

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

58.499 RESEARCH REPORT

SOFTWARE MAINTENANCE MANAGEMENT :

A SYSTEMATIC APPROACH

A research report presented in partial fulfilment of the requirements for the degree of Master of Business Studies (MBS) at Massey University

ANG HAK SENG

[1985]

TABLE OF CONTENTS

| CHAPTER | PAGE |
|--|------|
| INTRODUCTION | 1 |
| 1 SOFTWARE MAINTENANCE LIFECYCLE | 4 |
| 2 SOFTWARE MAINTENANCE PROBLEMS | 10 |
| 3 SOFTWARE MAINTENANCE CLASSIFICATION | 16 |
| 4 FACTORS AFFECTING SOFTWARE MAINTENANCE | 22 |
| 5 FRAMEWORK FOR SOFTWARE MAINTENANCE MANAGEMENT | 30 |
| 5.1 SOFTWARE MAINTENANCE OBJECTIVES | 32 |
| 5.2 SOFTWARE MAINTENANCE STRATEGIES | 35 |
| 5.3 SOFTWARE MAINTENANCE INFORMATION SYSTEMS | 42 |
| 5.4 SOFTWARE MAINTENANCE MEASURING METHODOLOGIES | 54 |
| 5.5 SOFTWARE MAINTENANCE METHODS | 75 |
| 5.6 SOFTWARE MAINTENANCE FUNCTION ORGANIZATION | 159 |
| 6. THE HUMAN ELEMENT IN SOFTWARE MAINTENANCE | 167 |
| 7 MAINTAINING APPLICATION PACKAGES | 174 |
| 8. SUMMARY AND CONCLUSION | 178 |
| BIBLIOGRAPHY | 182 |