

INDEX

Symbols

- + (addition) operator, 234
- * (asterisk), 213
- / (division) operator, 234
- = (equality) operator, 233
- ^ (exponential) operator, 234
- > (greater than) operator, 233
- >= (greater than or equal) operator, 233
- \ (integer division) operator, 234
- < (less than) operator, 233
- <= (less than or equal) operator, 233
- * (multiplication) operator, 234
- <> (not equal) operator, 233
- (unary) operator, 234

A

- Abs function, 251
- Access Data Collection.
See ADC
- Access reports.
See reports

- action queries
 - append queries, 309
 - delete queries, 306-307
 - make-table queries, 307-308
 - overview, 304
 - update queries, 304-306
- ActiveX controls
 - calendars, 71
 - overview, 67-68
 - scrollbars, 69-71
 - spin buttons, 68-69
- ADC (Access Data Collection)
 - managing replies, 75
 - replying to email, 74
 - sending email, 72-74
- Add Existing Fields command (Design menu), 120
- Add New Record command button, 101
- addition operator (+), 234
- ages, calculating, 249-250
- aggregate functions
 - aggregate operations, 287-288
 - combining with totals, 295-296
 - table of, 294-295
- aligning controls
 - control edges, 35-36, 134
 - spacing between controls, 36
 - to grid, 35, 134
- All Pages value (Page Header property), 118
- ALL predicate (SELECT statement), 344
- Allow Additions property (forms), 27
- Allow Deletions property (forms), 27
- Allow Edits property (forms), 27
- And filter, 206
- And operator, 236-237, 298-299
- append queries, 309, 353-354
- Apply Form Filter command button, 101
- arguments (of functions), 242
- arithmetic operators, 234-235
- Arrange menu commands
 - Control Margins, 38
 - Group, 38, 135
 - Size To Fit, 34, 132
 - Size To Grid, 34, 132

Size To Narrowest, 34
 Size To Shortest, 34
 Size To Tallest, 34
 Size To Widest, 34
 Tab Order, 40
 Ungroup, 39, 136
Asc function, 243
Ascending sorts, 200
Associate Label dialog box, 42
associating macros
 with command
 buttons, 172
 with report events, 173
asterisk (*), 213
Atn function, 251
audience of business reports, 144
Auto Dialer command button, 101
AutoCalc data fields
 calculation type
 commands, 320
 inserting into
 PivotTables, 318
 summary commands,
 318-319
AutoFilter feature (PivotTables), 332
AutoFormat Wizard, 19-20, 125-126
Average command (AutoCalc), 319
Avg function, 288, 294

B

backgrounds
 form backgrounds
 color, 23-24
 pictures, 24-25
 report backgrounds, 126
 color, 127
 pictures, 127-128
base controls, 35
Beep action (macros), 171
Between...And operator, 235
Bound Column property (lists), 67
bound controls
 adding to forms, 17-18
 adding to reports, 120
 converting unbound
 controls to, 39
 overview, 16
 properties, 16-17, 119
Bring To Front command, 39
business forms. *See* forms
business queries, 216-217
business reports
 audience of, 144
 colors
 custom colors, 152
 design tips, 152-153
 contents of, 142-143
 design guidelines,
 145-147
 goals of, 142, 144
 images, 153-154
 organizing with lines and
 rectangles, 148-149

 overview, 141-142
 page breaks, 149-150
 Shadow effects, 154-155
 special effects, 154
 text formatting
 tips and
 guidelines, 151
 with property
 sheets, 150
 with Ribbon, 150
buttons
 command buttons
 associating macros
 with, 172
 launching reports
 with, 167-169
 form command
 buttons, 99-102
 option buttons
 advantages, 59
 creating manually, 61
 creating with
 Option Group
 Wizard, 59-60
 spin buttons, 68-69

C

calculated columns
 adding to SELECT
 statements, 349
 calculating discounted
 product totals, 241
 calculating inventory
 values, 240
 overview, 239-240
calculated controls
 overview, 17, 119
 text boxes, 44-46,
 163-165

calculated fields

- creating in
 - PivotTables, 321
- creating totals queries
 - with, 293

calculating

- ages, 249-250
- customer discount rates
 - simple discount rates, 300-301
 - sliding-scale discount rates, 301-302
- discounted product totals, 241
- inventory values, 240
- length of
 - employment, 250-251
- mortgage payments, 255-256
- units left in stock, 295-296

calculations

- adding to reports
 - overview, 161-162
 - text boxes, inserting, 162-163
 - text boxes as
 - calculated controls, 163-165
 - Totals list, 162
- calculated columns
 - adding to SELECT statements, 349
 - calculating discounted product totals, 241
 - calculating inventory values, 240
 - overview, 239-240
- calculated controls
 - overview, 17, 119
 - text boxes, 44-46, 163-165

calculated fields

- creating in
 - PivotTables, 321
- creating totals queries
 - with, 293

calendars, 71**captions**

- labels, 42
- sizing report controls
 - to, 132

CDate function, 247**changing**

- form record
 - sources, 15-16
- form size, 18
- label captions, 42
- PivotTable field
 - order, 338
- record sources, 117-118
- relationships, 271

character spacing, 86**check boxes, binding to**

Yes/No fields, 57

child tables, 264**Chr function, 243****classes, entity, 262****Clear All Sorts command, 200****Close action (macros), 171****Close Form command button, 101****Color dialog box, 89****colors**

- adding to forms, 23-24, 88-89
 - custom colors, 89-90
 - design tips, 91

business reports

- custom colors, 152
- design tips, 152-153
- customizing, 89-90, 152
- hue, 90
- luminance, 90
- report backgrounds, 127
- saturation, 90

Column Count property (lists), 67**Column Heads property (lists), 67****Column Widths property (lists), 67****columns**

- calculated columns
 - adding to SELECT statements, 349
 - calculating discounted product totals, 241
 - calculating inventory values, 240
 - overview, 239-240
 - definition of, 314
 - starting report sections at top of, 174-175

Combo Box Wizard, 63**Command Button Wizard, 100-102, 172****command buttons, 99-102**

- associating macros
 - with, 172
- launching reports
 - with, 167-169

commands. *See specific commands***Companies table, 262**

comparison operators,
233-234

Conditional command
(Design menu), 32, 131

conditional formatting,
applying to controls,
31-33, 130-131

Conditional Formatting
dialog box, 32, 131

constants, 232

Contacts table, 262-263

Control Margins
command (Arrange
menu), 38

Control Source property
(lists), 66

controlled tables, 264

controls

ActiveX controls

calendars, 71

overview, 67-68

scrollbars, 69-71

spin buttons, 68-69

adding to forms, 30

adding to reports, 129

aligning

control edges,

35-36, 134

to grid, 35, 134

base controls, 35

bound controls

adding to

forms, 17-18

adding to reports, 120

converting unbound

controls to, 39

overview, 16

properties, 16-17, 119

calculated controls, 119

overview, 17

text boxes, 44-46,

163-165

changing control

type, 40

check boxes, binding to

Yes/No fields, 57

formatting

conditional

formatting,

31-33, 130-131

in reports, 130

grouping, 38-39, 135

labels

adding to forms,

41-42

adding to reports,

120-121

captions, 42

creating keyboard

shortcuts with, 42-43

overview, 41

logos, 121-122

margins, 38

moving, 34-36, 133-134

organizing

lines/rectangles, 82-83

option groups, 83-84

overview, 81

tab controls, 84-85

overlapping controls,

39, 136

selecting, 30-31, 129-130

sizing, 131-133

to caption, 132

to control's

content, 34

to grid, 33-34, 132

making controls same

size, 34, 133

step-by-step

process, 33

spacing between, 36, 135

stacked control

layouts, 37-38

tab controls

adding to

forms, 84-85

layouts, 37-38

tab order, 40

text boxes

adding to forms,

43-44

as calculated

controls, 44-46

mortgage calculator

example, 46-47

overview, 43

toggle buttons, binding

to Yes/No fields, 58

unbound controls

converting to bound

controls, 39

overview, 17, 119

ungrouping, 136

Z-order, 39, 136

converting unbound
controls to bound
controls, 39

copying

legacy reports, 145

records, 226

Cos function, 251

Count command
(AutoCalc), 319

Count function, 294

Count operation, 288

Create menu commands

Form, 9

Form Design, 15

- Labels, 185
 - Multiple Items, 11
 - Report, 113-114
 - Report Design, 117
 - Report Wizard, 114
 - Split Form, 11
 - criteria expressions (queries)**
 - arithmetic operators, 234-235
 - Between...And operator, 235
 - calculated columns
 - calculating discounted product totals, 241
 - calculating inventory values, 240
 - overview, 239-240
 - comparison operators, 233-234
 - Expression Builder, 256
 - functions
 - arguments, 242
 - date/time functions, 246-250
 - financial functions, 253-255
 - math functions, 251-253
 - overview, 233, 241
 - syntax, 242
 - text functions, 243-246
 - identifiers, 232
 - In operator, 235
 - Is Null operator, 235
 - Like operator, 235
 - literals, 232
 - logical operators, 236
 - And, 236-237
 - Eqv, 237
 - Imp, 237
 - Not, 237
 - Or, 236-237
 - Xor, 237
 - operator precedence, 238-239
 - overview, 231-232
 - selecting criteria for queries, 213
 - structure, 231
 - crosstab queries, 220-221**
 - Crosstab Query Wizard, 220-221**
 - custom colors, 89-90, 152**
 - custom date fields, adding to PivotTables, 328**
 - custom input mask expressions, 54-55**
 - custom totals, 295**
 - customers**
 - customer orders, analyzing by product category, 324-326
 - discount rates, calculating
 - simple discount rates, 300-301
 - sliding-scale discount rates, 301-302
 - finding customers without matching orders, 276
- D**
- data details (PivotTables), hiding/showing, 318**
 - Data Entry property (forms), 27**
 - data entry with forms**
 - ActiveX controls
 - calendars, 71
 - overview, 67-68
 - scrollbars, 69-71
 - spin buttons, 68-69
 - case study: selecting shipper (Northwind 2007 database), 62
 - data validation
 - input masks, 52-55
 - option buttons, 59-61
 - overview, 50
 - rules, 51-52
 - text prompts, 50
 - Yes/No fields, 56-58
 - dynasets, 224-225
 - email
 - managing Access data collection replies, 75
 - managing ADC replies, 75
 - overview, 72
 - replying to ADC email messages, 74
 - sending ADC email messages, 72-74
 - lists
 - Combo Box Wizard, 63
 - getting list values from current table, 64-65
 - getting list values from table or query fields, 64
 - List Box Wizard, 63
 - multi-column lists, 65-66
 - overview, 62-63

- properties, 66-67
 - specifying custom list values, 64
- overview, 49
- data pivoting (in PivotTables)**
 - changing field order, 338
 - moving fields, 337
 - overview, 336-337
- data separation (relational database design), 262-263**
- data types, 304**
- data validation**
 - case study: selecting shipper (Northwind 2007 database), 62
 - input masks
 - custom input mask expressions, 54-55
 - Input Mask Wizard, 53
 - overview, 52-53
 - lists
 - Combo Box Wizard, 63
 - getting list values from current table, 64-65
 - getting list values from table or query fields, 64
 - List Box Wizard, 63
 - multi-column lists, 65-66
 - overview, 62-63
 - properties, 66-67
 - specifying custom list values, 64
 - option buttons
 - advantages, 59
 - creating manually, 61
 - creating with Option Group Wizard, 59-60
 - overview, 50
 - rules, 51-52
 - text prompts, 50
 - Yes/No fields, 56-57
 - check boxes, 57
 - toggle buttons, 58
- databases**
 - nonrelational databases, disadvantages of, 259-261
 - querying. *See* queries
 - records
 - adding to dynasets, 225
 - adding with append queries, 309
 - copying, 226
 - deleting, 227
 - filtering before calculating totals, 290
 - finding records without matching records, 276-277
 - form record sources, changing, 15-16
 - grouping with SELECT statements, 350
 - navigating, 225-226
 - removing with delete queries, 306-307
 - selecting, 226
 - sorting, 199-201
 - widowed records, preventing, 175
 - referential integrity, 266
 - relational models
 - foreign keys, 263-264
 - many-to-many model, 265-266
 - one-to-many model, 264
 - one-to-one model, 265
 - separation of data, 262-263
 - relationships
 - editing, 271
 - establishing, 267-270
 - many-to-many, 265-266
 - one-to-many, 264
 - one-to-one, 265
 - tables. *See* tables
- datasheet view**
 - formatting
 - column sizes, 227
 - row heights, 228
 - navigating fields in, 224
 - overview, 223-224
- Date & Time command (Design menu), 123**
- Date and Time dialog box, 123**
- date filters, 205**
- Date function, 247**
- date/time functions, 246-250**
- date/time literals, 232**
- DateAdd function, 248**
- DateDiff function, 248**
- DatePart function, 248**

dates

- adding to reports, 123
- business reports, 146
- filters, 205
- functions, 246-250
- literals, 232
- two-dimensional
 - PivotTables
 - built-in date features, 326-328
 - custom date
 - fields, 328
 - employee orders,
 - viewing by custom quarter, 330-331
 - product orders,
 - viewing by day of week, 328-329

DateSerial function, 248**DateValue function, 248****Day function, 248****DDB function, 254****Decimal Places property (text boxes), 44, 163****decision-making queries**

- case study: calculating customer discount rates, 300-302
- IIf function
 - combining with And and Or, 298-299
 - determining whether stock needs reordered, 298
 - syntax, 297
- overview, 296-297
- Switch function, 299

decorative typefaces, 86**Decrease Horizontal Spacing command, 36****Decrease Vertical Spacing command, 36****Default Value property (text boxes), 44, 163****Default View property (queries), 228****delete queries, 306-307, 352-353****Delete Record command button, 101****DELETE statement (SQL), 352-353****DeleteObject action (macros), 171****deleting**

- joins, 271
- PivotTable fields, 322
- records, 227, 306-307

dependent tables, 264**Descending sorts, 200****Design grid, 212, 288-289****Design menu commands**

- Add Existing Fields, 120
- Conditional, 32, 131
- Date & Time, 123
- Group & Sort, 157
- Insert Page Number, 122
- Logo, 23, 122
- Property Sheet, 24
- Title, 23

Design view (forms), 15**designing business reports, 145-147****designing forms**

- colors
 - adjusting, 88-89
 - custom colors, 89-90
 - design tips, 91
- data collection goals, 78

- data content, 78
- field order, 80
- foolproof forms, 79
- images, 91-92
- keyboard shortcuts, 80
- mimicking paper forms, 79
- organizing controls
 - lines/rectangles, 82-83
 - option groups, 83-84
 - overview, 81
 - tab controls, 84-85
- overview, 77
- readability, 80
- screen resolution, 80
- simplicity, 79-81
- speed, 79
- text formatting
 - character spacing, 86
 - overview, 86-87
 - with property sheets, 87
 - with Ribbon, 87
 - shadow effect, 92-93
 - tips and guidelines, 87-88
 - type sizes, 86
 - type styles, 86
 - typefaces, 86
 - users, 78-79

detail section (reports), 118**dialog boxes. *See also* wizards**

- Associate Label, 42
- Color, 89
- Conditional
 - Formatting, 32, 131
- Date and Time, 123
- Edit Relationships, 269-271

Export - RTF File, 138
 Field Properties,
 214-215
 Grouping Intervals, 115
 Insert ActiveX
 Control, 68-71
 Insert Picture, 91,
 122, 153
 Join Properties, 270, 276
 Microsoft Office
 Genuine Advantage, 4
 modal dialog boxes, 104
 New Label, 187
 New Label Size, 187
 Page Numbers, 122
 Page Setup, 137,
 178-179
 Publish as PDF or
 XPS, 139
 Query Parameters, 304
 Send Object As, 138
 Show Table, 211, 269
 Summary Options, 115
 Tab Order, 41

discount rates, calculating
 simple discount rates,
 300-301
 sliding-scale discount
 rates, 301-302

**discounted product totals,
 calculating, 241**

displaying
 data details
 (PivotTables), 314-318
 sum of data field values
 (PivotTables), 316-317

**DISTINCT predicate
 (SELECT
 statement), 344**

**DISTINCTROW
 predicate (SELECT
 statement), 344**

division (/) operator, 234

**drilling down to order
 details, 282-286**

**Duplicate Record
 command button, 101**

dynasets, 210, 216
 adding records, 225
 copying records, 226
 datasheet view, 223-224
 deleting records, 227
 entering data, 224-225
 navigating, 224-226
 returning with sub-
 queries, 356-358
 All predicate, 358
 In predicate, 357-358
 selecting records, 226

E

**Edit Form Filter
 command button, 101**

**Edit Relationships dialog
 box, 269-271**

editing
 form record
 sources, 15-16
 form size, 18
 label captions, 42
 PivotTable field
 order, 338
 record sources, 117-118
 relationships, 271

email
 ADC email messages
 managing replies, 75
 replying to, 74
 sending, 72-74
 overview, 72
 publishing reports
 to, 138

**employee orders,
 viewing by custom
 quarter, 330-331**

**Enter Key Behavior
 property (text
 boxes), 44**

entity classes, 262

equality (=) operator, 233

Eqv operator, 237

**events, associating
 macros with, 173**

**excluding fields from
 query results, 213-214**

Exp function, 251

**exponential (^)
 operator, 234**

**Export - RTF File dialog
 box, 138**

exporting reports
 to PDF or XPS, 139-140
 to Word, 138-139

Expression Builder, 256

**Expression Is condition
 (forms), 32**

Expression operation, 288

expressions
 arithmetic operators,
 234-235
 Between...And
 operator, 235

- calculated columns
 - calculating discounted product totals, 241
 - calculating inventory values, 240
 - overview, 239-240
- comparison operators, 233-234
- custom input mask
 - expressions, 54-55
- Expression Builder, 256
- filter criteria, 207-208
- functions
 - arguments, 242
 - date/time functions, 246-250
 - financial functions, 253-255
 - math functions, 251-253
 - overview, 233, 241
 - syntax, 242
 - text functions, 243-246
- identifiers, 232
- In operator, 235
- Is Null operator, 235
- Like operator, 235
- literals, 232
- logical operators, 236
 - And, 236-237
 - Eqv, 237
 - Imp, 237
 - Not, 237
 - Or, 236-237
 - Xor, 237
- operator precedence, 238-239
- overview, 231-232
- selecting criteria for queries, 213
- structure, 231

F

Field Has Focus

condition (forms), 32

Field Properties dialog box, 214-215

Field Value Is condition (forms), 32

fields

- adding to forms, 17-18
- adding to reports, 120
- AutoCalc data fields
 - calculation type commands, 320
 - inserting into PivotTables, 318
 - summary commands, 318-319
- calculated fields
 - creating in PivotTables, 321
 - creating totals queries with, 293
- changing field order (PivotTables), 338
- column fields, 314
- criteria, defining with subqueries, 356
- defining with subqueries, 355
- definition of, 313-314
- displaying, 314-316
- excluding from query results, 213-214
- filter fields
 - adding, 335-336
 - definition of, 314
- grouping in PivotTables, 335

- including in queries, 212-213
- moving in PivotTables, 337
- order of, 80, 146
- overview, 16
- properties, 16-17, 119, 214-215
- removing from PivotTables, 322
- row fields, 314
- sorting records on multiple fields, 200-201
- single field, 200
- total queries
 - creating on multiple fields, 289-290
 - creating on single field, 289
 - Yes/No fields, 56-57
 - check boxes, 57
 - toggle buttons, 58

files, publishing

reports to

- PDF format, 139-140
- XPS format, 139-140

Filter By Selection

feature, 203

Filter Excluding Selection

feature, 203

filter fields

- adding, 335-336
- definition of, 314

Filter property (queries), 229

filtering

- PivotTables
 - adding filter fields, 335-336
- AutoFilter
 - feature, 332
 - displaying only top or bottom items, 333-335
 - grouping field items, 335
- records before
 - calculating totals, 290
- table data
 - And filter, 206
 - applying filters, 209-210
 - compared to queries, 210
 - creating filters, 208-210
 - date filters, 205
 - Filter By Selection
 - feature, 203
 - filter criteria, 207-208
 - Filter Excluding Selection
 - feature, 203
 - filtering in place, 204
 - number filters, 205
 - Or filter, 206
 - overview, 201-202
 - text filters, 205

filters

- applying, 209-210
- compared to queries, 210
- creating, 208-210

financial functions, 253-255**Find Duplicates queries, 222****Find Duplicates Query Wizard, 222****Find Next command button, 100****Find Record command button, 100****Find Unmatched queries, 222-223****Find Unmatched Query Wizard, 222-223**

- finding records without matching records**
 - customers without matching orders, 276
 - products without assigned categories, 277

first names, extracting from database, 245**First operation, 288****Fix function, 251****foolproof forms, 79****footers**

- form footers, 20-22
- page footers, 118
- report footers, 119

foreign keys, 263-264**Form command (Create menu), 9****Form Design command (Create menu), 15****Form Wizard, 12-14, 96-98****Format function, 243****Format property (text boxes), 44, 163****formatting**

- business reports
 - colors, 152-153
 - images, 153-154
 - with property sheets, 150
 - with Ribbon, 150
- Shadow effects, 154-155
- special effects, 154
- text formatting, 150
- tips and guidelines, 151
- controls, 31-32, 130
- datasheets
 - column sizes, 227
 - row heights, 228
- PivotTables, 339
- report backgrounds, 126
 - color, 127
 - pictures, 127-128
- text
 - character spacing, 86
 - overview, 86-87
 - with proper case, 246
 - with property sheets, 87
 - shadow effect, 92-93
 - with Ribbon, 87
 - tips and guidelines, 87-88
 - type sizes, 86
 - type styles, 86
 - typefaces, 86

forms

- ActiveX controls
 - calendars, 71
 - overview, 67-68
 - scrollbars, 69-71
 - spin buttons, 68-69
- advantages, 8-9

- AutoFormat
 - Wizard, 19-20
- backgrounds
 - color, 23-24
 - pictures, 24-25
- colors
 - adjusting, 88-89
 - custom colors, 89-90
 - design tips, 91
- command buttons, 99-102
- controls
 - aligning control
 - edges, 35-36
 - aligning to grid, 35
 - base controls, 35
 - bound controls, 16-18
 - calculated controls, 17
 - changing control type, 40
 - check boxes, 57
 - conditional
 - formatting, 31-33
 - formatting, 31-32
 - grouping, 38-39
 - inserting, 30
 - labels, 41-43
 - margins, 38
 - mortgage calculator
 - example, 46-47
 - moving, 34-36
 - organizing, 81
 - overlapping, 39
 - selecting, 30-31
 - sizing, 33-34
 - spacing between controls, 36
 - stacked control layouts, 37-38
 - tab order, 40
 - tabular control
 - layouts, 37-38
 - text boxes, 43-46
 - toggle buttons, 58
 - unbound controls, 17, 39
 - Z-order, 39
- data validation
 - case study: selecting shipper (Northwind 2007 database), 62
 - input masks, 52-55
 - option buttons, 59-61
 - overview, 50
 - rules, 51-52
 - text prompts, 50
 - Yes/No fields, 56-58
- Design view, 15
- designing
 - data collection
 - goals, 78
 - data content, 78
 - field order, 80
 - foolproof forms, 79
 - keyboard shortcuts, 80
 - mimicking paper forms, 79
 - organizing
 - controls, 81
 - overview, 77
 - readability, 80
 - screen resolution, 80
 - simplicity, 79-81
 - speed, 79
 - users, 78-79
- email, 72-75
- Form Wizard, 12-14
- headers/footers, 20-22
- images, 91-92
- Layout view, 25-26
- layouts, 9
- lists
 - Combo Box
 - Wizard, 63
 - getting list values
 - from current table, 64-65
 - getting list values from table or query fields, 64
 - List Box Wizard, 63
 - multi-column lists, 65-66
 - overview, 62-63
 - properties, 66-67
 - specifying custom list values, 64
- logos, 22-23
- main forms, 96
- modal forms, 104
- multiple items forms, 11-12
- navigating, 14
- organization
 - field order, 80
 - lines/rectangles, 82-83
 - option groups, 83-84
 - overview, 81
 - tab controls, 84-85
- overview, 7
- parameter queries, 105-107
- PivotChart
 - forms, 108-110
- pop-up forms, 103-104
- properties, 20
- protecting, 26-27
- record sources, 15-16
- resizing, 18
- split forms, 11
- standard forms, 9-11
- startup forms, 107-108

subforms

- creating with Form Wizard, 96-98
- creating with Subform Wizard, 98-99
- overview, 95-96

switchboard forms, 102-103

text formatting

- character spacing, 86
- overview, 86-87
- with property sheets, 87
- with Ribbon, 87
- shadow effect, 92-93
- tips and guidelines, 87-88
- type sizes, 86
- type styles, 86
- typefaces, 86

titles, 23

viewing, 18-19

FROM clause (SELECT statement), 344**functions. *See also specific functions***

- aggregate functions
 - combining with totals, 295-296
 - table of, 294-295
- arguments, 242
- date/time functions, 246-250
- financial functions, 253-255
- math functions, 251-253
- overview, 233, 241
- syntax, 242
- text functions, 243-246

FV function, 242, 254**G****generating random numbers**

- random *N*-digit numbers, 253
- random numbers
 - between two values, 252-253

Go to First Record command button, 100**Go to Next Record command button, 101****Go to Previous Record command button, 101****goals of business reports, 142-144****greater than operator (>), 233****greater than or equal operator (>=), 233****grids**

- aligning controls to, 35, 134
- sizing controls to, 33-34, 132

Group, Sort, and Total pane

- grouping reports, 159-160
- sorting reports, 158
- Totals list, 162

Group & Sort command (Design menu), 157**Group By operation, 288****Group command (Arrange menu), 38, 135****grouping**

- controls, 38-39, 135
- levels, 115
- records, 350
- reports
 - options, 158-160
 - overview, 157
 - with expressions, 161
- totals, 291-292

Grouping Intervals dialog box, 115**H****headers**

- form headers, 20-22
- page headers, 118
- report headers, 118

hiding data details (PivotTables), 318**Hour function, 248****hue, 90****I****identifiers, 231-232****IIf function**

- combining with And and Or, 298-299
- determining whether stock needs
 - reordered, 298
- syntax, 297

images

- adding to business reports, 153-154
- adding to forms, 91-92
- setting as form
 - backgrounds, 24-25
- setting as report
 - backgrounds, 127-128

Imp operator, 237
In operator, 235
Increase Horizontal Spacing command, 36
Increase Vertical Spacing command, 36
inner joins, 268, 346
Input Mask Wizard, 53
input masks
 custom input mask expressions, 54-55
 Input Mask Wizard, 53
 overview, 52-53
Insert ActiveX Control dialog box, 68, 70-71
INSERT INTO statement (SQL), 353-354
Insert Page Number command (Design menu), 122
Insert Picture dialog box, 91, 122, 153
InStr function, 243
InStrRev function, 243
Int function, 251
integer division (\) operator, 234
integrity, referential, 266
INTO predicate
 INSERT statement, 353-354
 SELECT statement, 353
inventory values, calculating, 240
invoice reports, 165-167
Invoices table, 265

IPmt function, 254
IRR function, 254
Is Null operator, 235
IsDate function, 248
items, 313

J

Join Properties dialog box, 270, 276
joins
 creating, 269-270
 deleting, 271
 inner joins, 268, 346
 join lines, 267
 outer joins
 applications, 276
 creating, 275, 346-347
 finding customers without matching orders, 276
 finding products without assigned categories, 277
 self-joins, 278, 347-348
 temporary joins with Query Design window, 274
 theta joins, 279-280, 348-349

K

Keep Together property (reports), 175
keyboard shortcuts
 creating with labels, 42-43
 in form design, 80
keys, foreign, 263-264

L

Label Wizard
 custom labels, 187
 mailing labels, 185-186
labels
 adding to forms, 41-42
 adding to reports, 120-121
 captions, 42
 creating keyboard shortcuts with, 42-43
 mailing labels
 creating with Label Wizard, 185-186
 custom labels, 187
 overview, 184-185
Labels command (Create menu), 185
last names, extracting from database, 245
Last operation, 288
launching reports
 with command buttons, 167-169
 with macros, 169-173
 overview, 167
Layout view, 25-26, 136-137
layouts
 controls, 37-38
 forms, 9
 PivotTables, 314
LCase function, 244
Left function, 244
left-outer joins, 268, 275
legacy reports, copying, 145
Len function, 244

length of employment,
calculating, 250-251

less than
operator (<), 233

less than or equal
operator (<=), 233

Like operator, 235

Limit To List property
(lists), 67

lines

business reports, 148-149
forms, 82-83

List Box Wizard, 63

List Rows property
(lists), 67

lists

Combo Box Wizard, 63
getting list values from
current table, 64-65
getting list values from
table or query fields, 64
List Box Wizard, 63
multi-column lists, 65-66
overview, 62-63
properties, 66-67
specifying custom list
values, 64
Totals list, 162

literals, 54-55, 232

loading Northwind 2007
database, 3-4

Log function, 251

logical operators

And, 236-237
Eqv, 237
Imp, 237
Not, 237
Or, 236-237
Xor, 237

Logo command (Design
menu), 23, 122

logos

forms, 22-23
reports, 121-122

LTrim function, 244

luminance, 90

M

macros

actions, 171-172
associating with
command buttons, 172
associating with report
events, 173
creating, 169-170
definition of, 169
launching reports
with, 169-173
running, 170

Mail Merge

queries, 217-219
reports, 187-189
running, 219

Mail Report action,
101, 168

mailing labels

creating with Label
Wizard, 185-186
custom labels, 187
overview, 184-185

main forms, 96

main reports, 190

Make Horizontal Spacing
Equal command, 36

Make Vertical Spacing
Equal command, 36

make-table queries,
307-308, 353

many-to-many relational
model, 265-266

margins, 38

math functions, 251-253

Max command
(AutoCalc), 319

Max function, 288, 294

Maximize action
(macros), 171

Microsoft Office Genuine
Advantage dialog box, 4

Mid function, 244

Min function, 288,
294, 319

Min Max Buttons
property (forms), 26

Minimize action
(macros), 171

Minute function, 248

MIRR function, 254

Mod operator, 234

modal dialog boxes, 104
modal forms, 104

Modal property
(forms), 104

modifiers (input
masks), 54-55

monospaced fonts, 86

Month function, 248

MonthName
function, 248

mortgage calculator,
46-47, 255-256

Moveable property (forms), 26

MoveSize action (macros), 171

moving

- form controls, 34-36
 - aligning control edges, 35-36
 - aligning to grid, 35
 - spacing between controls, 36
- PivotTable fields, 337
- report controls, 133-134
 - aligning control edges, 134
 - aligning to grid, 134
 - spacing between controls, 135

MsgBox action (macros), 171

Multi Select property (lists), 67

multi-column lists, 65-66

multiple-column reports

- case study, 181-184
- overview, 177-178
- page setup options, 178-179
- setting up, 178
- troubleshooting, 180-181

multiple-field

one-dimensional

PivotTables, 322-323

multiple fields

- creating totals queries on, 289-290
- grouping totals on, 291-292
- sorting records on, 200-201

Multiple Items command (Create menu), 11

multiple-items forms, 11-12

multiple-table forms

- overview, 95-96
- subforms
 - creating with Form Wizard, 96-98
 - creating with Subform Wizard, 98-99

multiple-table queries.

See also joins

- adding fields from multiple tables, 272-273
- adding multiple tables to queries, 271-272
- case study: drilling down to order details, 282-286
- joining tables with Query Design window, 274
- nesting queries within queries, 273-274
- overview, 271
- unique values queries, creating, 280-282

multiple-table reports

- main reports, 190
- overview, 189
- subreports
 - creating with Report Wizard, 191-192
 - creating with Subreport Wizard, 192-194
 - overview, 190-191

multiplication (*) operator, 234

N

Name property (text boxes), 44, 163

names, extracting from database, 245

navigating

- datasheet view, 224
- dynasets, 224-226
- forms, 14

nesting queries within queries, 273-274

New Label dialog box, 187

New Label Size dialog box, 187

nonrelational

databases, disadvantages of, 259-261

Normal command (AutoCalc), 320

Northwind 2007 database

- case study: selecting shipper
 - Combo Box Wizard, 63
 - getting list values from current table, 64-65
 - getting list values from table or query fields, 64
 - List Box Wizard, 63
 - multi-column lists, 65-66
 - properties, 66-67
 - Shipper ID field, 62-63
 - specifying custom list values, 64
- loading, 3-4

not-equal joins, 268
 not-equal operator (), 233
 Not operator, 237
 Not with Rpt Ftr value (Page Header property), 118
 Not with Rpt Hdr value (Page Header property), 118
 Not with Rpt Hdr/Ftr value (Page Header property), 118
 Now function, 249
 NPer function, 254
 NPV function, 254
numbers
 filters, 205
 numeric literals, 232
 random numbers,
 generating
 random *N*-digit
 numbers, 253
 random numbers
 between two values,
 252-253
 serial numbers, 246-247
numeric literals, 232

0

one-to-many relational model, 264
one-to-one relational model, 265
Open Form command button, 101
Open Report action, 168

Open Report command button, 101
opening reports, 117
OpenReport action (macros), 171
operands, 231
operators, 231
 arithmetic operators, 234-235
 Between...And, 235
 comparison operators, 233-234
 In, 235
 in filter criteria
 expressions, 207-208
 Is Null, 235
 Like, 235
 logical operators, 236
 And, 236-237,
 298-299
 Eqv, 237
 Imp, 237
 Not, 237
 Or, 236-237, 298-299
 Xor, 237
 precedence, 238-239
option buttons
 advantages, 59
 creating manually, 61
 creating with Option Group Wizard, 59-60
Option Group Wizard, 59-60
option groups, adding to forms, 83-84
Or filter, 206
Or operator, 236-237, 298-299

ORDER BY clause (SELECT statement), 345-346
Order By property (queries), 229
orders
 viewing by custom
 quarter, 330-331
 viewing by day of week, 328-329
organizing
 form controls
 lines/rectangles, 82-83
 option groups, 83-84
 overview, 81
 tab controls, 84-85
 report controls
 lines and rectangles, 148-149
 overview, 147
 page breaks, 149-150
Orientation property (queries), 229
orphans, 266
outer joins, 268
 applications, 276
 creating, 275, 346-347
 finding customers
 without matching
 orders, 276
 finding products without
 assigned categories, 277
Output All Fields property (queries), 228
output of reports
 page breaks, 174
 preventing widowed
 records, 175
 starting sections at top of
 row/column, 174-175

OutputTo action
(macros), 171

overlapping
controls, 39
report controls, 136

P

page breaks, 149-150, 174

page footers, 21, 118

Page Header
property, 118

page headers, 21, 118

page numbers,
122-123, 146

Page Numbers dialog
box, 122

page setup, 137, 178-179

Page Setup dialog box,
137, 178-179

paired controls,
moving, 35

paper forms,
mimicking, 79

parameter queries
creating, 302-303,
350-351
overview, 105-107, 302
parameter data
types, 304

parent tables, 264

Payment Calculation
section (mortgage
calculator), 46

PDF, publishing reports
to, 139-140

Percent of Column
Total command
(AutoCalc), 320

Percent of Grand
Total command
(AutoCalc), 320

Percent of Parent
Column Item command
(AutoCalc), 320

Percent of Parent Row
Item command
(AutoCalc), 320

Percent of Row
Total command
(AutoCalc), 320

Perry, Greg, 50

Picture Alignment
property
forms, 25
reports, 128

Picture property
forms, 24
reports, 128

Picture Size Mode
property
forms, 25
reports, 128

Picture Tiling property
forms, 25
report images, 128, 154

pictures
adding to business
reports, 153-154
adding to forms, 91-92
setting as form
backgrounds, 24-25
setting as report
backgrounds, 127-128

PivotCharts
forms, 108-110
reports, 194-195

pivoting (in PivotTables)
changing field order, 338
moving fields, 337
overview, 336-337

PivotTables
data fields, 314
data pivoting
changing field
order, 338
moving fields, 337
overview, 336-337
fields
changing order
of, 338
column fields, 314
filter fields, 314
moving, 337
row fields, 314
filtering
adding filter fields,
335-336
AutoFilter
feature, 332
displaying only top
or bottom items,
333-335
grouping field
items, 335
formatting, 339
items, 313
layout, 314
one-dimensional
PivotTables
AutoCalc data fields,
318-320
calculated fields, 321
data field details,
displaying, 314-318
multiple-field
one-dimensional
PivotTables, 322-323

- removing fields, 322
 - sum of data field
 - values, displaying, 316-317
 - overview, 311-313
 - two-dimensional PivotTables
 - built-in date features, 326-328
 - creating, 323-324
 - custom date fields, 328
 - customer orders, analyzing by product category, 324-326
 - employee orders, viewing by custom quarter, 330-331
 - product orders, viewing by day of week, 328-329
 - placeholders, 54
 - Pmt function, 254**
 - Pop Up property (forms), 104**
 - pop-up forms, 103-104**
 - PPmt function, 254**
 - precedence of operators, 238-239**
 - Preview Report command button, 101**
 - previewing reports, 124-125**
 - primary tables, 264**
 - Principal Calculation section (mortgage calculator), 46**
 - Print a Form command button, 101**
 - Print Current Form command button, 101**
 - Print Record command button, 101**
 - Print Report command button, 101, 168**
 - Print Table command button, 101**
 - printing reports, 137-138**
 - PrintOut action (macros), 172**
 - product category, analyzing customer orders by, 324-326**
 - product orders**
 - analyzing by category, 324-326
 - viewing by custom quarter, 330-331
 - viewing by day of week, 328-329
 - products, finding without assigned categories, 277**
 - Products table, 265**
 - properties. *See also specific properties***
 - bound controls, 16-17
 - fields, 214-215
 - forms, 20, 26
 - queries, 228-229
 - reports, 126
 - Property Sheet command (Design menu), 24**
 - property sheets, 87, 150**
 - proportional fonts, 86**
 - protecting forms, 26-27**
 - Publish as PDF or XPS dialog box, 139**
 - publishing reports**
 - to email, 138
 - on paper, 137-138
 - to PDF or XPS, 139-140
 - to Word, 138-139
 - PV function, 254**
- ## Q
- QBE (query by example) grid, 212**
 - queries**
 - action queries
 - append queries, 309
 - delete queries, 306-307
 - make-table queries, 307-308
 - overview, 304
 - update queries, 304-306
 - append queries, 353-354
 - business applications, 216-217
 - compared to filters, 210
 - creating
 - creating query objects, 211-212
 - entering query criteria, 213
 - excluding fields from results, 213-214
 - including external tables, 212
 - overview, 210-211
 - returning top *N* values, 213-214
 - selecting fields for inclusion, 212-213
 - setting field properties, 214-215

- creating subreports from, 193-194
- criteria expressions
 - arithmetic operators, 234-235
 - Between...And operator, 235
 - calculated columns, 239-241
 - comparison operators, 233-234
 - Expression Builder, 256
 - functions, 233, 242-255
 - identifiers, 232
 - In operator, 235
 - Is Null operator, 235
 - Like operator, 235
 - literals, 232
 - logical operators, 236-237
 - operator precedence, 238-239
 - overview, 231-232
 - selecting criteria for queries, 213
 - structure, 231
- crosstab queries, 220-221
- datasheet view
 - formatting, 227-228
 - navigating fields in, 224
 - overview, 223-224
- decision-making queries
 - case study: calculating customer discount rates, 300-302
 - If function, 297-299
 - overview, 296-297
 - Switch function, 299
- delete queries, 352-353
- dynasets, 216
 - adding records, 225
 - copying records, 226
 - datasheet view, 223-224
 - deleting records, 227
 - entering data, 224-225
 - navigating, 224-226
 - selecting records, 226
- Find Duplicates queries, 222
- Find Unmatched queries, 222-223
- Mail Merges, 217
 - querying Customers table, 218
 - running mail merge, 219
- make-table queries, 353
- multiple-table queries. *See also* joins
 - adding fields from multiple tables, 272-273
 - adding multiple tables to queries, 271-272
 - case study: drilling down to order details, 282-286
 - joining tables with Query Design window, 274
 - nesting queries within queries, 273-274
 - overview, 271
 - unique values queries, creating, 280-282
- nesting, 273-274
- overview, 199, 210
- parameter queries
 - creating, 302-303
 - overview, 105-107, 302
 - parameter data types, 304
 - properties, 228-229
 - query objects, 211-212
 - running, 215-216
 - select queries
 - ALL predicate, 344
 - calculated columns, 349
 - DISTINCT predicate, 344
 - DISTINCTROW predicate, 344
 - FROM clause, 344
 - inner joins, creating, 346
 - ORDER BY clause, 345-346
 - outer joins, creating, 346-347
 - overview, 342
 - parameter queries, 350-351
 - self-joins, creating, 347-348
 - syntax, 343-344, 351
 - theta joins, creating, 348-349
 - TOP *n* [PERCENT] predicate, 344
 - totaling and grouping records, 350
 - WHERE clause, 345
 - subdatasheets, 284-286
 - subqueries
 - defining field criteria, 356
 - defining fields, 355

- determining whether unit price is greater than average, 355
 - overview, 354
 - returning dynasets, 356-358
 - totals queries
 - aggregate operations, 287-288
 - calculating units left in stock, 295-296
 - combining aggregate functions and totals, 295-296
 - creating on multiple fields, 289-290
 - creating on single field, 289
 - creating with aggregate functions, 294-295
 - creating with calculated fields, 293
 - custom totals, 295
 - filtering records before calculating totals, 290
 - grouping on multiple fields, 291-292
 - grouping totals, 291
 - Total row, 288-289
 - union queries, 280-282, 359-360
 - update queries, 352
 - query by example (QBE) grid, 212**
 - Query Design window, 274**
 - query objects, 211-212.**
See also queries
 - Query Parameters dialog box, 304**
 - Quit action (macros), 172**
 - Quit Application command button, 101**
- ## R
-
- random numbers, generating**
 - random *N*-digit numbers, 253
 - random numbers between two values, 252-253
 - Rate function, 255**
 - readability**
 - business reports, 147
 - forms, 80
 - Record Locks property (forms), 27**
 - record sources, 15-16, 117-118**
 - records**
 - adding
 - to dynasets, 225
 - with append queries, 309
 - copying, 226
 - deleting, 227
 - filtering before calculating totals, 290
 - finding records without matching records
 - customers without matching orders, 276
 - products without assigned categories, 277
 - form record sources, changing, 15-16
 - grouping with SELECT statements, 350
 - navigating, 225-226
 - record sources, 15-16, 117-118
 - removing, 306-307
 - selecting, 226
 - sorting, 199
 - on multiple fields, 200-201
 - on single field, 200
 - widowed records, preventing, 175
 - Recordset Type property**
 - forms, 27
 - queries, 229
 - rectangles**
 - adding to business reports, 148-149
 - adding to forms, 82-83
 - referential integrity, 266**
 - Refresh Form Data command button, 101**
 - relational databases.**
See databases
 - relationships**
 - editing, 271
 - establishing
 - join lines, 267-268
 - join types, 268
 - joining tables, 269-270
 - Relationships window, 269
 - many-to-many, 265-266
 - one-to-many, 264
 - one-to-one, 265
 - Relationships window, 269**

- reorder levels, 297**
- Replace function, 244**
- Report command (Create menu), 113-114**
- Report Design command (Create menu), 117**
- Report Design view, 116-117**
- Report Wizard, 114-116**
 - creating subreports, 191-192
 - grouping reports
 - options, 158-160
 - overview, 157
 - with expressions, 161
 - sorting reports
 - options, 158
 - overview, 157
 - with expressions, 161
- reports**
 - AutoFormat, 125-126
 - backgrounds
 - color, 127
 - pictures, 127-128
 - business reports
 - audience of, 144
 - colors, 152-153
 - contents of, 142-143
 - design guidelines, 145-147
 - goals of, 142-144
 - images, 153-154
 - organizing with
 - lines and rectangles, 148-149
 - overview, 141-142
 - page breaks, 149-150
 - Shadow effects, 154-155
 - special effects, 154
 - text formatting, 150-151
 - calculations
 - overview, 161-162
 - text boxes, inserting, 162-163
 - text boxes as
 - calculated controls, 163-165
 - Totals list, 162
 - case study: invoice report, 165-167
 - controls
 - aligning control
 - edges, 134
 - aligning to grid, 134
 - calculated
 - controls, 119
 - conditional
 - formatting, 130-131
 - fields (bound
 - controls), 119-120
 - formatting, 130
 - grouping, 135
 - inserting, 129
 - labels, 120-121
 - logos, 121-122
 - moving, 133-134
 - overlapping
 - controls, 136
 - selecting, 129-130
 - sizing, 131-133
 - spacing between, 135
 - unbound controls, 119
 - ungrouping, 136
 - Z-order, 136
 - creating
 - with Report command, 113-114
 - in Report Design view, 116-117
 - with Report Wizard, 114-116
 - date/time, adding, 123
 - detail section, 118
 - events, associating
 - macros with, 173
 - footers, 118-119
 - headers, 118
 - grouping
 - options, 158-160
 - overview, 157
 - with expressions, 161
 - launching
 - overview, 167
 - with command
 - buttons, 167-169
 - with macros, 169-173
 - Layout view, 136-137
 - mail merge reports, 187-189
 - multiple-column reports
 - case study, 181-184
 - overview, 177-178
 - page setup options, 178-179
 - setting up, 178
 - troubleshooting, 180-181
 - opening in Report Design view, 117
 - overview, 113
 - page breaks, 174
 - page numbers, 122-123
 - PivotChart reports, 194-195
 - previewing, 124-125
 - printing, 137-138
 - properties, 126
 - publishing
 - to email, 138
 - on paper, 137-138
 - to PDF or XPS, 139-140
 - to Word, 138-139

- record sources
 - 15-16, 117-118
 - sections
 - resizing, 124
 - starting at top of row/column, 174-175
 - single-column reports, 177
 - sorting
 - options, 158
 - overview, 157
 - with expressions, 161
 - subreports
 - creating with Report Wizard, 191-192
 - creating with Subreport Wizard, 192-194
 - overview, 189-191
 - titles, 122
 - widowed records, preventing, 175
 - resizing**
 - form controls
 - making controls same size, 34
 - step-by-step process, 33
 - to control's content, 34
 - to grid, 33-34
 - forms, 18
 - report controls, 131-133
 - making controls same size, 133
 - to caption, 132
 - to grid, 132
 - report sections, 124
 - resolution (screen), 80, 146**
 - Restore action (macros), 172**
 - returning top *N* values, 213-214**
 - Ribbon, 87, 150**
 - Right function, 244**
 - right-outer joins, 268, 275**
 - Rnd function, 252**
 - Round function, 252**
 - Row Source property (lists), 66**
 - Row Source Type property (lists), 66**
 - rows**
 - definition of, 314
 - starting report sections at top of, 174-175
 - RTrim function, 244**
 - rules for data validation, 51-52**
 - Run Macro command button, 101**
 - Run Query command button, 101**
 - running**
 - macros, 170
 - Mail Merge, 219
 - queries, 215-216
- S**
- sans serif typefaces, 86**
 - saturation, 90**
 - Save action (macros), 172**
 - Save Record command button, 101**
 - screen resolution, 80, 146**
 - scrollbars, 69-71**
 - Second function, 249**
 - sections of reports**
 - resizing, 124
 - starting at top of row/column, 174-175
 - security, 26-27**
 - select queries.**
 - See* **SELECT statement (SQL)**
 - SELECT statement (SQL)**
 - ALL predicate, 344
 - calculated columns, 349
 - defining fields, 355
 - determining whether unit price is greater than average, 355
 - DISTINCT predicate, 344
 - DISTINCTROW predicate, 344
 - FROM clause, 344
 - inner joins, creating, 346
 - INTO predicate, 353
 - ORDER BY clause, 345-346
 - outer joins, 346-347
 - overview, 342
 - parameter queries, 350-351
 - self-joins, 347-348
 - subqueries
 - defining field criteria, 356
 - overview, 354
 - returning dynasets, 356-358
 - syntax, 343-344, 351
 - theta joins, 348-349

- TOP *n* [PERCENT]
 - predicate, 344
 - totaling and grouping records, 350
 - WHERE clause, 345
- selecting**
 - controls, 30-31
 - records, 226
 - report controls, 129-130
- self-joins, 268, 278, 347-348**
- Send Object As dialog box, 138**
- Send Report to File action, 101, 168**
- sending email, 72-74**
- SendObject action (macros), 172**
- serial numbers, 246-247**
- serif typefaces, 86**
- SetValue action (macros), 172**
- Sgn function, 252**
- shadow effect, 92-93, 154-155**
- Shipper ID field (Northwind 2007 database), 62-63**
- shippers, selecting (Northwind 2007 databases)**
 - Combo Box Wizard, 63
 - getting list values from current table, 64-65
 - getting list values from table or query fields, 64
 - List Box Wizard, 63
 - list properties, 66-67
 - multi-column lists, 65-66
 - Shipper ID field, 62-63
 - specifying custom list values, 64
- Show Table dialog box, 211, 269**
- ShowAllRecords action (macros), 172**
- simplicity**
 - in form design, 79-81
 - in report design, 145-146
- Sin function, 252**
- single-column reports, 177**
- Size Mode property (report images), 153-154**
- Size To Fit command (Arrange menu), 34, 132**
- Size To Grid command (Arrange menu), 34, 132**
- Size To Narrowest command (Arrange menu), 34**
- Size To Shortest command (Arrange menu), 34**
- Size To Tallest command (Arrange menu), 34**
- Size To Widest command (Arrange menu), 34**
- sizing**
 - controls
 - making controls same size, 34
 - step-by-step process, 33
 - to control's content, 34
 - to grid, 33-34
 - forms, 18
 - report controls, 131-133
 - making controls same size, 133
 - to caption, 132
 - to grid, 132
 - report sections, 124
- sliding-scale discount rates, calculating, 301-302**
- SLN function, 255**
- snaked-column reports. See multiple-column reports**
- sorting**
 - records, 199
 - on multiple fields, 200-201
 - on single field, 200
 - reports
 - options, 158
 - overview, 157
 - with expressions, 161
- Space function, 244**
- spacing**
 - character spacing, 86
 - control spacing, 36, 135
- Special Effect property (report images), 154**
- special effects, adding to reports, 154**
- speed of forms, 79**
- spin buttons, 68-69**
- Split Form command (Create menu), 11**
- split forms, 11**
- SQL statements**
 - DELETE, 352-353
 - INSERT INTO, 353-354
 - overview, 341

SELECT

- ALL predicate, 344
 - calculated
 - columns, 349
- DISTINCT
 - predicate, 344
- DISTINCTROW
 - predicate, 344
- FROM clause, 344
- inner joins,
 - creating, 346
- INTO predicate, 353
- ORDER BY clause,
 - 345-346
- outer joins, 346-347
- overview, 342
- parameter queries,
 - 350-351
- self-joins, 347-348
- subqueries, 354-358
- syntax, 343-344, 351
- theta joins, creating,
 - 348-349
- TOP *n* [PERCENT]
 - predicate, 344
- totaling and grouping
 - records, 350
- WHERE clause, 345
- subqueries
 - defining field
 - criteria, 356
 - defining fields, 355
 - determining whether
 - unit price is greater
 - than average, 355
 - overview, 354
 - returning dynasets,
 - 356-358
- UNION, 359-360
- UPDATE, 352
- viewing, 341-342

Sqr function, 252

- stacked control
 - layouts, 37-38

- Standard Deviation
 - command
 - (AutoCalc), 319

- Standard Deviation
 - Population command
 - (AutoCalc), 319

- standard forms, 9-11

- startup forms, 107-108

- statements. *See* SQL
 - statements

- Status Bar Text property
 - (text boxes), 44

- StDev function, 288, 294

- StDevP function, 294

- StrComp function, 244

- StrReverse function, 245

- Structured Query
 - Language. *See* SQL
 - statements

- subdatasheets (queries),
 - 284-286

- Subform Wizard, 98-99

subforms

- creating with Form
 - Wizard, 96-98
- creating with Subform
 - Wizard, 98-99
- overview, 95-96

subqueries

- defining field
 - criteria, 356
- defining fields, 355
- determining whether
 - unit price is greater
 - than average, 355

- overview, 354

- returning dynasets,
 - 356-358

- All predicate, 358

- In predicate, 357-358

- Subreport Wizard, creat-
 - ing subreports with, 192
 - from another report, 194
 - from table or queries,
 - 193-194

subreports

- creating with Report
 - Wizard, 191-192
- creating with Subreport
 - Wizard, 192-194
- overview, 189-191

- Sum command
 - (AutoCalc), 319

- Sum function, 288, 294

- sum of data field
 - values (PivotTables),
 - displaying, 316-317

- Summary Options
 - dialog box, 115

- Switch function, 299

- switchboard forms,
 - 102-103

- SYD function, 255

- syntax of functions, 242

T

- tab controls, 84-85

- tab order (controls), 40

- Tab Order command
 - (Arrange menu), 40

- Tab Order dialog box, 41

tables. See also**PivotTables**

adding to Relationships
 window, 269
 child tables, 264
 Companies, 262
 Contacts, 262-263
 creating with
 make-table queries,
 307-308
 filtering
 And filter, 206
 applying filters,
 209-210
 compared to
 queries, 210
 creating filters,
 208-210
 date filters, 205
 Filter By Selection
 feature, 203
 filter criteria, 207-208
 Filter Excluding
 Selection
 feature, 203
 filtering in
 place, 204
 number filters, 205
 Or filter, 206
 overview, 201-202
 text filters, 205
 Invoices, 265
 joins
 creating, 269-270
 deleting, 271
 inner joins, 268, 346
 join lines, 267
 outer joins, 275-277,
 346-347
 self-joins, 278,
 347-348

temporary joins
 with Query Design
 window, 274
 theta joins, 279-280,
 348-349
 modifying with update
 queries, 304-306
 parent tables, 264
 Products, 265
 in queries, 212
 referential integrity, 266
 relationships
 editing, 271
 establishing, 267-270
 many-to-many,
 265-266
 one-to-many, 264
 one-to-one, 265
 subreports, creating,
 193-194
**tabular control
 layouts, 37-38**
tan function, 252
**temporary joins, creating
 with Query Design
 window, 274**
text
 formatting
 character spacing, 86
 overview, 86-87
 proper case, 246
 with property sheets,
 87, 150
 with Ribbon, 87, 150
 shadow effect, 92-93
 tips and guidelines,
 87-88, 150
 type sizes, 86
 type styles, 86
 typefaces, 86
 filters, 205

functions, 243-246
 literals, 232
 text boxes
 adding to forms,
 43-44
 adding to reports,
 162-163
 as calculated controls,
 44-46, 163-165
 overview, 43
 text prompts, 50

text boxes

adding to forms, 43-44
 adding to reports,
 162-163
 as calculated controls,
 44-46, 163-165
 overview, 43

text functions, 243-246**text literals, 232****text prompts, 50****theta joins, 268,
279-280, 348-349****time**

adding to reports, 123
 business reports, 146
 time functions, 246-250
 time literals, 232

Time function, 249**TimeSerial function, 249****TimeValue function, 249****Title command (Design
menu), 23****titles**

forms, 23
 reports, 122

**toggle buttons, binding to
Yes/No fields, 58**

top *N* values, returning,
213-214

TOP *n* [PERCENT]
predicate (SELECT
statement), 344

Top Values property
(queries), 229

Total row, displaying in
Design grid, 288-289

totals, calculating
with SELECT
statements, 350

Totals list, 162

totals queries

aggregate operations,
287-288

calculating units left in
stock, 295-296

combining aggregate
functions and totals,
295-296

creating

with aggregate
functions, 294-295

with calculated
fields, 293

on multiple fields,
289-290

on single field, 289

custom totals, 295

filtering records before
calculating totals, 290

grouping on multiple
fields, 291-292

grouping totals, 291

Total row, 288-289

Trim function, 245

troubleshooting multi-
column reports, 180-181

two-dimensional

PivotTables

built-in date features,
326-328

creating, 323-324

custom date fields, 328

customer orders,
analyzing by product
category, 324-326

employee orders,
viewing by custom
quarter, 330-331

product orders,
viewing by day of
week, 328-329

type sizes, 86

type styles, 86

typefaces, 86

U

UCase function, 245

unary operator (-), 234

unbound controls

converting to bound
controls, 39

overview, 17, 119

Undo Record command
button, 101

Ungroup command
(Arrange menu), 39, 136

ungrouping report
controls, 136

union queries, 359-360

UNION statement
(SQL), 359-360

unique values queries,
280-282

unit price, determining
whether greater than
average, 355

units left in stock,
calculating, 295-296

update queries, 304-306,
352

UPDATE statement
(SQL), 352

V

validating data

case study: selecting
shipper (Northwind
2007 database), 61

input masks

custom input mask
expressions, 54-55

Input Mask
Wizard, 53

overview, 52-53

lists

getting list values
from current
table, 64-65

getting list values
from table or query
fields, 64

List Box Wizard, 63

multi-column lists,
65-66

overview, 62-63

properties, 66-67

specifying custom list
values, 64

option buttons

advantages, 59

creating manually, 61

creating with

Option Group
Wizard, 59-60

overview, 50
 rules, 51-52
 text prompts, 50
 Yes/No fields, 56-57
 check boxes, 57
 toggle buttons, 58

Validation Rule property (forms), 51-52

Var function, 288, 294

Variance command (AutoCalc), 319

Variance Population command (AutoCalc), 319

VarP function, 294

viewing

forms, 18-19
 SQL statements, 341-342

views

datasheet view
 formatting, 227-228
 navigating fields
 in, 224
 overview, 223-224
 Design, 15
 Layout, 25-26, 136-137
 Report Design, 116-117

W

Weekday function, 249

WeekdayName function, 249

WHERE clause (SELECT statement), 345

Where operation, 288

widowed records, preventing, 175

wildcard characters, 235

wizards

AutoFormat Wizard, 19-20, 125
 Combo Box Wizard, 63
 Command Button Wizard, 100-102, 172
 Crosstab Query Wizard, 220-221
 Find Duplicates Query Wizard, 222
 Find Unmatched Query Wizard, 222-223
 Form Wizard, 12-14, 96-98
 Input Mask Wizard, 53
 Label Wizard, 185-187
 List Box Wizard, 63
 Option Group Wizard, 59-60
 Report Wizard, 114-116
 creating subreports, 191-192
 grouping reports, 157-161
 sorting reports, 157-158, 161
 Subform Wizard, 98-99
 Subreport Wizard, 192-194

Word

Mail Merge
 queries, 217-219
 running, 219
 publishing reports to, 138-139

X-Y-Z

Xor operator, 237

XPS, publishing reports to, 139-140

Year function, 249

Yes/No fields, 56-57
 check boxes, 57
 toggle buttons, 58

Z-order, 39, 136