PROJECT'S TITLE:

"ANALYSIS, DESIGN, AND IMPLEMENTATION OF A PORTABLE X-11-OSF-MOTIF USER INTERFACE"

PROJECT'S NUMBER:

CS/146

This project is submitted in partial fulfillment of the requirements for the award of the DIPLOMA IN COMPUTER STUDIES of the HIGHER TECHNICAL INSTITUTE

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HIGHER TECHNICAL INSTITUTE PROJECT NO 2629

PREFACE

The approach used to develop this project is the Systems Development Life-Cycle (SDLC) approach which is divided into five phases, each one describing in detail the steps followed in order to develop the Human-Machine Interface requested for the ASMOS system.

Systems Development Life Cycle-SDLC

The systems development life cycle is one of the approaches used to describe the overall structure for developing a software project. The five phases, displayed in **Figure 1** in **FIGURES** at the end of this book, are presented as chapters.

These five phases are the following:

I. Investigation Phase
II. Analysis and General Design Phase
III. Detailed Design and Implementation Phase
IV. Installation Phase
V. Review Phase

Each of these phases is made up of activities which are presented in this book as sections of the chapters. The activities for each of the phases are :

I. Investigation Phase
- **1.** Initial Investigation
- **2.** Feasibility Study

II. Analysis and General Design Phase
- **3.** Existing System Review
- **4.** New System Requirements
- **5.** New System Design
- **6.** Implementation and Installation Planning

III. Detailed Design and Implementation Phase
- **7.** Technical Design
- **8.** Test Specifications and Planning
- **9.** Programming and Testing
- **10.** User Training
- **11.** System Test

IV. Installation Phase
- **12.** File Conversion
- **13.** System Installation

V. Review Phase
- **14.** Development Recap
- **15.** Post-Implementation Review

SUMMARY

DIPLOMA PROJECT 1995/96

Project Number : CS/146

Title :

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Student's Name:
ELENA DEMETRIOU

This project is submitted in partial fulfillment of the award of the HTI Diploma in the field of Computer Studies. The subject of this project is the analysis, design and implementation of a portable X11-OSF-Motif User Interface to cover all interactions needed for the Advance Surface Modeling System (ASMOS). Such interactions include reading from and writing in files, geometrical transformations, visualization of calculated data in graphical geometrical form, and so on. Furthermore, this human-machine interface is to be linked to and tested with Advance Surface Modeling System (ASMOS).

In addition, the project is to provide On-Line Help, Warnings and other messages to guide the user while accessing the system easily and fast. Also, certain security measures, such as passwords and user IDs, is to be encountered in the development of the User Interface (UI), to protect the system from unauthorized access and allow users with different levels of authorization to access the various sections of the system. This is done, in an effort to provide security and protection to the system, which is a highly important issue for the given system. Additional utilities such as the development of a user's manual to facilitate user to use the interface, are to be provided, as well.

Finally, the project is to be developed on Silicon Graphics Machine (Indigo2) and mainly provides the usage of standard C programming language and of the X-Designer CASE -Tool.

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