PROJECT REPORT

The Arrangement of Rectangle and Triangle Objects
Into Two Dimensional Area

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APPROVAL AND RATIFICATION PAGE

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by

11.02.0006 - Theophilus Kevin Wikarta

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STATEMENT OF ORIGINALITY

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Certify that this project was made by myself and not copy or plagiarize from other people, except that in writing expressed to the other article. If it is proven that this project was plagiarizes or copy the other, I am ready to accept a sanction.

Semarang, 13 July 2015

Theophilus Kevin Wikarta

11.02.0006

FOREWORD

The Arrangement of Rectangle and Triangle Object Into Two Dimensional Area. To arrange many objects need a patient and time. I've been struggle to complete this project. Without help of many people around me, the project was endless. In this oppotunity, i would thank you for :

1. My parents who give me support, prayer and love
2. My supervisor who has willing to give her time for my final project.

PREFACE

This project describe about the arrangement process of rectangular and triangle objects into area. This project research will organized into six chapters. The first chapter contain background and scope of this project. The chapter two contain literature about array, two dimensional array, and modified genetic algorithm of the project.

On chapter three, there are four research method. First by analysis the current situation problems. The result of the analysis will be used to make design process, the design will be used to implementation program. The result of analysis, and design will explained on chapter four.

The chapter five will contain implementation of the research. Each process will be explained, after the implementation writing there will be a testing. On the end of this project report, there will be a conclusion and futher research.

ABSTRACT

To arrange Rectangle and Triangle Objects into two dimensional area is the main purpose on this project. To arrange the objects, this program will randomize the objects places. The arrangement of this project use two process on Genetic Algorithms.

Unlike the Genetic Algorithm where there are five basic process. This project using two process on Genetic Algorithm. The Genetic Algorithms basic process are Generate Population, Fitness Function, Selection, Crossover, Mutation. This project only use two process there are Generate Population and Fitness Function. By using Generate Population and Fitness Function, the program will make the best arrangement on an area.

There are two of different shape on the object. Each object shape have different data and logic. Therefore each shape will have difference process. This program will make many arrangements. Each arrangement contain an area and some objects. To make the best arrangement, each arrangements will be compared. The final result of this program is the best arrangement from many arrangements.

Keyword : *Genetic Algorithm, PHP language*

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