

Analyzing PHP Source Code Using Rascal - a Rewriting Logic Perspective

Mark Hills^{1,2}, Paul Klint^{1,2}, and Jurgen J. Vinju^{1,2}

¹ Centrum Wiskunde & Informatica, Amsterdam, The Netherlands

² INRIA Lille Nord Europe, France

Abstract. Rascal is a meta programming language that enables rapid construction of tools for source code analysis and source code transformation. In this paper we explain the design and implementation of a Rascal solution to the static analysis of PHP code. By doing type and alias analysis, the tool detects possible errors in PHP4 code running on the PHP5 runtime, including errors caused by a change in the object-passing semantics. We speculate how a similar tool could have been implemented using rewriting logic in Maude. This discussion bridges communities by mapping not only terms and concepts, but also solution patterns. Our conclusion is that Rascal and Maude do share common ground, but that they are also complementary.