



## 1. Parameter Values of Android APIs: A Preliminary Study on 100,000 Apps

Li Li (1); Bissyande, T.F. (1); Klein, J. (1); Le Traon, Y. (1)

**Source:** 2016 IEEE 23rd International Conference on Software Analysis, Evolution and Reengineering (SANER), p 584-8, 2016; **ISBN-13:** 978-1-5090-1855-0; **DOI:** 10.1109/SANER.2016.51; **Conference:** 2016 IEEE 23rd International Conference on Software Analysis, Evolution and Reengineering (SANER), 14-18 March 2016, Suita, Japan;

Publisher: IEEE Computer Society, Los Alamitos, CA, USA

Author affiliation: (1) University of Luxembourg, Interdisciplinary Centre for Security, Reliability and Trust,

Luxemboura

**Abstract:** Parameter values are important elements for understanding how Application Programming Interfaces (APIs) are used in practice. In the context of Android, a few number of API methods are used pervasively by millions of apps, where these API methods provide app core functionality. In this paper, we present preliminary insights from ParamHarver, a purely static analysis approach for automatically extracting parameter values from Android apps. Investigations on 100,000 apps illustrate how an in-depth study of parameter values can be leveraged in various scenarios (e.g., to recommend relevant parameter values, or even, to some extent, to identify malicious apps). (0 refs) **Inspec controlled terms:** Android (operating system) - application program interfaces - program diagnostics **Uncontrolled terms:** Android API - parameter values - application programming interface - ParamHarver - static analysis

Classification Code: C6150J Operating systems - C6150E General utility programs - C6190V Mobile, ubiquitous and

pervasive computing - C6150G Diagnostic, testing, debugging and evaluating systems

IPC Code: G06F9/00 - G06F9/44 - G06F9/46 - G06F11/36

Treatment: Practical (PRA)

Database: Inspec

Data Provider: Engineering Village

Copyright 2016, The Institution of Engineering and Technology