

SERFing the Web: Web-Site Management Made Easy*

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1 Introduction

In the era of electronic publishing, there is a need for a comprehensive Web Site Management System (WSMS) that provides an end-to-end solution ranging from integration of web sites to re-structuring and maintenance of new customized web views. Today, while many research efforts focus on generating diversified web sites, our Re-Web system [CRCK98] is the first to look at easing this process for end-users by providing *libraries* of pre-defined generic transformations for web re-structuring and *visual tools* for the generation and browsing of such transformations.

Re-Web translates web information to an OO schema and data, re-structures and integrates information at the OODB level (SERF [CR99]) and finally generates web pages from the information in the database. The Re-Web system uses JDK1.2, Java Swing, and PSE Pro6.0 as its persistent storage. We use LotusXSL and IBM's XML parser for the web generation module. Re-Web system (Figure 1) has been implemented and tested on WinNT and Solaris. It provides tools for generating, restructuring and maintaining web sites.

- **WebMap Subsystem.** Explicates a web site structure and captures it within an OODB system.

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- **SERF Subsystem.** Applies re-usable transformation templates written in OQL with embedded schema evolution and view evolution primitives to enable powerful web site restructuring.
- **GUI Subsystem.** Allows easy visual generation and browsing of web transformations for the Re-Web Library.
- **WebGen Subsystem.** Provides the ease of web site generation and reformation by exploring web semantics in three tiers: ODMG, XML and HTML.

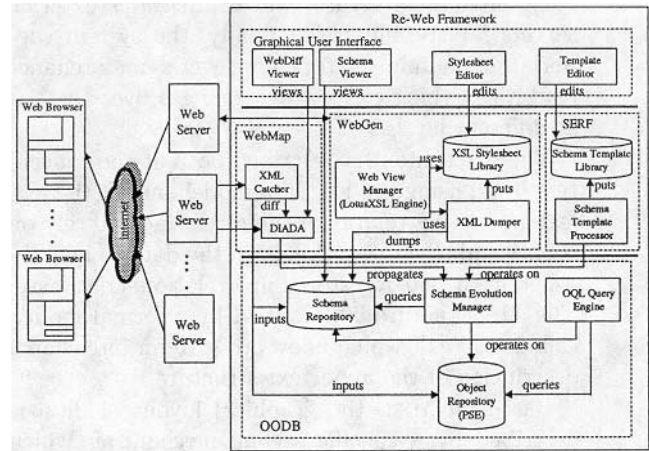


Figure 1: Architecture of Re-Web System.

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