COMP30050: Software Engineering Project 3

Dr. Tony Veale

Final Report

Due on 29th April 2016

Lamp

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Contents

Introduction

Hi

hi hi hi

Bye

Bye bye bye

What we produced/Interfaces

One Gui and 3 command line interfaces. We wanted a fine mix of an ultimate solution, but also lots of modularity and re-usability.

The Graphical User Interface

The hybrid solution, the actual submission.

The Command Line Version

This provides an all the functionality of the gui and more. By default it presents a hybrid solution.

An individual and Complete Genetic Solution Command Line

Loads of functionality eg inputs/outputs

An individual and Complete Annealed Solution Command Line

Loads of functionality eg inputs/outputs

Performance Analysis

Scripted overnight run to attain these figures and graphs

The Genetic Alogrithm

There Parameters: abc exists.
Ran n times with these versions of abc.
1 Graph ideally. excel

The Simulated Annealing alogrithms

There Parameters: abc exists.
Ran n times with these versions of abc.
1 Graph ideally. excel

The hybrid solution

There Parameters: abc exists.
Ran n times with these versions of abc.
1 Graph ideally. excel

Development Phases/Issues

The Genetic Algorithm

mate was the biggun
initially when mating 2 solutions we choose the 'happiest' corresponding assignments from each and created a new assignment with these. Each assignment was independently better, the solution as a whole was pants as there were lots of penalties incurred.
We move to considering a complete child solution and used the notion of 'happier with' to determine which parent's assignment should be used.

The Simulated Annealing Algorithm

The key turning point being understanding the relationship between initial tmeperature and cooling amount. Number iterations is a function of these two.

The Gui

The Gui was initially overcomplicated,,, after performance analysis we determined none of this was necessary. We elected for a simple LOAD GO SAVE option, with an epic title bar. It allows the user to create the ultimate solution, (or very close too) insert percentage.

Our Development Model

Not sure what needs to go in here

Technical Details Of Note

Inheritance

Callback Listeners

Threads

Class Diagrams

Nice Pictures

The Team Night Out

Burgers

oooohhhhh yeeaaaaahh

THE NIGHT MAN COMMETH

WOOOOOOO

A Sad Day For Lamp

The loss of a team member

We suffered a tragic loss,,, Gerard has become a lost lamp