Hochschule Worms
University of Applied Sciences

Bachelor Thesis

DESIGN AND IMPLEMENTATION OF CCEAP USER INTERFACE

Bachelor Thesis Submitted as Partial Fulfilment of the Requirements for the Degree of B.Sc. in Applied computer science at the University of applied sciences (Hochschule Worms)

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supervised by Prof. Dr. Stephen Wendzel

Applied Computer Science
Software construction

Declaration of Authenticity

I hereby declare that all material presented in this document is my own work. I fully and specifically acknowledge wherever adapted from other sources.

I understand that if at any time it is shown or proven that I have intentionally misrepresented material present here, any decree or credits awarded to me on the basis of the material may be revoked.

I declare that all statements and information contained here is true, correct and accurate to the best of my knowledge and belief.

Ludwigshafen, Summer 2017.

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Feugang Kemegni Fabrice

Abstract

In general the abstract should be the last thing that you write, when you know what you have actually written. It is nevertheless a good idea to work on a draft continuously. Writing a good abstract is difficult, since it should only include the most important points of your work. But this is also why working on your abstract can be useful – it forces you to identify exactly what it is you are writing about.

. Introduction

Problem statement: the problem/context on hand

What is steganography(covert channel)?

Why are they in use?

The Covert Channel Educational Analysis Protocol (CCEAP) is a network protocol designed for teaching covert channels.

CCEAP is an application layer protocol that is embedded into the TCP payload. The protocol is explicitly vulnerable against several so-called hiding patterns. Hiding patterns represent the core ideas of how secret data can be hidden in network transmissions. The core idea is that CCEAP allows students model the protocol structure in a way that they can represent covert channels

- What is CCEAP
- how does it function
- what are its limitations
- The program runs from command line which is complex,
- command line is difficult to use
- such tool should be portable, i.e. it should run on both windows and Unix

What is my contribution to solve the problem

create a GUI program that:

- read inputs from users
- display outputs from output

. Related Work

Show that I have read about the topics

- solutions that are already available
- what is already out there
- the goal is not to reinvent the wheel, instead
- show other scientific publications

. Design and Implementation

How is the GUI implemented, descriptions

- sketches
- wire frames
- mock-ups

Design decisions

- why I choose this design
- i.e. user guide
- program documentation

. Discussion

My remark about the implementation

Problems encountered during the implementation

Good Things about the tool

Drawbacks/bad about the tool

. Conclusion

What other features can be added to the tool

What features should not be added

Open tasks to the GUI

. Abbreviations