國 立 交 通 大 學

網路工程研究所

**碩 士 論 文**

軟體除錯與符號執行整合互動

Interacting Software Debugging with Symbolic Execution

研 究 生：陳威伯

指導教授：黃世昆 教授

**中 華 民 國 106 年 5 月**

軟 體 除 錯 與 符 號 執 行 整 合 互 動

Interacting Software Debugging with Symbolic Execution

研 究 生：陳威伯 Student：Wei-Bo Chen

指導教授：黃世昆 Advisor：Shih-Kun Huang

國 立 交 通 大 學

網 路 工 程 研 究 所

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軟體除錯與符號執行整合互動

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摘要

Interacting Software Debugging with Symbolic Execution

Student: Wei-Bo Chen

Advisor: Dr. Shih-Kun Huang

Institute of Network and Engineering

National Chiao Tung University

Abstract

致謝

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1. Introduction

Introduction content

1. Background

Background content

* 1. Qira

Qira content

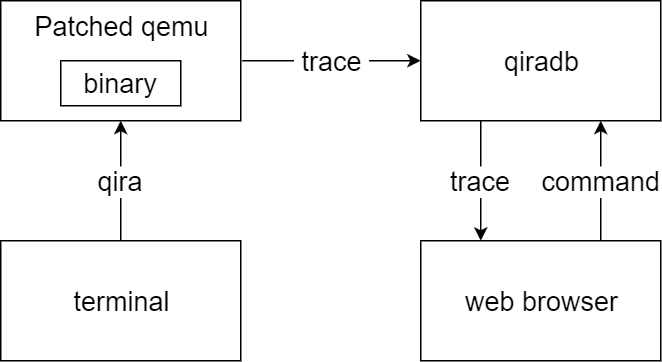


Figure 1: qira structure

* 1. Symbolic execution

Symbolic execution content

* 1. Ponce

Ponce content

1. Design

Design content

* 1. Overview

Overview content

* 1. Structure

Structure content

* 1. Internal

Internal content

* 1. Commands

Commands content

Table 1: Commands

|  |  |  |
| --- | --- | --- |
| Commands | Parameter | Emphasis |
| symbolize | argv | Automatically symbolize argv[0] |
| memory [address] [size] | Symbolize memory from address to address+size |
| target | address | Set target address |
| triton | None | Run symbolic execution |

1. Evaluation

Evaluation content

* 1. Crackme hash

Crackme hash content

* 1. Crackme xor

Crackme xor content

1. Related work

Related work content

* 1. Triton

Triton content

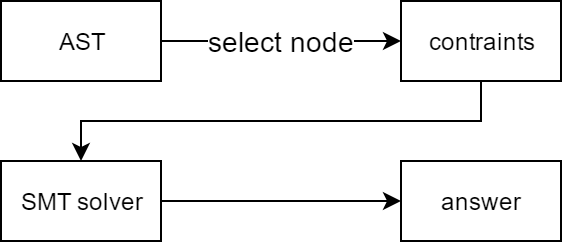


Figure 2: SMY solver

* 1. Ponce

Ponce content

* 1. Peda

Peda content

1. Conclusion

Conclusion content

1. Future work

Future work

1. References

Reference list