HIGHER TECHNICAL INSTITUTE

COMPUTER STUDIES DEPARTMENT

DIPLOMA PROJECT

PERSONNEL INFORMATION SYSTEM FOR THE CUSTOMS AND EXCISE DEPARTMENT

CS/149

EFFIE CHRISTOPHIDOU

JUNE 1996

HIGHER TECHNICAL INSTITUTE | PROJECT NO 2614

SUMMARY

PERSONNEL INFORMATION SYSTEM FOR THE CUSTOMS AND EXCISE DEPARTMENT

EFFIE CHRISTOPHIDOU

The purpose of this system is to fully computerize the activities of the Personnel department of the Customs and Excise department. The existing system is a manual system and was found very slow, inefficient, and inconvenient. For, this reason, a computerized system is prepared for handling all these manual activities.

The new computerized system to be provided will handle the records of 377 employees of the Customs and Excise Department. It cover all functions of a personnel system such as promotions, salary increments, position changes, annual appraisals, leaves of absence, allowances / overtimes, employment history of employees, disciplinary actions, department changes. In addition, history files will keep the records of all employees retiring or leaving the department.

It is believed that the system, when in operation, will overpass all problems currently phased during its manual operations providing in addition a friendly - environment fast access times, efficient, accurate and on - time reports as well as reliability and ease maintenance.

TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS

SUMMARY

INTRODUCTION

CHAPTER 1: INVESTIGATION PHASE 1

1.1 **Initial Investigation - Activity 1** 2

1.1.1 Information about the Organization 2

1.1.2 Information about the People 8

1.1.3 Information about the Work 9

1.1.4 Information about the Work Environment 12

1.1.5 Recommendation 13

1.2 **Feasibility Study - Activity 2** 14

1.2.1 Purpose and scope of the system 14

1.2.2 Recommendation 15

1.2.3 Feasibility Study Considerations 15

1.2.4 Conclusion 20

CHAPTER 2: ANALYSIS AND GENERAL DESIGN PHASE 21

2.1 **Existing System Review - Activity 3** 22

2.2 **New System Requirements - Activity 4** 23

2.2.1 User Specification Document 23

2.3 **New System Design - Activity 5** 27

2.3.1 New System Design Specification 27

2.4 **Implementation and Installation Planning - Activity 6** 29

2.4.1 Preliminary Detail Design and Implementation 29

2.4.2 Preliminary System Test Plan 29

2.4.3 User Training Outline 30

2.4.4 Preliminary Installation Plan 31

2.4.5 Hardware & Software Plan 32

CHAPTER 3: DETAIL DESIGN AND IMPLEMENTATION PHASE 33

3.1 **Technical Design - Activity 7** 34

3.1.1 Human - Machine Interface 34

3.1.2 File Design 34

3.2 **Test Specification and Planning - Activity 8** 35

3.3. **Programming and Testing - Activity 9** 36

3.4 **User Training - Activity 10** 37

3.5 **System Test - Activity 11** 38

CHAPTER 4: INSTALLATION PHASE 39

4.1 **File Conversion - Activity 12** 40

4.2 **System Installation - Activity 13** 41

CHAPTER 5: REVIEW PHASE 42

5.1 **Developmental Recap - Activity 14** 43

5.2 **Post Implementation Review - Activity 15** 44

CONCLUSION

REFERENCES

APPENDICES

GLOSSARY OF TERMS

APPENDICES

APPENDIX A: Information Gathering

Appendix A1: Customs and Excise department structure

Appendix A2: GANTT Chart

Appendix A3: Inputs to the system

Appendix A4: Outputs from the system

APPENDIX B: Context Diagram and Data Flow Diagrams

Appendix B1: Context Diagram

Appendix B2: Data Flows Diagram

APPENDIX C: Data Dictionary

Appendix C1: Data Elements

Appendix C2: Data Stores

Appendix C3: Inputs

Appendix C4: Outputs

Appendix C5: Processes

APPENDIX D: Normalization of Data Stores