

A MULTIMEDIA GUIDE TO CYPRUS

Project Report Submitted by

Demetris Panayi

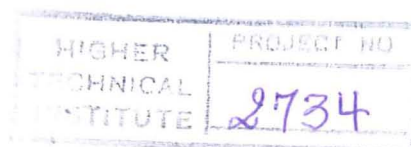
In part satisfaction of the
Award of diploma in Computer
Studies of the Higher Technical
Institute, Cyprus

Project Supervisor: Mr. Paul Panayi
Bsc (Hons) Computer Science
Msc Information technology

External Assessor: Mr. Michalis Tourtouris

Type of Project: Multimedia

June - 1997



A Multimedia Guide to Cyprus
Demetris Panayi
(Summary)

The Computer Studies department of Higher Technical Institute has assigned me the development of a multimedia guide to Cyprus in order to get my diploma. This project seemed to me very challenging and interesting. On the other hand I was sure from the first moment that I had a lot of work to do in order to satisfy the requirements and conditions of the project but also I had a lot of work to do in order to satisfy my self and my ambitions.

The main purpose of my work is to develop a user friendly system with easy navigation , good quality images - videos and sounds , with a good organised content and treatment. The project must deliver the expected content to the user in a readable form and the interface must so transparent to the user in order to push him focus only into the info delivery.

The projects content must be enough to satisfy a big range of user from ages ranging from 10 years old. It must cover every subject that a normal Cypriot user wants information for.

During the analysis and development of the project I have tried as much as I could in order to produce the expected output following a mixed approached. I have not used a clear SSADM approach but I have imported many other consideration that suit better a multimedia project.

Table of Contents

	PAGE
Acknowledgements	
1.0 Summary	1
2.0 Introduction	2
3.0 Investigation Phase	3
3.1 Initial Investigation	3
3.2 Project Request Evaluation	5
3.3 Problem Definition	6
3.4 Existing Procedures	9
3.5 Possible Solutions	11
3.6 Scooping the project	12
3.7 Training Analysis Questionnaire	12
3.8 Feasibility Study	16
3.8.1 Technical Feasibility	16
3.8.2 Schedule Feasibility	19
3.8.3 Human Factors Feasibility	20
3.8.4 Financial Feasibility	21

4.0	The proposal	23
4.1	General Introduction and Executive Summary	23
4.2	Statement of what the client wants from the project	25
4.3	Statement of what the user needs from the application	26
4.4	Description of the human resources	27
4.5	Work breakdown and schedule	28
4.6	Conclusion	28
5.0	Content Agreement	29
5.1	Introduction	29
5.2	General Statement	29
5.3	Content of the application	31
5.4	Major Topics of the application	31
5.5	SubTopics of the application	33
5.5.1	Lemesos	33
5.5.2	Lefkosia	34
5.5.3	Pafos	35
5.5.4	Larnaka	36
5.5.5	Ammohostos	37
5.5.6	Kerynia	38
5.5.7	Paradosi	39
5.5.8	Istoria	40
5.5.9	Geografia	41
5.5.10	Cooking	42
5.5.11	Logotehnia	44
5.5.12	Panida	45
5.5.13	Hlorida	46

6.0	Copyrights	47
6.1	Introduction	47
6.2	Leeway	49
6.3	Copyright Elements	50
	6.3.1 People	50
	6.3.2 Text	51
	6.3.3 Photographs	52
	6.3.4 Film	53
	6.3.5 Music	54
	6.3.6 Software	56
6.4	Copyright Clearance	57
6.5	Moral Rights	59
6.6	Licensing	60
6.7	Conclusion	61
7.0	Platform Selection	62
7.1	Multimedia Platforms	62
7.2	The IBM PC	64
	7.2.1 The processor	66
	7.2.2 Memory	66
	7.2.3 Floppy/hard disk drives	66
	7.2.4 CD-ROM standards	67
	7.2.5 Monitors	70
	7.2.6 Graphics cards	70
	7.2.7 Resolution and colour depth.	71

7.2.8	The expansion bus bottleneck.	72
7.2.9	Video local bus (VL-Bus)	73
7.2.10	Peripheral component interconnect (PCI)	74
7.2.11	VESA media channel (VMC).	74
7.3	The Apple Macintosh	75
7.3.1	The Macintosh Today	77
7.3.2	Mac Clones	78
7.3.3	Low-end Macs	78
7.3.4	The PowerPC	79
7.4	IBM's PS/2 series with OS/2	80
7.5	Developing Hardware Platform Choosing	82
7.6	Delivery Hardware Platform Choosing	84
8.0	Operating System Selection	85
8.1	Windows NT 4	85
8.2	Windows 95	86
8.2.1	Windows 95 and Multimedia	86
8.2.2	Hardware Compatibility (Plug & Play)	87
8.2.3	Software Compatibility	87
8.3	UNIX	89
8.3.1	Introduction	89
8.3.2	PowerOpen	89
8.3.3	Solaris	90
8.3.4	NeXTStep 486	90
8.3.5	Multimedia on UNIX	91
8.4	Choosing the Operating System	92

9.0	Development Tools	93
9.1	Introduction	93
9.2	Software Delivery	95
9.3	A Taxonomy of Authoring Systems	97
9.4	Authoring Systems	99
	9.4.1 3GLs and object oriented class libraries	99
	9.4.2 Code generators	103
	9.4.3 Visual programming languages	104
	9.4.4 Card-based authoring systems	106
	9.4.5 Iconic programming languages	108
	9.4.6 Extended productivity tools	112
	9.4.7 Programmable animation	113
	9.4.8 "Hyper-wordprocessors"	114
	9.4.9 Microsoft Help system	116
	9.4.10 Mixed High/Low Level Development	118
	9.4.11 Cross-Platform Development	120
	9.4.12 Microcosm	122
9.5	Choosing Development Tool	124
10.0	Other Tools Used for the Project	125
10.1	Introduction	125
10.2	Image Manipulation tools	127
10.3	Vector Graphics Manipulation Tools	128
10.4	Digital Sound Manipulation tools	129
10.5	Midi Sound Manipulation Tools	130

10.6	Video Capturing and Manipulation Tools	131
10.7	Text Editors	132
<hr/>		
11.0	Media Type Selection	133
11.1	Graphics	133
11.1.1	Bitmap graphics	135
11.1.1.1	Bitmap principles	135
11.1.1.2	Pitfalls with colourmapped bitmaps	138
11.1.1.3	Bitmap file formats	140
11.1.1.4	Bitmap compression	144
11.1.1.5	RLE compression	144
11.1.1.6	JPEG compression	144
11.1.1.7	Fractal compression	145
11.1.2	Vector file formats	147
11.1.2.1	Postscript	147
11.1.2.2	CGM format	147
11.1.2.3	WMF format	148
11.1.2.4	DXF format	148
11.1.3	Graphics File Format Selection	149
11.2	Video	150
11.2.1	Introduction	150
11.2.2	Analogue video	150
11.2.3	Digital video	153
11.2.3.1	Hardware-dependent video	153
11.2.3.2	Software-only video.	155
11.2.3.2.1	QuickTime	155
11.2.3.2.2	Audio Video Interleaved	156

11.2.3.2.3 Fractal Movie	159
11.2.4 The future of computer mediated video	161
11.2.5 Choosing delivery Video Format	164
11.3 Sound	166
11.3.1 MIDI sound	167
11.3.2 Digitised sound	167
11.3.2.1 Windows waveform (WAV) format	168
11.3.2.2 Creative voice (VOC) format	168
11.3.2.3 AIFF format	169
11.3.2.4 Sun/NeXT audio(AU) format	169
11.3.3 Choosing sound format	170
12.0 Interface Design	171
12.1 Introduction	171
12.2 Principles of Interface Design	172
12.2.1 Corporate conventions	172
12.2.2 Balance	172
12.2.3 Proportion	172
12.2.4 Sequence	172
12.2.5 Unity	173
12.2.6 Emphasis	173
12.2.7 Similarity	173
12.2.8 Foreground / background symbol stability	173
12.3 Screen Design	174
12.3.1 Introduction	174
12.3.2 Types of screens	174
12.3.3 Information Screens	175

12.3.3.1 Screen for Panida	176
12.3.3.2 Screen for Hlorida	178
12.3.3.3 Screen for Cooking	180
12.3.3.4 Screen for Cyprus Photos	181
12.3.3.5 Screen for Profora	182
12.3.3.6 Screen for Towns, History, Paradosi e.t.c	183
12.3.3.6 Screen for Logotehnia	185
12.4 Selection Screens	187
13.0 Data Capture and Creation	188
13.1 Text Capture	188
13.1.1 Optical Character Recognition (OCR) software	188
13.1.2 Direct keyboarding of text	188
13.2 Image Capture	189
13.2.1 Flatbed scanning	189
13.2.2 Digital Camera	189
13.3 Sound Capture	190
13.3.1 Sound capture cards	190
13.3.2 Microphones and audio tapes	190
13.3.3 Midi Keyboards	190
13.4 Video Capture	191
13.4.1 Video capture cards	191
13.4.2 Video cameras as data capture devices	191
14.0 A note on Development	192

Appendixes

Glossary
