RealObjects' editor framework Martha
at the European Patent Office

The European Patent Office has embedded a RealObjects' *Martha*-based XHTML editor into Trimaran, a major application deployed to 4000 patent examiners.

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The European Patent Office (EPO)

The EPO has been serving inventors and companies in Europe since 1977. Today, the EPO is the second largest European organisation with 6800 employees from some 30 nations at five sites in four countries. The EPO was established to improve co-operation on the protection of inventions within Europe. Under the European Patent Convention you can now obtain patent protection in up to 40 countries by filing a single application in any of the three official languages, English, French or German.

Patents

A patent is a legal title granting its holder the right to prevent third parties from commercially using an invention without authorisation. In return for this protection the holder has to disclose the invention to the public. Protection is granted for a limited period, generally 20 years, and for a specific geographic area. In 2009 the EPO processed about 135,000 applications and granted nearly 52,000 patents.

European patent publication

The EPO in The Hague / Netherlands

Editorial needs

Though written communication between EPO patent examiners and their counterparts, patent attorneys or inventors, takes place within a clear procedural framework ruled by patent law, a large editorial freedom has to be given to the examiners. Each patent application may lead to the examiner having to write several pages of individually-tailored, case-specific technical and legal argumentation. This "free text" has to be combined with patent procedural data items and inserted into predefined forms. This writing task is supported by the new editor *Martha*. *Martha* forms part of Trimaran, a major JAVA application for examiners which has been deployed over the period 2009-2010.

This new editor had to provide EPO-specific functionality and yet still behave like the off-the-shelf editors that people are familiar with.

WordPerfect© 6.1 - Microsoft Word©

The text editor included in the predecessor of Trimaran was WordPerfect© 6.1. This had to be opened as an external application, and closed afterwards. It had become more and more critical to replace WordPerfect© 6.1 since it was no longer supported by the manufacturer. The EPO had to solve any problems with WordPerfect© 6.1 itself. Furthermore, WordPerfect© 6.1 was originally a

Windows[©] 3.1 application and therefore increasingly unlikely to function correctly under newer Windows[©] versions. Finally, its data format was outdated. Although Microsoft Word[©] is installed on each PC at the EPO, it was not chosen as the successor to WordPerfect[©] 6.1 for the examining task. Microsoft Word[©] appeared to be difficult to integrate into other applications - two attempts to customise it for the EPO were abandoned. New versions and updates released by Microsoft[©] would have to have been incorporated each time, and this would have involved substantial testing to ensure compatibility with EPO software.

Martha

Martha, the off-the-shelf editor developed from scratch by RealObjects, was instead selected as successor to WordPerfect[©] 6.1. It meets the latest W3C standards and even provides CSS rendering capabilities similar to common browsers. RealObjects has full control over *Martha's* entire internal behaviour and its source code and can thus quickly follow industry trends and customer demands. This has allowed RealObjects to adapt *Martha* to meet EPO user requirements and will allow them to support future customisations. *Martha* was the only editor available on the market which was programmed in JAVA, which saved text in XHTML format, was able to deal with long texts and would allow the real time editing of documents as they would appear when printed out (WYSIWYG).

Printout generated with Martha

Martha embedded into Trimaran and corresponding printout

Martha embedded in Trimaran

The use of XHTML allows optimum data exchange with other EPO applications. Since Trimaran is also programmed in JAVA, *Martha* can be directly embedded into the Trimaran code without need of a separate interface.
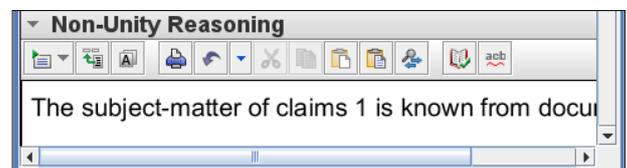
A good match

Martha in its embedded guise looks like any other Trimaran input field: the examiner can place the cursor in it and simply start typing. Bold, indent, underline, etc. are immediately accessible via buttons above the input field. The text is saved automatically on leaving the input field. The editor can be resized at will and shares the same behaviour as any other Trimaran panel. If the examiner wishes to concentrate purely on editing, he/she can expand the editor to a separate full screen window, making optimal use of available screen space.

Martha's interface is optimised for the examiners' needs. Superfluous extra features (exotic fonts, configurable headers or footers, etc.) that come as a standard package with most editors, have been avoided. Instead, *Martha* offers predefined font sizes or easy text insertion of specific dossier data, like the patent number or the title of the invention.

Several Marthas

Martha is embedded at several locations in Trimaran. Where necessary, *Martha* is provided in a "light" version, restricted to those text formatting options that can actually be printed on the paper form.
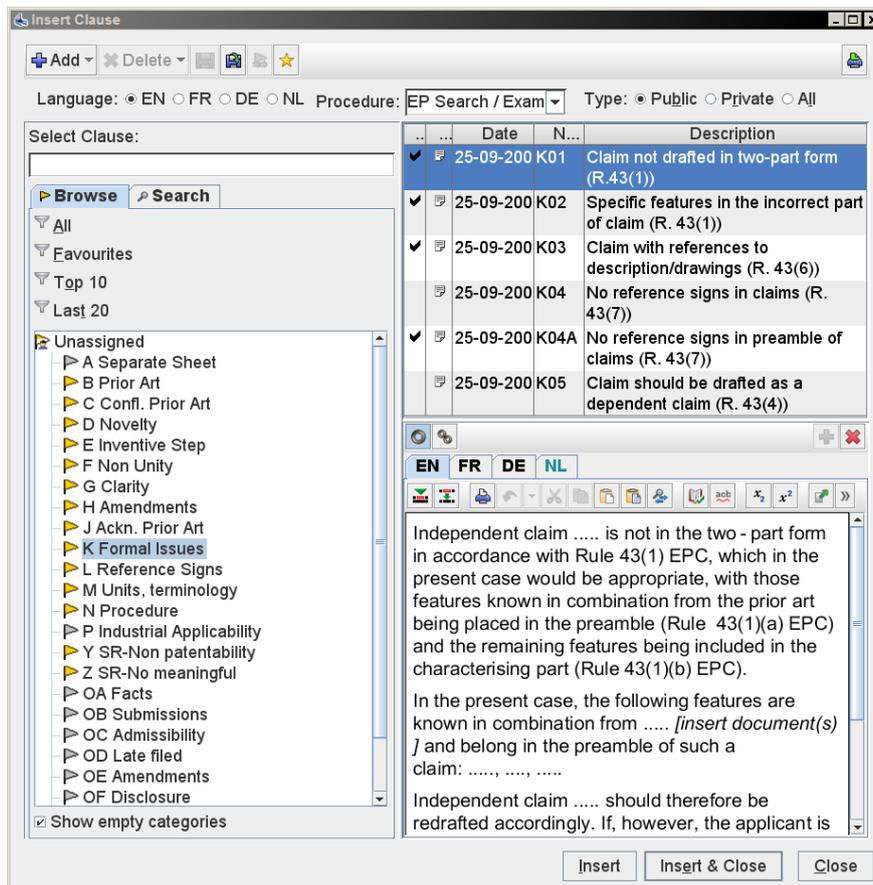

Martha "light"

Martha in full size window with multi-page print layout

Standard clauses

Standard clauses are predefined text blocks that can be inserted into the written document. They cover various aspects of patent business and support the patent examiner in generating his/her argumentation in any of the 3 official languages. A Standard Clause Dialogue can be opened from within *Martha* to insert standard clauses or to define new ones.

This dialogue offers a logical categorisation of all clauses and the possibility to compare clauses in different languages. It further offers the ability to define favourite clauses, to search in clauses and to have access to the *Top 10* or *Last 20* clauses used. The dialogue itself contains its own instance of *Martha* to create and edit new clauses.

Standard clause dialogue

Acknowledgements

Ged Owens, Trimaran Project Manager

"RealObjects proved to be a competent company with competent products. In addition to their having a world lead in embedded Java Bean editors, combining a unique editor functionality with real-time CSS stylesheet based WYSIWYG paged view, they responded strongly to the European Patent Office's individual requirements. They further customised the editor to provide the ideal combination of business functions, usability and integration. This allowed the Trimaran project team to satisfy the demanding needs of highly qualified multi-lingual patent examiners by migrating to a state-of-the-art editor seamlessly embedded into the GUI of a complex "patent dossier" application. This unique support continued throughout the implementation and user acceptance phases, responding quickly and competently to issues raised whether directly related to Martha or to the Trimaran integration. A success for both the users, and the EPO business as a whole."

**Pedro Delmás Serrano,
IT Team Manager**

"From a technical point of view, the integration of Martha into Trimaran allowed us to embed advanced text processing capabilities seamlessly in the user interface of our own development. The cooperation with RealObjects allowed us to customise the editor's behaviour so that it is tailor-made for the specific needs of the patent granting process that Trimaran assists, and create new functionality beyond the possibilities offered by other off-the-shelf products."

Contacts