

Ocsigen/Eliom: The state of the art, and the prospects

Benedikt Becker
Vincent Balat

IRILL

A framework for a modern development of web applications should contain a large number of components and aspects which have to play tightly together: The server should get along with simultaneous requests and scale well with them; it should facilitate the hassle-free exchange of data between server and client; it should even enable the uniform development of the server- and client-side programs – a single program for the client and server side of an application; and it should keep care of generating only valid markup as a response, of-course. Moreover, for developing *modern* web applications, a framework should offer the propagation of information from the client to the server – or even between clients; the application’s state should continue during the user’s navigation; and it should bring along a rich set of user interface elements for the client side, tightly collaborating with server side.

The *Ocsigen* project is the host of a number of technologies which target the above aspects. The central element of it is made up by *Eliom*: it divides the source code into server- and client-parts, compiling the client program to JavaScript by *js_of_ocaml*. This approach also enables consistency of code and data between both sides of the web application. As a web server, it is inherently concurrent by resting upon *Lwt*’s cooperative threads. And the validation of HTML content is done by OCaml’s type system by means of *TyXML*. As a library, *Eliom* allows furthermore for the easy creation of common patterns of web interaction: statically typed links and forms, detailed management of server side storage and sessions, as well as the exchange of data between all participants.

In this talk we will, firstly, give an overview on the current state of the *Ocsigen* and it’s associated projects. Secondly, we will show how those components are playing together by developing a demo application (an in-page chat). Thirdly, we will give a forecast on the next steps of its development and the future of the overall project.