Via Appia

Via Appia is an Information Technology company located in Brazil. Focused in developing and marketing products that utilizes in its scope search solutions, taxonomy, ontology, multilingual and multi-hierarchical thesauri.

About Via Appia

The company also provides specific services of processing bibliographic or archival documents, such as technical processing, sanitizing, preparation and scanning on supplied or third party systems. Allied to that, Via Appia have been providing IBM Watson Explorer search platform and implementing projects with it.

ZK x Via Appia’s TheXML system

TheXML system is a tool for creating and maintaining thesauri monolingual, multilingual, poly-hierarchical, taxonomies (flat, hierarchical, networked or faceted), controlled vocabulary with different complexity levels, synonym and ontology dictionaries. That is, the end of the barriers between users and information. Creation and maintaining of Thesaurus and other controlled vocabulary: Via Appia has a team specialized in creating and maintaining Thesaurus, Taxonomies, Ontologies and other documentary languages. The TheXML system is normally utilized to integrate with search engines, such as Apache Lucene, Microsoft Fast Search and IBM Watson Explorer to enhance the quality of the search and the user experience.

Architecture

In the development of TheXML, ZK + Spring + Hibernate + Hibernate Search + Apache Lucene + Jasper Reports were utilized. The software can be deployed using the major Database management systems available in the market such as: Oracle, SQL
Server, MySQL and PstgreSQL.

The Challenges
Challenges encountered includes:

1. Find a framework for the visualization layer that would provide an agile development of the interfaces, without the need of a web designer in the team;
2. Develop/maintain a product that can be utilized with different database management systems;
3. Develop a friendly interface that provides a unique experience to the end user, without the need to refresh (AJAX);
4. Integration with barcode/print reading devices, transparently to users;
5. Generation of reports dynamically, with possibility to add new reports to the system without having to do a complete re-deploy of the application.

Why ZK
Initially, GWT was the first choice, however after a more detailed evaluation, ZK was chosen for a smaller learning curve. Moreover, ZK got different resources like ZK Spreadsheet, which may be utilized future versions.

ZK was chosen because it is easy to use, has small learning curve and provided users with the development of a RIA application without having to use a single javascript line of code. In addition, “Applet” component was created to enable the use of Java Applets. This component was created and made available by ZK team so that the integration with hardware devices could be performed transparently to the end user (without the need to install specific drivers to such devices in some cases).

With ZK, Via Appia had considerably shortened the development
time of their first product. They came up with a functional prototype application in six months, which allows them to demonstrate to their customers. Customers were satisfied with the application interface and modules with various functionalities – all thanks to ZK!

The Best of ZK

1. Smaller learning curve comparing to other frameworks;
2. Ease of development with no need of utilizing javascript;
3. Great performance processing AJAX;
4. Unlimited possibilities of customization of the interfaces without great need of web design knowledge;
5. Support team is always willing to help, in every support channels (emails, forum, etc.);
6. ZK components: allowed us to create a desktop with functionalities visually pleasant with the possibility of interface customization by the end user;
7. CKEditor: Text editor that, integrated to the application, allowed us to let the system user a more friendly and intelligent way to insert content in HTML format into the system;
8. AJAX without javascript: easiness in development phase.

The Result

Hibernate Search + Lucene were utilized, the application has an excellent performance in the search of information, as well as increasing the quality of user experience in relation to searches performed. ZK Framework allowed Via Appia to create a solid project base, so they can use it in other projects. Moreover, it does not require specific professional to design the interfaces.

The TheXML is a product that has a continuous development, as the software uses standards and norms that need to be constantly updated according to their respective changes. ZK is a valuable tool to assist in the development of Via Appia’s applications - it supports
the development of TheXML and practically all the projects that are
developed inside the company.

About ZK
ZK is the leading enterprise Java Web framework with more than 1,500,000 downloads. ZK is deployed by a large number of Fortune Global 500 companies, including Barclays, Allianz, Swiss RE, Roche, Deutsche Bank, Sony, Sun Microsystems, and Toyota, providing them with the ability to rapidly create rich Ajax enterprise level applications.

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