New web site deployment technology accelerates the development of a system for approving orders and invoices

Case Study: PPF a.s.

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PPF is one of the largest international financial and investment groups in Central and Eastern Europe. The group's head office in the Czech Republic processes a large number of orders and invoices. For processing and approval workflow automation of both types of documents, PPF uses the LiveFlow application based on the Microsoft Office SharePoint Server 2007 platform. LiveFlow is a robust, custom application developed specifically for PPF. Because PPF wants to unify its workflow platform, it decided to migrate this solution to Nintex Workflow as the first step in this process. Another factor leading to the migration was the exceedingly demanding maintenance and the need for expansion of the original LiveFlow solution built on SharePoint's basic workflow functionalities. The new solution facilitates maintenance, extensions and changes of workflow scenarios and opens up space for the integration of similar processes of the group's other companies into a unified platform.

1 Initial situation

The LiveFlow application was based on workflows created using Microsoft Visual Studio 2008 and Microsoft SharePoint Designer 2007. Besides the large number of specific workflow activities and ASPX pages, the basis of the application consists of a relatively complex data model with several dozen content types and lists.

2 Process of migration to Nintex Workflow using Mossquito 2009

BoldBrick offered PPF the technological background and know-how of the SharePoint platform and Nintex Workflow product supported by the capabilities of BoldBrick's own Mossquito 2009 development environment. The project included an analysis of the implementation of the new workflow engine, proposals and recommendation for migration from the original workflow solution and the actual development and deployment of a new version of LiveFlow.

Within the project, BoldBrick employed Mossquito 2009 especially for facilitating the migration of the application's data model to the new Nintex Workflow-based data structure. It became apparent that for effective use of the workflow engine, it would be necessary to practically rewrite a large portion of the application, particularly in light of the development of the data model. Therefore, a new set of content types and site columns was created in the application, effectively combining them with the original data model and thus eliminating the necessity of intricately upgrading the original running workflow processes to the new workflow engine.

Reduction of the project's difficulty was aided by Mossquito 2009's features enabling detailed inspection and modification of settings of all objects. Thanks to this, the developers could easily work with the properties of SharePoint objects that are not available in the web administration interface.

The entire upgrade of the LiveFlow application was performed in several successive steps:

1. Nintex Workflow features were activated into LiveFlow's website in the development environment, thus creating standard Nintex content types in the application.
2. The entire structure of the website (original data model) was imported into Mossquito 2009.
3. In Mossquito 2009, the structure of the website was expanded with new content types, site columns and lists comprising the data model of the new solution. Thus, data models for both solutions were established in parallel within a single website.
4. Changes were deployed back to SharePoint. Thanks to the technology for deploying websites on the basis of Compare & Merge, which is a natural part of the Mossquito 2009 development environment, it was possible to incrementally deploy and successively test changes, thus saving the developers' time and improving the quality and testing of the entire solution.
5. The presentation and application logic created in Visual Studio and SharePoint Designer was modified for Nintex Workflow and the new data model.
6. Upon completion of testing, the entire solution was deployed to the production environment. Again thanks to the technology for deploying websites integrated in Mossquito

2009, it was possible to perform the whole operation very quickly without a long downtime and without the risks associated with custom processes and tools which are otherwise generally necessary for performing upgrades of applications on the SharePoint platform.

3 Results of using Mossquito 2009

Thanks to Mossquito 2009, BoldBrick succeeded in combining two data models, together with two generations of workflow processes, in one application. LiveFlow is now running in transition mode: while the workflow processes of the original solution gradually wind down, Nintex Workflow is already handling the processing of new invoices and orders.

Thanks to the deployment of Mossquito 2009, the customer obtained the new solution faster and without the risks normally associated with upgrades of data models of existing applications. Even though a large part of the activities performed within the project consisted in adapting the presentation and application logic of LiveFlow to a new workflow engine, Mossquito 2009 reduced the difficulty of the project by approximately 10%. Thus, PPF's investment in the Mossquito 2009 tool, which will be further used in the ongoing development of LiveFlow and other applications on the SharePoint platform, was returned during a single project.

"Mossquito 2009 accelerated and made more efficient the creation of new data-model components and ensured smooth and faultless deployment of the application into the production environment," said Ing. Ondřej Tyrpekl, PPF's information-systems director, describing the course and benefits of the project.