

Motivations and Design behind Agar

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Abstract

*This paper details the reasons and motivations behind the petri-net Simulator Agar. Agar is capable of creating and simulating place/transition petri nets. Because Agar is written in Clojure one of the main design paradigms was to keep Agar **Simple**.*

I. INTRODUCTION

Clojure is a programming language which has simplicity as one of its main paradigms. Following this tradition we introduce Agar, a simple place/transition petri net simulator written in Clojure. Simple programming tries to minimize the interactions of a method. An implication of this is to minimize state, because state causes unknown and uncontrollable interactions. With simplicity in mind Agar was divided into several Clojure files which fulfill a different role described in detail in the following chapters.

II. DATA STRUCTURE

III. IMPLEMENTATION

Agar is divided mainly into 4 parts.

- Core
- API
- Simulator
- GUI

I. Core module

The core.clj is the heart of the application. Its sole purpose is the manipulation of the domain specific language. For example creating new petri nets, adding and deleting nodes and edges, saving and loading nets, etc. The core does not check whether the constructed petri

nets are valid or not, it simply executes the Methods. Because of this every method either just has to execute one simple set of instructions or is a composition of aforementioned methods. Furthermore the core manages a database of nets inside an atom.

IV. RESULTS

Table 1: Example table

Name		
First name	Last Name	Grade
John	Doe	7.5
Richard	Miles	2

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*All praise RNGesus

egestas wisi eget nunc. Nam feugiat lacus vel est. Curabitur consectetur.

$$e = mc^2 \quad (1)$$

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V. DISCUSSION

I. Subsection One

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erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.

II. Subsection Two

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REFERENCES

- [Figueredo and Wolf, 2009] Figueredo, A. J. and Wolf, P. S. A. (2009). Assortative pairing and life history strategy - a cross-cultural study. *Human Nature*, 20:317–330.