

## Use of Mossquito 2009 for collective administration of construction-project website data structures

### Case study: Subterra a.s.

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*Author:* BoldBrick, s.r.o.

Subterra a.s. is a construction company with a multi-sector production program. The company's main field of activity is subterranean and transportation-related – particularly railway – civil engineering works. Structures involving water management, residential and industrial premises, and civic amenities also comprise a significant share of the company's projects. Subterra also ensures the technical equipment of buildings and technology units within large infrastructure elements.

Subterra a.s. has been operating on the Czech construction market as well as abroad for 45 years. It holds a leading position among construction companies thanks to its long experience, high-quality drainage works and serious approach toward customers.

## Initial situation

Subterra a.s. operates an intranet built on the Microsoft Office SharePoint 2007 platform. Part of the intranet is the custom-developed Construction Portal application from the company Mainstream. This application creates the complex structure of web sites for individual construction projects, each of which contains a document library and lists for storing information about the project and the course thereof divided into component sub-web sites according to the focus, e.g. "Project documentation" or "Sub-deliveries". These structures are created from web site templates created at a particular moment; any other required changes in the data structure, in content types, libraries, lists and other illustrations thus have to be processed manually for all of the previously created websites and sub-websites of the given construction project. In light of the growing number of construction projects, browsing dozens or even hundreds of websites for the purpose of executing partial settings of libraries, lists and their views started to be excessively time consuming. Therefore, it was necessary to develop and use a more appropriate tool for subsequent structure modifications.

## Commercial objectives

- Implement the possibility of expansion with other applications while preserving the uniform structure and environment for all Construction Portals
- Implement collective authorisation administration
- Reduce the time intensity of executing required changes in the structures of individual construction projects' websites
- Supply a functional solution within a short time period

## Solution

Due to the diversity of requirements for changes to website structures, component content types, libraries, lists and displaying thereof, a more advantageous and comprehensive solution, Mossquito 2009 Professional Edition, was selected in lieu of developing a proprietary solution. Mossquito

2009 brought forth new possibilities in the means of working with given objects and applying changes, and also added the possibility of comparing and validating the status of individual websites. For collective authorisation administration, the Mossquito 2009 console application was expanded with an operation for setting up rights on websites, lists and document libraries.

Firstly, the necessity of manually browsing dozens or hundreds of websites and applying changes on each website, library and list separately via the standard SharePoint web interface was eliminated. The web interface does not provide means for automation of repeatedly executed steps and some settings are often distributed over several pages. Instead of this, the final version of the websites' structure was imported into the Mossquito 2009 application, where it is further modified and versioned via uniform displays with deployment. Modifications are subsequently collectively applied on all websites of the construction projects via the Mossquito 2009 console application.

Secondly, the incidence of errors caused by typing mistakes in the repeated setting of values for several elements of various construction projects in a varied structure.

The following features were added:

- Offline work - it is possible to outline and revise modifications of structures without intervention in the live environment with data.
- Web sites structure check – using the guide it is possible to determine changes executed on component web sites.
- Structures and linkages display and check between individual libraries, lists and content types.
- Web site structure synchronization between the production, testing and development environments.
- Collective deployment of authorisations for web sites, lists and document libraries contained therein.
- Versioning the structure of the web sites.

## Results/Benefits of using Mossquito 2009

Deployment of Mossquito 2009 has provided web site administrators with a tool for setting up and collectively deploying changes that is more transparent than SharePoint. That results in very appreciable time savings both when designing changes as well as when applying them in the production

environment. A further benefit is the elimination of blocks and errors which previously hindered or prevented the execution of changes.

*“Using Mossquito 2009 reduced the time needed to apply changes to dozens of websites from long hours to mere minutes. Now it isn’t a problem to change, for example, the view of the library and set it as the default view on all construction projects, whereas a change doesn’t take more than a few minutes. In the same way, we can now collectively expand the Construction Portal with a new application that can contain websites, libraries and content types, and deployment will be global and uniform.”* says Ing. Dušan Pokorný, director of the information and communication technologies department.