

# THE SWS MEDIATOR WITH WEBML/WEBRATIO AND JABC/JETI: A COMPARISON

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Abstract: In this paper we compare the SWS Challenge Mediator solutions provided using the WebML/Webratio and the jABC/jETI approaches.

## 1 INTRODUCTION

In this paper we compare two solutions to the mediation scenario of the SWS challenge<sup>1</sup> that are based on the use of WebML (Ceri et al., 2002) and of the jABC (Steffen et al., 2006; jABC Website, 2007) as modelling and execution platforms.

We compare only the solutions to the first version of the SWS Challenge scenario, since the jABC solution was discussed at the SWS review workshop only for this first Phase. Nevertheless, the technical comparison of the approaches is of general interest and valid also for the second phase of the scenario.

Both groups adopt a model based approach, supported by model driven design tools and environments. This allows modelling the mediator in a graphical high level modelling language and supports the derivation of an executable mediator from these models. The solutions are thus similar in their spirit, and we provide here a first description and comparison of the similarities and differences, at the modelling, language, tool, and change management levels.

In the following, we briefly describe the two concrete solutions (Sect. 2 and 3) from the point of view of the used technologies, then we sketch a comparison (Sect. 4), we present a reduction of the two solutions to their mere, common essence (Sect. 5), and finally we conclude in Sect. 6.

## 2 WEBML

The specification of a WebML application (Ceri et al., 2002) consists of a set of models: the application data model (an extended Entity-Relationship model), one or more hypertext models (i.e., different site views or different service views), expressing the navigation paths and the page composition of the Web application or the chain of operations needed to describe a Web service; the presentation model, describing the visual aspects of the pages for user views. WebML covers also the development of B2B Web applications implementing business processes, thereby supporting full-fledged collaborative workflow-based applications, spanning multiple individuals, services, and organizations. In such case the service view or site view is partially generated by a BPMN model representing the workflows involved in the application. The core elements of a WebML diagram are units. Each WebML unit has its own well defined semantic and its execution complies with its semantic. The composition of different units leads to the description of the semantic of hypertext or Web services. WebML provides standard units for querying data (e.g. Index unit, Selector unit), modifying data (e.g. Modifying unit). The WebML conceptual model has been also extended with a service model that includes a set of Web service units (Manolescu et al., 2005), corresponding to the WSDL classes of

<sup>1</sup><http://sws-challenge.org>

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