of the softwareplatform to the needs of a constantly evolving profession and development cycle control are based on the standards built with Rational System Architect »

Gilles Soler, Assistant Chief, Information System Architecture and Security, Hospice général

# Highlights

- Build a standard for the PROGRES application based on a simplified vision (Meta-model): Rational System Architect can build a meta-model in stages and progressively load the data. The modelling can be developed with AMOA project teams.
- A tool for following development projects: <u>Rational System Architect</u> enables the formalisation of expressing needs and requirement gathering, as well as the formalisation and collection of functional analysis elements. It also allows for the simplification of capturing needs with a simplified Web interface.
- Analysis of a project's impact on the platform: Rational System Architect enables modelling and displays the relation of the impact between the various levels of project descriptions (needs, requirements, functional analysis) and the standard. These relations initially enable the construction, by generalisation, of impact analysis reports or graphs, then later, the establishment of a first level of development assessment.

### The challenge

Rather old, business software has developed in a variety of ways, while the knowledge is spread among several people and on different levels of comprehension. Technically, it is made up of various blocks:

- I.H.M Visual Basic
- Code PL/SQL on Oracle base

The naming and identification of essential components varies according to the teams. Very few people have a complete vision of the system from the top (functional services) to the bottom (technical elements). At the beginning, team members have little knowledge of modelling. Projects are outlined in Word documents with varied formality and with a vague link to the software.

### The solution

Rational System Architect was used to enable teams to speak to one another, based on a single standard. The first step, after learning the technical aspects, was to model the various entities. The tool allows for the



adjustable segmentation/classification of the entities thanks to the development flexibility of the metamodel and to data unloading/reloading.

Then, over the course of various iterations, when the display converges and is adopted by everyone, the tool appears like a mapping of the system. The scope of modelling covers all SI layers, from the organisational layer all the way to the infrastructure material, including functional and software layers. Particular care was taken in the mapping of the SI applications as well as their interfaces.

The big strength of the tool is its ability to adapt to non-homogeneous details from one end of the model to the other. This makes it possible to elaborate certain parts more or less, as necessary. The tool has become the entry point (for capture) of project's formalised information with extraction from Word for publication. The graphic manager opens a visual display showing the parts of the system, customisable with the meta-model. Rational System Architect is a flexible software programme that can place the metamodel on established frameworks (DoDAF, ToGAF, IAF). It is also possible to use all or part of the UML display, adaptable to specific needs. The programming of the VBA macro enables the extension of the tool's features, notably offering a very sizable interrogation/modification API.

### The future

Its simplicity will allow the Rational System Architect Web interface to be used by professionals (MOA) who will be able to enter needs and requirements directly, without going through the AMOA interface. The mapping of work environments is also being studied.

The solution includes:

- Rational System Architect hosted in a virtual Windows server 2003 R2 SP2 in VMWARE infrastructure
- MS SQL Server 2005
- Rational System Architect XT (Web interface)
- Rational System Architect Client

#### Rational System Architect advantages

- Rational System Architect enables easy building of multi-user standards, based on a tailor-made metamodel, coming from – either totally, partially or not at all – frameworks (TOGAF, IAF, ...) and uses proprietary or common languages (UML).
- Rational System Architect is accessible to both fat clients or via the simplified Web interface.
- Rational System Architect enables a step-by-step approach to modelling, data collection and display, thus avoiding the tunnel effect of large urbanisation projects.

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