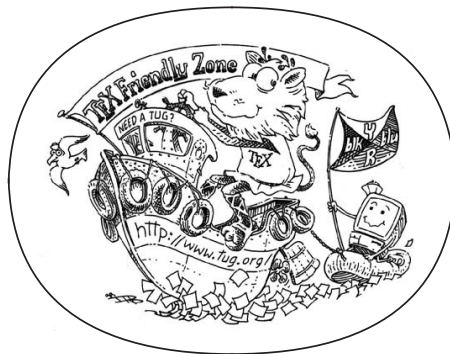MASTER THESIS

EMIL MØLLER RASMUSSEN, IOANNIS ANGELIDIS AND DAVID NAGY

Creating a thin client based flood simulation tool based on open source software

June 2015 – version 1.0

Ohana means family.
Family means nobody gets left behind, or forgotten.

— Lilo & Stitch

Dedicated to the loving memory of Rudolf Miede.

1939 – 2005

ABSTRACT

Short summary of the contents...

PUBLICATIONS

Some ideas and figures have appeared previously in the following publications:

Put your publications from the thesis here. The packages `multibib` or `bibtopic` etc. can be used to handle multiple different bibliographies in your document.

*We have seen that computer programming is an art,
because it applies accumulated knowledge to the world,
because it requires skill and ingenuity, and especially
because it produces objects of beauty.*

— **?** [**?**]

ACKNOWLEDGEMENTS

Put your acknowledgements here.

Many thanks to everybody who already sent me a postcard!

Regarding the typography and other help, many thanks go to Marco Kuhlmann, Philipp Lehman, Lothar Schlesier, Jim Young, Lorenzo Pantieri and Enrico Gregorio[1], Jörg Sommer, Joachim Köstler, Daniel Gottschlag, Denis Aydin, Paride Legovini, Steffen Prochnow, Nicolas Repp, Hinrich Harms, Roland Winkler, and the whole LATEX-community for support, ideas and some great software.

Regarding LYX: The LYX port was intially done by *Nicholas Mariette* in March 2009 and continued by *Ivo Pletikosić* in 2011. Thank you very much for your work and the contributions to the original style.

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1 Members of GuIT (Gruppo Italiano Utilizzatori di TEX e LATEX)

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[April 22, 2015 at 18:35 – classicthesis version 1.0]

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ACRONYMS

DRY Don't Repeat Yourself

API Application Programming Interface

UML Unified Modeling Language

Part I

THE BORING STUFF

Introducing the project and it's various tidbits, have-beens and what-nots.

INTRODUCTION & PROBLEM STATEMENT

1.1 INTRODUCTION

Geographical Information Systems (GIS) have undergone an immense evolution during the last decade, evolving from an extremely niche product, to being used in a lot of contexts.

Where GIS used to be a niche product, more and more people have started using the capabilities of these systems. The interest in performing geographic analysis has sparked the development of open source projects software, capable of performing a wide variety of functions. Using open source technologies makes the cost of acquisition very low, enabling a whole new group of users access to these formerly expensive tools.

Of of the sectors traditionally involved with GIS is hydrology. Using geographic data to model hydrological phenomena has been done for many years, and it is very awesome by us and me. This type of modelling can be done either quick and imprecise, or slow and very precise, but all of these methods needs a fairly skilled technician to perform the analysis.

Why are we doing this analysis on floods?

1.2 PROBLEM STATEMENT

Providing a less technically capable user of creating

- Creation of a thin client based flood simulation and management tool using open source technologies

This problem should enable us to do a ton of work in absolutely no time, motherfucker!.

1.3 LICENSE

This project and all of it's items have been created as free and open source, and therefore follow the "GNU Software License"

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GNU GENERAL PUBLIC LICENSE: This program is free software; you can

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APPENDIX TEST

Aliquam lectus. Vivamus leo. Quisque ornare tellus ullamcorper nulla. Mauris porttitor pharetra tortor. Sed fringilla justo sed mauris. Mauris tellus. Sed non leo. Nullam elementum, magna in cursus sodales, augue est scelerisque sapien, venenatis congue nulla arcu et pede. Ut suscipit enim vel sapien. Donec congue. Maecenas urna mi, suscipit in, placerat ut, vestibulum ut, massa. Fusce ultrices nulla et nisl.

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A.1 APPENDIX SECTION TEST

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More dummy text

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quaestio philosophia	facto	demonstrated

Table 1: Autem usu id.

Listing 1: A floating example

```
for i:=maxint to 0 do
begin
{ do nothing }
end;
```

viverra aliquam risus. Nullam pede justo, molestie nonummy, scelerisque eu, facilisis vel, arcu.

A.2 ANOTHER APPENDIX SECTION TEST

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DECLARATION

Put your declaration here.

Copenhagen, June 2015

Emil Møller Rasmussen,
Ioannis Angelidis and David
Nagy, April 22, 2015