

37604

Universiti Teknologi MARA

**Reuse Oriented Approach for Reliable Software
Product**

Maziah Binti Abdul Hamid

Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons) Information System Engineering
Faculty of Information Technology And
Quantitative Science

APRIL 2005

DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline

APRIL 19, 2005

MAZIAH BINTI ABDUL HAMID

2003285720

ACKNOWLEDGEMENT

Alhamdulillah, my final report is successfully finished. Here, I want to take this opportunity to thank Cik Rosdiana Abd Razak as my supervisor. She gives a lot of advice and guidance. Furthermore, I want to thank Pn Hazilawati from HeiTech Padu, Pn Rogayah from PERNEC, Mr Negendran frm My EG Services and Mr Muaz from Digital Aura for giving me information for completing of my report. Last but not least, thank to my entire friend who helped me a lot.

Thank you

Maziah Binti Abdul Hamid

TABLE OF CONTENTS

	Page
DECLARATION	
ACKNOWLEDGEMENT	iii
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
CHAPTER 1: INTRODUCTION	
1.1. Background	1
1.2. Research Problems	2
1.3. Objectives of Research	3
1.4. Scope of Research	3
1.5. Significance of Research	3
1.6. Research Approach and Methodology	3
1.7. Limitations of Research	5
1.8. Overview of the Report	5
CHAPTER 2: LITERATURE REVIEW	
2.1. Introduction	7
2.2. Benefit of Reuse Oriented Approach	8
2.3. Software Reliability	10
2.4. Reuse Oriented Approach Challenge	10
2.5. Failure and Success in Reuse Oriented Approach	11
2.6. Reuse Oriented Experience	12
CHAPTER 3: RESEARCH APPROACH AND METHODOLOGY	

ABSTRACT

Software reuse oriented approach is an approach where the reuse of component in software development phases such as coding, people, and architecture. In order to implement reuse in an organization, many challenges must be face by the developer. Then, managing support is also one of the important things in implementing reuse. It is because; they are the one who giving cost to develop reuse. The objectives of this paper is to identify benefit using reuse oriented approach in an organization and to proposed architecture of the reuse oriented approach. Then, the findings gathered from the research is, the benefits that the most organization experience is shorten software development project and reduce cost of software development project. Then, the architecture proposed in this paper is called Reuse Engineering Life Cycle. It is based on the waterfall model, but in order to incorporate reuse, reuse repository, domain analysis and domain model are added. Furthermore, for formal reuse oriented approach, management support is vital, as well as the management of the reuse repository and the research on the reuse component being made by expert in domain analysis.