

Table of Contents

1	From Mac to Windows	1
	Truth in Advertising.....	2
	What This Book Is About.....	3
	For More Information.....	4
2	System Foundations	7
	Interface Files.....	7
	Elementary Data Types.....	7
	Hungarian Notation.....	9
	Processes and Threads.....	11
	Memory.....	13
	How Virtual Memory Works.....	13
	Heap Allocation.....	15
	Memory-Mapped Files.....	17
	Program Loading and Execution.....	18
	Dynamic Link Libraries.....	19
	Resources.....	20
	Resource Identification.....	21
	Resource Access.....	22
	Defining Your Own Resources.....	24
	The Same Thing...Only Different.....	32
3	The Windows Programming Model	37
	Message Structure.....	38
	Queued and Unqueued Messages.....	39
	A Simple Windows Program.....	43
	Main Function.....	43
	Registering a Window Class.....	48

Table of Contents

Creating and Displaying a Window.....	52
Main Loop.....	53
Window Procedures.....	55
Program Control Messages.....	58
Sending Messages to a Window.....	61
Message Operations.....	62
The Same Thing...Only Different.....	63
4 What's in a Window?	65
Anatomy of a Window.....	65
Child Windows.....	67
Pop-Up Windows.....	68
Z Order.....	69
Creating and Destroying Windows.....	69
Window and Class Attributes.....	72
Client Data.....	74
Window Display.....	76
Window-Related Messages.....	77
Other Window Operations.....	81
The Same Thing...Only Different.....	83
5 Mouse and Keyboard	85
The Mouse.....	85
Mouse Messages.....	87
Mouse Movements.....	89
Double Clicks.....	92
Capturing the Mouse.....	93
The Cursor.....	93
The Keyboard.....	96
Input Focus.....	96
Keystroke Messages.....	97
Character Messages.....	100
Polling the Keyboard.....	101

Table of Contents

Dead Keys.....	101
Mouse and Keyboard Operations.....	103
The Same Thing...Only Different.....	104
6 The Graphics Device Interface	107
Graphical Data Structures.....	107
Points.....	107
Rectangles.....	108
Regions and Paths.....	109
Colors.....	111
Device Contexts.....	111
Device Context Attributes.....	112
GDI Objects.....	113
Obtaining a Device Context.....	115
Device Capabilities.....	117
Bitmaps and Memory Device Contexts.....	119
Clipping.....	120
Coordinate Systems.....	121
Mapping Modes.....	121
World Transforms.....	123
Line Drawing.....	124
Pens.....	124
Straight Lines.....	126
Curves.....	127
Shape Drawing.....	130
Brushes.....	130
Drawing Modes.....	133
Shapes.....	134
Low-Level Pixel Transfer.....	137
Metafiles.....	139
The Same Thing...Only Different.....	140

7 Controls 147

Notification and Control Messages.....	149
Keyboard Interface.....	151
Buttons.....	152
Button Messages.....	153
Pushbuttons.....	154
Checkboxes.....	155
Radio Buttons.....	155
Owner-Drawn Buttons.....	156
List Boxes.....	157
Creating a List Box.....	157
Adding and Retrieving List Items.....	158
Scrolling and Display.....	159
Owner-Drawn List Boxes.....	160
Selection Management.....	161
Scroll Bars.....	163
Static Controls.....	167
The Same Thing...Only Different.....	169

8 Text 173

Character Sets.....	173
The OEM Character Set.....	173
The ANSI Character Set.....	174
Character and String Operations.....	175
Edit Controls.....	176
Creating an Edit Control.....	177
Text Layout.....	179
Text Selection.....	181
Scrolling.....	182
Editing Text.....	182
The Caret.....	184
The Same Thing...Only Different.....	186

9 Menus	189
Menu Basics.....	189
Creating and Destroying Menus.....	192
Menu Messages.....	196
Keyboard Shortcuts.....	202
Mnemonics.....	202
Accelerators.....	204
Menu Operations.....	208
The Same Thing...Only Different.....	210
Appendix A. WiniEdit Code Listing	213
Header File.....	213
Code File.....	217
Resource Header File.....	247
Resource Description File.....	249
Appendix B. MiniEdit Code Listing	255
Make File.....	255
Header File.....	256
Code File.....	260
Resource Description File.....	299