Chapter 5: Comments, Change Tracking, and Versions 167
Comments 167
Change Tracking 169
Comparing Documents 175
Versioning 176

Chapter 6: Advanced Word Processing 179
Headers and Footers 179
Footnotes and Endnotes 183
Line Numbers 187
Templates 188
The Outliner 197
The Document Map 203
Master Documents 205
AutoSummarize 211
Working with Fields 213
Bookmarks 218
Captions 221
Cross-references 224
Creating a Table of Contents 227
Indexing 232
Data Merges 239
Working with Macros 254

Chapter 7: Word Meets Web 259
Word as Web Browser 259
Creating a Web Page in Word 261
Graphics, Sounds, and Movies 266
Hyperlinks 270
Web Forms 277
Saving Web Pages 277

Part Two: Entourage

Chapter 8: Entourage–Email and Newsgroups 283
The Entourage Window 283
Setting Up Entourage 285
Sending and Receiving Mail 292
Newsgroups 328

Chapter 9: Entourage Calendar and Tasks 337
The Calendar 337
Recording Events 340
What to Do with an Appointment 345
Saving Calendars as Web Pages 351
Tasks 353

Chapter 10: Entourage Address Book and Notes 357
Address Book 357
The Note Pad 370

Chapter 11: Advanced Entourage 373
Using Entourage with a Palm Palmtop 373
Multiple Identities 382
Finding Information 384
Links 387
Categories 390
Checking Your Spelling 392
The Power of the Script Menu 392

Part Three: Excel

Chapter 12: Basic Excel 397
Spreadsheet Basics 397
Formula Fundamentals 415
Excel, the List Maker 425

Chapter 13: Formatting and Charts 437
Formatting Worksheets 437
Charts 453
Printing Worksheets 467

Chapter 14: Advanced Spreadsheeting 473
Workbooks and Worksheets 473
Advanced Formula Magic 485
Working with Databases 490
Opening the Excel Toolbox 495
Macros: Making Excel Work for You 517

Part Four: PowerPoint

Chapter 15: Basic PowerPoint 523
The Views of PowerPoint 2001 523
Step 1: Specify a Design 523
Step 2: Writing the Outline 529
Step 3: Building the Show 531
How to Build a Slide 537

Chapter 16: Advanced PowerPoint 549
Making a Slide Show 549
Multimedia Effects 561
Printing Your Presentation 569

Part Five: Office 2001 As a Whole

Chapter 17: Customizing Office 573
Customizing Your Toolbars 573
Redesigning Your Menus 578
Reassigning Key Combinations 581

Chapter 18: The Graphics Programs of Office 2001 583
Inserting a Graphic 583
The Clip Gallery 584
AutoShapes and WordArt 588
Lines and Shapes: The Drawing Toolbar 591
Formatting Pictures and Drawings 596
The Picture Toolbar 603
Organization Chart 604
Equation Editor 607
Microsoft Graph 608

Part Six: Appendixes

Appendix A: Installation and Troubleshooting 613
Installing Office 613

Appendix B: The Office Help System 619
Balloon Help 619
The Assistant 619
The Help Index 623
Web-Based Help 624
Colophon 637

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THE HUMANE INTERFACE

New Directions for Designing Interactive Systems

JEF RASKIN



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CONTENTS

PREFACE xi
ACKNOWLEDGMENTS xiii
INTRODUCTION: *The Importance of Fundamentals* xvii

ONE ***Background*** 1
1-1 Interface Definition 2
1-2 Keep the Simple Simple 2
1-3 Human-Centered Design and User-Centered Design 3
1-4 Tools That Do Not Facilitate Design Innovation 4
1-5 Interface Design in the Design Cycle 5
1-6 Definition of a Humane Interface 6

TWO ***Cognetics and the Locus of Attention*** 9
2-1 Ergonomics and Cognetics: What We Can and Cannot Do 9
2-2 Cognitive Conscious and Cognitive Unconscious 11
2-3 Locus of Attention 17
2-3-1 Formation of Habits 18
2-3-2 Execution of Simultaneous Tasks 20
2-3-3 Singularity of the Locus of Attention 24
2-3-4 Origins of the Locus of Attention 27
2-3-5 Exploitation of the Single Locus of Attention 29
2-3-6 Resumption of Interrupted Work 31

THREE *Meanings, Modes, Monotony, and Myths* 33
3-1 Nomenclature and Notations 33
3-2 Modes 37
3-2-1 Definition of Modes 42
3-2-2 Modes, User-Preference Settings, and Temporary Modes 47
3-2-3 Modes and Quasimodes 55
3-3 Noun-Verb versus Verb-Noun Constructions 59
3-4 Visibility and Affordances 62
3-5 Monotony 66
3-6 Myth of the Beginner-Expert Dichotomy 68

FOUR *Quantification* 71
4-1 Quantitative Analyses of Interfaces 71
4-2 GOMS Keystroke-Level Model 72
4-2-1 Interface Timings 73
4-2-2 GOMS Calculations 76
4-2-3 GOMS Calculation Examples 77
4-2-3-1 Hal's Interface: Solution 1, Dialog Box 78
4-2-3-2 Hal's Interface: Solution 2, GUI 80
4-3 Measurement of Interface Efficiency 83
4-3-1 Efficiency of Hal's Interfaces 87
4-3-2 Other Solutions for Hal's Interface 90
4-4 Fitts' Law and Hick's Law 93
4-4-1 Fitts' Law 93
4-4-2 Hick's Law 96

FIVE *Unification* 99
5-1 Uniformity and Elementary Actions 101
5-2 Elementary Actions Cataloged 103
5-2-1 Highlighting, Indication, and Selection 105
5-2-2 Commands 109
5-2-3 Display States of Objects 115
5-3 File Names and Structures 117
5-4 String Searches and Find Mechanisms 124

5-4-1 Search-Pattern Delimiters 127
5-4-2 Units of Interaction 129
5-5 Cursor Design and a Strategy for Making Selections 133
5-6 Cursor Position and LEAP 136
5-7 Applications Abolished 139
5-8 Commands and Transformers 143

SIX *Navigation and Other Aspects of Humane Interfaces* 149
6-1 Intuitive and Natural Interfaces 150
6-2 Better Navigation: ZoomWorld 152
6-3 Icons 168
6-4 Techniques and Help Facilities in Humane Interfaces 174
6-4-1 Cut and Paste 177
6-4-2 Messages to the User 178
6-4-3 Simplified Sign-Ons 183
6-4-4 Time Delays and Keyboard Tricks 184
6-5 Letter from a User 187

SEVEN *Interface Issues Outside the User Interface* 191
7-1 More Humane Programming Language Environments 192
7-1-1 System and Development Environment 192
7-1-2 Importance of Documentation in Program Creation 194
7-2 Modes and Cables 195
7-3 Ethics and Management of Interface Design 198

EIGHT *Conclusion* 205
APPENDIX A: *The One-Button Mouse History* 207
APPENDIX B: *SwyftCard Interface Theory of Operation* 211
REFERENCES 215
INDEX 221

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Ricardo Baeza-Yates
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Contents

Preface v

Acknowledgements vii

Biographies xvii

1 Introduction 1
- 1.1 Motivation . . . 1
  - 1.1.1 Information versus Data Retrieval . . . 1
  - 1.1.2 Information Retrieval at the Center of the Stage . . . 2
  - 1.1.3 Focus of the Book . . . 3
- 1.2 Basic Concepts . . . 3
  - 1.2.1 The User Task . . . 4
  - 1.2.2 Logical View of the Documents . . . 5
- 1.3 Past, Present, and Future . . . 6
  - 1.3.1 Early Developments . . . 6
  - 1.3.2 Information Retrieval in the Library . . . 7
  - 1.3.3 The Web and Digital Libraries . . . 7
  - 1.3.4 Practical Issues . . . 8
- 1.4 The Retrieval Process . . . 9
- 1.5 Organization of the Book . . . 10
  - 1.5.1 Book Topics . . . 11
  - 1.5.2 Book Chapters . . . 12
- 1.6 How to Use this Book . . . 15
  - 1.6.1 Teaching Suggestions . . . 15
  - 1.6.2 The Book's Web Page . . . 16
- 1.7 Bibliographic Discussion . . . 17

2 Modeling 19
- 2.1 Introduction . . . 19
- 2.2 A Taxonomy of Information Retrieval Models . . . 20
- 2.3 Retrieval: Ad hoc and Filtering . . . 21

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2.4 A Formal Characterization of IR Models 23
2.5 Classic Information Retrieval 24
2.5.1 Basic Concepts 24
2.5.2 Boolean Model 25
2.5.3 Vector Model 27
2.5.4 Probabilistic Model 30
2.5.5 Brief Comparison of Classic Models 34
2.6 Alternative Set Theoretic Models 34
2.6.1 Fuzzy Set Model 34
2.6.2 Extended Boolean Model 38
2.7 Alternative Algebraic Models 41
2.7.1 Generalized Vector Space Model 41
2.7.2 Latent Semantic Indexing Model 44
2.7.3 Neural Network Model 46
2.8 Alternative Probabilistic Models 48
2.8.1 Bayesian Networks 48
2.8.2 Inference Network Model 49
2.8.3 Belief Network Model 56
2.8.4 Comparison of Bayesian Network Models 59
2.8.5 Computational Costs of Bayesian Networks 60
2.8.6 The Impact of Bayesian Network Models 61
2.9 Structured Text Retrieval Models 61
2.9.1 Model Based on Non-Overlapping Lists 62
2.9.2 Model Based on Proximal Nodes 63
2.10 Models for Browsing 65
2.10.1 Flat Browsing 65
2.10.2 Structure Guided Browsing 66
2.10.3 The Hypertext Model 66
2.11 Trends and Research Issues 69
2.12 Bibliographic Discussion 69

3 Retrieval Evaluation **73**
3.1 Introduction 73
3.2 Retrieval Performance Evaluation 74
3.2.1 Recall and Precision 75
3.2.2 Alternative Measures 82
3.3 Reference Collections 84
3.3.1 The TREC Collection 84
3.3.2 The CACM and ISI Collections 91
3.3.3 The Cystic Fibrosis Collection 94
3.4 Trends and Research Issues 96
3.5 Bibliographic Discussion 96

4 Query Languages **99**
4.1 Introduction 99
4.2 Keyword-Based Querying 100

4.2.1 Single-Word Queries . . . 100
4.2.2 Context Queries . . . 101
4.2.3 Boolean Queries . . . 102
4.2.4 Natural Language . . . 103
4.3 Pattern Matching . . . 104
4.4 Structural Queries . . . 106
4.4.1 Fixed Structure . . . 108
4.4.2 Hypertext . . . 108
4.4.3 Hierarchical Structure . . . 109
4.5 Query Protocols . . . 113
4.6 Trends and Research Issues . . . 114
4.7 Bibliographic Discussion . . . 116

5 Query Operations **117**
5.1 Introduction . . . 117
5.2 User Relevance Feedback . . . 118
5.2.1 Query Expansion and Term Reweighting for the Vector Model . . . 118
5.2.2 Term Reweighting for the Probabilistic Model . . . 120
5.2.3 A Variant of Probabilistic Term Reweighting . . . 121
5.2.4 Evaluation of Relevance Feedback Strategies . . . 122
5.3 Automatic Local Analysis . . . 123
5.3.1 Query Expansion Through Local Clustering . . . 124
5.3.2 Query Expansion Through Local Context Analysis . . . 129
5.4 Automatic Global Analysis . . . 131
5.4.1 Query Expansion based on a Similarity Thesaurus . . . 131
5.4.2 Query Expansion based on a Statistical Thesaurus . . . 134
5.5 Trends and Research Issues . . . 137
5.6 Bibliographic Discussion . . . 138

6 Text and Multimedia Languages and Properties **141**
6.1 Introduction . . . 141
6.2 Metadata . . . 142
6.3 Text . . . 144
6.3.1 Formats . . . 144
6.3.2 Information Theory . . . 145
6.3.3 Modeling Natural Language . . . 145
6.3.4 Similarity Models . . . 148
6.4 Markup Languages . . . 149
6.4.1 SGML . . . 149
6.4.2 HTML . . . 152
6.4.3 XML . . . 154
6.5 Multimedia . . . 156
6.5.1 Formats . . . 157
6.5.2 Textual Images . . . 158
6.5.3 Graphics and Virtual Reality . . . 159

6.5.4 HyTime 159
6.6 Trends and Research Issues 160
6.7 Bibliographic Discussion 162

7 Text Operations **163**
7.1 Introduction 163
7.2 Document Preprocessing 165
7.2.1 Lexical Analysis of the Text 165
7.2.2 Elimination of Stopwords 167
7.2.3 Stemming 168
7.2.4 Index Terms Selection 169
7.2.5 Thesauri 170
7.3 Document Clustering 173
7.4 Text Compression 173
7.4.1 Motivation 173
7.4.2 Basic Concepts 175
7.4.3 Statistical Methods 176
7.4.4 Dictionary Methods 183
7.4.5 Inverted File Compression 184
7.5 Comparing Text Compression Techniques 186
7.6 Trends and Research Issues 188
7.7 Bibliographic Discussion 189

8 Indexing and Searching **191**
8.1 Introduction 191
8.2 Inverted Files 192
8.2.1 Searching 195
8.2.2 Construction 196
8.3 Other Indices for Text 199
8.3.1 Suffix Trees and Suffix Arrays 199
8.3.2 Signature Files 205
8.4 Boolean Queries 207
8.5 Sequential Searching 209
8.5.1 Brute Force 209
8.5.2 Knuth-Morris-Pratt 210
8.5.3 Boyer-Moore Family 211
8.5.4 Shift-Or 212
8.5.5 Suffix Automaton 213
8.5.6 Practical Comparison 214
8.5.7 Phrases and Proximity 215
8.6 Pattern Matching 215
8.6.1 String Matching Allowing Errors 216
8.6.2 Regular Expressions and Extended Patterns 219
8.6.3 Pattern Matching Using Indices 220
8.7 Structural Queries 222
8.8 Compression 222

8.8.1 Sequential Searching 223
8.8.2 Compressed Indices 224
8.9 Trends and Research Issues 226
8.10 Bibliographic Discussion 227

9 Parallel and Distributed IR **229**
9.1 Introduction 229
9.1.1 Parallel Computing 230
9.1.2 Performance Measures 231
9.2 Parallel IR 232
9.2.1 Introduction 232
9.2.2 MIMD Architectures 233
9.2.3 SIMD Architectures 240
9.3 Distributed IR 249
9.3.1 Introduction 249
9.3.2 Collection Partitioning 251
9.3.3 Source Selection 252
9.3.4 Query Processing 253
9.3.5 Web Issues 254
9.4 Trends and Research Issues 255
9.5 Bibliographic Discussion 256

10 User Interfaces and Visualization **257**
10.1 Introduction 257
10.2 Human-Computer Interaction 258
10.2.1 Design Principles 258
10.2.2 The Role of Visualization 259
10.2.3 Evaluating Interactive Systems 261
10.3 The Information Access Process 262
10.3.1 Models of Interaction 262
10.3.2 Non-Search Parts of the Information Access Process . . 265
10.3.3 Earlier Interface Studies 266
10.4 Starting Points 267
10.4.1 Lists of Collections 267
10.4.2 Overviews 268
10.4.3 Examples, Dialogs, and Wizards 276
10.4.4 Automated Source Selection 278
10.5 Query Specification 278
10.5.1 Boolean Queries 279
10.5.2 From Command Lines to Forms and Menus 280
10.5.3 Faceted Queries 281
10.5.4 Graphical Approaches to Query Specification 282
10.5.5 Phrases and Proximity 286
10.5.6 Natural Language and Free Text Queries 287
10.6 Context 289
10.6.1 Document Surrogates 289

10.6.2 Query Term Hits Within Document Content 289
10.6.3 Query Term Hits Between Documents 293
10.6.4 SuperBook: Context via Table of Contents 296
10.6.5 Categories for Results Set Context 297
10.6.6 Using Hyperlinks to Organize Retrieval Results 299
10.6.7 Tables 301
10.7 Using Relevance Judgements 303
10.7.1 Interfaces for Standard Relevance Feedback 304
10.7.2 Studies of User Interaction with Relevance Feedback Systems 305
10.7.3 Fetching Relevant Information in the Background 307
10.7.4 Group Relevance Judgements 308
10.7.5 Pseudo-Relevance Feedback 308
10.8 Interface Support for the Search Process 309
10.8.1 Interfaces for String Matching 309
10.8.2 Window Management 311
10.8.3 Example Systems 312
10.8.4 Examples of Poor Use of Overlapping Windows 317
10.8.5 Retaining Search History 317
10.8.6 Integrating Scanning, Selection, and Querying 318
10.9 Trends and Research Issues 321
10.10 Bibliographic Discussion 322

11 Multimedia IR: Models and Languages 325
11.1 Introduction 325
11.2 Data Modeling 328
11.2.1 Multimedia Data Support in Commercial DBMSs 329
11.2.2 The MULTOS Data Model 331
11.3 Query Languages 334
11.3.1 Request Specification 335
11.3.2 Conditions on Multimedia Data 335
11.3.3 Uncertainty, Proximity, and Weights in Query Expressions 337
11.3.4 Some Proposals 338
11.4 Trends and Research Issues 341
11.5 Bibiographic Discussion 342

12 Multimedia IR: Indexing and Searching 345
12.1 Introduction 345
12.2 Background — Spatial Access Methods 347
12.3 A Generic Multimedia Indexing Approach 348
12.4 One-dimensional Time Series 353
12.4.1 Distance Function 353
12.4.2 Feature Extraction and Lower-bounding 353
12.4.3 Experiments 355
12.5 Two-dimensional Color Images 357

12.5.1 Image Features and Distance Functions 357
12.5.2 Lower-bounding 358
12.5.3 Experiments 360
12.6 Automatic Feature Extraction 360
12.7 Trends and Research Issues 361
12.8 Bibliographic Discussion 363

13 Searching the Web **367**
13.1 Introduction 367
13.2 Challenges 368
13.3 Characterizing the Web 369
13.3.1 Measuring the Web 369
13.3.2 Modeling the Web 371
13.4 Search Engines 373
13.4.1 Centralized Architecture 373
13.4.2 Distributed Architecture 375
13.4.3 User Interfaces 377
13.4.4 Ranking 380
13.4.5 Crawling the Web 382
13.4.6 Indices 383
13.5 Browsing 384
13.5.1 Web Directories 384
13.5.2 Combining Searching with Browsing 386
13.5.3 Helpful Tools 387
13.6 Metasearchers 387
13.7 Finding the Needle in the Haystack 389
13.7.1 User Problems 389
13.7.2 Some Examples 390
13.7.3 Teaching the User 391
13.8 Searching using Hyperlinks 392
13.8.1 Web Query Languages 392
13.8.2 Dynamic Search and Software Agents 393
13.9 Trends and Research Issues 393
13.10 Bibliographic Discussion 395

14 Libraries and Bibliographical Systems **397**
14.1 Introduction 397
14.2 Online IR Systems and Document Databases 398
14.2.1 Databases 399
14.2.2 Online Retrieval Systems 403
14.2.3 IR in Online Retrieval Systems 404
14.2.4 'Natural Language' Searching 406
14.3 Online Public Access Catalogs (OPACs) 407
14.3.1 OPACs and Their Content 408
14.3.2 OPACs and End Users 410
14.3.3 OPACs: Vendors and Products 410

14.3.4 Alternatives to Vendor OPACs 410
14.4 Libraries and Digital Library Projects 412
14.5 Trends and Research Issues 412
14.6 Bibliographic Discussion 413

15 Digital Libraries **415**
15.1 Introduction 415
15.2 Definitions 417
15.3 Architectural Issues 418
15.4 Document Models, Representations, and Access 420
15.4.1 Multilingual Documents 420
15.4.2 Multimedia Documents 421
15.4.3 Structured Documents 421
15.4.4 Distributed Collections 422
15.4.5 Federated Search 424
15.4.6 Access 424
15.5 Prototypes, Projects, and Interfaces 425
15.5.1 International Range of Efforts 427
15.5.2 Usability 428
15.6 Standards 429
15.6.1 Protocols and Federation 429
15.6.2 Metadata 430
15.7 Trends and Research Issues 431
15.8 Bibliographical Discussion 432

Appendix: Porter's Algorithm **433**

Glossary **437**

References **455**

Index **501**

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Contents

CHAPTER 1 HUMAN FACTORS OF INTERACTIVE SOFTWARE 3
1.1 Introduction 4
1.2 Goals of System Engineering 9
1.2.1 Proper functionality 11
1.2.2 Reliability, availability, security, and data integrity 12
1.2.3 Standardization, integration, consistency, and portability 13
1.2.4 Schedules and budgets 14
1.3 Goals of User-Interface Design 14
1.4 Motivations for Human Factors in Design 16
1.4.1 Life-critical systems 16
1.4.2 Industrial and commercial uses 16
1.4.3 Office, home, and entertainment applications 17
1.4.4 Exploratory, creative, and cooperative systems 17
1.5 Accommodation of Human Diversity 18
1.5.1 Physical abilities and physical workplaces 18
1.5.2 Cognitive and perceptual abilities 20
1.5.3 Personality differences 21
1.5.4 Cultural and international diversity 23
1.5.5 Users with disabilities 24
1.5.6 Elderly users 26
1.6 Goals for Our Profession 28
1.6.1 Influencing academic and industrial researchers 28
1.6.2 Providing tools, techniques, and knowledge for systems implementers 31
1.6.3 Raising the computer consciousness of the general public 31
1.7 Practitioner's Summary 32
1.8 Researcher's Agenda 32

CHAPTER 2 THEORIES, PRINCIPLES, AND GUIDELINES 51
2.1 Introduction 52
2.2 High-Level Theories 53
2.2.1 Conceptual, semantic, syntactic, and lexical model 54
2.2.2 GOMS and the keystroke-level model 55
2.2.3 Stages of action models 57
2.2.4 Consistency through grammars 58
2.2.5 Widget-level theories 60
2.3 Object-Action Interface Model 61
2.3.1 Task hierarchies of objects and actions 63

2.3.2 Interface hierarchies of objects and actions 64
2.3.3 The disappearance of syntax 65
2.4 Principle 1: Recognize the Diversity 67
2.4.1 Usage profiles 67
2.4.2 Task profiles 70
2.4.3 Interaction styles 71
2.5 Principle 2: Use the Eight Golden Rules of Interface Design 74
2.6 Principle 3: Prevent Errors 76
2.6.1 Correct matching pairs 77
2.6.2 Complete sequences 77
2.6.3 Correct commands 78
2.7 Guidelines for Data Display 79
2.7.1 Organizing the display 80
2.7.2 Getting the user's attention 81
2.8 Guidelines for Data Entry 82
2.9 Balance of Automation and Human Control 83
2.10 Practitioner's Summary 89
2.11 Researcher's Agenda 90

CHAPTER 3 MANAGING DESIGN PROCESSES 95
3.1 Introduction 96
3.2 Organizational Design to Support Usability 97
3.3 The Three Pillars of Design 100
3.3.1 Guidelines documents and processes 100
3.3.2 User-interface software tools 102
3.3.3 Expert reviews and usability testing 103
3.4 Development Methodologies 104
3.5 Ethnographic Observation 107
3.6 Participatory Design 109
3.7 Scenario Development 111
3.8 Social Impact Statement for Early Design Review 113
3.9 Legal Issues 115
3.10 Practitioner's Summary 118
3.11 Researcher's Agenda 118

CHAPTER 4 EXPERT REVIEWS, USABILITY TESTING, SURVEYS, AND CONTINUING ASSESSMENTS 123
4.1 Introduction 124
4.2 Expert Reviews 125
4.3 Usability Testing and Laboratories 127
4.4 Surveys 132

4.5 Acceptance Tests 135
4.6 Evaluation During Active Use 145
4.6.1 Interviews and focus-group discussions 145
4.6.2 Continuous user-performance data logging 146
4.6.3 Online or telephone consultants 147
4.6.4 Online suggestion box or trouble reporting 147
4.6.5 Online bulletin board or newsgroup 148
4.6.6 User newsletters and conferences 148
4.7 Controlled Psychologically Oriented Experiments 149
4.8 Practitioner's Summary 150
4.9 Researcher's Agenda 151

CHAPTER 5 SOFTWARE TOOLS 155
5.1 Introduction 156
5.2 Specification Methods 157
5.2.1 Grammars 158
5.2.2 Menu-selection and dialog-box trees 160
5.2.3 Transition diagrams 160
5.2.4 Statecharts 162
5.2.5 User-action notation (UAN) 163
5.3 Interface-Building Tools 166
5.3.1 Design tools 168
5.3.2 Software-engineering tools 169
5.4 Evaluation and Critiquing Tools 177
5.5 Practitioner's Summary 179
5.6 Researcher's Agenda 181

CHAPTER 6 DIRECT MANIPULATION AND VIRTUAL ENVIRONMENTS 185
6.1 Introduction 186
6.2 Examples of Direct-Manipulation Systems 187
6.2.1 Command-line versus display editors versus word processors 187
6.2.2 The VisiCalc spreadsheet and its descendants 191
6.2.3 Spatial data management 192
6.2.4 Video games 193
6.2.5 Computer-aided design 197
6.2.6 Office automation 199
6.2.7 Further examples of direct manipulation 201
6.3 Explanations of Direct Manipulation 202

6.3.1 Problems with direct manipulation 204
6.3.2 The OAI model explanation of direct manipulation 205
6.4 Visual Thinking and Icons 207
6.5 Direct-Manipulation Programming 210
6.6 Home Automation 213
6.7 Remote Direct Manipulation 217
6.8 Virtual Environments 221
6.9 Practitioner's Summary 228
6.10 Researcher's Agenda 229

CHAPTER 7 MENU SELECTION, FORM FILLIN, AND DIALOG BOXES 235
7.1 Introduction 236
7.2 Task-Related Organization 237
7.2.1 Single menus 238
7.2.2 Linear sequences and multiple menus 247
7.2.3 Tree-structured menus 247
7.2.4 Acyclic and cyclic menu networks 252
7.3 Item Presentation Sequence 252
7.4 Response Time and Display Rate 254
7.5 Fast Movement Through Menus 255
7.5.1 Menus with typeahead: The BLT approach 255
7.5.2 Menu names or bookmarks for direct access 256
7.5.3 Menu macros, custom toolbars, and style sheets 257
7.6 Menu Layout 257
7.6.1 Titles 257
7.6.2 Phrasing of menu items 259
7.6.3 Graphic layout and design 259
7.7 Form Fillin 262
7.7.1 Form-fillin design guidelines 262
7.7.2 List and combo boxes 265
7.7.3 Coded fields 266
7.8 Dialog Boxes 268
7.9 Practitioner's Summary 270
7.10 Researcher's Agenda 270

CHAPTER 8 COMMAND AND NATURAL LANGUAGES 275
8.1 Introduction 276
8.2 Functionality to Support Users' Tasks 280

8.3 Command-Organization Strategies 282
8.3.1 Single command set 282
8.3.2 Command plus arguments 282
8.3.3 Command plus options and arguments 284
8.3.4 Hierarchical command structure 285
8.4 The Benefits of Structure 285
8.4.1 Consistent argument ordering 286
8.4.2 Symbols versus keywords 286
8.4.3 Hierarchical structure and congruence 287
8.5 Naming and Abbreviations 289
8.5.1 Specificity versus generality 289
8.5.2 Abbreviation strategies 290
8.5.3 Guidelines for using abbreviations 291
8.6 Command Menus 292
8.7 Natural Language in Computing 293
8.7.1 Natural-language interaction 294
8.7.2 Natural-language queries 296
8.7.3 Test-database searching 297
8.7.4 Natural-language text generation 300
8.7.5 Adventure and educational games 300
8.8 Practitioner's Summary 300
8.9 Researcher's Agenda 301

CHAPTER 9 INTERACTION DEVICES 305
9.1 Introduction 306
9.2 Keyboards and Function Keys 307
9.2.1 Keyboard layouts 308
9.2.2 Keys 311
9.2.3 Function keys 312
9.2.4 Cursor movement keys 313
9.3 Pointing Devices 315
9.3.1 Pointing tasks 315
9.3.2 Direct-control pointing devices 316
9.3.3 Indirect-control pointing devices 319
9.3.4 Comparisons of pointing devices 323
9.3.5 Fitts' Law 325
9.3.6 Novel pointing devices 326
9.4 Speech Recognition, Digitization, and Generation 327
9.4.1 Discrete-word recognition 328
9.4.2 Continuous-speech recognition 331
9.4.3 Speech store and forward 332

9.4.4 Speech generation 333
9.4.5 Audio tones, audiolization, and music 335
9.5 Image and Video Displays 336
9.5.1 Display devices 336
9.5.2 Digital photography and scanners 339
9.5.3 Digital video 339
9.5.4 Projectors, heads-up displays, helmet-mounted displays 341
9.6 Printers 342
9.7 Practitioner's Summary 343
9.8 Researcher's Agenda 344

CHAPTER 10 RESPONSE TIME AND DISPLAY RATE 351
10.1 Introduction 352
10.2 Theoretical Foundations 354
10.2.1 Limitations of short-term and working memory 355
10.2.2 Sources of errors 356
10.3 Expectations and Attitudes 358
10.4 User Productivity 361
10.4.1 Repetitive tasks 361
10.4.2 Problem-solving tasks 362
10.4.3 Summary 364
10.5 Variability 364
10.6 Practitioner's Summary 366
10.7 Researcher's Agenda 367

CHAPTER 11 PRESENTATION STYLES: BALANCING FUNCTION AND FASHION 371
11.1 Introduction 372
11.2 Error Messages 373
11.2.1 Specificity 374
11.2.2 Constructive guidance and positive tone 375
11.2.3 User-centered phrasing 376
11.2.4 Appropriate physical format 376
11.2.5 Development of effective messages 377
11.3 Nonanthropomorphic Design 380
11.4 Display Design 384
11.4.1 Field layout 387
11.4.2 Empirical results 389
11.4.3 Display-complexity metrics 391
11.5 Color 398

11.6 Practitioner's Summary 403
11.7 Researcher's Agenda 403

CHAPTER 12 PRINTED MANUALS, ONLINE HELP, AND TUTORIALS 409
12.1 Introduction 410
12.2 Reading from Paper versus from Displays 412
12.3 Preparation of Printed Manuals 414
12.3.1 Use of the OAI Model to design manuals 415
12.3.2 Organization and writing style 417
12.3.3 Nonanthropomorphic descriptions 421
12.3.4 Development process 423
12.4 Preparation of Online Facilities 425
12.4.1 Online manuals 428
12.4.2 Online tutorials, demonstrations, and animations 434
12.4.3 Helpful guides 436
12.5 Practitioner's Summary 437
12.6 Researcher's Agenda 438

CHAPTER 13 MULTIPLE-WINDOW STRATEGIES 443
13.1 Introduction 444
13.2 Individual-Window Design 448
13.3 Multiple-Window Design 455
13.4 Coordination by Tightly-Coupled Windows 458
13.5 Image Browsing and Tightly-Coupled Windows 462
13.6 Personal Role Management and Elastic Windows 468
13.7 Practitioner's Summary 472
13.8 Researcher's Agenda 472

CHAPTER 14 COMPUTER-SUPPORTED COOPERATIVE WORK 477
14.1 Introduction 478
14.2 Goals of Cooperation 479
14.3 Asynchronous Interactions: Different Time, Different Place 482
14.3.1 Electronic Mail 483
14.3.2 Newsgroups and network communities 485
14.4 Synchronous Distributed: Different Place, Same Time 488
14.5 Face to Face: Same Place, Same Time 494
14.6 Applying CSCW to Education 498
14.7 Practitioner's Summary 502
14.8 Researcher's Agenda 503

CHAPTER 15 INFORMATION SEARCH AND VISUALIZATION 509
15.1 Introduction 510
15.2 Database Query and Phrase Search in Textual Documents 513
15.3 Multimedia Document Searches 519
15.4 Information Visualization 522
15.5 Advanced Filtering 541
15.6 Practitioner's Summary 544
15.7 Researcher's Agenda 544

CHAPTER 16 HYPERMEDIA AND THE WORLD WIDE WEB 551
16.1 Introduction 552
16.2 Hypertext and Hypermedia 556
16.3 World Wide Web 560
16.4 Genres and Goals and Designers 562
16.5 Users and Their Tasks 565
16.6 Object-Action Interface Model for Web Site Design 567
16.6.1 Design of task objects and actions 567
16.6.2 Design of interface objects and actions 569
16.6.3 Case study with the Library of Congress 571
16.6.4 Detailed design issues 572
16.6.5 Web-Page design 575
16.6.6 Testing and maintenance of web sites 579
16.7 Practitioner's Summary 580
16.8 Researcher's Agenda 580

AFTERWORD SOCIETAL AND INDIVIDUAL IMPACT OF USER INTERFACES 585
A.1 Between Hope and Fear 586
A.2 Ten Plagues of the Information Age 592
A.3 Prevention of the Plagues 596
A.4 Overcoming the Obstacle of Animism 597
A.5 In the Long Run 600
A.6 Practitioner's Summary 601
A.7 Researcher's Agenda 601

Name Index 605

Subject Index 621

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FOR THE WORLD WIDE WEB, 3rd Edition

Alfred and Emily Glossbrenner

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TABLE OF CONTENTS

Introduction ix
How to Get the Most Out of This Book x
How the Book Is Organized xi

PART 1: SEARCH BASICS 1

Chapter 1: Search Engines and How They Work 3
The Perils of Internet Searching 4
Search Engines to the Rescue 5
The Big Six Search Engines 6
How Search Engines Work 9
More Information for Webmasters and Others ... 13

Chapter 2: Unique Keywords 17
The Challenge of Full-Text Searching 18
Choosing the Right Keywords 19

Chapter 3: Basic Search Tools 23
Searching in Plain English 24
Searching for Multiple Words and Phrases 26
AND Searches 27
OR Searches 28
NOT Searches 29
NEAR Searches 30
Parentheses and Nested Searches 31
Using Wildcards 32
Dealing with Stopwords 33

Chapter 4: Tips and Techniques 35
The Seven Habits of Highly Effective Web Searchers 36
Customizing Your Web Browser 43
Keyboard Shortcuts and Other Timesavers 46

PART 2: THE BIG SIX SEARCH ENGINES 51

Chapter 5: AltaVista 53
The AltaVista Home Page 55
Searching with AltaVista 60
Improving Results with Field Search 66

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Using Advanced Search 69
Customizing AltaVista 74

Chapter 6: Google **79**
The Google Home Page 81
Searching with Google 84
Using Advanced Search 90
Customizing Google 95

Chapter 7: HotBot **97**
The HotBot Home Page 99
Searching with HotBot 104
Improving Results with Field Search 110
Customizing HotBot 114

Chapter 8: Lycos **117**
The Lycos Home Page 120
Searching with Lycos 125
Using Advanced Search 130
Customizing Lycos 135

Chapter 9: Northern Light **139**
The Northern Light Home Page 142
Searching with Northern Light 146
Improving Results with Field Search 152
Customizing Northern Light 154

Chapter 10: Yahoo! **157**
The Yahoo Home Page 159
Searching with Yahoo 163
Using Advanced Search 167
Using Yahoo's Web Directory 170
Customizing Yahoo 173

Part 3: Other General-Purpose Search Engines **177**

Chapter 11: AOL Search **179**
The AOL Search Home Page 182
Searching with AOL Search 186

Chapter 12: Excite **193**
The Excite Home Page 195
Searching with Excite 198

Chapter 13: MSN Search **205**
The MSN Search Home Page 208
Searching with MSN Search 211

Chapter 14: Netscape Search 217
The Netscape Search Home Page 220
Searching with Netscape Search 223

PART 4: SPECIALIZED SEARCH ENGINES 229

Chapter 15: Deja for Newsgroup Searches 231
Understanding Newsgroup Names 234
Searching Newsgroups 236

Chapter 16: Topica for Mailing List Searches 241
Searching for Mailing Lists 243

Chapter 17: Argus Clearinghouse Subject Guides 247
Finding Subject Guides 249

Chapter 18: Infospace People-Finding Tools 253
Finding E-mail Addresses 255
Finding Phone Numbers and Addresses 258

Chapter 19: Zip2 for Business Searches 261
Finding Businesses with Zip2 264

Chapter 20: Other Search Tools from A to Z 269
Amazon.com 270
CDNOW 270
Centers for Disease Control and Prevention 271
CNET Shareware.com 272
Consumer World 273
CuisineNet Menus Online 274
Edmund's Automobile Buyer's Guides 275
Electric Library 275
Encyclopedia Britannica 276
Epicurious Food 277
Expedia Travel Information 277
FedEx Package Tracking 278
FindLaw Legal Resources 278
FirstGov 279
Information Please Almanacs 280
Internet Movie Database 280
MapQuest 281
Microsoft Product Support Services 281
Monster Career Center 282
New York Times Book Reviews 282
Parent Soup 283
Peterson's Education & Career Center 283

Project Gutenberg E-Texts 284
Tax Forms and Information 284
TV Guide Online 285
UPS Package Tracking 285
Wall Street Journal Online 286
ZDNet Computer Information 286
Zip Code Lookups 287

Appendix A: Search Engines Quick Reference 289
AltaVista 290
AOL Search 293
Argus Clearinghouse 294
Deja 295
Excite 296
Google 297
HotBot 298
InfoSpace 300
Lycos 301
MSN Search 303
Netscape Search 305
Northern Light 306
Topica 307
Yahoo 308
Zip2 309

Appendix B: Internet Domains and Country Codes 311

Appendix C: Usenet Newsgroup Hierarchies 317

Appendix D: Web Searcher's Toolkit 321
Essential Tools for Windows Users 324
Essential Tools for Macintosh Users 329

Index 333

Features Comparison Chart 348

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CONTENTS AT A GLANCE

Introduction xvi
Chapter 1: Getting Started 1
Chapter 2: Introduction to Notes Databases 18
Chapter 3: Working with Database Documents 56
Chapter 4: Using Notes Mail 94
Chapter 5: Managing Databases 136
Chapter 6: More About Editing Documents 174
Chapter 7: Private Views 204
Chapter 8: Creating a Private Database 228
Chapter 9: Making a Database Public 266
Chapter 10: Customizing Your Workstation 278
Chapter 11: Incorporating Other Forms of Data 310
Appendix A: Keystroke Reference 326
Appendix B: Notes Database Templates 332
Index 336

Table of Contents

Introduction xvi

Chapter 1: Getting Started 1

An Overview of Notes 2

About the Notes Environment 2

The Notes Workstation and the Notes Server 3

Notes Applications 3

Notes Mail 5

Touring the Notes Environment 5

Quick Review of Mouse Skills 5

Starting Notes 6

Exploring the Notes Workspace 9

Organizing Database Icons 11

Labeling Workspace Pages 13

Exiting Notes 16

Summary 16

If You're Stopping Here 17

Chapter 2: Introduction to Notes Databases 18

Exploring a Sample Database 20

Opening a Database 20

Understanding a Hierarchical View 24

Browsing Through Database Documents 26

Collapsing and Expanding a View 29
Using Different Views of a Database 32
Restricting a View 34
Closing a Database 37
Examining Different Types of Notes Applications 38
Adding Several Databases to the Workspace 38
Examining a Discussion Application 40
Examining a Broadcast Application 41
Examining a Reference Application 43
Examining a Tracking Application 44
Getting Help 47
Examining the Help Menu 47
Navigating in the Help System 48
Examining the Notes Help Database 51
Summary 51
If You're Stopping Here 54

Chapter 3: Working with Database Documents 56

Composing a Document 58
Composing a New Document 59
Entering Data in a Text Field 60
Entering Data in a Time/Date Field 62
Selecting Options in a Keyword Field 63
Entering Data in a Number Field 66
Entering Data in a Rich-Text Field 67
Saving and Closing a Document 67

Composing Response Documents 70
Composing a Response to a Main-Topic Document 71
Composing a Response to a Response Document 73
Editing Documents 74
Using SmartIcons 74
Opening a Document in Edit Mode 76
Moving Text in a Document 79
Copying Text in a Document 80
Checking Spelling 81
Managing Documents 83
Searching through Documents and Views 84
Marking Documents as Read or Unread 85
Printing Documents and Views 87
Summary 89
If You're Stopping Here 92

Chapter 4: Using Notes Mail 94
Introduction to Notes Mail 96
Examining Your Mail Database 97
Composing and Sending Memos 99
Composing a Memo Document 100
Specifying Mail-Delivery Options 103
Sending a Memo Document 104
About Other Mail Features 107
Using a Name & Address Book to Address a Memo 107
Pasting a Different Document into a Memo 109
Attaching a File to a Memo 112

Saving a Memo without Mailing It 113
Mailing a Saved Memo 115
Managing Your Mail 117
Working with Attachments 117
Replying to a Memo 119
Forwarding a Memo 121
Categorizing Documents 124
Deleting and Undeleting Documents 127
Creating Mail Groups 129
Composing a Mail Group 129
Using a Group Name 131
Summary 133
If You're Stopping Here 134

Chapter 5: Managing Databases 136
Getting Information about Databases 138
Displaying Database Information 138
Scanning for Unread Documents 142
Notes Security 145
Understanding Access Control 145
Examining an Access Control List 146
Removing a Database Icon from the Workspace 149
Securing Databases 150
Copying Databases 151
Creating a Replica of a Database 152
Creating a Document in the Replica Database 154
Replicating Databases 155

Deleting a Database 158
More about Searching Databases 159
Opening an Indexed Database 159
Using the Query Builder to Search a Database 160
Refining a Search 165
Searching Using a Form 167
Indexing Databases 168
Creating an Index for a Database 169
Examining the Indexed Database 171
Summary 171
If You're Stopping Here 173

Chapter 6: More about Editing Documents 174
Changing the Appearance of Text 176
Using the Text Menu to Apply Character Formatting 177
Applying Paragraph Formatting 179
Using the Ruler to Apply Tab Stops 181
Creating DocLinks 183
Creating a DocLink 184
Using a DocLink to View a Document 186
Inserting Tables 186
Inserting a Table 187
Formatting a Table 189
Encryption 190
Creating an Encryption Key 192
Adding an Encryption Key to a Document 193
Sending an Encryption Key 195

Accepting an Encryption Key 197
Deleting an Encryption Key 200
Summary 201
If You're Stopping Here 203

Chapter 7: Private Views 204
Understanding the Structure of a View 206
Examining the Structure of a Document 208
Examining the Structure of a View 209
Creating a Private View 212
Creating a Private Copy of an Existing View 213
Moving and Deleting Columns in a View 215
Modifying a View's Selection Formula 217
Modifying Column Definitions 220
Summary 225
If You're Stopping Here 227

Chapter 8: Creating a Private Database 228
Using a Template to Create a Database 230
Planning a Database 230
Creating a New Database from a Template 232
Examining the About *Database Name* Document 235
Modifying Forms 236
Examining the Default Template Forms 236
Deleting a Form 239
Changing Form Attributes 240
Adding or Modifying Static Items on a Form 242

Modifying Field Definitions 243
Adding a New Field to a Form 249
Testing the New Form 251
Hiding or Unhiding Parts of a Form 253
More about Creating Views 255
Creating a New View 255
More about Column Definitions 257
More about Modifying View Attributes 261
Testing the Database 261
Summary 263
If You're Stopping Here 264

Chapter 9: Making a Database Public 266
More about Access Levels 268
Creating an Access Control List 269
Preparing to Roll Out a Database 272
Making a Template from the Database 272
Making the Database Available to Other Users 274
Examining Replication Settings 275
Notifying Other Users that the Database is Available 276
Summary 276
If You're Stopping Here 277

Chapter 10: Customizing Your Workstation 278
Changing User and Mail Options 280
More about Scanning for Unread Documents 280

Examining Other User Setup Options 282
Examining User ID Information and Changing Your Password 284
Changing Mail Setup Options 286
Customizing Icons 287
Editing a Database Icon 287
Copying a Database Icon 290
Customizing SmartIcons 292
Creating Macros 294
Using Button Macros 295
Using Macros to Manage Documents 300
Summary 307
If You're Stopping Here 308

Chapter 11: Incorporating Other Forms of Data 310
Object Linking and Embedding 312
Creating a Linked Object 312
Embedding an Object 316
Examining the Linked and Embedded Objects 318
Exporting Documents and Views 321
Exporting a Document to a Text File 321
Exporting a View to a Lotus 1-2-3 File 322
Importing Other File Formats 324
Summary 325
If You're Stopping Here 325

Appendix A: Keystroke Reference 326
General Commands 328
Reading Documents 328
Editing Documents 329
Working with Views 330

Appendix B: Notes Database Templates 332
Notes Application Templates 334

Index 336

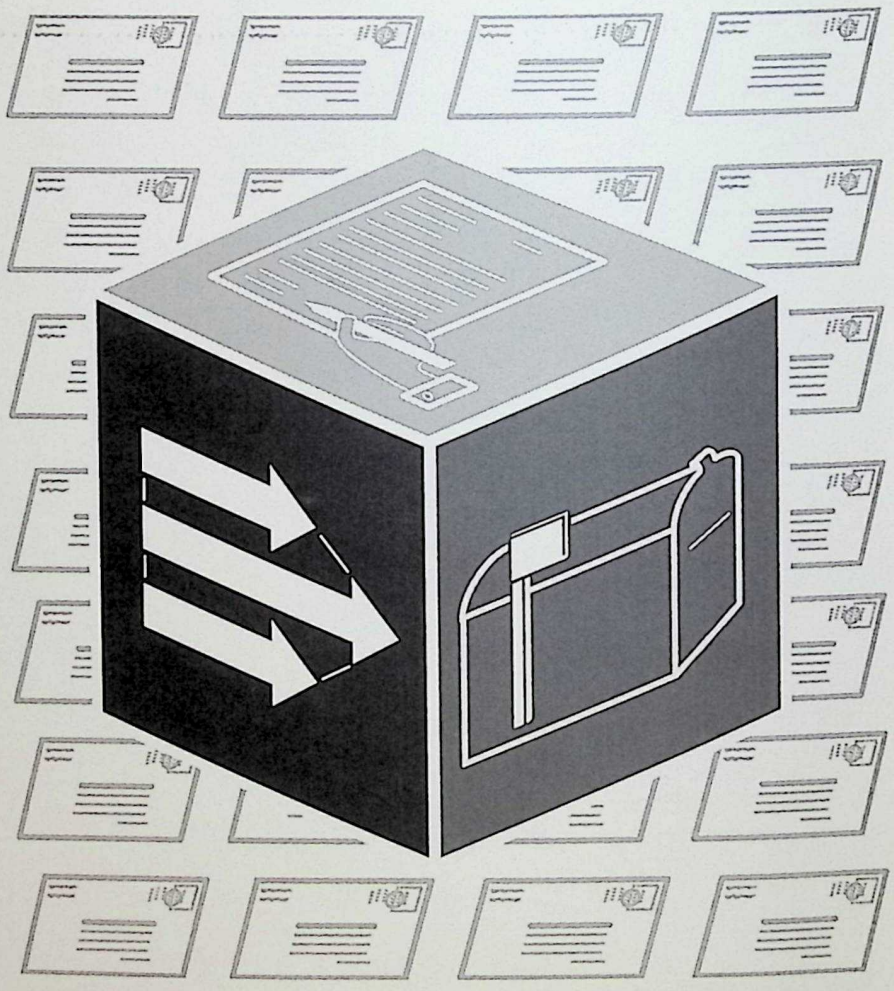
CHAPTER 3: WORKING WITH DATABASE DOCUMENTS

Composing a Document

Composing Response Documents

Editing Documents

Managing Documents



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Documents, which are the building blocks of Notes data bases, can look very different in different databases. There are, however, some things that all documents have in common. In this chapter, you will learn how to create documents by using forms. We will discuss the various types of fields, the building blocks of documents. You will also learn how to edit documents, as well as how to manage them after you create them.

When you're done working through this chapter, you will know

- How to compose main-topic and response documents
- How to enter information in fields
- How to edit documents
- How to search through and print documents
- How to mark documents as read or unread

COMPOSING A DOCUMENT

So far, we've been telling a little white lie about the Compose menu. We've been saying that the menu lists *documents* that can be created in a database. The truth is, the Compose menu actually contains a list of *forms* from which you create documents. A form is a blank version of a document, and you turn it into an actual document by filling in its blanks and then saving it in a database. Forms are part of a database's design and are created by the database designer.

Each blank area in a form is called a *field* and can contain a particular kind of data. A field can be one of two main types:

- In *editable fields*, you can enter or change information. The subject line or the body of a document are examples of this kind of field.
- *Computed fields* supply information automatically. In most cases, you cannot change the information in a computed field. The name of the author of a document and the date a document was composed are examples of information that might be contained in this type of field. A computed field might also combine information from two or more other fields.

Beyond these two broad types, fields are also categorized by the type of data that they can contain. The data type of field not only determines what data the field can contain, but also how you can enter that data. The field data types you will encounter most often are

- Text
- Rich text
- Number

- Time/date
- Author name
- Keyword

We will discuss each data type in detail later in this chapter.



COMPOSING A NEW DOCUMENT

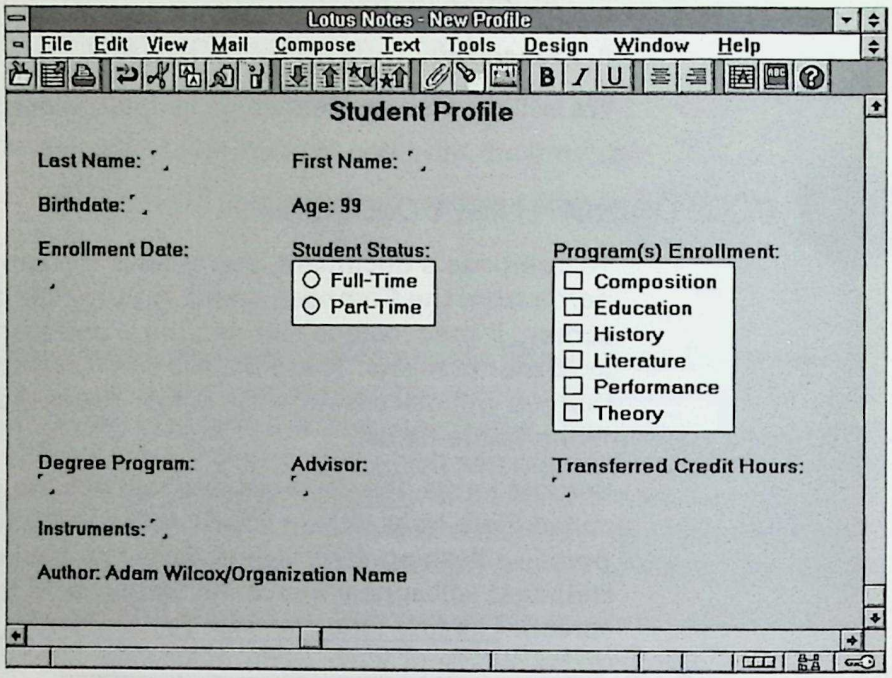
To compose a document, you choose the appropriate form name from the Compose menu. A form then appears on the screen. It may include text, graphics, and blank areas enclosed in corner brackets. These blank areas—and some other areas that we will discuss—are the fields. You complete the form by filling in the fields.

In most forms, the database designer has provided helpful hints, called *Field Help*, to help you fill in the form. When the *insertion point*—a flashing vertical line—is in a particular field, its Field Help text will appear above the Status bar at the bottom of the screen. The first time you wish to use Field Help, you must turn it on by choosing *View, Show Field Help.* After you turn Field Help on once, it will stay on until you turn it off, even if you exit and restart Notes.

Let's begin to compose a new document in the ABC Students database:

1. Select the **ABC Students** database icon (click on it). To compose a document in a database, it is not necessary to open the database; selecting its icon is good enough.
2. Choose **Compose, Student Profile** and observe the form that appears on the screen (see Figure 3.1). Fields are located in various parts of the form, labeled with descriptive text. Some of the fields are blank areas enclosed by corner brackets, others are lists of options. The Author field displays your name (and your company's name); this is an example of a computed field. The insertion point is located in the first editable field, which is labeled *Last Name.*
3. Choose **View, Show Field Help** to display text about the current field above the Status bar at the bottom of the screen. Field Help tells you that this field is a *required field* (you will not be able to save this document without filling in all the required fields) and that you should enter the student's last name.

Figure 3.1 **The blank Student Profile form**





ENTERING DATA IN A TEXT FIELD

A *text field* accepts any character from the keyboard and can hold up to 15 kilobytes of text (or 15,000 characters—plenty for most purposes). Text fields do have certain limitations, which we will discuss when we introduce the rich-text data type later in this chapter.

You enter information in a text field by placing the insertion point within the corner brackets and typing. You can place the insertion point in any field by clicking there with the mouse pointer. In most cases, you can also move between fields by pressing Tab.

If you make a mistake while entering information in a field, you can make corrections in a number of ways.

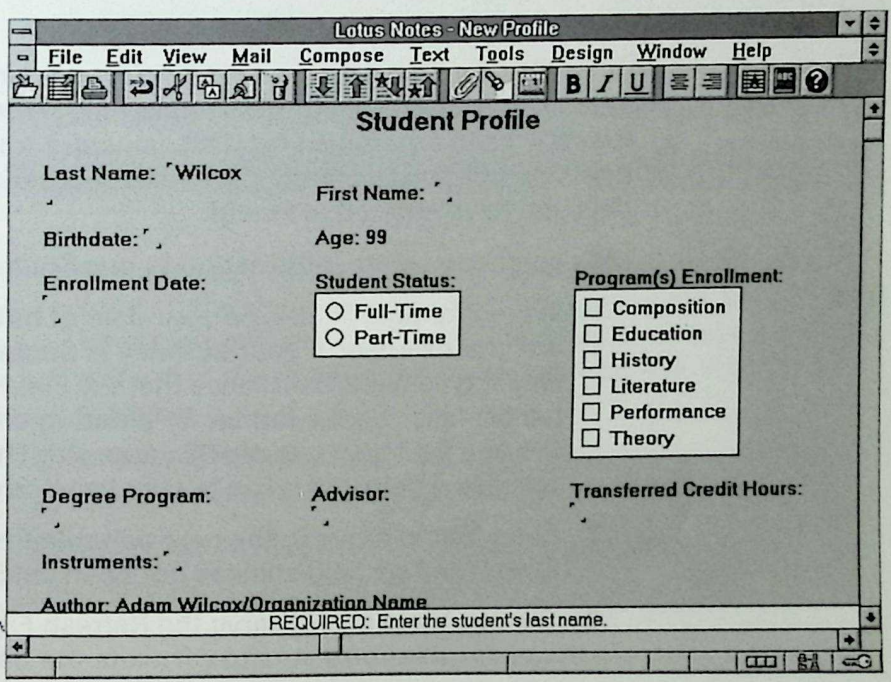
- Press Backspace to delete the character before (to the left of) the insertion point.
- Press Ctrl+Backspace to delete the word before the insertion point.

- To delete a large area of text, drag over it with the mouse and then press Del.

Let's enter some information in a couple of text fields:

1. Make sure the insertion point is within the corner brackets next to the text *Last Name*, and then type your last name. As you type, the characters appear in the field.
2. Press **Enter** to attempt to move to the next field. Unfortunately, the Enter key does different things in different types of fields. In a text field, pressing Enter creates a new line in the field (see Figure 3.2).

Figure 3.2 **Creating a new line in a text field**



Where From? Field Help (54)

3. Press **Backspace** to delete the new line you just inserted, and then press **Tab** to move to the next field (it is labeled *First Name*).
4. Type **Milo**, even though this is probably not your first name. We're doing this because we need a word to delete.

5. While holding down the **Ctrl** key, press **Backspace** to delete the word *Milo*.
6. Type your first name and then press **Tab** to move to the Birthdate field.



ENTERING DATA IN A TIME/DATE FIELD

As in a text field, you enter data in a time/date field by typing. Dates should be entered in either *MM/DD/YY* or *MM-DD-YY* format, depending on how your Notes server is set up. Times should be entered in *HH:MM:SS* format, and you can also include the text *AM* or *PM* after a time.

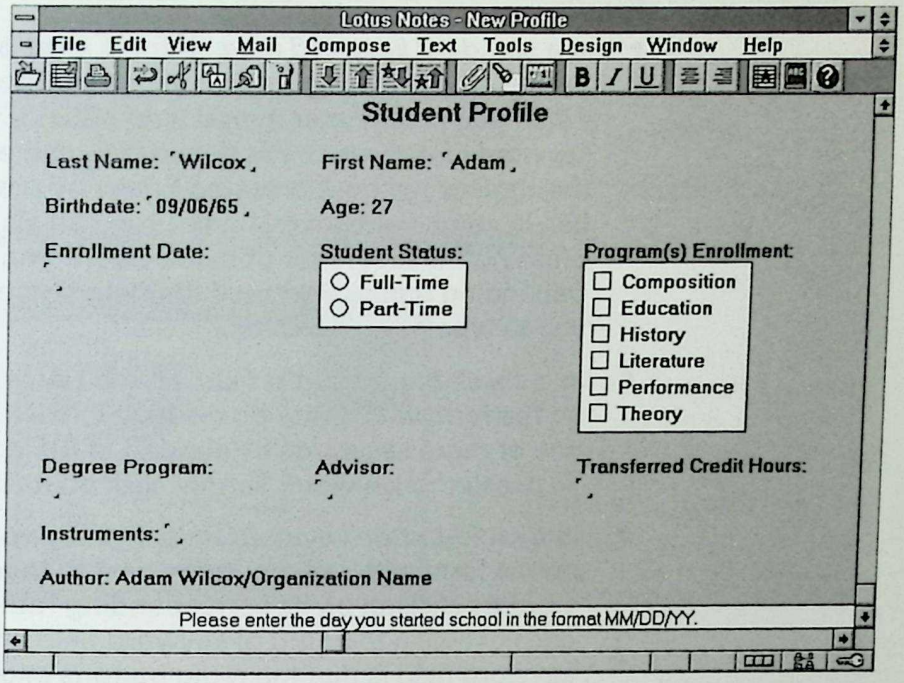
Note: A nice feature of time/date fields is that you can also use the words *today* and *yesterday* as shortcuts for entering today's or yesterday's date.

While you are composing a document, you can use the *View, Refresh Fields* command to calculate fields based on the information you have entered so far. This is useful for two reasons: first, it calculates any calculated fields; and second, it verifies that the data you have entered are valid.

Let's enter some date information in our Student Profile:

1. In the Birthdate field, type your date of birth in *MM/DD/YY* format (for example, if your birthday is September 6, 1965, you would type 09/06/65). Notice that the Field Help above the Status bar tells you the format for entering dates. Also notice that the Age field says you are 99 years old. This is because it is a calculated field, but it has not yet been calculated.
2. Press **Tab** to move to the next editable field, Enrollment Date. The Age field still has not been calculated.
3. Choose **View** and observe the Refresh Fields command. You can use this command to calculate the fields on a form while you compose a document. Notice that the F9 key is a shortcut for issuing this command.
4. Choose **Refresh Fields** to calculate the fields based on the information you have entered so far. The computed Age field should now display your correct age (see Figure 3.3).

Figure 3.3 **Refreshing a calculated field**



Note: If your server is set up to accept dates in *MM-DD-YY* format, then you may get an error message in the Age field when you refresh the fields. If this happens, select the information in the Birthdate field and reenter it in *MM-DD-YY* format.

5. In the Enrollment Date field, type **today.** You can use the word *today* as a shortcut for entering today's date.
6. Press **Tab** to move to the Student Status field.



SELECTING OPTIONS IN A KEYWORD FIELD

A *keyword field* provides a list of choices from which you can choose one or more keywords, depending on the type of keyword field. For example, in the ABC Students database, the Student Profile Form contains a keyword field called Student Status that allows you to choose between the keywords *Full-Time*

and *Part-Time*. A database designer can define three types of keyword fields:

- In a *standard keyword field*, there is a list of choices defined by the database designer, but you do not see them on the form. When you press Enter in this type of field, you will see a list of keywords from which to choose. You can also cycle through the choices (without pressing Enter) by pressing the Spacebar. In some fields of this type, you can also make choices by pressing the first letter of the keyword you wish to choose. Depending on the design of the field, it may or may not allow you to type new keywords.
- In a *check-box keyword field*, all the keywords are displayed on the form with check boxes next to them. You can select one or more keywords by clicking in the appropriate boxes. To deselect a keyword, simply click on its box again.
- In a *radio-button keyword field*, the keywords are displayed on the form with radio buttons next to them. You select a keyword by clicking on its corresponding radio button. The difference between this kind of keyword field and a check-box keyword field is that the radio buttons allow you to choose only one keyword from the list.

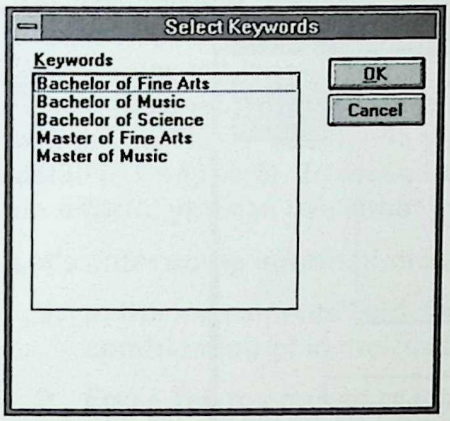
If there is an underline flashing below an option in either a radio-button or check-box keyword field, you can also select that option by pressing Enter.

Let's explore the three types of keyword fields in our Student Profile form:

1. Make sure that there is a flashing underline below the Full-Time option in the Student Status field, and then press **Enter**. The radio button next to the Full-Time option is now on, indicating that this option is selected.
2. Click on the radio button for the **Part-Time** option. Notice that when you select a different option in a radio-button keyword field, any other selected option is turned off.
3. In the Program(s) Enrollment field, click in the check box for the **Composition** option. An *X* appears in the check box.
4. Click in the **Theory** check box. Notice that both *Composition* and *Theory* are now selected.
5. Click in the **Theory** check box again to deselect the option.

6. Press **Tab** to move to the Degree Program field. Field Help tells you to press Enter to see a list of choices for this standard keyword field.
7. Press **Enter** to display the Select Keywords dialog box (see Figure 3.4).

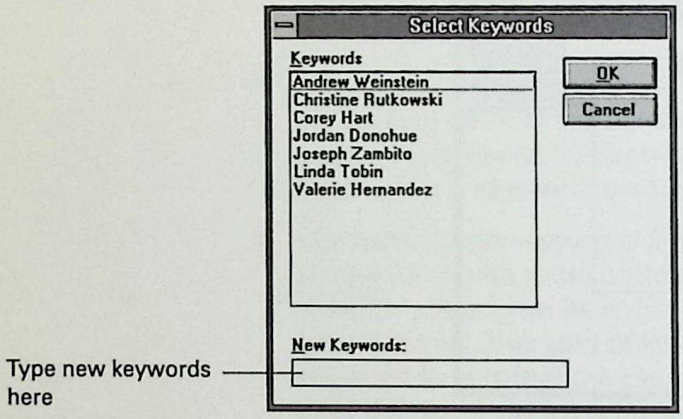
Figure 3.4 **The Select Keywords dialog box**



8. In the Keywords list, select **Bachelor of Music** and then click on **OK**. The selected keyword appears in the Degree Program field.
9. Move to the Advisor field and press **Spacebar** several times to display the available keywords one at a time.
10. Press **Del** to delete the selected keyword, and then press **a** to display a keyword beginning with the letter *a*. The name *Andrew Weinstein* appears. If you are familiar with the keyword list, this is a good way to select keywords. If more than one keyword begins with a given letter, Notes inserts the keyword that first appears in the alphabetical order (if you press the same letter again, Notes inserts the next keyword that begins with that letter).
11. Type **e**. Notes beeps at you because there are no keywords that begin with the letter *e,* and because you cannot type a new keyword directly into a keyword field.

12. Press **Enter** to open the Select Keywords dialog box. Notice that this dialog box, unlike the last one you saw, has a New Keywords box at the bottom of it (see Figure 3.5). This means that the database designer decided to allow users to create new keywords in this field.

Figure 3.5 **A keyword field in which you can enter new keywords**



13. In the New Keywords box, type **Aziz Ibrahim** and then press **Enter**. The new keyword appears on the form.

    Note: When you type new keywords in the Select Keywords dialog box, they are not added to the permanent keywords list.

14. Press **Tab** to move to the Transferred Credit Hours field.



ENTERING DATA IN A NUMBER FIELD

A *number field* accepts any data that can be used in calculations. You enter information in a number field by typing. Let's try it:

1. In the Transferred Credit Hours field, type **18 hours**. You have entered both a number and some text in this number field. We'll soon see whether this is kosher.

2. Press **Tab** to move to the Instruments field.



ENTERING DATA IN A RICH-TEXT FIELD

A *rich-text field* is a more versatile version of a text field. In a regular text field, you can apply formats (such as bold, italic, and so on) only to the field as a whole. A rich-text field allows you to format characters, words, and paragraphs individually. This type of field can also be much larger than a regular text field, accommodating up to 21,509 paragraphs of text.

As in a text field, you enter information in a rich-text field by typing. The Tab key, however, works differently in a rich-text field than it does in any other type of field. Pressing Tab in this type of field moves the insertion point to the next *tab stop* within the field (if you have worked with word processing software, this concept will be familiar to you; if not, you will learn about it in greater detail in Chapter 6). To move from a rich-text field to the next field on a form, you can use either the mouse or the arrow keys.

Let's enter some information in a rich-text field:

1. In the Instruments field, type **violin, piano, and flute** (or any combination of instruments that moves your soul).
2. Press **Tab** to attempt to move to the next editable field. The insertion point moves to the next tab stop in the Instruments field instead. You can use the mouse to move to another field.
3. Attempt to click in the Author field. You cannot change the data in this field because it is computed.
4. Compare your screen to Figure 3.6. Although some of your data will differ slightly, you should make sure that all the same fields have some information in them.

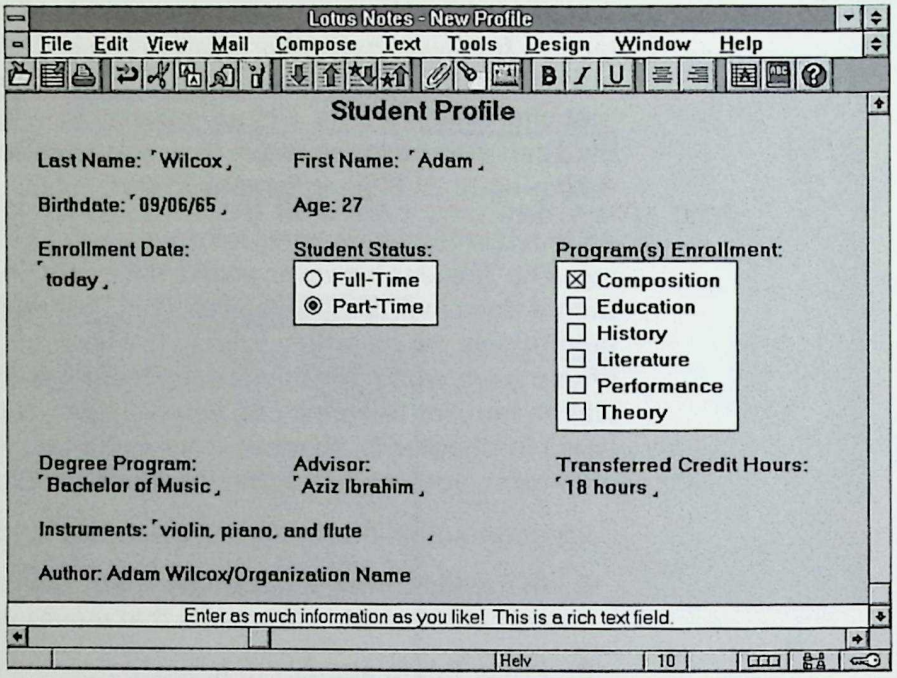


SAVING AND CLOSING A DOCUMENT

After you enter all the necessary information in a form, you must then add it to the database. You do this by saving the document, at which point it becomes part of the database. Unlike electronic mail, you do not *send* a document somewhere—you simply save it. There are two primary ways to save a document:

- Choose *File, Save* (or click on the File Save SmartIcon; it is the first SmartIcon on the left in the default set). This method saves the document but also leaves it open; it is a good choice if you want to save a document while continuing to work on it.

Figure 3.6 **The author's completed Student Profile**



- Close the document (double-click the right mouse button or press Esc). When you close a document that you are either composing or editing, a dialog box appears, asking if you want to save the document. Click on Yes to close and save the document, click on No to close the document without saving it, or click on Cancel to return to the document without saving it.

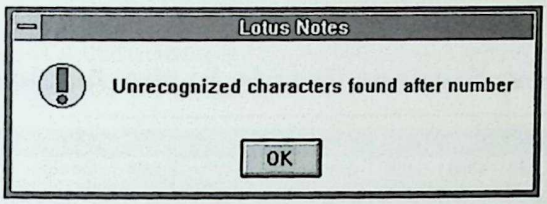
Sometimes, when you are looking at a view, you may not see all the documents that should be displayed. This often happens with *shared databases* (databases that are stored on a server) when someone saves a document to the database while you are in one of its views. You can update a view that you are looking at by choosing View, Refresh View (or by pressing F9).

Note: Because all the databases with which you work in this book are private (stored on your hard drive), this issue will not come up in the book. When using Notes at work or school, however, you will want to use the Refresh command (the F9 key) often. You should experiment with this command on your own—don't worry, it can't do any harm.

Let's save our Student Profile:

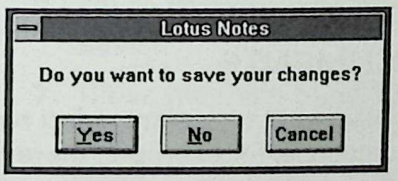
1. Click on the **File Save** SmartIcon (it is the first SmartIcon on the left) to save the current document. Notes displays an error message having to do with the number field (see Figure 3.7).

Figure 3.7 **A Notes error message**



2. Click on **OK** to clear the error message from the screen.
3. In the Transferred Credit Hours field, select (drag over) the text **hours**, and then press **Del** to delete it.
4. Press **F9** to refresh the fields and verify that your input is acceptable. No error message appears this time. Notice also that the text *today* in the Enrollment Date field has been converted to the current date.
5. Close the document by either double-clicking the right mouse button or pressing **Esc**. A message asks if you want to save this new document (see Figure 3.8).

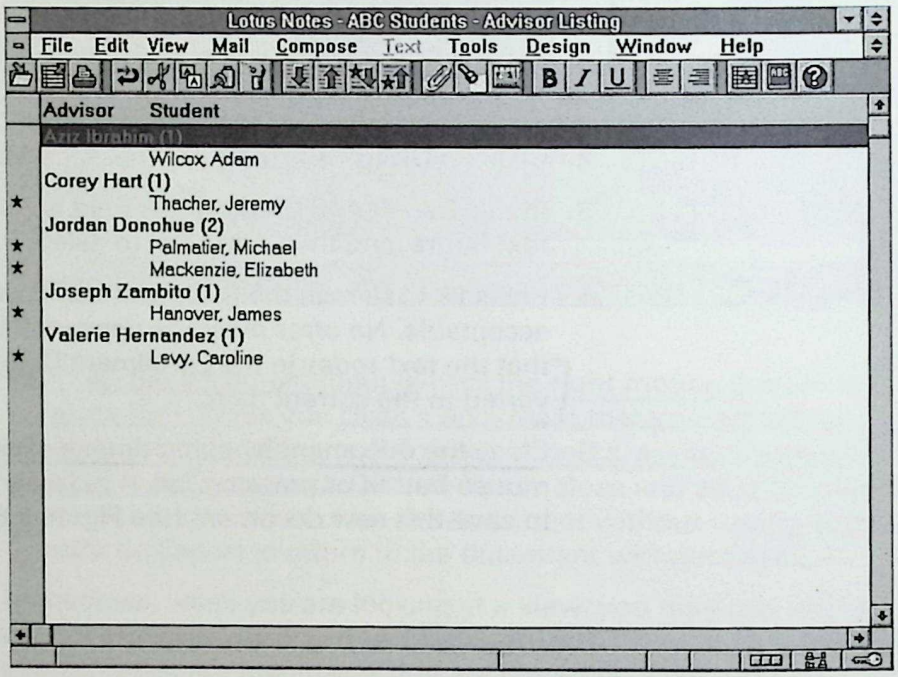
Figure 3.8 **Closing and saving a document**



6. Click on **Yes** to save and close the document.

7. Open the **ABC Students** database and change to the Student Listing view (if necessary). Your Student Profile document appears in the view.
8. Change to the Advisor Listing view. There is a new category in the view for the new advisor (Aziz Ibrahim), and your Student Profile is listed in this category (see Figure 3.9).
9. Change back to the Student Listing view and close the database.

Figure 3.9 **The new Student Profile in the Advisor listing**



COMPOSING RESPONSE DOCUMENTS

Not all databases have forms for composing response documents. In the ABC News database, for example, there is only one form, the main-topic News Item form. In some databases you can respond only to main-topic documents; that is, if you try to respond to a response document, the database will treat your response as if it were associated with the original main topic (the ABC Students database works this way). In still other databases, you can respond to any document (as with the ABC Discussion database).



COMPOSING A RESPONSE TO A MAIN-TOPIC DOCUMENT

You can compose a response to a document either from within the document itself or from within a view. To do so,

- Either open the document to which you wish to respond or select it in a view.
- Choose the appropriate response form from the Compose menu.
- Fill in the fields and save the document.

Let's compose a response to a main-topic document in the ABC Discussion database:

1. Open the **ABC Discussion** database and verify that you are in the Main View.
2. Open the main-topic document **Lunch-time series**. You will compose a response to this document. You can also compose a response to a document without opening it by selecting it in a view.
3. Choose **Compose, Response** and observe the response form (see Figure 3.10). There are two computed fields, Author and Date, which have been filled in automatically. There are two editable fields: one is labeled *Key Thought,* and the other has no label. Often, a rich-text field that is meant to contain the bulk of the text in a document will have no label. Such a field is usually called the body field.
4. In the Key Thought field, type **Great idea!** and then press **Tab** to move to the unlabeled body field.
5. In the body field, type **I think this is a great idea, but the series will need a catchy name. How about Noontime Notes?**
6. Close the response document (press **Esc**) and click on **Yes** to save it.
7. Close the main-topic document and observe the placement of your response document in the view (see Figure 3.11).

   Note: If this were a shared database, you could press F9 at this point to refresh the view and see any documents that your coworkers had added since you opened the view.

Figure 3.10 **A response form**

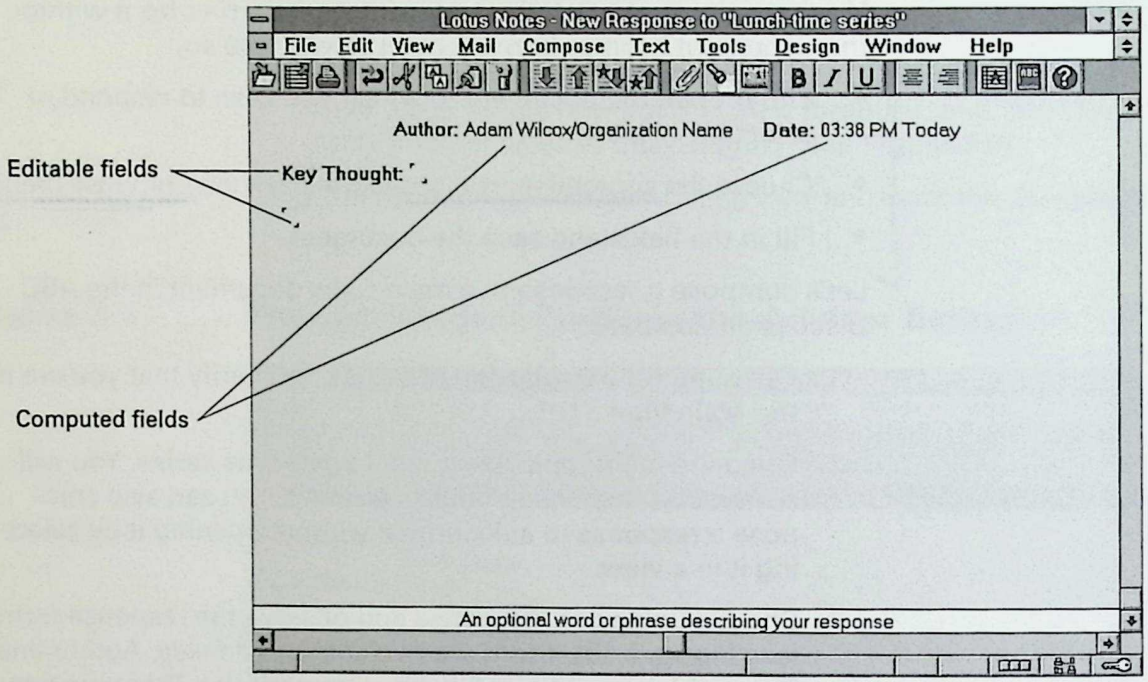


Figure 3.11 **The new response document displayed in the view**

