

A Novel Method for Live Debugging of Production Web Applications by Dynamic Resource Replacement

Authors : Khalid Al-Tahat, Khaled Zuhair Mahmoud, Ahmad Al-Mughrabi

Abstract : This paper proposes a novel methodology for enabling debugging and tracing of production web applications without affecting its normal flow and functionality. This method of debugging enables developers and maintenance engineers to replace a set of existing resources such as images, server side scripts, cascading style sheets with another set of resources per web session. The new resources will only be active in the debug session and other sessions will not be affected. This methodology will help developers in tracing defects, especially those that appear only in production environments and in exploring the behaviour of the system. A realization of the proposed methodology has been implemented in Java.

Keywords : live debugging, web application, web resources, inconsistent bugs, tracing

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