

Migration Framework for Traditional Web Applications into CMS Platform

G. A. S. C. Jayathilaka, J. Jayasinghe Arachchige*

*Department of Computer Science, Faculty of Science, University of Ruhuna,
Sri Lanka*

**jeewanie@dcs.ruh.ac.lk*

Most of the organizations all over the world use web based information systems to operate their day-to-day activities. Due to the rapid changes of the organizational needs, the content inside these web applications are also increased agilely. Maintaining the increasing content while keeping consistency of the information is a challenging task. Content Management Systems (CMS) provide a platform to author the web information by different users of the system while maintaining the uniformity of the content. Therefore nowadays most of the web applications are moving to CMSs because of its easiness in developing and maintaining web systems. Starting the web development from the scratch in CSM platform requires immense effort for requirement gathering and information finding. Therefore migration of traditional web applications to CMS platform has been paid considerable attention. However very few researches focus on this migration process. The main objective of this research is providing a framework for migrating traditional web applications to CMS platform. The proposed framework provides a guided path for existing web applications to move into CMS. The framework is defined based on CMS Common Meta-Model which was proposed by V. de Castro et.al. in their research. A software tool was developed using Python, Java and Jython to automate the migration process. In the analysis of CMS Common Meta-Model few drawbacks were identified. Therefore the meta-model was extended to include dynamic ability of a web page. The results were validated with selected web sites with different technologies. The proposed framework provides an efficient way to compile web applications in CMS platform with web content of the traditional web site.

Key words: Content Management System, Migration Framework, CMS Common Meta-model, Web Application, Dynamic Web Page