Erlang Semantic Query Language[∗]

László Lövei, Lilla Hajós, Melinda Tóth

Department of Programming Languages and Compilers,
Eötvös Loránd University, Budapest, Hungary
e-mail: {lovei,hajos,toth_m}@inf.elte.hu

Abstract

Under developing a software when somebody tries to fix bugs or to understand an existing program source, it could be very useful if somebody (something) can answer to some simple or difficult question about the source code. That questions are not about the syntax rather about the semantics of the program. For example, when somebody tries to fix a bug a very simple question could be useful: what is the value and where it is bound to a variable. In a huge code-base searching it manually is not straightforward especially in case of dynamically typed languages, like Erlang. This paper introduces a semantic query language to get information about Erlang programs and to help with software development. We achieve this goal by giving the developers the means to query information they need, that is too complicated or simply too time-consuming to get by conventional ways. This paper gives an overview of the language we designed for this purpose and some interesting and useful use-cases.

References

[1] World Wide Web Consortium: *XML Path Language (XPath) Version 1.0,* W3C Recommendation, Nov. 16, 1999, `http://www.w3.org/TR/xpath`

[2] World Wide Web Consortium: *XQuery 1.0: An XML Query Language,* W3C Recommendation 23 January 2007, `http://www.w3.org/TR/xquery/`