

By



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## QueryVision – an active query designer developed to create dynamic SQL queries, built with Dolphin Smalltalk and Seaside

There are two screencasts available:

The download under [www.exoos.de/qv.exe](http://www.exoos.de/qv.exe)

contains screenshots of two examples. (**please note, that this capturing-tool can´t display all of the AJAX-effects, such as drag&drop**)

Under:

[www.exoos.de/qv.avi](http://www.exoos.de/qv.avi)

**you can find another example to show the drag&drop effect**

The examples are base on the Northwind – Access Tutorial

### Management Summary

- QueryVision is a database-independent query designer that can be run as a Windows application as well as a Web application
- is a robust solution designed to create dynamic queries for endusers. With this solution, also non-database-experts can perform **very frequent modifications** on databse queries and reports **within a short period of time, without changing the code of the application.**
- The user-friendly GUI supports the highly dynamic creation of Web-based data entry forms or reports via drag&drop, just like with a composition editor. It also supports the composing of several query components for new queries
- The initialization of QueryVision and the saving of queries is done in XML format
- A meta- linguistic creation of complex query constructs done by different user groups is possible

## Features

In modern, dynamic organizations software requirements are rapidly changing. Today you are trying to release a version and tomorrow you will get your first change request. But the way of these changes into the next release takes often a long time. QueryVision reduces this time to build new dynamic queries for instance in **campaign management** with techniques that are Easy to use.

## User Groups

### **End users**

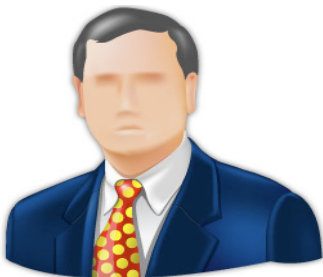
**End users** can work with QueryVision to comfortably define attributes for a dynamic creation of queries (selections). The tool encapsulates all SQL



features such as subqueries or unions. **Change requests for dynamic queries are provided simply and quickly** due to the abilities of the query designer to edit presentation elements of query forms and to quickly add further features without changing the code. The user is given enough space to develop his own creative ideas.

### **Managers**

The basic component suite enables query composers and requirement managers to create a new query by combining any other query components that has already been defined and provided by the



developer. New query features including plausibilities are to be added via drag&drop and the presentation form of the entry elements is exchangeable. By saving the query components in XML format, they can immediately be made available to any end user.

**Thanks to QueryVision, there is no planning or development time required to answer end user requests.**

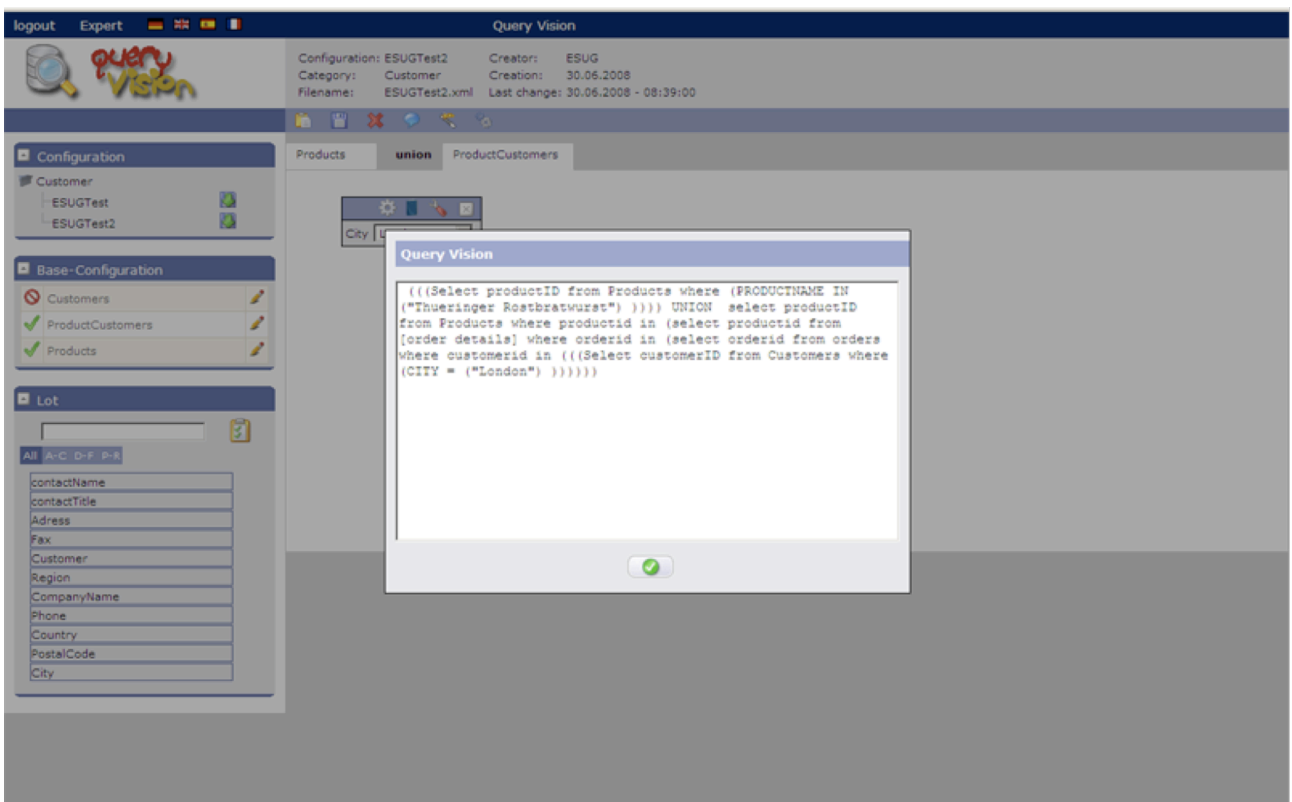
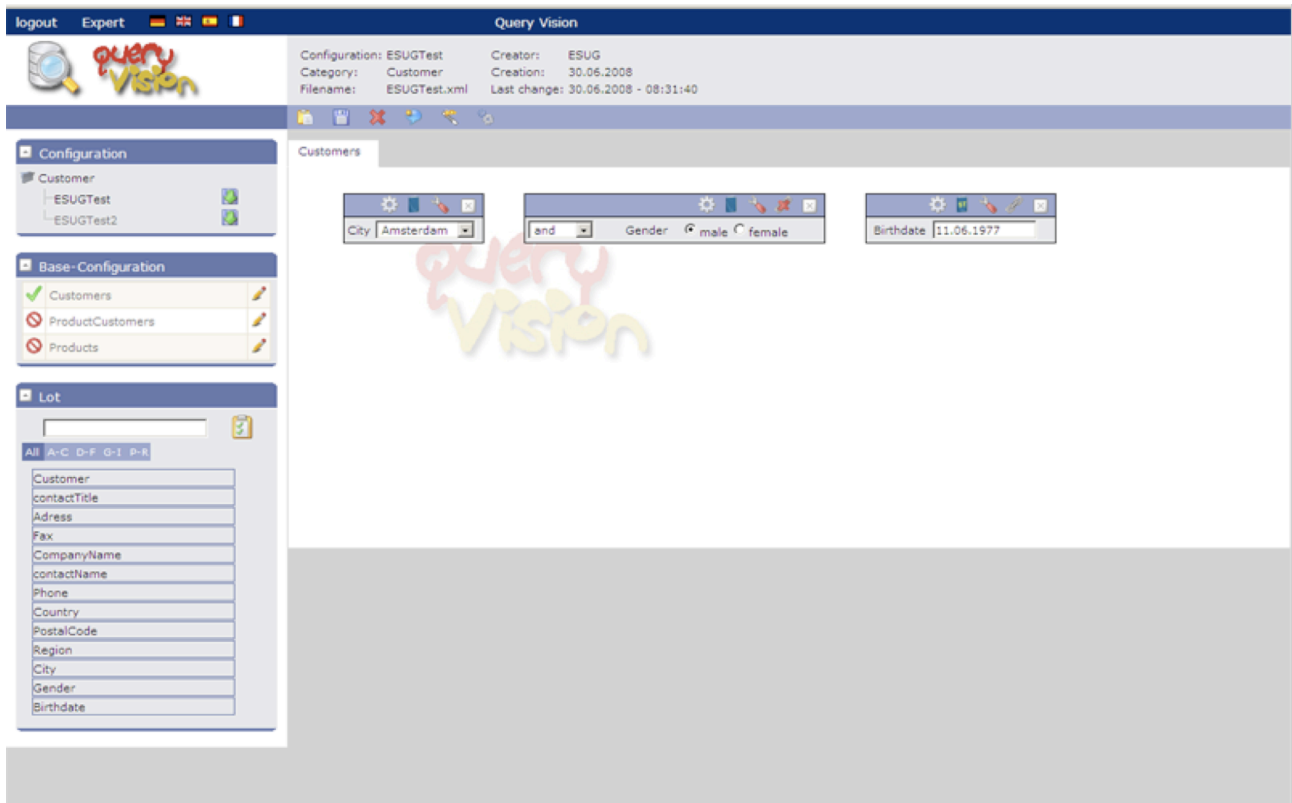
### **Developers**

With QueryVision, **developers** can very easy create or adapt user interfaces for dynamic queries and query forms. The **context-dependent** use of **query components** for parts of any database is provided by a defined XML interface.



The interface allows to define SQL instructions per QueryPattern and to additionally provide entry fields with value margins for dynamic queries without changing the code. All query patterns can be combined with each other and complex query conditions can be added via script code. Since end user queries are saved in XML, user queries are transparent and analysis is simplified.

Two screenshots:



## **Architecture**

QueryVision helps to build UI for generating dynamic queries like with a composition editor and build new QueryParts. You can view these parts like objects in **Model-View-Controller** architectures in inspectors. To compose these parts to new and more complex parts with elements of SQL-language is very simple.

## **QueryParts (Configurations)**

QueryParts consists of a query definition (one or more QueryPatterns) and a "query user interface". Every element of this UI is capable to handle one attribute in a query model. Predefined HTML-Elements are available (e.g. combo box, entry field, ...). These elements allow to specify rules for validation visualisation or methods for "complex query transforming support".

## **XML Specification**

QueryVision uses parts to render every attribute in the user interfaces. The developer has to define possible elements in a query pattern for every base component and finally store this information as XML specification. A query designer or end user can feed his QueryVision with these XML-Specifications and start his query design process. To finish this process every user can store his "application model" in the QueryVision application model or even an external storage medium.

## **Advantages**

QueryVision lets you create queries for highly dynamic Web-based forms via drag&drop just like with a composition editor. Your web browser will give a live feedback!

That makes the development process for developing dynamic queries easy. End user can make changes without changing the code of the application. Change requests are no longer the work of developers. With QueryVision this is the work of end users or "query designers".

## **Planned Enhancements for the future**

### ***QueryEditor***

A graphical viewer for an existing database (like Access) will be added, so you can have a graphical representation of the model.

### ***Display panel***

A display panel will be added, so you can "make a picture of your new query" with a database of your choice.