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SafeHarbor builds RealObjects edit-on® JavaBean SDK 4 into HTML Content Management System

SafeHarbor Technology Corporation's latest business solution, code-named Project Falcon, offers non-technical access to enterprise content management functionality. This makes Project Falcon one of the most powerful Internet publishing tools in the industry today. Realtime site statistics, WYSIWYG document editing and one-click publication are just a few benefits for today's businesses. Using the RealObjects edit-on® JavaBean Rich Text Client, SafeHarbor provides powerful HTML content creation and management for non-technical end users who would prefer to have no knowledge of HTML syntax and structures.

Author: Byron Hawkins, Java UI Developer, SafeHarbor Technology Corporation

About SafeHarbor

SafeHarbor Technology Corporation, founded and headquartered in Satsop, Washington, designs and rapidly deploys online support environments that transform and optimize customer support interactions. Since 1998, SafeHarbor has implemented more than 100 customer support solutions.

Built on best-of-breed technology and implemented with a consultative approach, SafeHarbor's SmartSupport Solutions integrate knowledge management with Web self-service and multi-channel support services, enabling companies to increase self-service rates and reduce interaction costs while continuously improving the customer experience.

In 2005, SafeHarbor recognized the opportunity to pursue the SMB market with a client-facing WYSIWYG content management tool, which can be used to create and maintain an online support site at minimal cost. Project Falcon requires no technical knowledge of HTML, website design, or content hosting, management, and publication.

Starting point

SafeHarbor initially built Project Falcon using a JEditorPane-based solution from a well-known vendor (declaring itself to be the leader in online content creation for business), but found it unable to meet the stringent technical requirements of a client-facing application. Foremost, all JEditorPane derivatives must rely on the underlying javax.swing.text package, which imposes architectural limitations that obstruct the accurate implementation of an HTML/CSS WYSIWYG editor. As style and formatting in a document increased, the behavior of the editor deteriorated, essentially limiting the visual complexity it could produce. Furthermore, engineering failures within the editor* inhibited the integration process and required extensive development effort to work around. Even with the editor operating successfully, its API provides limited and inconsistent support for programmatic manipulation of the XHTML content, the selection and caret, and application context changes. In our attempts to negotiate with the vendor to have these issues resolved, we found their staff to be disorganized and unresponsive (except for the sales team). This editor component looked to be the greatest obstacle to production of Project Falcon.

*failures include

- NullPointerException thrown from createCustomTagImage() when no custom tags had been registered with the editor
- NullPointerException thrown from an implementation of java.awt.LayoutManager.minimumLayoutSize()

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Requirements

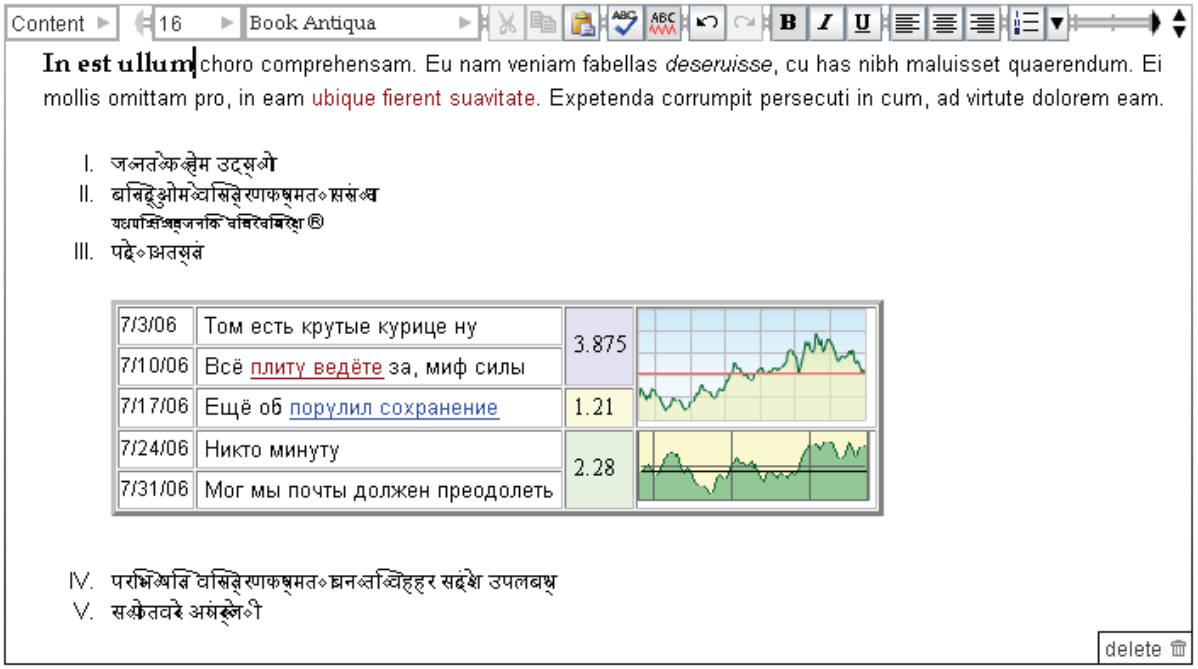
Unwilling to accept a third-party as the lowest-common-denominator in our development effort, SafeHarbor searched the market for an XHTML WYSIWYG editor with the following feature set:

- Support of HTML 4.01 and CSS 2.0
- Consistent, correct editing of complex formatting and style
- Browser-like rendering of the HTML source
- Precise handling of XHTML under the hood
- Random access to editor toolbar states
- Custom processing of drag-and-drop
- Document thumbnail generation at a specified size
- Notification of changes to the rendered height of the document
- Insertion of HTML fragments at any caret location
- Multiple undo/redo
- Programmatic manipulation of editor properties and state
    - Set a base URL for resolution of relative paths
    - Query the HTML entity residing at the caret location
    - Get and set HTML entity attributes as key/value pairs
    - Get and set the caret location and selection
    - Query the height required to render content at a specified width
    - Set the character encoding
    - Override mouse wheel listeners

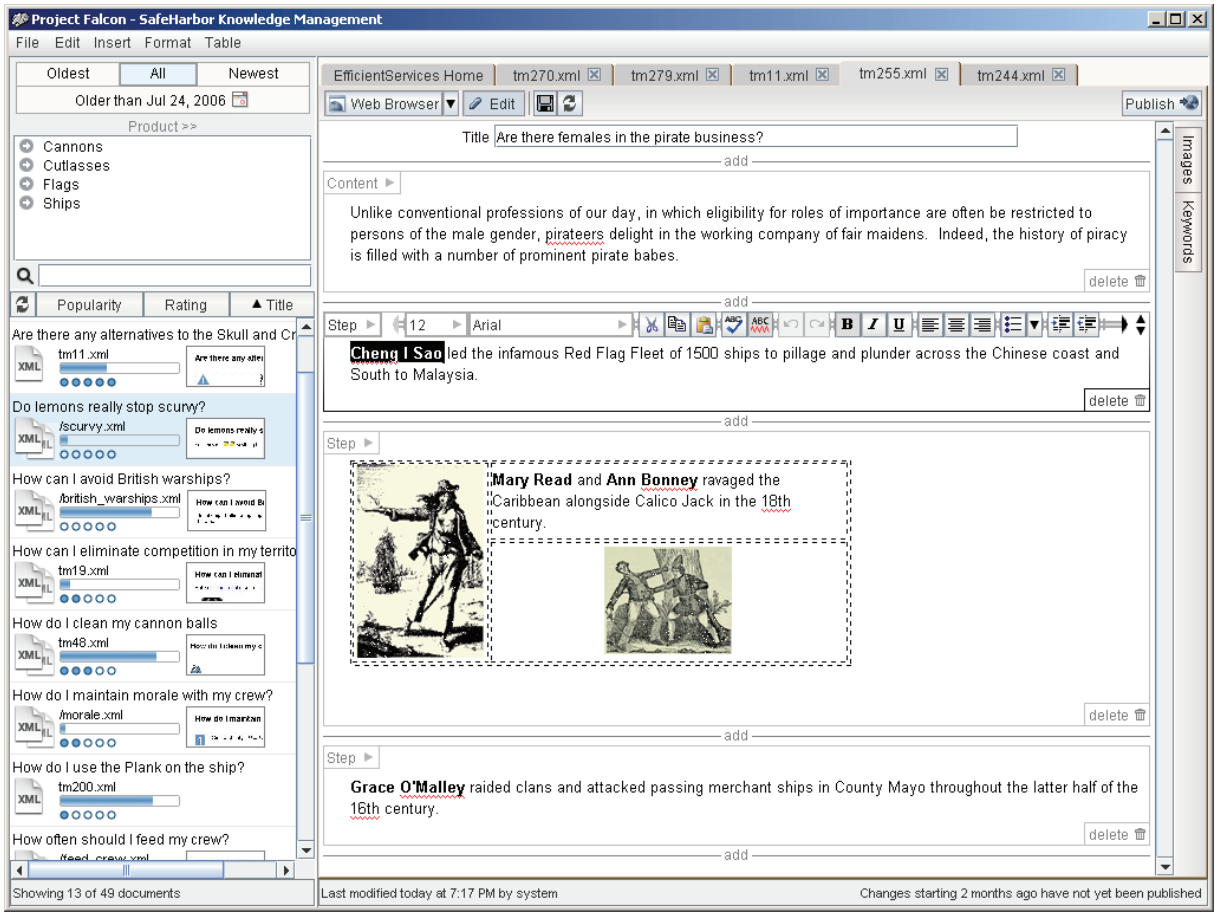
Most importantly, the breadth of our market space requires these features to be implemented with the kind of respectable engineering that ensures reliable application behavior in unforeseen usage patterns. We expect our clients to stretch the creative limits of Project Falcon as they build their online support sites. Therefore, each dimension of usability supported by our application must operate sensibly across its entire domain, such that any kind of usage will result in correct operation.

Solution

The RealObjects edit-on® JavaBean SDK provides a complete foundation for our content management tool, and exemplifies the kind of solid construction we can depend upon for proper response to our clients' every whim and fancy. By implementing the core of the editor from scratch, instead of building it on the faulty JEditorPane, RealObjects can support WYSIWYG editing with the reliability of a desktop word processing application.



Furthermore, the accuracy of this architecture allows for quick response to industry trends and customer requests. In making our initial license agreement, SafeHarbor approached RealObjects with a few features specially required by our application. To our delight, the new features were delivered quickly and flawlessly, allowing us to integrate the edit-on® JavaBean into our content management tool without a fuss. Since then, we have been able to implement every editor-related feature we have yet to consider.



Conclusion

The RealObjects edit-on® JavaBean SDK brings accurate WYSIWYG content editing and extensively customizable integration to SafeHarbor's online content management application, Project Falcon. We look forward to the development of new editor-related features with confidence, knowing that this editor component is well-engineered, and supported by an exceptionally professional organization. We expect our users to be so comfortable with the content editing features of our product that they will think of Project Falcon as a word processor for the Web.

Contact information

RealObjects GmbH
Altenkessler Str. 17/B4
66115 Saarbrücken
Germany
Tel. +49 (0)681 985 790
Fax +49 (0)681 985 7929
info@realobjects.com
www.realobjects.com

SafeHarbor Technology Corporation
Satsop Development Park
150 Technology Way, Building S-1
Elma, WA 98541
USA
Tel. +1 360 482 1500
Fax +1 360 482 1515
SHInfo@safeharbor.com
www.safeharbor.com