

MULTIMEDIA GUIDE FOR THE PAPHOS MASAICS

By
Demetris Kyriakides & Stelios Kouzalis

Diploma report submitted to the
HIGHER TECHNICAL INSTITUTE
NICOSIA, CYPRUS
In partial fulfillment of the
requirements of the award of
the DIPLOMA in
COMPUTER STUDIES

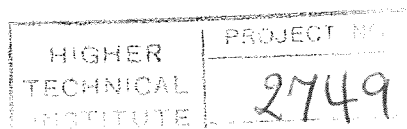
Project Number : CS/184

Project Supervisor : Mrs. Maria Theodorou

B.Sc. in Computer Science,
B.Sc. in Accounting,
MBA in Information Systems

External Assessor : Ms. Chrystalla Alexandrou

JUNE 1997



Summary

**Multimedia Guide For
The Paphos Mosaics**

Kyriakides Demetris & Kouzalis Stelios

This project was created as an effort on developing a multimedia and multilingual computer assisted learning package on the subject of the ancient mosaics in the district of Paphos City. Specifically the area situated near to the old harbor of Paphos. As it is well known, in the market, there are a huge number of such packages associated with a large number of subjects. Libraries, guides etc. Of course considering our time schedules (specifically 3 months of work) we couldn't expect "the" perfect result but we have set to create the best possible package according to our time limits and our resources and of course the assistance that we have received from the appropriate people.

Our major concern was to create the best possible application in order to cover as bigger as it is possible, part of information associated to the mosaics. We tried to create a learning as well as a study package, which would include pictures, videos, texts, and sounds based on the subject of the mosaics of the Paphos area.

During the development of the package a lot of problems as it was expected raised. First of all, the programming language and the platform to be used. We needed a language that would be Object Oriented, in order for it to support efficiently simulation, sound effects and graphics in a high quality

level. We had multiple choices in this field. The first concern, was the platform. An Apple Macintosh environment or a PC environment? And the appropriate programming languages would be for each one the Director 5.0 or the Multimedia Toolbook 5.0?

The next problem that we faced was the fact that this was actually our first involvement in the development of a multimedia package and we didn't had any experience in this field.

Also it is worth to mention that we started from scratch building our interface and collecting as much material as possible, firstly to understand how the system could be implemented.

Our major problem was though the collection of the appropriate resources and the appropriate material for the development of the project. We had to gather by our own a large number of photos and videos since the response that we found was very little. This is actually he major reason for the "not so professional" material gathered. But in the bottom line, our aspect was to prove that that kind of a program can be created and used just by curious users as well as by professional researchers. We had to prove the functionality of this program both from the aspect of information provided, functionality, modularity. Also we had to show that it can be implemented in many different languages and it can be improved in a level of full professionalism.

The Multimedia Guide to the Paphos Mosaics was definitely an extremely difficult task, since all the multimedia packages need a huge effort and very careful design and implementation as well as a very big number of information gathered and its correct implementation to the user. But our mutual conclusion was that "it was worth it"!

(Appendix A)

Contents

Acknowledgements	1
Summary	2
Introduction	4
CHAPTER 1	
Background Information on the Paphos Mosaics	5
1.1 A few words in order to give an overview of the subject	6
1.1.1 The House of Dionysus	6
1.1.2 The House of Orpheas	12
1.1.3 The villa of Theseus	14
1.1.4 The House of Aion	17
1.2 The Mosaics that are discovered	18
1.2.1 House of Dionysus	18
1.2.2 House of Orpheas	19
1.2.3 House of Theseus	19
1.2.4 House of Aion	19
CHAPTER 2	
Investigation	20
2.1 Investigation Phase Generally	21
2.1.1 Investigation Objective	21
2.1.2 Define the problem	21
2.1.3 Generate Possible Solutions	21
2.1.4 End Product	22

2.2	Initial Investigation	23
	2.2.1 Overall requirements of the project	23
	2.2.2 More specific requirements of the project	23
	2.2.3 Scenario	25
2.3	Feasibility Study report	26
	2.3.1 Activity Description	26
	2.3.2 What is so special about the current project ...	27
	2.3.3 Feasibility Study considerations	29
	2.3.3.1 <i>Financial Feasibility</i>	29
	2.3.3.2 <i>Operational Feasibility</i>	36
	2.3.3.3 <i>Technical Feasibility</i>	37
	2.3.3.4 <i>Schedule Feasibility</i>	41
	2.3.3.5 <i>Human Factors Consideration</i>	41
	2.3.4 Anticipated changes and benefits.....	43
	2.3.4.1 <i>Changes and benefits for students</i>	43
	2.3.4.2 <i>Changes and benefits for targets</i>	44
	2.3.5 Conclusions & Recommendations	46
2.4	Information Gathering	50

CHAPTER 3

	Designing the System	55
3.1	Introduction	56
3.2	The Data Flow Diagram of the System	57
3.3	The selected programming language	61
3.4	Designing the User Interface	62
3.5	Graphical User interface	64

CHAPTER 4

Programming the System	67
4.1 Introduction	68
4.2 What makes Toolbook development package so special	69
4.3 Toolbook's Features	70
4.4 Toolbook's environment	73
4.5 Toolbook's Author level	77
4.6 Objects	79
4.7 Start Working	80
4.8 Objects Scripting	85
4.9 OpenScript	89
4.10 Multimedia Implementation	96
4.11 More objects used specifically in our project	103
4.12 The Program	108
4.12.1 Display System	108
4.12.2 Sound System	108
4.13 The project's route	109

CHAPTER 5

System Security	118
5.1 Introduction	119
5.2 Physical Security	120
5.3 Logical Security	121
5.4 Behavioral Security	122
5.5 Security of the Multimedia Guide to Paphos Mosaics	123
5.5.1 Security that is provided by Toolbook	124
5.5.1.1 <i>Controlling Access</i>	124
5.5.1.2 <i>Changing Passwords</i>	125
5.5.1.3 <i>Removing Passwords</i>	125
5.5.1.4 <i>Systems Properties</i>	126
5.5.1.5 <i>Also...</i>	127

CHAPTER 6

Conclusion	129
6.1 Conclusion	130

APPENDICES

Appendices	132
A Multimedia Toolbook II & Multimedia Guide to Paphos Mosaics	133
B The Archeological site of the Paphos Mosaics	142
C The Project Specifications	155
D The Project Progression Diagram	158
E Information Gathering	163
F Data flow Diagrams	167
G References	175