

HIGHER TECHNICAL INSTITUTE

COURSE IN COMPUTER STUDIES

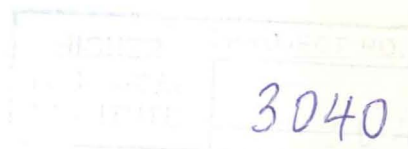
DIPLOMA PROJECT

**MULTIMEDIA EDUCATIONAL SYSTEM FOR AN
INTRODUCTION TO COMPUTER INFORMATION
SYSTEMS.**

CS/210

PANAYIOTOU ANNA

9 JUNE 1999



Summary

Multimedia educational system for an introduction to Computer Information Systems.

Developed By:
Panayiotou Anna

1. Few words for the system and the development

The scope of this project is to develop a computerized system for the curriculum A and B classes of the Lyceum which will be helpful for the students because it will make reading more enjoyable. It includes the curriculum of the A and B classes of the Lyceum with the appropriate exercises and lab assignments.

The major desirable objectives are:

1. Basic computer terminology
2. Recent developments in the field
3. Lab assignments with their solutions
4. Exercises with their solutions
5. The choice for the user to use two different paths:
 - By searching
 - By system based-learning to control and monitor the progress
6. Assessment for the progress of each level
7. Greek should be the language of the project
8. The whole system should be stored on a CD
9. The system should include a setup program
10. On line help

For a more detailed description of the objectives please refer to Appendix A.

To make this system more interesting, the use of sounds, videos, images, voice, animation and text are very important. Mr. Michael Tortouris, who is responsible for the project, gave the material that is used by the system. Also some sides from the Internet were used to gather more information, images and videos.

The software program used to develop this Multimedia System is the Asymetrix ToolBook II, version 5 that is appropriate software to develop multimedia projects. More information about this software you will be able to read in the next pages. This is the main software program used to develop this system. Also other programs such as image processing programs, voice recorders etc were used for the development.

The hardware used for the development is a standard PC with Windows 95 so that to be able to run the above applications, a scanner to scan images used in the system, a printer and finally a CD writer so that to transfer the system on the CD.

2. What is a Multimedia system?

Today's common definition of multimedia is the incorporation of sound, animation, still images, hypertext or video used in conjunction with computing technology. The definition "multimedia", however, is almost useless because multimedia continually becomes more integrated into common software.

3. ToolBook

ToolBook is a multimedia authoring system. Features include new book specialist, Visual Basic control support, object browser and property editor, palette optimizer, script remover utility, and shared scripts. Win95 controls let the user create applications that automatically adjust their interface to any Windows platform. Internet features launch Web pages allowing integration with browsers to build applications that automatically access the WWW.

ToolBook is also a training development tool. Allows teachers and instructional designers to create computer-based training, performance support systems, and other interactive learning applications.

It is a flexible, powerful authoring for online learning applications. Asymetrix ToolBook II TM Instructor is the premier courseware-authoring product for professional developers, programmers, instructional designers, and trainers. Combining easy-to-use templates, wizards, and preprogrammed Catalog objects with the full-featured OpenScript programming language, Instructor offers a powerful development environment for creating sophisticated courseware delivered over the Internet, the intranet, a local area network, or a CD-ROM.

MULTIMEDIA EDUCATIONAL SYSTEM FOR AN INTRODUCTION TO COMPUTER INFORMATION SYSTEMS

Table of Contents

	Page
Summary	
1. Few words for the system and the development	2
2. What is a Multimedia System	3
3. ToolBook	3
Introduction	5
1. Investigation Phase	
1.1. Initial Investigation Activity	
1.1.1. Information about the system	7
1.1.2. Definition of the problem	9
1.1.3. Generate possible solutions – Recommendations	10
1.1.4. Information Gathering	10
1.2. Feasibility Study	
1.2.2. Financial Feasibility	11
1.2.3. Operational Feasibility	13
1.2.4. Technical Feasibility	13
1.2.5. Schedule Feasibility	14
1.2.6. Human Factors Consideration	14
1.2.7. Conclusions and Considerations	15
2. Analysis and General Design Phase	
2.1. New System Design Specification	
2.1.1. Overview Narrative	17
2.1.1.1. System's Purpose	17
2.1.2. New System Requirements	18
2.1.3. Processing	18
2.1.4. Book Design	20
2.1.5. Designing the User Interface	20
2.1.6. Performance Criteria	21
2.2. Implementation and Installation Planning	
2.2.1. Introduction	22
2.2.2. Preliminary Implementation Plan	22
2.2.3. Preliminary System Test Plan	23
2.2.4. User Training Outline	23
3. Detailed Design & Implementation Phase	
3.1. Technical Design	
3.1.1. Introduction	25

3.1.1.1. Detailed Design Specification Document	25
3.1.2. Human – Machine Interface	25
3.1.3. Security and Control Measure	27
3.2. Test Specification and Planning	
3.2.1. Activity Description	28
3.2.2. Unit Testing	28
3.2.3. Integration Testing	30
3.2.4. Function Testing	31
3.2.5. System Testing	31
3.2.6. Acceptance Testing	32
4. Installation Phase	
4.1. Conclusions	34

Appendices

Appendix A – Objectives of the System

Appendix B – Project Plan

Appendix C – Context Diagram

Appendix D – Data Flow Diagram

Appendix E – Flowchart

Appendix F – Book Design

Appendix G – Screen Design