

Multilingual support for the QuickSilver authoring application—Development and Maintenance

Client

Founded in 1993, BroadVision, a global provider of personal self-service web applications and a leading e-commerce solution vendor, is widely recognized as a pioneer and innovator in personalization and web-based interactions, transactions, and process enablement. In 2000 BroadVision acquired Interleaf, a well-known provider of enterprise-wide software solutions for content management and complex publishing, and a customer of Auriga since 1995. Auriga continued to provide software development services for BroadVision.

Business Need

BroadVision QuickSilver is a powerful technical authoring application used to create and publish long, complex documents in multiple output formats, deployed by large companies throughout the world, including government and military organizations. QuickSilver is the direct successor of the Interleaf authoring tool that was first introduced to the market in the 1980-s. With the continued globalization of the world economy, QuickSilver users often need to author documents not only in Western European languages, but in Japanese, Chinese, Korean, and various Eastern European languages.

BroadVision pays high attention to **evolving customer expectation and requirements**. Former QuickSilver version, developed by Interleaf, was accompanied by separate products for Japanese language documents, but these products were retired prior to BroadVision's acquisition of Interleaf, and QuickSilver 2.0 supported only English and Western European languages. Instead of focusing on separate language-specific products to accommodate **the increasing demand for additional languages**, BroadVision decided to transform the QuickSilver authoring environment to Unicode to allow creation Unicode compliant documents. As a result, international organizations will be able to exchange documents in any language without concern for any

supplementary software for Eastern languages support, and, thus, without additional licensing costs.

Objectives

The objective of the project was to improve QuickSilver to support Unicode authoring and modern file formats (such as FrameMaker 8 files), and Auriga was entrusted with this task as a reliable long-term outsourcing partner who participated in the development of earlier QuickSilver versions

Solution

Auriga team performed full re-design of the QuickSilver application by changing the former mixed ANSI and Japanese character set authoring to full Unicode authoring in the BMP (basic multilingual pane) range.

Unicode authoring in QuickSilver 3.0 was introduced to enable:

- authoring in any non bi-directional language
- Unicode component names and attribute names, as well as attribute values use of the Windows IMEs (Input Method Editor) and the Character Map tool to insert special characters
- Unicode filenames/pathnames to allow for multi-lingual document names, links and cross-references
- Filtering (file format conversion) improvements, full support of native Windows-compliant Unicode fonts (one-to-one font mapping)

New Dictionary Functionality was added to improve spell-checking efficiency and consistency, including:

- addition of new dictionaries and updating existing dictionaries
- ability to create user dictionaries from word lists and vice versa
- simultaneous use of multiple dictionaries and sharing dictionaries across workgroups
- ability to place dictionaries directly into documentation sets, which practically means that the dictionaries by default accompany the documentation while it is

transferred to another machine or archived with IDU
Integration with the modern spell-checkers and hyphenation libraries was performed, including integration with Aspell spell-checker, an open source GNU application and Libhjn library for hyphenation.

Results

QuickSilver 3.0 was released in March 2007, and is claimed to be one of the most powerful multi-lingual authoring solutions available on the market. The new functionality added to the application allowed BroadVision to strengthen their product position on the market, increase revenue due to upgrade licenses, and above all, enhance customer loyalty by offering the users a new version of the product that meets their most pressing needs. QuickSilver 3.0 already received high appraisal and was noted by end users for its “longevity and flexibility ... as the solution for technical writers and publishers.”

Tools and Technologies

- **OS:** Windows 2000/XP/2003
- **Languages:** C, ++, Lisp, Java

<http://www.auriga.com>