INDEX

Symbols

& (ampersand), concatenation operator, 417

' (apostrophe), VBA comments, 1199

*** (asterisk)**
multiplication operator, 415
in SQL statements, 181
wildcard character, 418, 437, 919

@ (at sign), variable identifier, 919

\ (backslash)
escape characters, 224
integer division operator, 415

! (bang operator), 417, 1238
name separator, 1188
SQL punctuation, 919

^ (caret), exponentiation operator, 415

: (colon), variable identifier, 919

, (comma), SQL punctuation, 918

. (dot)
in identifiers, 420
name separator, 1188
operator, 417, 1238
SQL punctuation, 918

" " (double quotes), SQL punctuation, 919

= (equal sign)
assignment operator, 415
equal to operator, 416

/ (forward slash), division operator, 415

> (greater than operator), 416

>= (greater than or equal to operator), 416

< (less than operator), 416

<= (less than or equal to operator), 416

- (minus sign)
subtraction operator, 415
unary minus sign, 414

<> (not equal operator), 416

:= operator, named arguments, 1191

% (percent), wildcard character, 919

|| (pipes), concatenation operator, 417

+ (plus sign)
addition operator, 415
concatenation operator, 417

 # (pound sign)
date/time identifier, 919
enclosing date values, 1181

? (question mark), wildcard character, 418, 437, 919

' ' (single quotes), 1258
SQL punctuation, 919

[ ] (square brackets), 385
in identifiers, 420
query names, 459
SQL punctuation, 918

_ (underscore), wildcard character, 919

3C (code-continuation character), 1191

A

abscissa, 770

AbsolutePage property (Recordset object), 1314, 1316

AbsolutePosition property (Recordset object), 1314

.accdb files, 202
local connections, 870
.mdb file extension versus, 1334

.accdc files, 166

.accde files, creating, 164-165, 863-864

.accdr files, creating, 165

accelerator keys for option groups, 654

Access
ADPs versus, 910-911
compatibility with Outlook, 94
default settings, 143-144
development history of, 20
functions of, 116-119
management tools, 910-911
operating modes of, 119-120
popularity of, 176
version differences, 1334

Access 200*x*
upgrading secured Access 9*x* files to, 1341
back-end database file upgrades, 1342-1343
in mixed environment, 1341-1342

upgrading to Access 2007
secured 200x files, 1343-1346
unsecured 200x files, 1343
upgrading unsecured Access 9x files to, 1335
after opening, 1338-1339
fixing missing VBA references, 1339-1341
troubleshooting, 1352
upon initial opening, 1336-1338

Access 2002, converting databases to, 164
compile errors, 170

Access 2007
Access 97 import/export features versus, 372-373
competing products, 69-70
new features, 20
Access database engine, 21, 47-52
forms and reports, 23, 53-56
macros, 23, 56-57
Navigation pane, 21, 42-47
ribbon user interface, 20-21, 24-40
security, 21, 40-42
SharePoint collaboration, 23, 57-58
tabbed documents, 21
templates, 22, 52-53
unsupported features, 59
upgrades to, advantages of, 1334-1335
upgrading secured Access 200x files to, 1343
creating shortcut for Access 2007 front end with Access 200x back end, 1344-1345
removing username/password requirement, 1346
specifying default workgroup file, 1345
upgrading unsecured Access 200x files to, 1343

Access 9x, upgrading to Access 200x
secured 9x files, 1341-1343
unsecured 9x files, 1335-1341, 1352

Access 97
Access 2007 import/export features versus, 372-373
macros, 117

Access Basic, 1209

Access client/server applications. *See* ADPs

Access color palette, 599-600

Access data projects. *See* ADPs

Access database engine, new features, 21, 47
data types, 47-49
Datasheet view, 49-52

Access databases, 180
creating, 204-206
Jet databases versus, 202
migrating to SQL Server databases, 203
upgrading Jet databases to, 202

Access Deployment files. *See* .accdc files

Access modules, 1175. *See also* modules
defined, 1175
function names, 1178
references, 1178

Access Options dialog, 75, 143-144, 267
Add-Ins page, 154
Advanced page, 150-152
Current Database page, 145-147
Customize page, 152-153
Datasheet page, 147-148
Object Designers page, 148-149
Popular page, 144-145
Proofing page, 149-150
Resources page, 157-158
Trust Center pages, 155-157

Access SQL, 378
reserved words, 973-978
T-SQL versus, 914-915

Access Upsizing Wizard (AUW), 1270

acCmdApplyFilterSort argument (RunCommand method), 1226

acDialog argument (OpenForm method), 1225

ACEDAO.DLL, 1179

acEdit argument (OpenForm method), 1225

acNormal argument (OpenForm method), 1225

action queries, 401. *See also* append queries; delete queries; make-table queries; update queries
alternatives to, 575-577
defined, 550
table backups, importance of, 550
transactions and, 562
types of, 550
upsizing, 955
writing, 935-938

actions
application actions, 1159
Close, 1151
definition of, 1148
form operations actions, 1159
OpenQuery, 1151
record navigation actions, 1158
record operations actions, 1159
report operations actions, 1159
RunCommand, 1151
viewing, 1149-1151

activating KeyTips, 128

Active Server Pages. *See* ASP

ActiveCommand property (Recordset object), 1314

ActiveConnection property
Command object, 1304
Recordset object, 1314

ActiveX controls, 764
for PivotTables/PivotCharts, troubleshooting, 807

ActiveX Data Objects. *See* **ADO**
ActualSize property (Field object), 1319
adAddNew constant, 1326
adAffectAll constant, 1326
adAffectAllChapters constant, 1326
adAffectCurrent constant, 1326
adAffectGroup constant, 1326
adApproxPosition constant, 1326
adaptive menus, 171
adBinary constant, 1308
adBookmark constant, 1326
adBookmarkCurrent constant, 1326
adBookmarkFirst constant, 1326
adBookmarkLast constant, 1326
adBoolean constant, 1308
adChar constant, 1308
adCmdFile constant, 1302
adCmdStoredProc constant, 1302
adCmdTable constant, 1302
adCmdTableDirect constant, 1302
adCmdText constant, 1302
adCmdUnknown constant, 1302
adCurrency constant, 1308
add-ins, 204
Add-Ins page (Access Options dialog), 154
adDate constant, 1308
adDecimal constant, 1308
adDelete constant, 1326
adding
breakpoints, 1276-1277
to IsLoaded( ) function, 1203-1205
composite primary keys to tables, 564-565
elements (XML) to exported tables/queries, 1069-1070
fields to tables, 563-564
foreign keys to tables, 565-567
grand totals to PivotTables, 528-530
records
to HRActions table (Northwind sample database), 281-283
with InfoPath forms, 1084-1087
from Navigation Pane, 87-91
to tables, 273-274
subsites (WSS 3.0), 1094-1097
tables, 230-233
preparations for, 225-226
AddItem method, 1267
addition operator, 415
AddNew method (Recordset object), 1322
AddOrders.adp sample project, 1328-1330
adDouble constant, 1308
Address Information Systems (AIS) files, as primary keys, 191
.ade files, 909
adEditDelete constant, 1317
adEditInProgress constant, 1317
adEditNone constant, 1317
Adelson-Velski, G. M., 317
adFieldDefaultStream constant, 1320
adFilterAffectedRecords constant, 1317
adFilterConflictingRecords constant, 1318
adFilterFetchedRecords constant, 1318
adFilterNone constant, 1317
adFilterPendingRecords constant, 1318
adFind constant, 1326
adFldCacheDeferred constant, 1320
adFldFixed constant, 1320
adFldIsChapter constant, 1320
adFldIsCollection constant, 1320
adFldIsNullable constant, 1320
adFldIsRowURL constant, 1320
adFldKeyColumn constant, 1320
adFldLong constant, 1321
adFldMayBeNull constant, 1321
adFldMayDefer constant, 1321
adFldNegativeScale constant, 1321
adFldRowID constant, 1321
adFldRowVersion constant, 1321
adFldUnknownUpdatable constant, 1321
adFldUpdatable constant, 1321
adHoldRecords constant, 1326
adIndex constant, 1326
adInteger constant, 1308
adLockBatchOptimistic constant, 1318
adLockOptimistic constant, 1318
adLockPessimistic constant, 1318
adLockReadOnly constant, 1318

adLockUnspecified constant, 1318
adLongVarBinary constant, 1308
adLongVarChar constant, 1308
adModeRead constant, 1296
adModeReadWrite constant, 1296
adModeRecursive constant, 1296
adModeShareDenyNone constant, 1296
adModeShareDenyRead constant, 1297
adModeShareDenyWrite constant, 1297
adModeShareExclusive constant, 1297
adModeUnknown constant, 1296
adModeWrite constant, 1297
adMovePrevious constant, 1326
adNotify constant, 1326
adNumeric constant, 1308
ADO (ActiveX Data Objects), 1182, 1280-1281
AddOrders.adp sample project, 1328-1330
COM interoperability wrapper, 1182
objects
DAO objects versus, 1281-1282
displaying with Object Browser, 1290-1293
spaces in names, 1331
programming advantages, 1331-1332
ADO.NET, 1182
ADODB.Command object, 1304
methods, 1309-1310
Parameter objects, 1306-1309
Parameters collection, 1306
passing parameter values to stored procedures, 1310-1313
properties, 1304-1305
ADODB.Connection object, 1293
events, 1303-1304
methods, 1300-1302
properties, 1293-1294
Errors, 1297-1300
IsolationLevel, 1295-1296
Mode, 1296-1297
Provider, 1295
State, 1297
transaction isolation levels, 1296
ADODB.Recordset object
binding forms to, 1288-1290
corresponding database object type, 1182
creating, 1283
DAO.Recordset compatibility, 1313
events, 1327-1328
Fields collection, 1319-1322
methods, 1322-1327
properties, 1313-1319
Value property, 1188
adOpenDynamic constant, 1317
adOpenForwardOnly constant, 1317
adOpenKeyset constant, 1317
adOpenStatic constant, 1317
ADOX
ALTER TABLE DDL command, 1319
Catalog object, 1301
adParamInput constant, 1308
adParamInputOutput constant, 1308
adParamLong constant, 1307
adParamNullable constant, 1307
adParamOutput constant, 1308
adParamReturnValue constant, 1308
adParamSigned constant, 1307
adParamUnknown constant, 1308
adPosBOF constant, 1316
adPosEOF constant, 1316
adPosUnknown constant, 1316
ADPs (Access Data Projects), 203, 378, 868-872. ***See also*** **SQL Server**
Access versus, 910-911
attaching MSDE databases, 1348-1349
backups, 902-905
benefits/limitations, 871-872
characteristics of, 868-869
charts/graphs in, 777. *See also* PivotCharts
combo box forms, converting, 1270-1276
contextual ribbons, 32-33
converting forms to, 1270
importing and testing forms, 1270-1272
replacing queries with SQL Server views, 1272-1273
T-SQL syntax, 1273-1276
Database window, 873-874
local .accdb file connections, 870
local Jet databases and, 870
Navigation Pane, 872-873
NorthwindSQL sample project, 872-874
practical uses for, 869
project designer, 874-875
adding tables, 886-890
Design view, 884-885
parenthesis pairs, 895
Properties dialog (tables), 877-883
Table Design view, 875-877
requirements, 870
restores, 904-905
saving as .ade files, 909

securing as .ade files, 909
software requirements, 870
transferring to server, 906-907
upsizing applications, 948
conforming columns to ANSI SQL, 959-963
correcting errors, 957-959
crossfooting crosstab queries, 994-997
crosstab queries, emulating, 980-994
data types, 978-979
filter references, 968-970
object values, 964-968
planned migrations, 949
second passes, 956-957
security, 997-999
SQL reserved words, 973-978
SQL statements, 970-973
strategic migrations, 1000-1001
testing projects, 964
trial and error, 949-955
troubleshooting, 999
Upsizing Wizard, 948
VBA functions, converting, 979-980
uses, 869

adRecCanceled constant, 1318

adRecCantRelease constant, 1318

adRecConcurrencyViolation constant, 1318

adRecDBDeleted constant, 1319

adRecDeleted constant, 1318

adRecIntegrityViolation constant, 1318

adRecInvalid constant, 1318

adRecMaxChangesExceeded constant, 1319

adRecModified constant, 1318

adRecMultipleChanges constant, 1318

adRecNew constant, 1318

adRecObjectOpen constant, 1319

adRecOK constant, 1318

adRecOutOfMemory constant, 1319

adRecPendingChanges constant, 1318

adRecPermissionDenied constant, 1319

adRecSchemaViolation constant, 1319

adRecUnmodified constant, 1318

adResync constant, 1326

adSeek constant, 1326

adSeekAfter constant, 1327

adSeekAfterEQ constant, 1327

adSeekBefore constant, 1327

adSeekBeforeEQ constant, 1327

adSeekFirstEQ constant, 1327

adSeekLastEQ constant, 1327

adSingle constant, 1308

adSmallInt constant, 1309

adStateClosed constant, 1297

adStateConnecting constant, 1297

adStateExecuting constant, 1297

adStateFetching constant, 1297

adStateOpen constant, 1297

adTinyInt constant, 1309

adUpdate constant, 1326

adUpdateBatch constant, 1326

adUseClient constant, 1317

adUseServer constant, 1317

Advanced Filter/Sort option, 298, 307-308
composite criteria, 310-312
multifield sorts/compound filters, 308-310

Advanced group (Advanced page), 152

Advanced page (Access Options dialog), 150-152

adVarBinary constant, 1309

adVarChar constant, 1309

adXactBrowse constant, 1296

adXactChaos constant, 1296

adXactCursorStability constant, 1296

adXactIsolated constant, 1296

adXactReadCommitted constant, 1296

adXactReadUncommitted constant, 1296

adXactSerializable constant, 1296

adXactUnspecified constant, 1296

aggregate functions (SQL), 495-496
troubleshooting, 447
usage, 924-926

aggregate queries. ***See*** **summary queries**

AIS (Address Information Systems) files, as primary keys, 191

aliases, 350

aliasing, 394-397

aligning
form controls, 638-641
labels, 671
report controls, 727-728

ALL qualifier (SQL), 917

Allow Nulls property (Table Design window), 876

Allow Zero Length field property, 211

Alpha Five, 69

alphabetic code characters, grouping report data by, 749

Alt+F4 key combination, 142

ALTERCOLUMN statement (SQL), 944

altering. *See* editing

ALTERTABLE statement (SQL), 944

ampersand (&), concatenation operator, 417

anchoring form/report controls, 55-56

And operator, 416

ANSI SQL, 914
- conforming computed columns, 959-963
- DDL statements, creating tables with, 942-944
- reserved words, 973-978

apostrophe ('), VBA comments, 1199

Append dialog, 558

Append method (Parameters collection), 1306

Append Only field property, 212

append queries, 401, 557-559. *See also* action queries
- defined, 550
- removing duplicate rows, 1015-1016
- syntax, 935
- troubleshooting, 574

append stored procedures, 896-899

append values queries, 898

Append-Only Memo Fields, 49

AppendChunk method
- Field object, 1321
- Parameter object, 1309

appending records
- append stored procedures, 896-899
- with forms, 616-619
- identity fields, 896-897
- to tables, 275

application objects, 812

Application Options group (Current Database page), 145

applications
- actions, 1159
- creating
  - changing default folder, 75
  - changing Overlapping Windows to Tabbed Documents, 82-84
  - default folder as trusted location, 78-81
  - downloading templates, 73-74, 78
  - embedded macros in templates, 77
  - templates from Microsoft Office Online, 81-82
  - templates, list of, 75-78
- design approach, 72
- elements of, 72-73
- functions of, 116-119
- mini-server applications, 770
- multiuser. *See* multiuser applications
- runtime applications, 860
  - error-handling code, 1198-1199
- sharing. *See* multiuser applications
- signing, 1174
- template-based applications
  - importing objects to, 102-104
  - renaming fields, 104-107
- upsizing to ADP, 948
  - conforming columns to ANSI SQL, 959-963
  - correcting errors, 957-959
  - crossfooting crosstab queries, 994-997
  - crosstab queries, emulating, 980-994
  - data types, 978-979
  - filter references, 968-970
  - object values, 964-968
  - planned migrations, 949
  - second passes, 956-957
  - security, 997-999
  - SQL reserved words, 973-978
  - SQL statements, 970-973
  - strategic migrations, 1000-1001
  - testing projects, 964
  - trial and error, 949-955
  - troubleshooting, 999
  - Upsizing Wizard, 948
  - VBA functions, converting, 979-980

ApplyFilter macro, 1161, 1163-1164

ApplyFilter method, 1224

Approved by combo box, adding, 111-112

Approved by lookup field, adding, 109-111

arguments, 1190-1191
- DoCmd methods, 1225-1226
- macros, 1148-1149
- VBA, 1190-1191

arithmetic operators, 414-415

arrays, 1186-1187
- assigning values to, 1196
- declaring, 1186
- duration, 1187
- dynamic arrays, 1187
- multidimensional arrays, 1187
- scope, 1187

Arrow Key Behavior property, setting, 267

art of query design, 407-408

As Integer keywords, 1183

AS qualifier (SQL), aggregate functions, 925

Asc function, 429

ASCII codes, listing, 1193

ASCII files, 337

ASP (Active Server Pages), 1037
displaying dynamic tables, 1037
creating ASP template files, 1038-1041
IIS setup, 1042-1043
ODBC data source setup, 1041
running ASP template from IIS, 1041
testing CustomersCSS.asp page, troubleshooting, 1051
Assets template, 76
Assigned To combo box, adding, 111-112
Assigned To lookup field, adding, 109-111
assigning permissions to security groups (WSS 3.0), 1102-1103
assignment operators, 414-415
asterisk (*)
multiplication operator, 415
in SQL statements, 181
wildcard character, 418, 919, 437
at sign (@), variable identifier, 919
Attach Databases dialog, 1349
attaching
exported tables to front-end components, 847-849
MSDE databases, 1347-1350
Attachment controls, adding, 675-678
Attachment data type, 214-215
Attachment fields, 48
OLEObject fields versus, 355
attachments to email messages, reports as, 765-766
Attachments dialog, 48
attribute-centric XML documents, 1059-1060
attributes
defined, 178
XML attributes, 1057
Attributes property
Connection object, 1293
Field object, 1319-1321
Parameter object, 1307
audience support, designing forms, 621
AutoCorrect Options group (Proofing page), 149
Autoexec macro, 1148
AutoForm: PivotChart, 795-797
AutoFormat, 595-599
AutoLookup feature, 491-492
automatically generated indexes, troubleshooting, 263
AutoNumber data type, 213
AutoNumber fields, troubleshooting, 263
AUW (Access Upsizing Wizard), 1270
availability. *See* reliability
axes (PivotTables), exchanging, 534-535
axis labels
font size, changing, 779-780
reversing, 807
axis titles in PivotCharts, 541

B

Back Up Database utility, 162
Back Up SQL Database command, 902, 904
back-end components, 812
backing up, 822
creating with Database Splitter, 813-816
security, 952
share/folder/file permissions, 816-822
back-end database files, upgrading, 1342-1343
background bitmap pictures in forms, 602-604
background color
forms, 600-601
PivotTables, 534
backslash (\)
escape characters, 224
integer division operator, 415
backups
ADPs (Access Data Projects), 902-905
importance of, 550
multiuser Access applications, 822
balanced binary tree structure, 317
banding records, 702
bang operator (!), 417, 1238
name separator, 1188
SQL punctuation, 919
Bar charts, 545
Base64 encoding, 1079
BASIC, 1209
batch processing, 178
BDE (Borland Database Engine), 346
Beep method (DoCmd object), 1223, 1225
BeforeUpdate event handler, 1242-1243
BEGIN TRAN statement (SQL), 938
BeginTrans method (Connection object), 1300
BEGINTRANS statement (SQL), 576
BeginTransComplete event (Connection object), 1303
Between operator, 418-419

BIDS (Business Intelligence Management Studio), 771
Binary data type, 215
binary tree searches on ordered tables, 317
binding forms to Recordset objects, 1284-1290
bitwise operators, 417
Blank sites (WSS), 1093
blocks of cells
copying/pasting, 271-272
groups of records versus, 275
selecting, 271
Blog sites (WSS), 1093
BOF property (Recordset object), 1314
Bookmark property (Recordset object), 1314
Boolean data type, 1180-1181
Boolean operators. ***See*** **logical operators**
border color for forms, 604-605
border style for forms, 604-605
Borland Database Engine (BDE), 346
bound controls, 582, 631
bound object frames, 764
bound objects, SQL statements as record sources, 970-973
bound reports, adding linked subreports, 758-760
bound text boxes, creating, 648-649
branching, 1192
Break button (VBA editor toolbar), 1201
breakpoints
adding, 1276-1277
to functions, 1203-1205
setting/clearing, 1202
browse mode, 519
browse updating, 490
browse-mode table editing, 575-576, 883
Business Account Ledger template, 77
Business Intelligence Management Studio (BIDS), 771
business rules. ***See also*** **data validation; entity integrity**
business-to-business communication, 742
Byte data type, 216, 1180

C

CacheSize property (Recordset object), 1314
calculated columns, performance and, 448
calculated controls, 582, 631, 722
adding to reports, 724-727
changing data source, 722-724
calculated fields, 437-440
expressions for, 445-447
calculated text boxes, 647
creating, 649-650
calculated values, linking reports and subreports, 760
calculations. ***See also*** **summary calculations**
Call keyword, 1177
calling event handlers for form events, 1204
Cancel method
Command object, 1309
Recordset object, 1322
CancelBatch method (Recordset object), 1322, 1326
CancelEvent method, 1224
canceling added records, 274
CancelUpdate method (Recordset object), 1322
Caption field property, 211, 395, 524
caret (^), exponentiation operator, 415
Cartesian products, 918
cascading deletes, 241, 572
test tables, creating, 572-573
testing, 573
cascading style sheets. ***See*** **CSS**
cascading updates, 241, 572
test tables, creating, 572-573
testing, 574
Case expressions, forms of, 1194
CAST( ) function, 931
Catalog object (ADOX), 1301
categories. ***See also*** **fields**
category presentation in PivotCharts, changing, 543-544
CBool function, 432
CByte function, 432
CCC (code-continuation character), 1191
CCL (Cursor Control Language), 916
CCur function, 432
CDATA sections, 1066
CDate function, 432
CDbl function, 432
cells, blocks of. ***See*** **blocks of cells**
certificates
code-signing certificates, 41-42
self-signed certificates, creating, 166-169
CFBFs (code behind forms), 1149
change propagation of field properties, 248-251
Chart Type dialog, 781-782

chart types of PivotCharts, changing, 544-546
Chart Wizard
creating unlinked graphs, 773-778
designing summary queries for, 771-773
charts. *See also* graphs; PivotCharts
adding to reports, 784-787
in ADP, 777
changing chart type, 780, 782, 784
converting graphs to, 780-784
embedding, 321
graphs versus, 774
linked charts, 321, 788
assigning crosstab queries, 790
designing crosstab queries, 788-789
linking to records, 790-792, 794
in static tables, 985-986
modifying chart design, 778-780
printing in reports, 784-787
troubleshooting, reversing x-axis and legend labels, 807
unlinked charts, 770
creating with Chart Wizard, 773-778
query data source, creating, 770-773
check boxes in reports, 764
check constraints (SQL Server tables), 882. *See also* data validation
Check Constraints page, Properties dialog (project designer), 882
CHECK keyword (SQL), 943
Chr function, 429
CInt function, 432
circular relationships, 452
Class Module, 72
class modules, 1177. *See also* modules
associated with forms, 1176
creating with Macro-to-VBA Converter, 1213-1215
debugging, 1217-1219
defined, 1177, 1212
encapsulating VBA code with, 1212-1213
Form_Switchboard
creating, 1213-1215
debugging, 1217-1219
event handling, 1215-1216
functions, calling, 1247
members, viewing in Object Browser, 1219-1220
subprocedures, calling, 1247
testing, 1215-1219
clauses (SQL), 916
clean option (HTML Tidy), 1032-1034
Clear method (Err object), 1199
client/server applications, trusted connections, 831. *See also* ADPs (Access Data Projects)
client/server databases, migrating to, 179-180
benefits of, 823-825
exporting tables to other RDBMSs, 827-828
front ends with linked tables, 837
manually
attaching exported tables, 847-849
creating ODBC data sources, 843-846
exporting to RDBMSs, 846-847
manually linking tables, 843-849
.mde front ends, creating, 863-864
moving upsized databases, 839-842
MSDE features, 824
multiuser applications, 812-813
Database Splitter, 813, 815-816
securing network shares, 816-817, 821
verifying back-end security, 822
ODBC table connection strings, 837-842
password-protecting front ends, 860-863
pass-through queries, 849-852
shared files versus, 865-866
single applications, 828-829
table properties, modifying, 829-830
Upsizing Wizard, 830-834
verifying process, 834-837
strategic migrations, 1000-1001
strategies, 825-826
troubleshooting, 864-865
Clipboard
copying/pasting tables, 254-255
keyboard operations for, 271-272
Clipboard group (Home ribbon), 128-129
CLng function, 432
Clone method (Recordset object), 1322
cloning linked PivotCharts, 801-803
Close action, 1151
Close Database command button (Office gallery), 40
Close method
Connection object, 1300
DoCmd object, 1224
Recordset object, 1322
closing, meaning in Access, 118-119

Codd, E. F., 178, 185, 199
code behind forms (CBFs), 1149
code editor. ***See*** **VBA editor**
code-continuation character (CCC), 1191
code-signing certificates, 41-42
coerced data types, 1181
collaboration, 1143-1144. ***See also*** **SharePoint 2007; WSS 3.0**
Collation property (Table Design window), 876
Collect Data Through E-Mail Messages wizard, 1044
Collect Data via E-Mail macro, 77
collections
TempVars, 426
troubleshooting, missing objects, 1247
colon (:), variable identifier, 919
color schemes for PivotTables, changing, 534
colors for forms, 599
Access color palette, 599-600
background colors, 600-601
custom colors, 605-606
foreground colors, 604-605
column fields (PivotTables), 526
column headers in queries, changing names, 394-397
Column Name property (Table Design window), 876
columns
calculated columns, performance and, 448
conforming computed columns to ANSI SQL, 959-963
defined, 178
duplicate column names in views, 966-968
resizing, 316
Columns page (Table Design view), 875-877
COM
add-ins, 204
interoperability wrappers, 1182
object references, 1178-1179
COM interop, 1182
combinatorial hashing, 318
Combo Box Wizard, 660-665, 668-675, 1254-1256
combo boxes. ***See also*** **list boxes**
advantages of, 1277-1278
constraining queries with, 1250
adding combo boxes to forms, 1254-1257
creating forms with list boxes, 1252-1253
query design, 1251
creating, 1160-1161
Combo Box Wizard, 660-665
query SQL statements from, 1258-1261
record-selection combo boxes, 671-675
static-value combo boxes, 668-671
in DSAs (decision-support applications), 1250-1251
adding to forms, 1254-1256
converting to ADP, 1270-1276
designing queries, 1251
editing, 1256-1257
SELECT queries, creating, 1258-1261
selecting all items, 1266-1269
troubleshooting, 1168, 1276-1277
events, responding to, 1159-1161
list boxes versus, 660
optimizing performance, 1277
populating, 666-668
selecting all items, 1266-1269
troubleshooting, 1276-1277
combo-box forms. ***See*** **forms**
comma (,), SQL punctuation, 918
comma-delimited text files, 337
Command Button Wizard, 1155, 1157-1159
application actions, 1159
form operations actions, 1159
Previous Record button, creating, 1155-1157
record navigation actions, 1158
record operations actions, 1159
report operations actions, 1159
command buttons
adding to Quick Access Toolbar, 152-153
Create ribbon, 138-141
Home ribbon, 128-131
Table Tools, Datasheet ribbon, 133-135
Table Tools, Design ribbon, 137
Command object, 1304
corresponding database object type, 1182
methods, 1309-1310
Parameter objects, 1306-1309
Parameters collection, 1306
passing parameter values to stored procedures, 1310-1313
properties, 1304-1305
command tabs, 25. ***See also*** **ribbon user interface**
commands (SQL)
categories for, 915-916
defined, 916

CommandStream property (Command object), 1304
CommandText property (Command object), 1304
CommandTimeout property
Command object, 1304
Connection object, 1293
CommandType property (Command object), 1305
comments in VBA, 1199
COMMIT TRAN statement (SQL), 938
commits (transactions), 195
committed inventory, 189
CommitTrans method (Connection object), 1300
COMMITTRANS statement (SQL), 576
CommitTransComplete event (Connection object), 1303
Compact and Repair Database command, 162-163
compacting
databases, 163-164
troubleshooting, 170
workgroup information file, 1338
CompareBookmarks method (Recordset object), 1323
comparison operators, 275, 414, 416
data ranges and, 419
for filters, 297
compatibility levels of databases, changing, 1350-1351
Compatibility Library (DAO), 1352
compile errors, converting databases, 170
compiling VBA code, 1189
composite criteria for filters/sorts, 310-312
composite primary keys
adding to tables, 564-565
creating, 242
defined, 184
composite sorts, 293
compound filters, 308-310
computed columns, conforming to ANSI SQL, 959-963
computer-based sorting and searching, history of, 317
concatenation of data types, 424
concatenation operators, 414, 417
concurrency conflicts,
resolving, 885
conditional formatting, 222-223
Conditional Formatting dialog, 588
conditional statements, 1192-1195
If…Then…End If, 1192-1193
Select Case…End Select, 1193-1195
configuration files (HTML Tidy), 1023-1024
configuring subsites (WSS 3.0), 1097-1101
ConnectComplete event (Connection object), 1303
Connection object, 1293
corresponding database object type, 1182
events, 1303-1304
methods, 1300-1302
properties, 1293-1294
Errors, 1297-1300
IsolationLevel, 1295-1296
Mode, 1296-1297
Provider, 1295
State, 1297
transaction isolation levels, 1296
connections
remote SQL Server databases, 907-909
troubleshooting, 909
ConnectionString property (Connection object), 1294
ConnectionTimeout property (Connection object), 1294
Const keyword, 1189
constants, 1189. *See also* symbolic constants
data types, specifying, 1189
declaring, 1189
intrinsic constants, 424, 433-434, 1190
named constants, 434
statement autocompletion, 1206
system-defined, 1189
CONSTRAINT keyword (SQL), 943
Contacts (Outlook)
exporting, 96
importing, 94-96
Contacts folder. *See* Outlook 2007
Contacts template, 76
context-specific ribbons, 28-33, 132
Table Tools, Datasheet ribbon, 132-135
Table Tools, Design ribbon, 135-137
Control object, corresponding database object type, 1182
control structures, 1192-1195
Do Until…Loop, 1196-1197
Do While…Loop, 1196-1197
For…Next, 1195-1196
If…Then…End If, 1192-1193
Select Case…End Select, 1193-1195

While…Wend, 1197
With…End With, 1188-1189

controlling program flow. *See* flow control (VBA)

controls
Attachment controls, adding, 675-678
bound controls, 631
calculated controls, 631
changing control types, 658
combo boxes
Combo Box Wizard, 660-665
list boxes versus, 660
populating, 666-668
record-selection boxes, 671-675
static-value boxes, 668-671
copying, 658-659
troubleshooting, 695
form controls, 582
adding, 631, 682-683
aligning, 638-641
background bitmap pictures, 602-604
background colors, 600-601
border color, 604-605
border style, 604-605
bound controls, 582
calculated controls, 582
copying, 650-651
custom colors, 605-606
deleting, 606
disabling editing, 620
error correction, 651-652
foreground color, 604-605
Format Painter, 607
moving, 637-638
moving multiple, 639-640
optimizing data entry, 683-685
properties, 594-599
rearranging, 610
removing from tab order, 619
selecting, 636-637
selecting multiple, 639-640
sizing, 638
tab controls. *See* tab controls
text editing, 606-607
unbound static controls, 582
label controls. *See* labels
native controls, 626
option group
creating, 653-658
testing, 657
report controls, 702
ActiveX controls, 764
aligning, 727-728
bound object frames, 764
calculated controls, 722-727
check boxes, 764
copying, 650-651
deleting, 717-719
editing, 719-722
formatting, 728-729
moving, 717-719
option buttons, 764
printing lookup fields, 719-720
shapes, 764
unbound object frames, 764
SQL statements in, 944-945
subform controls, VBA references to, 1241
unbound controls, 631
VBA references to, 1239-1240

Convert Database command, 162, 164

Convert Database Into dialog, 1337

CONVERT function, 1273-1275

Convert/Open Database dialog, 1336-1337

converting. *See also* upgrades
between Number, Date/Time, and Text data types, 247
databases, 164
to Access 2002 format, 164
compile errors, 170
secured Access 9*x* files, 1341-1342
troubleshooting, 170
unsecured Access 9*x* files, 1335-1339
fields to Access data types, 356-358
forms to Access data projects (ADP), 1270
importing and testing forms, 1270-1272
replacing queries with SQL Server views, 1272-1273
T-SQL syntax, 1273-1276
graphs to charts, 780-784
HTML 4.01 to XHTML 1.0, 1036-1037
macros to VBA callback functions, 1234-1237
SELECT queries to make-table queries, 553-555
summary queries to parameter queries, 500-501
two-digit years to four-digit years, 447
VBA data-type conversion functions to T-SQL functions, 433
VBA date/time functions to T-SQL functions, 428
VBA text-manipulation functions to T-SQL functions, 430

Copy Database File command, 907

CopyDatabaseFile method, 1225-1226

copying
controls, 650-651, 658-659
troubleshooting, 695
databases to servers, 907
form controls, 606
tables, 254-255
text, 271-272

CopyObject method, 1223-1224
copyright, importing HTML tables, 1006
corrupted databases, 164
counting duplicate rows when importing HTML tables, 1013-1015
Create on SharePoint Site dialog, 1132-1133
Create ribbon, 26, 138-141
CREATEINDEX statement (SQL), 944
CreateParameter method (Command object), 1309-1310
CREATETABLE statement (SQL), 943
Creative Commons licenses, 1006
criteria for query records, establishing, 389-391, 393-394
crossfooting
crosstab queries, 994-997
defined, 523
crosstab queries, 379, 401, 463, 503-504, 520
creating
with Crosstab Query Wizard, 504-508
linked graphs from, 788-794
manually, 508-510
crossfooting, 994-997
emulating with T-SQL, 980-994
with static tables, 981-986
with stored procedures, 986-994
fixed column headings in, 510-512
linked graphs, creating, 788
assigning query, 790
designing query, 788-789
PivotTables versus, 523
upsizing, 955
Crosstab Query Wizard, 504-508, 990
CSng function, 432
CSS (cascading style sheets), 1031
formatting HTML tables, 1067-1069
upgrading to, 1031-1032
fixing HTML Tidy-generated CSS code, 1034-1035, 1050-1051
with HTML Tidy's clean option, 1032-1034
linking documents to CSS files, 1036
CStr function, 432
CSV files, 337
Ctrl++ key combination, 143
Ctrl+F key combination, 143
Ctrl+F1 key combination, 142
Ctrl+F4 key combination, 142
Ctrl+F6 key combination, 142
Ctrl+H key combination, 143
Ctrl+Shift+F9 key combination, 1202
Ctrl+Y key combination, 1202
cubes (OLAP), 771
Currency data type, 214, 216, 1181
current database, 516
Current Database page (Access Options dialog), 145-147
Cursor Control Language (CCL), 916
CursorLocation property
Connection object, 1294
Recordset object, 1314, 1317
cursors, 392
CursorType property (Recordset object), 1314, 1317
Custom category (Navigation pane), customizing, 43-46
custom colors for forms, 605-606
Custom Filter dialog, 1139
custom formats, creating, 220-222
Custom Sort dialog, 1140
custom subprocedures (VBA), 1178
custom templates, creating, 158
customer input for database/table design, importance of, 263
Customer Service template, 77
CustomersCSS.asp page, testing, 1051
CustomersUpdate sample table, creating HTML forms for, 1044-1050
Customize page (Access Options dialog), 152-153
customizing
AutoFormats, 598-599
Custom category (Navigation pane), 43-46
Datasheet view, 314-316
form layout, 610-611
Quick Access Toolbar (QAT), 34-36
ribbons, 33-34
SharePoint list views, 1112-1117
SharePoint lists, 1134-1135
cutting
form controls, 606
records in tables, 275
CVar function, 432
CVErr function, 432
cycling focus, 132

D

da Vinci toolset. ***See also*** **project designer**

DAO (Data Access Objects), 1280-1281
- ADO objects versus, 1281-1282
- Compatibility Library, 1352
- displaying with Object Browser, 1290-1293

DAO.Recordset object. ***See*** **Recordset object**
- ADODB.Recordset compatibility, 1313
- binding forms to, 1284-1286
- corresponding database object type, 1182
- creating, 1283, 1286-1287

DAP (data access pages), 59

.dat files
- backing up, 902, 904
- restoring, 904-905

Data Access Objects. ***See*** **DAO**

data access pages (DAP), 59

data blocks. ***See*** **blocks of cells**

data collection via HTML forms, 101, 1043-1050

Data Control Language (DCL), 916

Data data type, 1181

Data Definition Language (DDL), 915
- tables, creating, 942-944

data dictionaries, creating, 259-262

data entry, 116. ***See*** **heads-down data entry**
- with Datasheet view, when not to use, 287
- keyboard operations
  - editing text, 270
  - fields/text boxes, 272-273
  - importance of, 266-267
  - selecting text, 270-271
  - setting data entry options, 267-269
  - Windows Clipboard operations, 271-272
- validation rules, BeforeUpdate event handler, 1242-1243

data events, 1152-1153
- BeforeUpdate, 1242-1243
- OnCurrent, 1243-1246

data exchange, XML as format for, 1056. ***See also*** **exporting; importing**

Data Link Properties dialog, 907-908, 1348

Data Manipulation Language (DML), 915

data objects, 812

data organization (function of Access), 116

Data page, Properties dialog (project designer), 883

data presentation (function of Access), 116

data providers, Recordset methods and, 1322

Data Query Language (DQL), 915

Data sheet view, heads-down data entry versus, 286

data sources
- for calculated controls, changing, 722-724
- creating
  - for forms, 641-643
  - for graphs, 770-773
- defined, 350
- for linked graphs, changing to crosstab queries, 790
- merging form letters with, 365-367
- SQL Server data sources, designing forms/reports, 908
- for summary queries, selecting, 770-771

Data Type and Formatting group (Table Tools, Datasheet ribbon), 134

data type conversions functions (SQL), 916

Data Type field property, 210, 876

data types. ***See*** **specific data types**
- coerced data types, 1181
- concatenation, 424
- converting fields to Access data types, 356-358
- field data types
  - changing, 246-247
  - Field Size property, selecting subtypes for, 215-217
  - Format property, selecting, 218-223
  - Input Mask property, 223-225
  - list of, 213-215
- new features, 47-49
- object libraries, 1181-1182
- for parameter queries, specifying, 502-503
- SharePoint data types, 1110-1111
- SQL Server data types, 978-979
- type-declaration characters, 1180-1181
- upsizing to SQL Server, 826
- user-defined data types, 1186
- Variant, 424-425
- VBA data types, 1180-1182

data validation. ***See also*** **entity integrity**
- BeforeUpdate event handler, 1242-1243
- data verification versus, 287
- defined, 194
- expressions, 275-276, 435
- field-level validation rules, 276-278
- lookup lists, 279-281
- table-level validation rules, 278-279

testing, 283-285
troubleshooting, 285
data verification, data validation versus, 287
data visualization, PivotTables and PivotCharts, 547-548
data-centric collaboration, 1143-1144
data-related XML, advantages of learning, 1089-1090
data-type conversion functions, 421, 432-433
database compatibility levels, changing, 1350-1351
database connectivity, upgrades and, 1353
***Database Design for Mere Mortals* (Hernandez), 199**
database diagrams, 873, 901-902
Database Diagrams page (Database window), 873
Database Documenter, 259-262
database engine. *See* Access database engine
Database object, 73, 1182
database objects
pointing to, 1188
properties
as variables, 1187-1189
With…End With structure, 1188-1189
renaming, 245
VBA data types, 1181-1182
database owner
changing, 1350-1351
defined, 198
database roles, 853-854
Database Splitter, 163, 813-816
Database to Convert From dialog, 1339
Database Tools ribbon, 27-28
Database Utilities (Tools menu), 162-163
Backup SQL Database, 902, 904
Compact and Repair Database, 163
Convert Database, 164
Copy Database File, 907
Make ADE File, 909
Make MDE File, 164-165, 863
Restore SQL Database, 904-905
Transfer Database, 840
Database window for ADP, 873-874
databases. *See also* Access databases; applications; Jet databases; RDBMSs; SQL Server databases
.accde files, creating, 164-165
.accdr files, creating, 165
add-ins, 204
backing up, 902-905
compacting, 163-164, 170
connections
remote SQL Server databases, 907-908
troubleshooting, 909
converting, 164
to Access 2002 format, 164
compile errors, 170
secured Access 9*x* files, 1341-1342
troubleshooting, 170
unsecured Access 9*x* files, 1335-1339
corrupted databases, 164
creating, 204-206
from Office Online templates, 1131-1137
from SharePoint 2007, 1106
current database, 516
default location, 120
designing, importance of customer input, 263
distributed databases, 177
documentation, creating data dictionaries, 259-262
external databases
defined, 516
queries against, 516-518
hierarchical databases, 177
history of, 177-180
legacy databases
converting fields to Access data types, 356-358
images in, 354-356
importing, 345-350
linking with ODBC, 350-354
troubleshooting importing, 371-372
linking, 180
network databases, 177
Northwind sample database, 225
adding tables, 230-233
designing tables, 226-230
preparing to add tables, 225-226
opening, 118-120
publishing to SharePoint 2007, 1105-1110, 1131-1134
customizing SharePoint lists, 1134-1135
synchronizing SharePoint lists, 1135-1137
record-locking information files, 203
relational databases, 178. *See also* data validation; entity integrity; normalization; primary keys; referential integrity; transactions
books for more information, 199
structure of, 181-185
remote SQL Server databases, connecting to, 907-909
repairing, 164
spreadsheets versus, 176
tables, modifying in other databases, 940, 942

transferring to server, 906-907
troubleshooting
conversion compile errors, 170
invalid database locked messages, 170
remote connections, 909
upgrading
DAO versus ADO, 1353
MSDE to SQL Server, 1346
secured Access 9*x* files, 1341-1342
unsecured Access 9*x* files, 1335-1339
VBA code, optimizing, 1352-1353

DataMember property (Recordset object), 1314

Datasheet Formatting dialog, 131

Datasheet page (Access Options dialog), 147-148

Datasheet view, 116, 198
browse-mode editing, 883
creating tables in, 234-235
customizing, 314-316
new features, 49-52
Totals row, 96
when not to use, 287

DataSource property (Recordset object), 1314

DataTips, 1204

date constraints in Like expressions, 949

Date function, 426

date ranges, comparison operators and, 419

date values, enclosing with # (pound sign), 1181

Date/Time data type, 214
converting to/from Number or Text data type, 247
four-digit year formatting, 219
standard formats for, 218-219

date/time fields, grouping report data by, 751

date/time functions, 421, 426-428

date/time identifiers, 919

Date/Time literals, 420

DateAdd function, 426

DateDiff function, 426

DatePart function, 426

DateSerial function, 426

DateValue function, 426

Day function, 427

dBASE
importing/exporting files from, 347
importing/linking ISAM tables, 348-350
indexes, 346
supplemental files, 345

DCL (Data Control Language), 916

DDL (Data Definition Language), 915
tables, creating, 942-944

Debug object, printing to Immediate window (VBA editor), 1205-1208

debugging
class modules, 1217-1219
Form_Switchboard class module, 1217-1219
Immediate window, printing to, 1205-1208
runtime errors, 1198-1200

Decimal Places field property, 211, 876

Decimal subtype, 216

decision-support applications, 583, 1250-1251
combo boxes
adding to forms, 1254-1256
converting to ADP, 1270-1276
designing queries, 1251
editing, 1256-1257
SELECT queries, creating, 1258-1261
selecting all items, 1266-1269
constraining queries with, 1250
adding combo boxes to forms, 1254-1257
creating forms with list boxes, 1252-1253
query design, 1251
forms
adding query combo boxes, 1254-1256
creating, 1252, 1254
list boxes
drilling down from, 1261-1265
selecting items, 1265-1269
troubleshooting, 1168, 1276-1277

Declarations section (modules), 1177
dynamic arrays, 1187
form-level variables, 1184
global variables, 1184
module-level variables, 1184
Option Compare… statements, 1208
Option Explicit statement, 1183-1184
report-level variables, 1184
symbolic constants, 1189
user-defined data types, 1186

declarative referential integrity (DRI), 827, 833

declaring
arrays, 1186
constants, 1189
variables
explicit variables, 1183-1184
implicit variables, 1183
scope, 1184-1185
user-defined data types, 1186

default Access 2007 workgroup file, 1343

Default Colors group (Datasheet page), 148

default field values, creating with expressions, 434-435

default folder
changing, 75
as trusted location, 78-81
Default Font group (Datasheet page), 148
default form layout, rearranging, 590-592
default form property values, 594-595
default form view, changing, 652-653
default layouts for forms and reports, 54-55
default options, setting (Access Options dialog), 143-144
Add-Ins page, 154
Advanced page, 150-152
Current Database page, 145-147
Customize page, 152-153
Datasheet page, 147-148
Object Designers page, 148-149
Popular page, 144-145
Proofing page, 149-150
Resources page, 157-158
Trust Center pages, 155-157
default parameter values, adding, 893
default references, viewing, 1179
default system settings, 143-144
Default Value field property, 211, 876
default values
fields, setting, 235-237
input parameters, adding, 892-893
Default View table property, 207
default workgroup file, specifying for Access 2007 front end with Access 200*x* back end, 1345
DefaultDatabase property (Connection object), 1294
DefinedSize property (Field object), 1319
Delete method
Parameters collection, 1306
Recordset object, 1323
delete queries, 401, 560-563. *See also* action queries; cascading deletes
defined, 550
syntax, 936
transactions with, 938
delete stored procedures, 900-901
DeleteObject method, 1223
deleting
AutoFormats, 599
form controls, 606
indexes, 944
MSDE, 1347
records, 275, 900-901
cascading deletions, 241
report controls, 717-719
report sections, 762-763
tab control pages, 680
tables, 255, 944
delimiters, 919
defined, 337
text identifiers versus, 337
Description property
Err object, 1199
Error object, 1299
fields, 210
Table Design window, 876
tables, 207
Design mode button (VBA editor toolbar), 1201
Design view, 120
forms, 634-635
aligning controls, 638-641
Form Design Tools - Arrange ribbon, 631-634
Form Design Tools - Design ribbon, 627-630
moving controls, 637-638
properties, 635-636
selecting controls, 636-640
sizing, 636, 638
project designer, 884-885
reports
Report Design Tools - Arrange ribbon, 714-715
Report Design Tools - Design ribbon, 713-714
Report Design Tools - Page Setup ribbon, 714
designing. *See also* formatting
applications, 72
crosstab queries for linked graphs, 788-790
databases/tables, importance of customer input, 263
decision-support queries, 1251
forms, 621
audience support, 621
consistency and simplicity, 622-624
monitor resolution, 622
optimizing form design, 683-685
with SQL Server data sources, 908
PivotTables, 525-526
queries
art of, 407-408
optimizing performance, 408-409
reports, 767, 908
SELECT queries for make-table queries, 551-553
summary queries for Chart Wizard, 771-773
tables, 226-227
assigning field names, 228-229
assigning field properties, 229-230
information to include, 227-228

desktop RDBMSs, 179
detail fields (PivotTables), 526
Detail section (forms)
background bitmap pictures, 602-604
background colors, 600-601
properties, 635
sizing, 636, 644
Diagram button (view designer toolbar), 885
Diagram Tools (Design ribbon), 32
diagrams, database, 901
Dialect property (Command object), 1305
Dim statements
declaring arrays, 1186-1187
declaring variables, 1183-1186
Direction property (Parameter object), 1307-1308
Dirty event, 1154
disabling form control editing, 620
Disconnect event (Connection object), 1303
Display group (Advanced page), 151
Display Views on SharePoint table property, 208
displaying data. *See* queries; views
DISTINCT keyword, 489, 917, 977-978
DISTINCTROW keyword, 385, 489, 917, 977-978
distributed databases, 177
division operator, 415
DLLs (dynamic link libraries), references, 1178
DLookUp aggregate function, 719-720
DML (Data Manipulation Language), 915
DNS, as distributed database, 177
Do Until…Loop statement, 1196-1197
Do While…Loop statement, 1196-1197
DocFile, 203
DoCmd object, 1173, 1219
methods, 1220-1223
arguments, 1225-1226
table of, 1223-1225
Document Libraries (SharePoint)
checking in/out databases, 1123-1125
publishing databases to, 1106-1110
Document Type Definition (DTD), 1058
Document Workspace sites (WSS), 1093
documentation
data dictionaries, creating, 259-262
RibbonX, 1228-1230
documents
RibbonX documents, editing with Visual Studio 2005, 1230-1231
with XMLNotepad 2007, 1231-1233
XML documents
attribute-centric documents, 1059-1060
defined, 1057
element-centric documents, 1059
validated documents, 1058
well-formed documents, 1058
domain integrity. *See* entity integrity
dot (.)
dot operator, 417, 1238
name separator, 1188
Double data type, 1180-1181
double quotes (“ ”), SQL punctuation, 919
Double subtype, 216
downloading
HTML Tidy, 1021-1022
templates, 73-74, 78, 81
DQL (Data Query Language), 915
DRI (declarative referential integrity), 827, 833
drill-down capabilities
defined, 526, 1252
forms, 1261-1265
increasing level of detail, 533-534
list boxes, 1261-1263
programming, 1263-1265
drop-down list boxes. *See* list boxes; lookup fields
DROPCOLUMN statement (SQL), 944
DROPINDEX statement (SQL), 944
DROPTABLE statement (SQL), 944
DTD (Document Type Definition), 1058
duplicate column names in views, 966-968
duplicate rows (imported HTML tables)
counting, 1013-1015
removing, 1015-1016
duration of VBA variables, 1185-1186
dynamic arrays, 1187
dynamic tables, displaying with ASP, 1037
creating ASP template files, 1038-1041
IIS setup, 1042-1043
ODBC data source setup, 1041
running ASP template from IIS, 1041
Dynasets. *See also* updatable Recordsets

E

E-mail command button (Office gallery), 39

E-Mail List macro, 77

EB (Embedded Basic), 1209

Echo method, 1225

Edit method (Recordset object), 1325

Edit Relationships dialog, 239, 457-458

editing. *See also* customizing; updating
- fields, 244-245
  - changing data types, 246-247
  - rearranging fields, 245-246
- form controls, disabling, 620
- graph design, 778-780
- mailing labels, 738-741
- queries in PivotTables, 528-530
- relationships, 244-248
- report controls, 719-722
- RibbonX documents
  - with Visual Studio 2005, 1230-1231
  - with XMLNotepad 2007, 1231-1233
- tables with InfoPath forms, 1084-1087
- text, keyboard operations for, 270
- text controls, 606-607
- user information (WSS 3.0), 1103-1105

Editing group (Advanced page), 150

EditMode property (Recordset object), 1314, 1317

element-centric XML documents, 1059

elements (XML), 1057
- adding to exported tables/queries, 1069-1070

email attachments, reports as, 765-766

email data collection
- with HTML forms, 101, 1043-1050
- with InfoPath forms, 1081-1082
  - creating forms, 1082-1084
  - editing table data, 1084-1087

email messages, creating with SendObject macro, 96-100

Embedded Basic (EB), 1209

embedded macros. *See* macros

embedding
- charts, 321
- image files, linking versus, 356

Employees table (Northwind sample database), 225-226

empty subtype, Null subtype versus, 425

enabling
- object dependencies, 248-250
- SSX connections through Windows Firewall, 67-68
- unsafe macros, 42

encapsulating VBA code, 1212-1213

End Sub reserved words, 1177

EndOfRecordset event (Recordset object), 1327

Enter Parameter Value dialog, 404, 945
- troubleshooting, 518

entering data. *See* data entry

entities, replacing illegal characters with, 1066

entity integrity, 193. *See also* data validation

***Envisioning Information* (Tufte), 548**

EOF property (Recordset object), 1314

equal sign (=)
- assignment operator, 415
- equal to operator, 416

equal to operator, 416

equi-joins. *See* inner joins

Err object, 1199

Error Checking group (Object Designers page), 149

error checking smart tags, 651-652

error correction (forms), 651-652

Error event, 1200

error events, 1152-1153

error handling. *See also* troubleshooting
- macros, 56, 1157-1158
- runtime errors (VBA)
  - Err object, 1199
  - Error event, 1200
  - On Error… statement, 1198-1199

error messages, upsizing process, 953. *See also* troubleshooting

Error objects, 1297-1300

error prevention. See data validation; entity integrity; referential integrity; transactions

Error statement, 1199

Errors collection, 1297-1300

errors in Upsizing Wizard, correcting, 957-959

Errors property (Connection object), 1294

Esc key, 143

escape characters, 224

ETC (evil type coercion), 424

event handlers, 91
BeforeUpdate, 1242-1243
for form events, calling, 1204

event handling. *See also* class modules; RibbonX
DoCmd object methods, 1223
arguments, 1225-1226
table of, 1223-1225
event-driven programming, 1212, 1247-1248
Form_Switchboard class module, 1215-1216
functions, 1221-1223

event sinks, 1303

event-driven programming, 1212, 1247-1248

events, 1152-1153
Connection object, 1303-1304
data events, 1152-1153
BeforeUpdate, 1242-1243
OnCurrent, 1243-1246
Dirty, 1154
Error, 1200
error events, 1152-1153
event properties, 1154
filter events, 1153
focus events, 1152-1153
keyboard events, 1152-1153
mouse events, 1152
print events, 1153
properties, 1154
Recordset object, 1327-1328
reference events, 1153
responding to/from combo and list boxes, 1159-1161
timing events, 1153
types of, 1152
Window events, 1152-1153

Events template, 76

evil type coercion (ETC), 424

Excel. *See also* spreadsheets
charts, embedding/linking, 321
exporting
PivotTables to, 537-538
tables to, 367-370
spreadsheet files
importing, 96, 321-329
linking, 329-330

Exchange 2007. *See* Outlook 2007

Exchange/Outlook Wizard, 335-337

exchanging PivotTable axes, 534-535

exclamation mark (!). *See* bang operator (!)

Execute method
Command object, 1310
Connection object, 1300-1302

execute rights for stored procedures, 857-859

ExecuteComplete event (Connection object), 1303

executing
queries, troubleshooting, 945
VBA functions, 1173, 1178
VBA subprocedures, 1172, 1177

explicit variables, 1183-1184
type-declaration characters, 1181

exponentiation operator, 415

Export — HTML Document dialog, 1024

Export — Text File dialog, 370

Export — XML File dialog, 1061

Export Data to SharePoint List dialog, 1138

Export Report dialog, 262

Export RTF File dialog, 367

Export Sharepoint Team Services Wizard, 1138-1140

Export XML dialog, 1061, 1073, 1075-1076, 1080

exported XML file sets, deploying to Web servers, 1071

exporting
Access 97 versus Access 2007 features, 372-373
Contacts (Outlook), 96
filtered records, 316
with Outlook 2007, 330-331
Access tables, 331-335
PivotTables to Excel, 537-538
queries
to WSS lists, 1138, 1140
as XML, 1060-1067
related tables as XML, 1079
reports
to HTML tables, 1026-1029
static reports as XML, 1072-1074, 1087-1088
troubleshooting, 1087-1088
as web pages, 1071-1074
SharePoint 2007 lists, 1106
table data to RDBMS, 827-828, 846-847
attaching exported tables, 847-849
tables, 367-371
to HTML, 1024-1026
Oracle tables, 828
to RDBMSs, 827-828, 847
to WSS lists, 1138, 1140
as XML, 1060-1067, 1079
tables to SharePoint 2007, 1105, 1110, 1138-1140
changes to source tables, 1121-1123
checking in/out databases from Document Libraries, 1123-1125
customizing list views, 1112-1117
from Northwind sample database, 1117-1121
replacing lookup fields, 1125-1129
SharePoint data types, 1110-1111
SharePoint-specific commands/buttons, 1129-1130
troubleshooting, 1142

Expression Builder
query criteria, 440-442
table-level validation rules, 278-279
expression functions. *See* functions
expressions
creating, 434
data validation, 275-276, 435
default values, creating, 434-435
defined, 413
elements of, 413-414
identifiers. *See* identifiers
literals. *See* literals
operators. *See* operators
queries, 435-442, 448
calculated field values, 445-447
troubleshooting, 447
sorting report data groups by, 751-752
unsafe expressions, 412
extend mode (F8 function key), 142
extended characters in searches, 295
extended properties, 869
eXtensible Application Markup Language (XAML), 1248
Extensible Markup Language. *See* XML
Extensible Stylesheet Language. *See* XSL
External Data — Text File dialog, 338
External Data ribbon, 27, 320-321
external databases
defined, 516
queries against, 516-518

F

F1 function key, 142, 1202
F2 function key, 142
F3 function key, 1202
F4 function key, 142
F5 function key, 142
F6 function key, 142
F7 function key, 142
F8 function key, 142
F9 function key, 1202
F12 function key, 142
Faculty template, 76
False constant, 1189
FetchComplete event (Recordset object), 1327
FetchProgress event (Recordset object,) 1327
field lists (SQL), 382
Field Name field property, 209
Field objects, 1319-1322
Field Property Sheet, formatting query data, 492-493
Field Size field property, 210
selecting subtypes for, 215-217
field width, printing queries, 397
field-level validation rules, 276-278
testing, 283-285
FieldChangeComplete event (Recordset object), 1327
fields. *See also* records
adding to tables, 563-564
AutoNumber fields, troubleshooting, 263
calculated fields, 437-440
expressions for, 445-447
Caption property, 395, 524
column fields (PivotTables), 526
data types
Field Size property, selecting subtypes for, 215-217
Format property, selecting, 218-223
Input Mask property, 223-225
list of, 213-215
in VBA, 1180-1181
default values
creating, 434-435
setting, 235-237
defined, 178
detail fields (PivotTables), 526
editing, 244-245
changing data types, 246-247
rearranging fields, 245-246
filter fields (PivotTables), 526
freezing, 291
function key assignments, 142-143
hiding, 314
identity fields, appending records containing, 896-897
keyboard operations for, 272-273
legacy databases, converting to Access data types, 356-358
lookup fields, 104-106, 466-467
adding fixed-value lookup lists, 472-474
adding foreign keys with Lookup Wizard, 467-471
adding to tables, 109-111
creating multivalued lookup fields, 474-478
properties, 877
replacing, 1125-1129
in tables, 407
multiple fields, sorting on, 292-293
naming, 250, 264
when designing tables, 228-229
null values, troubleshooting, 406
object dependencies, enabling/viewing, 248-250

in PivotCharts, filtering, 542
in PivotTables
filtering, 530-532
increasing level of detail, 533-534
primary keys
adding to make-table queries, 895
creating, 241-242
properties
list of, 209-213
when designing tables, 229-230
queries
selecting, 386-389, 494
troubleshooting, 406
relationships and, 237
renaming in template-based applications, 104-107
replacing values, 296-297
replication fields, 829
row fields (PivotTables), 526
single fields, sorting on, 292
smart tags
Property Options smart tag, 250-251
Web-based smart tags, 251-253
structure of relational databases, 181
summary calculations, 495
on all table records, 496-497
on selected table records, 497-500
with SQL aggregate functions, 495-496
text fields, newline pairs in, 371
totals fields (PivotTables), 526
unfreezing, 293
viewing hidden, 314

Fields & Columns group (Table Tools, Datasheet ribbon), 133-134

Fields collection, 1319-1322

Fields property (Recordset object), 1314

fifth normal form, 190

file formats
for exporting tables, 371
support for, 337

File New Database dialog, 204

file permissions for back-end components, 816-822

FileMaker Pro, 69-70

fill color for PivotTables, changing, 534

Filter and Sort dialog, 363

Filter by Form option, 297, 300-305

Filter by Selection option, 297-300

Filter Design window, 365

filter events, 1152-1153

filter fields (PivotTables), 526

Filter Lookup Options group (Current Database page), 147

Filter On Load table property, 208

Filter property
avoiding, 883
Recordset object, 1315, 1317-1318
viewing, 303

filter references, removing, 968-970

Filter table property, 207

filtering
Datasheet view, 49
fields in PivotCharts, 542
Navigation pane, 47
PivotTable fields, 530-532
records, 297-298
advanced filters, 298, 307-312
applying saved queries as filters, 313-314
exporting filtered records, 316
by form, 297, 300-305
loading saved filters, 313
menu-based filtering, 297, 305-307
saving filters as queries, 312-313
by selection, 297-300
Text Filters option, 300
troubleshooting, 316

filters
ApplyFilter macro, 1161, 1163-1164
events, 1153
server-side filters, 884

financial functions, 421

Find and Replace dialog, 294

Find button (VBA editor toolbar), 1201

Find Duplicates Query Wizard, 1013-1015

Find group (Home ribbon), 131

Find in Field dialog, 362

Find method (Recordset object), 1316, 1323, 1326-1327

finding. *See* searching

FindNext method, 1224

FindRecord method, 1224

first normal form, 185-187

fixed column headings in crosstab queries, 510-512

fixed length, fixed width versus, 217

fixed width, fixed length versus, 217

fixed-value lookup lists, adding, 472-474

fixed-width Text fields, 217

fixed-width text files, 337
importing, 372

flat tables, 185

flat XML documents, importing to tables, 1075-1077

flat-file database managers, 179

flow control (VBA), 1191
branching, 1192
conditional statements, 1192
If…Then…End If statement, 1192-1193
Select Case…End Select statement, 1193-1195
repetitive statements, 1195
Do Until…Loop statement, 1197
Do While…Loop statement, 1196-1197
For…Next statement, 1195-1196
While…Wend statement, 1197

fn (functions) prefix, 894

focus, cycling, 132

focus events, 1152-1153

folder permissions for back-end components, 816-822

folders, as Trusted Locations, 412

Font group (Home ribbon), 129

fonts, changing, 314

footers
creating forms with, 643-644
form footers
adding, 694-695
background colors, 600-601
properties, 635
sizing, 636
group footers, 702
adding, 762
deleting, 762-763
page breaks, 763
page footers, 702
adding, 762
deleting, 762-763
disabling printing, 731
printing, 763
report footers, 702

For…Next statement, 1195-1196

foreground color (forms), 604-605

foreign keys
adding
lookup fields for, 467-471
to tables, 565-567
defined, 181
lookup operations, 182

Form Design Tools - Arrange ribbon, 30, 631-634

Form Design Tools - Design ribbon, 30, 627-630

form events, calling event handlers, 1204

form filters, 297, 300-305

Form Layout Tools - Arrange ribbon, 30, 588-589

Form Layout Tools - Format ribbon, 29, 585-587

form letters
creating, 359-365
merging with different data sources, 365-367

form modules, 1176
function names, 1178

Form object, 1212-1213
corresponding database object type, 1182
members, viewing in Object Browser, 1219-1220
referring to, 1238-1239

Form view (run mode), 120

Form Wizard, creating master/child forms, 607-610
layout adjustments, 610-611
subform properties, 611-614

form wizards, 695-696

form-based table updating, 576

form-level scope, 1184

Form_Switchboard class module
creating, 1213-1215
debugging, 1217-1219
event handling, 1215-1216

Format Axis dialog, 779-780, 783-784

Format Chart Title dialog, 779

Format Data Series dialog, 792-793

Format function, 429, 446

Format Painter, 607

Format property, 210
selecting, 218
conditional formatting, 222-223
custom formats, 220-222
Null values, 220
standard formats, 218-219
Table Design window, 876

FormatCurrency function, 431

FormatDateTime function, 431

FormatNumber function, 431

FormatPercent function, 431

formatting. ***See also*** **designing**
form controls, 594
AutoFormat, 595-599
default values, 594-595
HTML files, upgrading to HTML 4.01 and CSS, 1031-1032
fixing HTML Tidy-generated CSS code, 1034-1035, 1050-1051
with HTML Tidy's clean option, 1032-1034
linking documents to CSS files, 1036
HTML tables, 1067
adding elements, 1069-1070
CSS rules, 1067-1069
linked PivotCharts, 803-804
query data, 492-494
report controls, 728-729
text
labels, 646-647
text boxes, 646-647

forms, 72, 582
Attachment controls, adding, 675-678
binding to Recordset objects, 1284-1286, 1288-1290
closing, 119
colors, 599
Access color palette, 599-600
background colors, 600-601
custom colors, 605-606
foreground colors, 604-605
combo boxes
adding, 1254-1256
Combo Box Wizard, 660-665
converting to ADP, 1270-1276
editing, 1256-1257
list boxes versus, 660
populating, 666-668
record-selection boxes, 671-675
SELECT queries, creating, 1258-1261
selecting all items, 1266-1269
static-value boxes, 668-671
troubleshooting, 1168, 1276-1277
constraining queries with, 1250
adding combo boxes to forms, 1254-1257
creating forms with list boxes, 1252-1253
query design, 1251
controls, 582
adding, 631, 682-683
aligning, 638-641
bound controls, 631
calculating controls, 631
changing control types, 658
copying, 650-651, 658-659, 695
deleting, 606
disabling editing, 620
error correction, 651-652
Format Painter, 607
moving, 637-640
native controls, 626
optimizing data entry, 683-685
rearranging, 610
removing from tab order, 619
selecting, 636-640
sizing, 638
tab controls. *See* tab controls
text editing, 606-607
unbound controls, 631
VBA references to, 1239-1240
converting to Access data projects (ADP), 1270
importing and testing forms, 1270-1272
replacing queries with SQL Server views, 1272-1273
T-SQL syntax, 1273-1276
creating, 641
controls, adding, 644-646
for decision-support applications, 1252, 1254
formatting text, 646-647
with headers/footers, 643-644
query data source, creating, 641-643
text boxes, 647-648
default layout, rearranging, 590-592, 652-653
Design view, 634-635
aligning controls, 638-641
Form Design Tools - Arrange ribbon, 631-634
Form Design Tools - Design ribbon, 627-630
form properties, 635-636
moving controls, 637-638
selecting controls, 636-640
sizing controls, 638
sizing forms, 636
designing, 621
audience support, 621
consistency and simplicity, 622-624
monitor resolution, 622
optimizing form design, 683-685
with SQL Server data sources, 908
drill-down capabilities of list boxes, 1261-1263
programming, 1263-1265
Error event, 1200
form operations actions, 1159
HTML forms
creating, 1043-1050
in Outlook, 101
InfoPath forms, 1081-1082
collaboration and, 1143-1144
creating, 1082-1084
data sources to bind to, 1081
editing table data, 1084-1087
labels, adding, 644-646
Layout view, 585
Conditional Formatting dialog, 588
Form Layout Tools - Arrange ribbon, 588-589
Form Layout Tools - Format ribbon, 585-587
Tab Order dialog, 590
list boxes
adding, 1252, 1254
drilling down from, 1261-1265
selecting items, 1265-1269
master/child forms, 583
creating from related tables, 583-584

creating with Form Wizard, 607-614
viewing in Layout view, 584-585
multiple-items forms, creating, 614-615
new features, 23, 53
anchoring controls, 55-56
default layouts, 54-55
grouping controls, 55
Layout view, 53-54
margins for controls, 56
modal dialogs, 53
padding for controls, 56
publishing to PDF or XPS, 56
tabbed documents, 53
opening, 119
with macros, 91-93
from Navigation Pane, 87-89
option groups
creating, 653-658
testing, 657
PivotChart forms, 522, 794-795. *See also* PivotCharts
cloning linked forms/subforms, 801-803
creating, 795-797
editing subform design, 803-804
linking to records, 801
persisting linked properties, 804-805
printing, 801
using as subforms, 798-799
PivotTables, 522
properties, 594
AutoFormat, 595-599
default values, 594-595
modifying, 619-620
overriding, 693-694
records, adding, 691-693
reports versus, 701-702
sections
adding, 694-695
sizing, 644
split forms, creating, 614-615
SQL statements in, 944-945
subforms. *See* subforms
tabbed document view, changing to modal pop-up window, 593-594
text boxes, adding, 648-650
transaction-processing forms
appending records with, 616-619
creating, 583-585
navigation in, 615-616
troubleshooting, 620-621, 1168
list boxes and combo boxes, 1276-1277
variable scope, 1184
VBA references to, 1238-1239

Forms class, 1212

Forms collection, referring to, 1238-1239

Forms group (Create ribbon), 139-140

Forms page (Database window), 874

Forms/Reports group (Object Designers page), 149

Formula property (Table Design window), 876

forward slash (/), division operator, 415

four-digit years
converting two-digit years to, 447
formatting, 219

fourth normal form, 189-190

FoxPro. *See* Visual FoxPro

freezing fields, 291
unfreezing, 293

FROM clause (SQL), 382, 918

front ends
with linked tables, upsizing, 837
.mde front ends, creating, 863-864
password-protecting, 860-863

front-end components, 812
attaching exported tables to, 847-849
backing up, 822
password-protecting, 860-862
creating .accde files, 863-864
VBA code, 862-863

full joins, 928

Function & View Tools (Design ribbon), 32

function keys, 141-143
for fields, grids, and text boxes, 142-143
global function keys, 141-142
VBA shortcuts, 1202

functions
in ADP Navigation Pane, 873
aggregate functions
troubleshooting, 447
usage, 924-926
breakpoints, adding, 1203-1205
calling in class modules, 1247
CAST( ), 931
converting macros to, 1234-1237
data type conversions functions, 916
defined, 413, 448
as event handlers, 1221-1223
executing in VBA, 1178
group aggregate functions, 916

inline functions, 890, 926-927
default values for input parameters, adding, 892-893
parameterized table-valued functions, creating, 890-892
SQL functions
aggregate functions, 495-496
upsizing VBA functions to, 979-980
SQL Server functions
in-line functions, 890-893
user-defined, 868
subprocedures versus, 1177-1178
T-SQL functions, 412
TVFs (table-valued functions), 926-927
user-defined functions, 412
utility functions, 916
VBA functions, 412, 1177-1178
data-type conversion functions, 421, 432-433
date/time functions, 421, 426-428
executing, 1173, 1178
financial functions, 421
help features, 422-424
Immediate window, 422
IsLoaded( ) function, adding breakpoints, 1203-1205
mathematic functions, 421
TempVars collection, 426
text-manipulation functions, 421, 428-432
trigonometric functions, 421
types of, 421
Variant data type, 424-425
void functions, 1177

G

Gates, Bill, 1148
General group (Advanced page), 151
Get External Data — Excel Data dialog, 323
GetChunk method (Field object), 1321-1322
GetRows method (Recordset object), 1323
GetString method (Recordset object), 1323
Getting Started with Microsoft Access dialog, 204
templates, downloading, 73-74
global constants, 1189
global function keys, 141-142
global scope, 1184
Globally Unique Identifiers (GUID), 182, 217
GoTo statement (VBA), 1192
GoToControl method, 1224
GoToPage method, 1224
GoToRecord method, 1224
grafted menus, 779
grand totals, adding to PivotTables, 528-530
Graph. *See* MSGraph
graphical view designer, 884-885
graphics formats for Attachment control, 675-676
graphs. *See also* charts; PivotCharts
adding to reports, 784-787
in ADP, 777
changing graph type, 780, 782, 784
charts versus, 774
converting to charts, 780-784
linked graphs, 788
assigning crosstab queries, 790
creating from crosstab queries, 788-794
defined, 773
designing crosstab queries, 788-789
linking to records, 790-792, 794
modifying graph design, 778-780
printing in reports, 784-787
time-series graphs, 770
unlinked graphs, 770
creating with Chart Wizard, 773-778
defined, 773
modifying with MSGraph, 778-780
query data source, creating, 770-773
Gray, Jim, 20, 177
greater than operator (>), 416
greater than or equal to operator (>=), 416
Grid button (view designer toolbar), 885
gridlines, removing, 315
Gridlines and Cell Effects group (Datasheet page), 148
grids
form controls, aligning, 638-641
function key assignments, 142-143
group aggregate functions (SQL), 916
Group By button (view designer toolbar), 885
group footers, 702
adding, 762
deleting, 762-763
page breaks, 763
group headers, 702
adding, 762
deleting, 762-763
page breaks, 763

group sections (reports), 702, 746-747
by alphabetic code characters, 749
by date/time, 751
by numeric value, 748-749
preventing widowed records, 733-734
by ranges of values, 750-751
sorting, 709, 751-752
by using subgroups, 749
Group, Sort, and Total pane, 746-749
GROUPBY clause (SQL), 385
aggregate functions, 924-925
grouped reports, creating with Report Wizard, 704-712
grouping form/report controls, 55
groups of records, blocks of cells versus, 275
groups/totals reports, 703
GUIDs (Globally Unique Identifiers), 182, 217

H

harmful code, 40
Harris, Jensen, 171
hashing, 318
HasModule property, 1176
HAVING clause (SQL), 442
aggregate functions, 924-925
headers
creating forms with, 643-644
defined, 345
form headers
adding, 694-695
background colors, 600-601
labels, adding, 644-646
properties, 635
sizing, 636
group headers, 702
adding, 762
deleting, 762-763
page breaks, 763
HTML table headers, 1069-1070
page headers, 702
adding, 762
deleting, 762-763
printing, 763
report headers, 702
adding, 762
deleting, 762-763
disabling printing, 731
XML document headers, 1057
heads-down data entry. *See* data entry
Datasheet view versus, 286
defined, 194
Help system. *See also* online help
Help task pane, 158
for macros, 1149
for VBA, 422-424, 1202-1203
HelpContext property (Error object), 1299
HelpFile property (Error object), 1299
hidden indexes, 243
hidden tables, Upsizing Wizard and, 829
hiding
fields, 314
prebuilt categories (Navigation pane), 46
hierarchical databases, 177
history
of computer-based sorting and searching, 317
of databases, 177-180
of Microsoft support for HTML, 1051-1053
of Microsoft support for XML, 1052-1053
of programming languages for macros, 1208-1210
Hobson's choice, 807
Hollerith, Herman, 177
Home Inventory template, 78
Home ribbon, 25-26, 127-128
command buttons, 128-131
host variables, 919
Hour function, 427
Hourglass method, 1225
HRActions table (Northwind sample database)
adding, 230-233
designing, 226-227
assigning field names, 228-229
assigning field properties, 229-230
information to include, 227-228
importing, 267
records, adding, 281-283
.htm files, default location, 120
HTML (Hypertext Markup Language), 1006
creating by exporting tables/queries as XML, 1060-1067
dynamic tables, displaying with ASP, 1037-1043
exporting
reports to, troubleshooting, 1087-1088
tables to, 1024-1026, 1060-1062
formatting tables, 1067-1070
forms
creating, 1043-1050
in Outlook, 101
history of Microsoft support for, 1051-1053
Internet Explorer 7 (IE 7), troubleshooting, 1088
lists, importing, 1017-1020
standards, 1006
templates, 1029-1031

upgrading to HTML 4.01 and CSS, 1031-1032
fixing HTML Tidy-generated CSS code, 1034-1035, 1050-1051
with HTML Tidy's clean option, 1032-1034
linking documents to CSS files, 1036
validating, 1034

HTML 4.01, 1006
converting to XHTML 1.0, 1036-1037
upgrading to, 1031-1032
fixing HTML Tidy-generated CSS code, 1034-1035, 1050-1051
with HTML Tidy's clean option, 1032-1034
linking documents to CSS files, 1036

HTML Output Options dialog, 1024

HTML tables
exporting reports to, 1026-1029
formatting, 1067
adding elements, 1069-1070
CSS rules, 1067-1069
headers, adding, 1069-1070
importing, 1006-1008
counting duplicate rows, 1013-1015
fixing source with HTML Tidy, 1020-1024
from web pages, 1008-1013, 1050
removing duplicate rows, 1015-1016
linking to, 1017
structure of, 1007-1008
STYLE tag, applying, 1067-1069
XSLT-generated, 1067

HTML Tidy, 1020-1021
clean option, 1032-1034
configuration files, 1023-1024
converting HTML 4.01 to XHTML 1.0, 1036-1037
downloading, 1021-1022
fixing HTML Tidy-generated CSS code, 1034-1035, 1050-1051
running from command prompt, 1023

Hungarian notation, 381

Hyperlink data type, 214

hyperlinks
defined, 1006
in HTML lists, 1019-1020

hypertext, defined, 1006

Hypertext Markup Language. *See* HTML

I

identifier operators, 414, 417-418

identifiers, 413, 420-421

Identity fields, appending records, 896-897

Identity Increment property (Table Design window), 876

Identity property (Table Design window), 876

Identity Seed property (Table Design window), 876

IE 7 (Internet Explorer 7), troubleshooting, 1088

If…Then…End If structure, 1192-1193

IIS (Internet Information Services), 1042
running ASP templates from, 1041
setting up, 1042-1043

Image control, 678

images
Attachment controls, adding, 675-678
in legacy databases, 354-356

IME Mode field property, 212

IME Sentence Mode field property, 212

Immediate window, 422
printing to, 1205-1207

implicit variables, 1183

Import a File dialog, 331

Import and Export Wizard, 331

Import HTML Wizard, 1008, 1010-1012, 1018

Import Objects dialog, 103

Import Specifications dialog, 342-344

Import Spreadsheet Wizard, 323-329

Import Text Wizard, 338-342
advanced options, 342-345

Import XML dialog, 1074-1075, 1080

importing
Access 97 versus Access 2007 features, 372-373
Contacts (Outlook), 94-96
fixed-width text files, troubleshooting, 372
forms to ADP (Access data projects), 1270-1272
HRActions table (Northwind sample database), 267
HTML lists, 1017-1020
HTML tables, 1006-1008
counting duplicate rows, 1013-1015
fixing source with HTML Tidy, 1020-1024
removing duplicate rows, 1015-1016
from web pages, 1008-1013, 1050
legacy database files, 345-348
converting fields to Access data types, 356-358
images in, 354-356
ISAM tables, 348-350
troubleshooting, 371-372
objects to template-based applications, 102-104

in Outlook 2007, 330-331
Access tables, 331-335
related tables from XML, 1080-1081
SharePoint 2007 lists, 1106
spreadsheet files, 96, 321
creating tables via, 321-329
text files, 337-338
Import Text Wizard, 338-345
XML data to tables, 1074-1078, 1080-1081
as flat XML documents, 1075-1077
with XML schemas, 1077-1078

In operator, 418-419
Or operator versus, 277

IN predicate (SQL), 934, 940, 942

in-line functions, 890-893

increasing level of detail (PivotTables), 533-534

Index property (Recordset object), 1315

Indexed field property, 212

indexed sequential access method. *See* ISAM tables

indexes
automatically generated indexes, troubleshooting, 263
creating, 242-244, 943-944
dBASE and Paradox databases, 346
defined, 193
deleting, 944
hidden indexes, 243
multiple-field indexes, 243
query optimization, 290
in searching and sorting, 317-318

Indexes dialog, 242

Indexes/Keys page, Properties dialog (project designer), 880-881

indirect relationships. *See* many-to-many relationships

InfoMessage event (Connection object), 1303

InfoPath forms, 1081-1082
collaboration and, 1143-1144
creating, 1082-1084
data sources to bind to, 1081
editing table data, 1084-1087
XML schema, 1081

Informix, linking/exporting tables, 827-828

inline functions, 890, 926-927
default values for input parameters, adding, 892-893
parameterized table-valued functions, creating, 890-892

inner joins, 928
defined, 451
multicolumn inner joins, creating, 463-466
single-column inner equi-joins, creating, 452-455

Input Mask field property, 211, 223-225, 877

input masks, 274
formatting query data, 493

input parameters, adding default values, 892-893

Insert Hyperlink dialog, 1019

Insert Merge Field dialog, 361

Insert Module button (VBA editor toolbar), 1201

INSERT queries. *See* append queries

INSERTINTO clause (SQL), 559

installing SSX (SQL Server 2005 Express), 60-65

instance names for SSX (SQL Server 2005 Express), 828

instances
defined, 1185
SQL Server instances, 813

InStr function, 429

InStrRev function, 429

intDataMode argument (OpenForm method), 1225

Integer data type, 1180

integer division operator, 415

Integer subtype, 216

IntelliMenus, 171

IntelliSense statement autocompletion, 1206

International Standard Book Number (ISBN), as primary keys, 191

Internet Assistant for Microsoft Access add-in, 1051

Internet Explorer 7 (IE 7), troubleshooting, 1088

Internet Information Services. *See* IIS

interoperability wrappers (COM), 1182

INTO clause (SQL), 403, 554

intrinsic constants, 424, 433-434, 1190

invisible variables, 1184

invoking. *See* executing

inWindowMode argument (OpenForm method), 1225

Is operator, 418

Is RowGuid property (Table Design window), 876

ISAM tables, importing/linking, 348-350

ISBN (International Standard Book Number), as primary keys, 191

IsLoaded function, adding breakpoints, 1203-1205
Isolation property (Connection object), 1296
IsolationLevel property (Connection object), 1294-1296
Issues template, 76
ItemData property, 1265
iterating list box items, 1265-1266

J

Jet databases, 177, 180, 870
Access databases versus, 202
attaching MSDE databases, 1349-1350
concurrent users limit, 824
migrating to client/servers
benefits of, 823-825
exporting to RDBMSs, 827-828
selecting strategy for, 825-826
with Upsizing Wizard, 826-839
upgrading to Access databases, 202
Join function, 429
JOIN properties, setting for views, 886-890
Join Properties dialog, 239, 485
joins, 195, 567-569
creating, 928-930
inner joins, 451
multicolumn inner joins, creating, 463-466
natural joins, 451
with nested queries, creating, 457-459
outer joins
creating, 484-486
defined, 452
relationships and, 450-451
rows returned, minimizing, 455-457
self-joins
creating, 486-487
defined, 452
single-column inner equi-joins, creating, 452-455
sort order, specifying, 455-457
theta joins
creating, 487-488
defined, 452
types of, 451-452

K

keyboard events, 1152-1153
keyboard operations. *See also* function keys; Keytips; shortcut keys
editing text, 270
fields/text boxes, 272-273
importance of, 266-267
selecting text, 270-271
setting data entry options, 267-269
VBA code shortcuts, 1202
Windows Clipboard operations, 271-272
keypunch data entry. *See* heads-down data entry
keys
composite primary keys, 184
foreign keys
defined, 181
lookup operations, 182
primary keys
data validation testing, 284
defined, 181
deriving, 182
entity integrity, 193
lookup operations, 182
referential integrity, 192-193
selecting, 190-192
secondary keys, 318
surrogate keys, 182
KeyTips, 25
activating, 128
Create ribbon, 138-141
Home ribbon, 128-131
Table Tools, Datasheet ribbon, 133-135
Table Tools, Design ribbon, 137
keywords. *See also* reserved words
in arrays, 1187
help window for, 1202
SQL, categories for, 916-917
statement autocompletion, 1206
in variables, 1183
Knuth, Donald E., 316-318

L

Label Wizard, 734-737
labels
adding
to forms, 644-646
to tab control pages, 682-683
aligning, 671
for bound text boxes, 649
formatting text, 646-647
graph labels
font size, changing, 779-780
reversing, 807
mailing labels
creating, 734-737
editing, 738-741
moving, 646
VBA, 1192
.laccdb files, 203
Landis, E. M., 317
Layout mode, 120
layout of forms
customizing, 610-611
rearranging default layout, 590-592
layout of reports, 702-703
Layout view
forms, 53-54, 585
Conditional Formatting dialog, 588
Form Layout Tools – Arrange ribbon, 588-589
Form Layout Tools – Format ribbon, 585-587

master/child forms, 584-585
Tab Order dialog, 590
reports, 53-54, 712
Report Layout Tools – Arrange ribbon, 714-715
Report Layout Tools – Format ribbon, 712-713
Report Layout Tools – Page Setup ribbon, 714

LCase function, 429

.ldb files, 203

Left function, 429

left outer joins, 928
creating, 484-486

legacy database files
importing, 345-348
converting fields to Access data types, 356-358
images, 354-356
ISAM tables, 348-350
troubleshooting, 371-372
linking with ODBC, 350-354

legal issues, importing HTML tables, 1006

legends
in PivotCharts, 541
reversing with x-axis, 807

Len function, 429

Lending Library template, 77

Length property (Table Design window), 876

less than operator (<), 416

less than or equal to operator (<=), 416

Leszynski Naming Conventions for Access, 1175

level of detail in PivotTable fields, increasing, 533-534

libraries. *See also* add-ins
missing libraries, troubleshooting, 1352
references, 1178-1179

licensing
Microsoft Small Business Server (SBS), 911
MSDE, 870
Software Assurance and Licensing terms, 1209
SQL Server, 870-871

lifetime of VBA variables, 1185. *See also* duration

Like expressions, date constraints in, 949

Like operator, 418-419

line graphs, 770
adding to reports, 784-787
changing graph type, 780, 782, 784
creating
with Chart Wizard, 773-778
from crosstab queries, 788-792, 794
modifying design, 778-780
query data source
Chart Wizard, 770-773
crosstab queries, 788, 790

line graphs. *See* graphs

line spacing in report sections, 729-731

line-item sources, 770

Link Child Fields table property, 208

link connection string, changing, 840-842

link expression errors, troubleshooting reports, 766

Link Master Fields table property, 209

Link Spreadsheet Wizard, 330

Link Tables dialog, 352

linked charts in static tables, 985-986

linked graphs, 788
assigning crosstab queries, 790
creating from crosstab queries, 788-794
defined, 773
designing crosstab queries, 788-789
linking to records, 790-792, 794

linked PivotCharts
cloning, 801-803
creating, 801
formatting, 803-804
persisting properties in, 804-805

linked servers, 868

Linked Table Manager, 162, 358-359, 839

linked tables, troubleshooting queries with, 518

linking
charts, 321
client/server databases manually, 843
attaching exported tables, 847-849
creating ODBC data source, 843-846
exporting table data to RDBMS, 846-847
databases, 180
HTML documents to CSS files, 1036
to HTML tables, 1017
image files, embedding versus, 356
importance of, 320
ISAM tables, 348-350
legacy databases
converting fields to Access data types, 356-358
images in, 354-356
Outlook 2007 files to Access tables, 335-337
PivotCharts, 801
cloning linked forms/subforms, 801-803
persisting linked properties, 804-805
setting linked properties, 1243-1246
SharePoint 2007 lists, 1106, 1140-1141

spreadsheet files, 321
to tables, 329-330
subreport data to reports, 758-760
tables. *See also* multiuser Access applications
with Database Splitter, 813-816
defined, 183
Oracle tables, 828
to SharePoint lists, 1141-1142
upsizing applications with linked tables, 837
WSS lists to, 1140
Visual FoxPro tables with ODBC, 350-354

links. *See* hyperlinks

List Box Wizard, 1252, 1254, 1263

list boxes. *See also* combo boxes
adding to tab control pages, 682-683
advantages, 1277-1278
combo boxes versus, 660
creating
Combo Box Wizard, 660-665
forms with, 1252-1253
record-selection boxes, 671-675
static-value boxes, 668-671
drill-down capabilities, 1261-1263
programming, 1263-1265
in DSAs (decision-support applications)
adding to forms, 1252, 1254
drilling down from, 1261-1265
selecting items, 1265-1269
events, responding to, 1159-1161
iterating items, 1265-1266
optimizing performance, 1277
populating, 666-668
selecting items, 1265-1266
troubleshooting, 1276-1277

list management (function of Access), 116

ListCount property, 1265

lists (HTML), importing, 1017-1020

lists (SharePoint 2007)
customizing, 1134-1135
exporting tables to, 1110, 1138-1140
changes to source tables, 1121-1123
checking in/out databases from Document Libraries, 1123-1125
customizing list views, 1112-1117
from Northwind sample database, 1117-1121
replacing lookup fields, 1125-1129
SharePoint data types, 1110-1111
SharePoint-specific commands/buttons, 1129-1130
troubleshooting, 1142
exporting/importing/linking, 1106
linking tables to, 1141-1142
linking to tables, 1140-1141
synchronizing, 1135-1137

literals
Date/Time literals, 420
defined, 413
numeric literals, 419
text literals, 419-420

live Web reports, 701

loading saved filters, 313

local scope, 1184

local variables, 1186

locking
database files, 203
Navigation pane, 46

locking file, 817

LockType property (Recordset object), 1315, 1318

logical operators, 275, 414-417
in form filters, 300

logins, adding to SQL Server, 852-853
execute rights for stored procedures, 857-859
server and database roles, 853-854
with SQL Server Management Studio, 854-857
verifying protection, 859-860

Long Binary data type, 215

Long data type, 1181

Long Integer data type, 216, 1180-1181

lookup fields, 104-106, 466-467
adding to tables, 109-111
fixed-value lookup lists, adding, 472-474
foreign keys as, 467-471
multivalued lookup fields, creating, 474-478
printing, 719-720
properties (Table Design view), 877
replacing, 1125-1129
in tables, 407

lookup lists, 104
data validation, 279-281, 284

lookup operations, 182

Lookup page (Table Design view), 877

lookup tables, creating with Table Analyzer Wizard, 255-259

Lookup Wizard, 214, 467-471

looping, 1195
Do Until…Loop statement, 1196-1197
Do While…Loop statement, 1196-1197
ensuring loop execution, 1197-1198

For…Next statement, 1195-1196
While…Wend loop, 1197

Lotus 1-2-3, importing Lotus spreadsheet files, 96

LTrim function, 429

M

Macro Builder, 1149

macro commands, 72

Macro-to-VBA Converter, class modules
creating, 1213-1215
debugging, 1217-1219
testing, 1215-1219

macros, 57, 72, 117-118, 1208-1209
actions
Close, 1151
definition of, 1148
OpenQuery, 1151
RunCommand, 1151
viewing, 1149-1151
advantages/disadvantages, 1151, 1169
ApplyFilter, 1161, 1163-1164
arguments, 1148-1149
AutoExec, 1148
compared to VBA, 1151
converting to VBA callback functions, 1234-1237
definition of, 1148
embedded macros, 72
in templates, 77
error handling, 1157-1158
events
data events, 1153
Dirty, 1154
error events, 1153
event properties, 1154
filter events, 1153
focus events, 1153
keyboard events, 1153
mouse events, 1152
print events, 1153
reference events, 1153
responding from combo and list boxes, 1159-1161
timing events, 1153
types of, 1152
window events, 1153
generating with Command Button Wizard, 1155, 1157-1159
application actions, 1159
form operations actions, 1159
Previous Record button, 1155-1157
record navigation actions, 1158
record operations actions, 1159
report operations actions, 1159
history of programming languages for, 1208-1210
Macro Builder, 1149
macros behind forms, 1149
macrosheets, 1149
new features, 23, 56-57
online help, 1149
opening forms/reports, 91-93
role of, 1148
SendObject macro, creating e-mail messages, 96-100
Switchboard Manager, 1164-1168
in templates, 77
troubleshooting, 1168
unsafe macros, enabling, 42
VBA versus, 1172

macrosheets, 1149

Mail Merge Recipients dialog, 363

Mail Merge Wizard, 359-360
form letters
creating, 360-365
merging with different data sources, 365-367

mailing labels, 703
creating with Label Wizard, 734-737
editing, 738-741
printing multicolumn reports as, 734-741

mainframe computers, 177

Make MDE File command, 163, 165, 863

Make Table dialog, 402, 553

make-table queries, 401, 551. *See also* action queries
converting SELECT queries to, 553-555
creating, 402-404
defined, 550
designing SELECT query for, 551-553
final steps in example, 556-557
parameters, adding, 404-405
primary-key fields, adding, 895
relationships, establishing, 555-556
syntax, 936

make-table stored procedures, 894-896

Manage command button (Office gallery), 38

management tools, Access versus SQL Server, 910-911

manually linking client/server databases, 843
attaching exported tables, 847-849
creating ODBC data source, 843-846
exporting table data to RDBMS, 846-847

many-to-many relationships, 183
with lookup fields, 104-106
queries, creating from, 459-463

Map Custom Fields dialog, 333

margins
for form/report controls, 56
reports, 731-732

Marketing Projects template, 76

markup tags (HTML)
defined, 1006
for lists, 1017
for tables, 1007-1008

MarshalOptions property (Recordset object), 1315
master/child forms, 583
creating
with Form Wizard, 607-614
from related tables, 583-584
viewing in Layout view, 584-585
mathematic functions, 421
MaxRecords property (Recordset object), 1315
.mdb files, 73, 202
.accdb file extension versus, 1334
upgrading to .accdb file extension, 202
.mde files, 860
creating, 164-165, 863-864
Memo data type, 213
Memo Fields
Append-Only Memo Fields, 49
Rich Text in, 48
menu negotiation, 779
Menu-based Filter/Sort option, 297, 305-307
Merge to New Document dialog, 364
metadata, 345, 1301
methods
Command object, 1309-1310
Connection object, 1300-1302
DoCmd object, 1221-1225
Field object, 1321-1322
Recordset object, 1322-1327
Microsoft
history of HTML support, 1051-1053
history of XML support, 1052-1053
Microsoft Access projects. *See* ADPs
Microsoft Analysis Services, 771
Microsoft Data Engine (MSDE). *See* SSX (SQL Server 2005 Express)
Microsoft Graph. *See* MSGraph
Microsoft Office Access 2007. *See* Access 2007
Microsoft Office Online, templates from, 81-82
Microsoft Office Open XML (MOOX), 1052, 1056
Microsoft Office SharePoint Services (MOSS) 2007, 1092. *See also* SharePoint 2007
Microsoft Small Business Server (SBS), 911
Microsoft Software Assurance and Licensing terms, 1209
Mid function, 429
migrating. *See also* upgrading
Access databases to SQL Server databases, 203
to client/server databases
benefits of, 823-825
exporting to RDBMSs, 827-828
selecting strategy for, 825-826
with Upsizing Wizard, 826-839
mini-server applications, 770
minimizing rows returned in joins, 455-457
minus sign (-), subtraction operator, 415
Minute function, 427
mixed environment, upgrading secured Access 9*x* files, 1341-1342
Mod operator, 415
modal dialogs, 21, 53
modal pop-up window, changing tabbed document form view to, 593-594
Mode property (Connection object), 1294, 1296-1297
modifying tables in other databases, 940, 942
Module window (VBA editor toolbar), 1200-1202
module-level scope, 1184
modules, 72, 118, 1175-1177. *See also* class modules
Access modules, 1175
class modules, 1177
functions, calling, 1247
subprocedures, calling, 1247
Declarations section, 1177
dynamic arrays, 1187
form-level variables, 1184
global variables, 1184
module-level variables, 1184
Option Compare… statements, 1208
Option Explicit statement, 1183-1184
report-level variables, 1184
symbolic constants, 1189
user-defined data types, 1186
form modules, 1176
function names, 1178
functions, 1177-1178
procedures, 1177
Public variables, declaring, 1177
references, 1178
report modules, 1176
shortcut keys, 1202
text comparison options, 1208
Utility Functions module, 1203-1207
variable scope, 1184
VBA
elements of, 1177
types of, 1175-1177
monitor resolution, designing forms, 622
Month function, 427
Monthly Orders by Category report, creating, 754-758

MonthName function, 427
MOOX(Microsoft Office Open XML), 1052, 1056
MOSS (Microsoft Office SharePoint Services) 2007, 1092. ***See also*** **SharePoint 2007**
most-recently used (MRU) list, 123
mouse events, 1152
Move method (Recordset object), 1323
Move to SharePoint Site Wizard, 1106, 1111
MoveComplete event (Recordset object), 1328
MoveFirst method (Recordset object), 1323
MoveLast method (Recordset object), 1324
MoveNext method (Recordset object), 1324
MovePrevious method (Recordset object), 1324
moving. ***See also*** **exporting**
form controls, 637-640
labels, 646
report controls, 717-719
upsized databases, 839-842
changing link connection string, 840-842
MRU (most-recently used) list, 123
MSDE (Microsoft Data Engine). ***See also*** **SSX (SQL Server 2005 Express)**
batch operations limit, 824
features, 824
licensing, 870
performance, troubleshooting, 864-865
upgrading to SQL Server 2005 Express (SSX), 1346-1347
attaching MSDE databases, 1347-1350
removing MSDE, 1347
SQL Server 2000 editions versus, 871
MSDesign Tools. ***See*** **project designer**
MsgBox method (DoCmd object), 1223, 1225
MSGraph, 770
adding graphs to reports, 784-787
changing graph type, 780, 782, 784
converting graphs to charts, 780-784
linked graphs, 788
assigning crosstab queries, 790
designing crosstab queries, 788-789
linking to records, 790-792, 794
modifying graph design, 778-780
PivotCharts versus, 807-808
MSInfo files, 158
multicolumn inner joins, creating, 463-466
multicolumn reports, 703
printing as mailing labels, 734-741
multidimensional arrays (VBA), 1187
multifield sorts, 308-310
multiline text boxes, 647
multiple fields, sorting on, 292-293
multiple records, updating, 563
adding
composite primary keys to tables, 564-565
fields to tables, 563-564
foreign keys to tables, 565-567
joining tables, 567-569
UNION queries, 569-572
multiple values in lookup fields, 467
multiple-field indexes, 243
multiple-items forms, creating, 614-615
multiplication operator, 415
multitable queries, optimizing. ***See also*** **joins**
aggregate queries, 519
crosstab queries, 520
subdatasheets, 519
multiuser Access applications, 812-813
back-end components, share/folder/file permissions, 816-822
backing up, 822
creating, 812-813
Database Splitter, 813-816
securing network shares, 816-817, 821
verifying back-end security, 822
linking client/server databases manually, 843
attaching exported tables, 847-849
creating ODBC data source, 843-846
exporting table data to RDBMS, 846-847
migrating to client/server databases
benefits of, 823-825
exporting to RDBMSs, 827-828
selecting strategy for, 825-826
with Upsizing Wizard, 826-839
moving upsized databases, 839-840
changing link connection string, 840-842
performance, troubleshooting, 864-865
practical uses for, 865-866
Multivalued Lookup Field (MVLF), 48. ***See also*** **lookup fields**
creating, 474-478
munge, 373

N

NAICS (North American Industry Classification System), as primary keys, 191

Name AutoCorrect feature, 147, 245, 250

Name AutoCorrect Options group (Current Database page), 147

Name property
- Command object, 1305
- Field object, 1319
- Parameter object, 1307

named arguments, 1190-1191

named constants, 434

named database objects as VBA variables, 1187-1188

NamedParameters property (Command object), 1305

names
- of query column headers, changing, 394-397
- three-part names, 941

namespaces (XML), 1058

naming conventions
- fields, 250
  - when designing tables, 228-229
- Hungarian notation, 381
- option group controls, 657
- for server share connections, 815
- SQL Server, 894
- tables, 94
- tables/fields, 264
- variables, 1183
- VBA, 1174-1175

native controls, 626

NativeError property (Error object), 1299

natural joins. *See* inner joins

Navigation group (Current Database page), 145

navigation in transaction-processing forms, 615-616

Navigation Options dialog, 45

Navigation pane, 21, 42-43, 85
- for ADPs, 872-873
- Custom category, customizing, 43-46
- filtering, 47
- forms, opening, 87-89
  - with macros, 91-93
- hiding prebuilt categories, 46
- locking, 46
- object classification method, selecting, 85-86
- records, adding, 87-91
- reports, opening with macros, 91-93
- searching, 47
- sorting, 47

nested If…End If statements (VBA), 1193

nested queries, 382
- creating, 457-459
- defined, 933
- upsizing, 955, 957-959

nested views, 933

network databases, 177

New command button (Office gallery), 36

new features in Access 2007, 20
- Access database engine, 21, 47
  - data types, 47-49
  - Datasheet view, 49-52
- forms and reports, 23, 53
  - anchoring controls, 55-56
  - default layouts, 54-55
  - grouping controls, 55
  - Layout view, 53-54
  - margins for controls, 56
  - modal dialogs, 53
  - padding for controls, 56
  - publishing to PDF or XPS, 56
  - tabbed documents, 53
- macros, 23, 56-57
- Navigation pane, 21, 42-43
  - customizing Custom category, 43-46
  - filtering, 47
  - hiding prebuilt categories, 46
  - locking, 46
  - searching, 47
  - sorting, 47
- ribbon user interface, 20-21, 24-25
  - contextual ribbons, 28-33
  - Create ribbon, 26
  - customizing, 33-34
  - Database Tools ribbon, 27-28
  - External Data ribbon, 27
  - Home ribbon, 25-26
  - Office gallery, 36-40
  - Quick Access Toolbar (QAT), 34-36
- security, 21, 40-41
  - enabling unsafe macros, 42
  - package signing, 41-42
  - trusted locations, specifying, 41
- SharePoint collaboration, 23, 57-58
- tabbed documents, 21
- templates, 22, 52-53

New Form dialog
- AutoForm:PivotChart, 795-797
- Chart Wizard, 773-778

New Item macro, 77

New Values field property, 212

newline pairs in text fields, 371

NextRecordset method (Recordset object), 1324

.nfo files, 158

No constant, 1189

NoMatch property (Recordset object), 1316

nonlinked graphs. *See* unlinked graphs

nonreserved words (ANSI SQL), 917

normal forms
defined, 185
first normal form, 185-187
second normal form, 187-188
third normal form, 188-189
fourth normal form, 189-190
fifth normal form, 190

North American Industry Classification System (NAICS), as primary keys, 191

Northwind sample database, 225
exporting to SharePoint 2007, 1117-1121
HRActions table
adding records to, 281-283
importing, 267
Oakmont sample database versus, 184-185
opening, 120-123
tables
adding, 230-233
designing, 226-230
preparing to add, 225-226
Utility Functions module, 1203-1207

Northwind SQL sample ADP project, 872-874

not equal operator (<>), 416

Not operator, 417

not-equal joins, creating, 487-488

Now function, 427

Null constant, 1189

Null subtype, empty subtype versus, 425

Null values, 220
as default values, 236
in parameter queries, troubleshooting, 406

Number data type, 213
converting to/from Date/Time or Text data type, 247
selecting subtypes for, 216-217
standard formats for, 218-219

Number property
Err object, 1199
Error object, 1299

numeric data types, grouping report data by, 748-749

numeric fields, changing data types, 246-247

numeric literals, 419

NumericScale property
Field object, 1319
Parameter object, 1307

Nutrition template, 78

Nz function, 432

O

Oakmont sample database, Northwind sample database versus, 184-185

Object Browser, 1179-1180
ADO objects, displaying, 1290-1293
class module members, viewing, 1219-1220
DAO objects, displaying, 1290-1293
intrinsic constants, displaying, 1190
starting, 1220
viewing, 1179

Object Browser button (VBA toolbar editor), 1201

object classification method (Navigation Pane), selecting, 85-86

object dependencies, enabling/viewing, 248-250

Object Designers page (Access Options dialog), 148-149

object libraries, 1181-1182
references, 1178

Object List button (VBA editor toolbar), 1202

object menus, 779

Object not found in this collection (error message), 1247

object properties, setting, 1188-1189

object security. *See* user-level security

object-oriented programming languages, 1210

objects. *See* names of specific objects
data types in VBA, 1182
pointing to, 1188
statement autocompletion, 1206

ODBC (Open Database Connectivity), 827-828
data sources, creating, 843-846, 1041
linking
front ends to client/server RDBMSs, 827-828
Visual FoxPro tables, 350-354
table connection strings, 837-842

ODBC DSNs, attaching MSDE databases, 1349-1350

ODBC table connection string, 837-839

ODF (OpenDocument Format for Office Applications), 1052

Off constant, 1189

Office 2007 ribbon user interface. *See* ribbon user interface

Office gallery, 36-40

Office Live Premium, 69

Office Online templates, creating databases from, 1131-1134
customizing SharePoint lists, 1134-1135

synchronizing SharePoint lists, 1135-1137
Office Web Components (OWC), 808
offline access, synchronizing SharePoint lists, 1135-1137
OLAP (online analytical processing), 771
OLE, embedding/linking Excel charts, 321
OLE DB, 1182
COM interoperability wrapper, 1182
data providers, Recordset methods and, 1322
OLE mini-server applications, 770
menu commands, 779
OLE Object data type, 214-215
OLE Object fields, Attachment fields versus, 355
OLTP (online transaction processing) databases, 771. *See also* transaction processing (TP)
designing queries for, 771-773
On constant, 1189
On Current event, setting linked PivotChart properties, 1243-1246
On Error GoTo statement, 1198-1199
On Error Resume Next statement, 1198
one-to-many forms. *See* master/child forms
one-to-many relationships, 183
one-to-one relationships, 183
online analytical processing (OLAP), 771
online help, 158-159
searching for phrases, 159-160
searching other sources, 160-162
online transaction processing (OLTP) databases, 771. *See* transaction processing (TP)
designing queries for, 771-773
Open command button (Office gallery), 36
Open Database Connectivity (ODBC), 827-828
Open dialog, 121
Open method
Connection object, 1300-1301
Recordset object, 1324
open source database systems, 70
OpenDataAccessPage method, 1224
OpenDiagram method, 1224
OpenDocument Format for Office Applications (ODF), 1052
OpenForm method, 1223, 1225
opening
databases, 118
forms, 119
with macros, 91-93
from Navigation Pane, 87-89
meaning in Access, 118-119
Northwind Traders sample database, 120-123
pages, 119
reports, 119
with macros, 91-93
SELECT queries, 119
tables, 118
VBA editor, 1200
OpenModule method, 1223
OpenQuery method, 1151, 1223-1224
OpenReport method, 1223
OpenSchema method (Connection object), 1300-1301
OpenStoredProcedure method, 1224
OpenTable method, 1223
OpenView method, 1224
operands, 275, 414
operating modes, 119
operator syntax, 276
operators
arithmetic operators, 414-415
assignment operators, 414-415
Between operator, 418-419
bitwise operators, 417
categories of, 414
comparison operators, 414, 416
date ranges, 419
concatenation operators, 414, 417
defined, 275, 413
identifier operators, 414, 417-418
In operator, 418-419
Is operator, 418
Like operator, 418-419
logical operators, 414, 416-417
SQL, 916
wildcard characters, 418
optimizing
form design, 683-685
list boxes and combo boxes, 1277
multitable queries
aggregate queries, 519
crosstab queries, 520
subdatasheets, 519
PivotTables, 538-541, 546
query performance, 408-409
VBA code after upgrades, 1352
Option Base statement, 1187
option buttons in reports, 764

Option Compare… statements, 1208
Option Explicit statement, 1183
Option Group Wizard, 653-658
option groups, 653, 657
creating, 653-658
naming controls, 657
testing, 657
Option1_Click( ) procedure, 1215-1216
Optional keyword, 1191
options, default, 143-144
Options properties dialog. ***See*** **Access Options dialog**
Or operator, 416
In operator versus, 277
Oracle, linking/exporting tables, 827-828
Order By On Load table property, 208
Order By table property, 207
ORDERBY clause (SQL), 391, 918
in UNION queries, 931-932
in views, 886
ordered tables, binary tree searches on, 317
ordering, sorting versus, 317
ordinate, 770
Orientation table property, 207
OriginalValue property (Field object), 1319
orphan records, 193
Others group (Create ribbon), 141
OuputAs method, 1225
outer joins, 928
creating, 484-486
defined, 452
Outlook
compatibility with Access, 94
Contacts
exporting, 96
importing, 94-96
e-mail messages, creating with SendObject macro, 96-100
HTML forms, 101
importing/exporting files, 330-331
Access tables, 331-335
linking files to Access tables, 335-337
reports, sending, 765-766
Outlook Express, sending reports, 765-766
OutputTo method, 1226
Overlapping Windows, changing to Tabbed Documents, 82-84
overriding form properties, 693-694
OWC (Office Web Components), 808
ownership of databases, changing, 1350-1351

P

p-code, 1189
package files
creating, 169
signing, 41-42, 169
testing, 169
padding for form/report controls, 56
page breaks in reports, 763
page footers, 702
form page footers
adding, 694-695
properties, 635
sizing, 636
report page footers
adding, 762
deleting, 762-763
disabling printing, 731
printing, 763
page headers, 702
form page headers
adding, 694-695
properties, 635
sizing, 636
report page headers
adding, 762
deleting, 762-763
disabling printing, 731
printing, 763
Page view, run mode, 120
PageCount property (Recordset object), 1315
pages
closing, 119
opening, 119
tab control pages
adding, 679
changing order of, 679-680
controls, adding, 682-683
deleting, 680
setting properties, 681-683
subforms, adding, 686-691
PageSize property (Recordset object), 1315
paperless offices, 742-743
Paradox
importing/exporting files from, 347
importing/linking ISAM tables, 348-350
indexes, 346
supplemental files, 346
Parameter objects, 1306-1309
parameter queries, 402, 500
converting summary queries to, 500-501
creating, 404-405
data types for, 502-503
null values, troubleshooting, 406
parameterized functions, 890, 892

parameterized stored procedures (Command object), 1310-1313

parameterized table-valued functions, creating, 890-892

parameters
- for action queries/stored procedures, 936, 938
- default values, adding, 893
- Enter Parameter Value dialog, 945
- passing values to stored procedures, 1310-1313

Parameters collection, 1306

Parameters dialog, 742

Parent property, 1241

pass-through queries, 402, 849-852

password-protecting front-end components, 860-862
- creating .accde files, 863-864
- VBA code, 862-863

Paste Table As dialog, 254

pasting
- form controls, 606
- records, troubleshooting, 285
- tables, 254-255
- text
  - keyboard operations for, 271-272
  - troubleshooting, 285

PDF
- exporting tables to, 367-370
- publishing to, 56
- for reports, 700

percent (%), wildcard character, 919

PERCENT modifier (SQL), 917

percentage distribution charts, 782

PercentPosition property (Recordset object), 1316

performance
- calculated columns and, 448
- list boxes and combo boxes, 1277
- PivotTables, 538-541, 546
- queries, 408-409
- SSX (SQL Server 2005 Express), troubleshooting, 864-865

period (.). *See* dot (.)

permissions
- assigning to security groups (WSS 3.0), 1102-1103
- for back-end components, 816-822
- server and database roles, 853-854
- for upsized projects, 997-999

persistent database objects, 312

PersistFormat property (Recordset object), 1315

persisting properties of linked PivotCharts, 804-805

Personal Account Ledger template, 78

personalized menus, 171

phrases, searching help system for, 159-160

pipes (||), concatenation operator, 417

PIVOT operator (views), emulating crosstab queries, 986-994

PivotChart Tools (Design ribbon), 29

PivotCharts, 522, 541, 794-795
- ActiveX control connections, troubleshooting, 807
- axis titles, 541
- category presentation, changing, 543-544
- chart type, changing, 544-546
- cloning linked forms/subforms, 801-803
- creating, 795-797
- data visualization, 547-548
- editing subform design, 803-804
- fields, filtering, 542
- legends, 541
- linked PivotCharts
  - cloning, 801-803
  - creating, 801
  - formatting, 803-804
  - persisting properties in, 804-805
  - setting linked properties, 1243-1246
- MSGraph versus, 807-808
- persisting linked properties, 804-805
- PivotTables as substitute for, 806
- printing, 801
- troubleshooting, 807
- as subforms, 798-801

PivotTable Tools (Design ribbon), 29

PivotTables, 522
- ActiveX control connections, troubleshooting, 807
- adding to forms, 806
- axes, exchanging, 534-535
- color schemes, changing, 534
- crosstab queries versus, 523
- data visualization, 547-548
- designing, 525-526
- exporting to Excel, 537-538
- fields
  - filtering, 530-532
  - increasing level of detail, 533-534
- generating initial, 526-528
- grand totals, adding, 528-530
- performance optimization, 538-541, 546
- properties, setting, 535-537
- queries
  - creating, 523-525
  - editing, 528-530
- as substitute for PivotCharts, 806
- troubleshooting, 807

placeholders. *See also* variables
defined, 220
for input masks, 223-224
list of, 220-221
typographic conventions, 1174

PlainText function, 429

plus sign (+)
addition operator, 415
concatenation operator, 417

pointers, 1188

pop-up modal dialogs, 84

Popular page (Access Options dialog), 144-145

populating combo boxes, 666-668

pound sign (#)
date/time identifier, 919
enclosing date values, 1181

prebuilt categories (Navigation pane), hiding, 46

Precision property, 210
Field object, 1319
Parameter object, 1307
Table Design window, 876

predicates (SQL), 916

Prepared property (Command object), 1305

preventing errors. *See* data validation; entity integrity; referential integrity; transactions

Primary Key field property, 210

primary keys
append queries and, troubleshooting, 574
composite primary keys
adding to tables, 564-565
defined, 184
creating, 241-242
data validation testing, 284
defined, 181
deriving, 182
entity integrity, 193
lookup operations, 182
referential integrity, 192-193
selecting, 190-192
SQL Server tables, 880-881

primary-key fields, adding to make-table queries, 895

Print command button (Office gallery), 37

print events, 1152-1153

Print method (Debug object), 1205-1207

Print Preview, run mode, 120

Print Preview ribbon, 28, 715-717

Print Table Definition dialog, 260

printing, 118
graphs/charts in reports, 784-787
lookup fields, 719-720
PivotCharts, 801
print events, 1153
queries, 397-398
reports, 733
blank pages, eliminating, 741
as mailing labels, 734-741
margin options, 731-732
page headers/footers, 763
to Immediate window, 1205-1207

Printing group (Advanced page), 151

PrintInvoice_Click event handler, 965

PrintOut method, 1224

Procedure List button (VBA editor toolbar), 1202

procedure-level scope, 1184

procedures, 1177. *See also* functions; subprocedures
arguments, 1190-1191
functions versus, 1177-1178
Option1_Click( ), 1215-1216
property procedures, 1177

program flow control. *See* flow control (VBA)

programming languages for macros, history of, 1208-1210

project designer, 378, 874-875
adding tables, 886-890
Design view, 884-885
parameter default values, adding, 893
parenthesis pairs, 895
Properties dialog, 877
Check Constraints page, 882
Data page, 883
Indexes/Keys page, 880-881
Relationships page, 879-880
Tables page, 877-879
stored procedures, 893
append, 896-899
delete, 900-901
make-table, 894-896
update, 894-896
Table Design view, 875-877

Project Explorer button (VBA editor toolbar), 1201

Project/Library list (Object Browser), 1179-1180
intrinsic constants, 1190

projects, troubleshooting missing projects, 1352. *See also* ADP (Access Data Projects)

Projects template, 76

Proofing page (Access Options dialog), 149-150

properties
Command object, 1304-1305
Connection object, 1293-1294, 1296
Errors, 1297-1300
IsolationLevel, 1295-1296
Mode, 1296-1297
Provider, 1295
State, 1297

event properties, 1154
extended properties, 869
Field object, 1319-1321
field properties
change propagation, 248-251
list of, 209-213
lookup fields, 877
when designing tables, 229-230
form properties, 594, 600-601, 635-636
AutoFormat, 595-599
default values, 594-595
default view, changing, 652-653
modifying, 619-620
overriding, 693-694
linked PivotCharts, persisting, 804-805
object properties, setting, 1188-1189
PivotChart properties
reapplying, 804-805
setting linked properties, 1243-1246
PivotTables, setting, 535-537
Recordset object, 1313-1319
subform properties, 611-614
tab control properties, 681-683
table properties
list of, 206-208
modifying for upsizing operations, 829-830
in project designer, 876-877
SQL Server tables, 877-879
for subdatasheets, 208-209
as variables, 1187-1189
With…End With structure, 1188-1189

Properties dialog (project designer), 205, 877-883
Check Constraints page, 882
Data page, 883
Indexes/Keys page, 880-881
Relationships page, 879-880
Tables page, 877-879

Properties property
Command object, 1305
Connection object, 1294
Field object, 1320
Recordset object, 1315

Properties Window button (VBA toolbar editor), 1201

Property Options smart tag, 250-251

property procedures, 1177

Provider property (Connection object), 1294-1295

providers, Recordset methods and, 1322

pseudo-code, 1189

public constants, 1189

public scope, 1184

Public variables, declaring, 1177

Publish as PDF or XPS dialog, 367

Publish command button (Office gallery), 39

Publish to the Web Wizard, 1051

Publish to Web Server dialog, 1107, 1110

publishing
databases to SharePoint 2007, 1105-1110, 1131-1134
customizing SharePoint lists, 1134-1135
synchronizing SharePoint lists, 1135-1137
to PDF or XPS, 56

punched cards, 177

punctuation (SQL), list of, 918-919

Q

QAT (Quick Access Toolbar), customizing, 34-36

QBE (query-by-example)
defined, 195-198
translating SQL to, 919
creating Access query definitions, 920-921
creating SQL Server views, 921-924

qualifiers (SQL), 916

queries, 72, 378. *See also* PivotTables
action queries, 401. *See also* append queries; delete queries; make-table queries; update queries
alternatives to, 575-577
defined, 550
table backups, importance of, 550
transactions and, 562
types of, 550
upsizing, 955
writing, 935-936, 938
in ADP Navigation Pane, 873
against external databases, 516-518
aggregate queries. *See* summary queries
append queries, 401, 557-559. *See also* action queries
defined, 550
removing duplicate rows, 1015-1016
syntax, 935
troubleshooting, 574
art of query design, 407-408
closing, 119
constraining, 1250
adding combo boxes to forms, 1254-1257
creating forms with list boxes, 1252-1253
query design, 1251
creating
as form data source, 641-643
as graph data source, 770-773
from indirect relationships, 459-463

PivotCharts from, 795-797
for PivotTables, 523-525
SQL statements from combo boxes, 1258-1261
crosstab queries, 379, 401, 463, 503-504
creating linked graphs from, 788-794
creating manually, 508-510
creating with Crosstab Query Wizard, 504-508
crossfooting, 994-997
emulating with T-SQL, 980-994
fixed column headings in, 510-512
PivotTables versus, 523
upsizing, 955
cursor types, 392
Datasheet view. *See* Datasheet view
decision-support queries
adding to forms, 1254-1256
creating forms, 1252, 1254
designing, 1251
editing combo boxes, 1256-1257
SELECT queries, creating, 1258-1261
delete queries, 401, 560-563. *See also* action queries; cascading deletes
defined, 550
syntax, 936
transactions with, 938
drill-down capabilities of list boxes, 1261-1263
programming, 1263-1265
editing in PivotTables, 528-530
Enter Parameter Value dialog, troubleshhooting, 518
executing, troubleshooting, 945
exporting
to SharePoint lists, 1138-1142
as XML, 1060-1067
expressions in, 435-442, 448
calculated field values, 445-447
troubleshooting, 447
fields, selecting all, 494
joins. *See* joins
with linked tables, troubleshooting, 518
make-table queries, 401, 551. *See also* action queries
adding parameters to, 404-405
converting SELECT queries to, 553-555
creating, 402-404
defined, 550
designing SELECT query for, 551-553
final steps in example, 556-557
primary-key fields, adding, 895
relationships, establishing, 555-556
syntax, 936
multitable queries. *See* joins
nested queries, 382
creating, 457-459
defined, 933
upsizing, 955, 957-959
optimizing performance, 408-409
parameter queries, 402, 500
converting summary queries to, 500-501
creating, 404-405
data types for, 502-503
null values in, 406
pass-through queries, 402, 849-852
QBE. *See* QBE (query-by-example)
Query Design window, 385-386
changing column header names, 394-397
establishing record criteria, 389-391, 393-394
preventing result set updates, 391-393
printing queries, 397-398
selecting fields, 386-389
replacing with SQL Server views, 1272-1273
saving filters as, 312-314
select queries, 401
changing to action queries, 550
writing, 917-918
Simple Query Wizard, 378-379
creating select queries, 379-385
subdatasheets, adding, 481-483
subqueries, 382, 514-516, 933-935
summary calculations, 495
on all table records, 496-497
on selected table records, 497-500
with SQL aggregate functions, 495-496
summary queries, 383-385
choosing data sources for, 770-771
creating for Chart Wizard, 771-773
selecting data sources, 770-771
troubleshooting, 406
T-SQL syntax, 1273-1276
troubleshooting, 406-407
union queries, 401, 512-514, 569-572
creating, 930-933
custom rows, adding to combo/list boxes, 1267
selecting all combo box items, 1267
update queries, 401, 563. *See also* action queries; cascading updates
composite primary keys, adding to tables, 564-565
defined, 550
fields, adding to tables, 563-564

foreign keys, adding to tables, 565-567
joining tables, 567-569
parameter values, 936, 938
syntax, 935
UNION queries with, 569-572
updating tables with, 489-491
formatting data, 492-494
row fix-up feature, 491-492
upsizing to SQLServer, 443-444

Query Builder, populating combo boxes, 666-668

query definitions, creating from SQL statements, 920-921

Query Design group (Object Designers page), 148

query design specification. *See* QueryDef objects

Query Design window, 195-196, 385-386
column headers, changing names, 394-397
fields, selecting, 386-389
queries, printing, 397-398
records, establishing criteria, 389-391, 393-394
result sets, preventing updates to, 391-393

query optimization, 290

Query Tools (Design ribbon), 29

query-by-example. *See* QBE

QueryDef objects, 393
corresponding database object type, 1182

question mark (?), wildcard character, 418, 437, 919

Quick Access Toolbar (QAT)
adding command buttons to, 152-153
customizing, 34-36

quick searches, 296

QuickBase, 70

Quit method, 1224

R

rafted toolbars, 171

RaiseError statement, 1199

ranges of values, grouping reports with, 750-751

ranking functions (T-SQL), 850

RDBMSs (relational database management systems)
client/server, 179-180
desktop, 179
exporting tables to, 827-828, 846-847
attaching exported tables, 847-849
functions of, 116-117
SQL standards, 178

Really Simple Syndication (RSS), 1114-1115

rearranging
default form layout, 590-592
fields, 245-246
form controls, 610

record navigation actions, 1158

record operations actions, 1159

record-locking information files, 203

record-selection combo boxes, creating, 671-675

RecordChangeComplete event (Recordset object), 1328

RecordCount property (Recordset object), 1315

records. *See also* fields; user-defined data types
adding
to HRActions table (Northwind sample database), 281-283
with InfoPath forms, 1084-1087
from Navigation Pane, 87-91
to tables, 273-274, 691-693
appending, 896-899
append stored procedures, 896-899
with forms, 616-619
identity fields, 896-897
to tables, 275, 557-559
canceling added records, 274
cascading updates/deletions, 241
cutting in tables, 275
defined, 178
deleting, 275, 560-563, 900-901
filtering, 297-298
advanced filters, 298, 307-312
applying saved queries as filters, 313-314
exporting filtered records, 316
by form, 297, 300-305
loading saved filters, 313
menu-based filtering, 297, 305-307
saving filters as queries, 312-313
by selection, 297-300
Text Filters option, 300
troubleshooting, 316
groups of, blocks of cells versus, 275
orphan records, 193
pasting, troubleshooting, 285
in queries, establishing criteria, 389-391, 393-394
replacing
content in tables, 275
field values, 296-297
searching, 294-296
selecting in tables, 274
sorting, 290
advanced sort orders, 307-312
freezing fields, 291
on multiple fields, 292-293

on single field, 292
removing sort order, 293
structure of relational databases, 181
summary calculations
on all records, 496-497
on selected records, 497-500
transactions, 194-195
updating, 563, 899-900
adding composite primary keys to tables, 564-565
adding fields to tables, 563-564
adding foreign keys to tables, 565-567
joining tables, 567-569
UNION queries, 569-572

Records group (Home ribbon), 130

Recordset object
binding forms to, 1284-1290
class identifiers, 1182
creating, 1283
from SQL Server Express database, 1286-1287
events, 1327-1328
Fields collection, 1319-1322
methods, 1322-1327
properties, 1313-1319
updatable Recordsets, 390
validating updates to, 1242-1243
Value property, 1188

RecordsetChangeComplete event (Recordset object), 1328

reDim statement, 1187

Redo button (VBA editor toolbar), 1201

reference events, 1152-1153

references, 1178
adding, 1179
alternative collection syntax, 1241-1242
to controls, 1239-1240
default, viewing, 1179
defined, 1178-1179
to forms, 1238-1239
to Office XP Web controls, 1244
to reports, 1238-1239
to subform controls, 1241

References dialog, 1179

referential integrity
cascading updates/deletions, 241
data validation testing, 283
defined, 192-193
deleting records, 562
enforcing, 240, 827, 833
in SQL Server, 827
troubleshooting, 575

Refresh method (Parameters collection), 1306

related tables
creating master/child forms from, 583-584
exporting as XML, 1079
importing from XML, 1080-1081

relational database management systems. *See* RDBMSs

relational databases. *See also* RDBMSs
books for more information, 199
data validation. *See* data validation
entity integrity. *See* entity integrity
history of databases, 178
normalization. *See* normalization
primary keys. *See* primary keys
referential integrity. *See* referential integrity
structure of, 181-185
transactions. *See* transactions

relations, 178

Relations page (Properties dialog), 879-880

Relationship Tools (Design ribbon), 29

relationships
circular relationships, 452
defined, 183
diagramming, 901
editing, 244-245, 247-248
establishing, 237-241
after make-table queries, 555-556
for testing cascading deletes/updates, 572-573
troubleshooting, 575
indirect relationships, creating queries from, 459-463
joins and, 450-451
many-to-many, 183
with lookup fields, 104-106
one-to-many, 183
one-to-one, 183
SQL Server tables, 879-880
in Tasks sample application, 112
viewing, 184

Relationships database diagram, 901-902

Relationships group (Table Tools, Datasheet ribbon), 134

Relationships page, Properties dialog (project designer), 879-880

Relationships window, 238, 451

reliability of client/server databases, 823

relinking tables, 358-359

relocating. *See* moving

remote SQL Server databases, connecting to, 907-908
troubleshooting, 909

remote users, accessibility to SSX (SQL Server 2005 Express), 65-67

removing
duplicate rows when importing HTML tables, 1015-1016
filter references, 968-970
form controls from tab order, 619
gridlines, 315
MSDE, 1347
saved filters, 313
sort orders, 293
username/password requirement, 1346

Rename method, 1223-1224

renaming
database objects, 245
fields in template-based applications, 104-107

RepaintObject method, 1224

repairing databases, 164

repetitive data, eliminating, 255-259

repetitive statements (VBA), 1195
Do Until…Loop statement, 1197
Do While…Loop statement, 1196-1197
For…Next statement, 1195-1196
While…Wend statement, 1197

Replace function, 429

replacing
field values, 296-297
lookup fields, 1125-1129
queries with SQLServer views, 1272-1273
record content in tables, 275

replication, 59

replication conflicts, 154

replication fields, 829

Replication ID subtype, 216

Report Design Tools — Arrange ribbon, 31, 714-715

Report Design Tools — Design ribbon, 31, 713-714

Report Design Tools — Page Setup ribbon, 31, 714

Report Layout Tools — Arrange ribbon, 31, 714-715

Report Layout Tools — Format ribbon, 30, 712-713

Report Layout Tools — Page Setup ribbon, 31, 714

report modules, 1176
function names, 1178

Report object, 1212-1213
corresponding database object type, 1182
members, viewing in Object Browser, 1219-1220
referring to, 1238-1239

Report Snapshots, 700, 765
troubleshooting, 766

Report Wizard, 702, 704-712

report-level scope, 1184

reports, 72, 700, 746
charts, adding, 784-787
closing, 119
controls, 702
ActiveX controls, 764
aligning, 727-728
bound object frames, 764
calculated controls, 722-727
check boxes, 764
copying, 650-651
deleting, 717-719
editing, 719-722
formatting, 728-729
moving, 717-719
option buttons, 764
printing lookup fields, 719-720
shapes, 764
unbound object frames, 764
VBA references to, 1239-1240
creating with default blank reports, 752-758
Design view
Report Design Tools — Arrange ribbon, 714-715
Report Design Tools — Design ribbon, 713-714
Report Design Tools — Page Setup ribbon, 714
designing, 767
with SQL Server data sources, 908
as email attachments, 765-766
Error event, 1200
exporting
to HTML tables, 1026-1029
static reports as XML, 1072-1074, 1087-1088
troubleshooting, 1087-1088
as web pages, 1071-1074
formats for, 700-701
forms versus, 701-702
graphs, adding, 784-787
group sections, 702, 746-747
by alphabetic code characters, 749
by date/time, 751
by numeric value, 748-749
preventing widowed records, 733-734
by ranges of values, 750-751
sorting, 709, 751-752
by using subgroups, 749
grouped reports, creating with Report Wizard, 704-712
Layout view, 712
Report Layout Tools — Arrange ribbon, 714-715
Report Layout Tools — Format ribbon, 712-713
Report Layout Tools — Page Setup ribbon, 714
layouts, 702-703
length, reducing, 764
linked subreports, 758-760

new features, 23, 53
anchoring controls, 55-56
default layouts, 54-55
grouping controls, 55
Layout view, 53-54
margins for controls, 56
modal dialogs, 53
padding for controls, 56
publishing to PDFor XPS, 56
tabbed documents, 53
opening, 119
with macros, 91-93
operations actions, 1159
Print Preview ribbon, 715-717
printing, 733
blank pages, eliminating, 741
graphs/charts in, 784-787
as mailing labels, 734-741
margin options, 731-732
page headers/footers, 763
queries as, 397-398
Report Snapshots, 700
sections, 702
adding, 762
deleting, 762-763
line spacing, 729-731
page breaks, 763
printing, 763
SQL statements in, 944-945
subreports, 702, 753-754
tabular reports, creating, 703-704
troubleshooting
blank pages, 741
link expression errors, 766
Parameters dialog, 742
snapshots, 766
unlinked subreports, 761
in upsizing process, 953-954
variable scope, 1184
VBA references to, 1238-1239
widowed records, preventing, 733-734

Reports class, 1212

Reports collection, referring to, 1238-1239

Reports group (Create ribbon), 140

Reports List macro, 77

Reports page (Database window), 874

Requery method, 1224
Recordset object, 1324

Requested For combo box, creating, 107-109

Required field property, 211

requirements, software requirements for ADPs, 870

reserved words, 973-978. ***See*** **keywords**
ANSI SQL, 917, 973-978
typographic conventions, 1174
Upsizing Wizard and, 955

Reset button (VBA editor toolbar), 1201

resizing
columns, 316
rows, 315

resolution (of monitor), designing forms, 622

resources, RibbonX documentation, 1228-1230

Resources page (Access Options dialog), 157-158

Restore SQL Database command, 904-905

restoring databases, 904-905

result sets
combining with UNION queries, 512-514
defined, 917
preventing updates to, 391-393

Resync method (Recordset object), 1324

Ribbon and Toolbar Options group (Current Database page), 146

ribbon user interface, 20-21, 24-25, 127
context-specific ribbons, 132
Table Tools, Datasheet ribbon, 132-135
Table Tools, Design ribbon, 135-137
contextual ribbons, 28-33
Create ribbon, 26, 138
command buttons, 138-141
customizing, 33-34
Database Tools ribbon, 27-28
External Data ribbon, 27
Home ribbon, 25-26, 127-128
command buttons, 128-131
Office gallery, 36-40
Quick Access Toolbar (QAT), 34-36
usability, 171-172

ribbons, creating, 1227-1228

RibbonX
documentation and reference material, 1228-1230
documents, editing
with Visual Studio 2005, 1230-1231
with XMLNotepad 2007, 1231-1233
macros, converting to VBA callback functions, 1234-1237
objects, creating, 1227-1228
overview, 1226-1227

Rich Text group (Home ribbon), 129-130

Rich Text Memo fields, 48

Right function, 429

right outer joins, 928

roles, 853-854

rollbacks (transactions), 195

RollbackTrans method (Connection object), 1301

RollbackTransComplete event (Connection object), 1303

rolled-up data, 770-771
roundtrips, 194
row fields (PivotTables), 526
row fix-up feature, 491-492
Row Height dialog, 315
rows
defined, 178
in joins, minimizing number returned, 455-457
resizing, 315
RPT2DAP.xsl style sheet, 1071
RPT2HTML4.xsl style sheet, 1071
export restrictions, 1073, 1088
RSS (Really Simple Syndication), 1114-1115
RTF
exporting tables to, 367-370
for reports, 701
RTrim function, 429
Rucker, Erik, 20
Run mode, 120
Run Sub/User Form button (VBA toolbar editor), 1201
RunApp method, 1224
RunCode method, 1224
RunCommand method, 1151, 1224, 1226
RunMacro method, 1224
running
ASP templates from IIS, 1041
HTML Tidy from command prompt, 1023
RunSQL method, 1224
runtime applications, error-handling code, 1198-1199
runtime errors, 1198-1199
detecting error type, 1199
Err object, 1199
Error event, 1200
On Error… statement, 1198-1199
runtime files, creating, 165
runtime versions, 860

S

Sales Pipeline template, 76
sandbox mode, 412
Save a Local Copy dialog, 1107
Save ADE As dialog, 909
Save As command button (Office gallery), 36
Save command button (Office gallery), 36
Save Import Steps dialog, 327
Save Import/Export Specification dialog, 344
Save method
DoCmd object, 1224
Recordset object, 1324
saving
custom templates, 158
filters as queries, 312-313
as PDF or XPS, 56
queries, applying as filters, 313-314
SBS (Small Business Server), 911
scalability of client/server databases, 823
Scale field property, 211, 876
schemas (XML)
defined, 1058
for exported tables/queries, 1062-1066
importing data with, 1077-1078
science of query design, 408-409
scope
arrays, 1187
functions, 1178
variables, 1184-1185
ScreenTips, 144
scripts. *See* macros
searching
binary tree searches on ordered tables, 317
Navigation pane, 47
records, 294-296
searching help system
for other sources, 160-162
for phrases, 159-160
Second function, 427
second normal form, 187-188
secondary keys, 318
sections
form sections
adding, 694-695
background bitmap pictures, 602-604
background colors, 600-601
border color, 604-605
border style, 604-605
custom colors, 605-606
foreground color, 604-605
labels, adding, 644-646
sizing, 636, 644
report sections, 702
adding, 762
deleting, 762-763
line spacing, 729-731
page breaks, 763
printing, 763
secured Access 200*x* files, upgrading to Access 2007, 1343
creating shortcut for Access 2007 front end with Access 200*x* back end, 1344-1345
removing username/password requirement, 1346
specifying default workgroup file, 1345
secured Access 9*x* files, upgrading to Access 200*x*, 1341
back-end database file upgrades, 1342-1343
in mixed environment, 1341-1342

security, 118
ADPs, saving as .ade files, 909
back-end components, 952
client/server applications
password-protecting front ends, 860-863
trusted connections, 831
new features, 21, 40-41
enabling unsafe macros, 42
package signing, 41-42
trusted locations, specifying, 41
password-protecting front-end components, 860-862
creating .accde files, 863-864
VBA code, 862-863
permissions for back-end components, 816-822
secured Access 200*x* files, upgrading to Access 2007, 1343-1346
secured Access 9*x* files, upgrading to Access 200*x*, 1341-1343
self-signed certificates, creating, 166-169
SQL Server user accounts and logins, 852-860
trusted location, default folder as, 78-81
unsecured Access 200*x* files, upgrading to Access 2007, 1343
unsecured Access 9*x* files, upgrading to Access 200*x*, 1335-1341, 1352
for upsized projects, 997-999
user-level security, 59, 1335
VBA, 1174

security groups (WSS 3.0), 1101-1102
assigning permissions to groups, 1102-1103
editing user information, 1103-1105

Seek method (Recordset object), 1325, 1327

Select Case…End Select structure, 1193-1195

Select Data Source dialog, 351

SELECT keyword (SQL), 382
elements of, 917

Select Names to Add dialog (Outlook), 1136

select queries, 401
changing to action queries, 550
converting to make-table queries, 553-555
creating, 379-385
designing for make-table queries, 551-553
opening, 119
upsizing, 955
writing, 917-918

SELECT statement, based on combo box values, 1258-1261

Select Unique Record Identifier dialog, 352

selecting
all combo box items, 1266-1269
blocks of cells, 271
client/server migration strategy, 825-826
data sources for summary queries, 770-771
fields for queries, 386-389, 494
form controls, 636-637, 639-640
Format property, 218
conditional formatting, 222-223
custom formats, 220-222
Null values, 220
standard formats, 218-219
list box items, 1265-1266
troubleshooting, 1276-1277
object classification method (Navigation Pane), 85-86
primary keys, 190-192
records in tables, 274
subtypes for Field Size property, 215-217
text, keyboard operations for, 270-271

selection filters, 297-300

SelectObject method (DoCmd object), 1223-1224

self-joins, 452, 928
creating, 486-487

self-signed certificates, 42
creating, 166-169

Send dialog, 262

SendKeys method, 1225

SendObject method, 1225
creating e-mail messages, 96-100

separators. *See* delimiters

serial numbers, as primary keys, 190

server roles, 853-854

server roundtrips, 194

server share connections, naming conventions for, 815

server-side filters, 884

servers. *See also* Web servers
exported XML file sets, deploying, 1071
transferring ADPs to, 906-907

SET command (SQL), 935

Set statement, creating named variables, 1188

SetValue method, 1224

SetWarnings method, 1225

SGML (Standard Generalized Markup Language), 1057

ShallAllRecords method, 1224

shapes in reports, 764

share permissions for back-end components, 816-822

shared file systems, future of, 865-866

shared-file database managers, 179

SharePoint 2007. ***See also*** **WSS 3.0**
- creating databases from, 1106
- exporting tables to, 1105, 1110
  - changes to source tables, 1121-1123
  - checking in/out databases from Document Libraries, 1123-1125
  - customizing list views, 1112-1117
  - from Northwind sample database, 1117-1121
  - replacing lookup fields, 1125-1129
  - SharePoint data types, 1110-1111
  - SharePoint-specific commands/buttons, 1129-1130
- exporting tables/queries to, 1138-1140
  - troubleshooting, 1142
- linking tables to, 1141-1142
- linking to tables, 1140-1141
- lists,
  - exporting/importing/linking, 1106
- new features, 23, 57-58
- publishing databases to, 1105-1110, 1131-1134
  - customizing SharePoint lists, 1134-1135
  - synchronizing SharePoint lists, 1135-1137

SharePoint List group (Table Tools, Datasheet ribbon), 135

sharing applications. ***See*** **multiuser Access applications**

Shift+Enter key combination, 143

Shift+F2 key combination, 142

Shift+F3 key combination, 1202

Shift+F4 key combination, 142

Shift+F8 key combination, 143

Shift+F12 key combination, 142

Shift+Tab keycombination, 1202

shortcut keys. ***See also*** **keyboard operations**
- KeyTips, 25
- VBA code shortcuts, 1202

shortcuts, creating for Access 2007 front end with Access 200*x* back end, 1344-1345

Show Fields dialog, 334

Show Table dialog, 238, 386

Show/Hide group (Table Tools, Design ribbon), 137

showing. ***See*** **viewing**

SIC (Standard Industrial Classification), as primary keys, 191

signing
- applications, 1174
- packages, 41-42, 169

Simple Query Wizard, 378-379
- select queries, creating, 379-385

Single data type, 1180-1181

single fields, sorting on, 292

single quotes (' '), 1258
- SQL punctuation, 919

Single subtype, 216

single-column inner equi-joins, creating, 452-455

single-column reports, 702

single-line text boxes, 647

Site Collection Administrators (WSS 3.0), 1101

Site Members (WSS 3.0), 1101

Site Owners (WSS 3.0), 1101

Site Visitors (WSS 3.0), 1101

sites (WSS 3.0)
- adding subsites, 1094-1097
- configuring subsites, 1097-1101
- security groups, 1101-1102
  - assigning permissions to groups, 1102-1103
  - editing user information, 1103-1105
- types of, 1093

Size property (Parameter object), 1307

sizing
- form controls, 638
- form sections, 636, 644

Small Business Server (SBS), 911

smart tags, 971
- error checking options, 651-652
- Property Options smart tag, 250-251
- Web-based smart tags, 251-253

Smart Tags field property, 212

Snap to Grid command, 638-639

snapshot backups, 902, 904

Snapshot Viewer, 59, 700, 767
- obtaining, 765

Snapshots cursor type, 392

Social Security Numbers (SSNs), as primary keys, 191

Software Assurance and Licensing terms, 1209

software requirements for ADPs, 870

Sort & Filter group (Home ribbon), 130

sort order of joins, specifying, 455-457

Sort property (Recordset object), 1316

sorting
Datasheet view, 49
Navigation pane, 47
ordering versus, 317
records, 290
advanced sort orders, 307-312
freezing fields, 291
on multiple fields, 292-293
removing sort order, 293
on single field, 292
report data, 746-747
by alphabetic code characters, 749
by date/time, 751
by expressions, 751-752
by numeric value, 748-749
by ranges of values, 750-751
by using subgroups, 749

***Sorting and Searching, Volume 3* (Knuth), 316-318**

source code (HTML), fixing with HTML Tidy, 1020-1024

Source property
Error object, 1299
Recordset object, 1316

sp (stored procedures) prefix, 894

Space function, 429

space-delimited files, 337

spacing. *See* line spacing

Spelling: Language dialog, 131

splat (*). *See* asterisk (*)

split forms, 89
creating, 614-615

Split function, 429

Spolsky, Joel, 1006

spreadsheet files
databases versus, 176
importing, 96, 321-329
linking, 321
to tables, 329-330

SQL (Structured Query Language)
Access SQL, 378
reserved words, 973-978
T-SQL versus, 914-915
action queries, writing, 935-936, 938
aggregate functions, 495-496
usage, 924-926
ANSI SQL
conforming computed columns, 959-963
reserved words, 973-978
clauses, 916
commands
categories for, 915-916
defined, 916
data type conversions functions, 916
DISTINCTROW keyword, 385
field lists, 382
in forms/reports, 944-945
FROM clause, 382
functions, upsizing VBA functions to, 979-980
group aggregate functions, 916
GROUPBY clause, 385
HAVING clause, 442
history of databases, 178
importance of learning, 945-946
IN predicate, 940, 942
INTO clause, 403
joins, creating, 928-930
keywords, categories for, 916-917
operators, 916
ORDERBY clause, 391
predicates, 916
punctuation/symbols, list of, 918-919
qualifiers, 916
queries, troubleshooting query execution, 945
SELECT command, 382
elements of, 917
writing, 917-918
standards, 178, 914
statements
SQL views, 886
upsizing, 970-973
stored procedures, 893
append procedures, 896-899
crosstab queries, emulating, 986-994
delete procedures, 900-901
make-table procedures, 894-896
transactions in, 938-940
update procedures, 894-896
writing, 935-936, 938
subqueries, 933-935
T-SQL (Transact-SQL), 378
tables, updating, 576-577
transactions and, 576
translating to QBE (query-by-example), 919
creating Access query definitions, 920-921
creating SQL Server views, 921-924
TVFs (table-valued functions), 926-927
UNION queries, creating, 930-933
utility functions, 916
WHERE clause, 391, 462

SQL button (view designer toolbar), 885

***SQL Queries for Mere Mortals* (Viescas), 199**

SQL Server. *See also* ADPs
Access versus, 910-911
backing up databases, 902-905
Books Online documentation, 827
data sources, designing forms/reports, 908
data types, 978-979
database diagrams, 901-902
databases, 180
backups, 902-903
migrating Access databases to, 203

remote databases, connecting to, 907-909
editions, 870-871
extended properties, 869
functions
in-line functions, 890-893
user-defined, 868
installation, 911
instances, 813
licensing, 870-871
management tools, 910-911
migrating with Upsizing Wizard, 826-839
moving database files between servers, 840
naming conventions, 894
pass-through queries, 849-852
referential integrity, enforcing, 827, 833
stored procedures, 893
append stored procedures, 896-899
delete stored procedures, 900-901
make-table stored procedures, 894-896
update stored procedures, 894-896, 899-900
tables
appending records, 896-899
check constraints, 882
creating, 894-896
Database window, 873
deleting records, 900-901
Properties dialog, 877-883
upsized databases, moving, 839-840
changing link connection string, 840-842
upsizing queries to, 443-444
user accounts and logins, 852-853
creating with SQL Server Management Studio, 854-857
execute rights for stored procedures, 857-859
server and database roles, 853-854
verifying protection, 859-860
views, 884-890
adding tables, 886-890
creating from SQL statements, 921-924
duplicating queries, 1272-1273
replacing queries with, 1272-1273
server-side filters, 884
setting JOIN properties, 886-890
SQL statements for, 886
view designer, 884-890

SQL Server 2005 Embedded Edition (SSEE), SQL Server 2005 Express Edition (SSX) versus, 1093

SQL Server 2005 Express (SSX), 59, 203
benefits/limitations of, 824-825
database compatibility levels, changing, 1350-1351
database owner, changing, 1350-1351
enabling connections through Windows Firewall, 67-68
features of, 871
installing, 60-65
instance names, 828
licensing, 871
performance, troubleshooting, 864-865
practical uses for, 866
remote user accessibility, 65-67
SQL Server 2005 Embedded Edition (SSEE) versus, 1093
upgrading to, 1346-1347
attaching MSDE databases, 1347-1350
removing MSDE, 1347

SQL Server Compact Edition (SQLce), 870

SQL Server Express database, creating Recordset objects from, 1286-1287

SQL Server Management Studio (SSMS), creating logins with, 854-857

SQL Server Management Studio Express (SSMSX) Service Pack (SP) 2, 825

SQL State property (Error object), 1299

SQL Statement Tools (Design ribbon), 33

SQL statements
asterisk (*) in, 181
creating for queries from combo boxes, 1258-1261
for views, 886
upsizing, 970-973

SQL-200n specification, 178

SQL-92 standard, 178, 914
DDL statements, creating tables with, 942-944

SQL-99 specification, 178, 914

SQL:2003 standard, 914

SQLce (SQLServer Compact Edition), 870

square brackets ([ ]), 385
in identifiers, 420
query names, 459
SQL punctuation, 918

SSEE (SQLServer 2005 Embedded Edition), SSX (SQL Server 2005 Express Edition) versus, 1093

SSMS (SQL Server Management Studio), creating logins with, 854-857

SSMSX (SQL Server Management Studio Express) SP (Service Pack) 2, 825

SSNs (Social Security Numbers), as primary keys, 191

SSX (SQL Server 2005 Express), 59, 203
benefits/limitations of, 824-825
database compatibility levels, changing, 1350-1351
database owner, changing, 1350-1351
enabling connections through Windows Firewall, 67-68
features of, 871
installing, 60-65
instance names, 828
licensing, 871
performance, troubleshooting, 864-865
practical uses for, 866
remote user accessibility, 65-67
SSEE (SQL Server 2005 Embedded Edition) versus, 1093
upgrading to, 1346-1347
attaching MSDE databases, 1347-1350
removing MSDE, 1347

Stacked Area charts, 546, 782

Stacked Column charts, 545, 780, 782, 784, 795-797

standard formats for Number, Date/Time, Yes/No data types, 218-219

Standard Generalized Markup Language (SGML), 1057

Standard Industrial Classification (SIC), as primary keys, 191

standard modules. *See* Access modules

standards
HTML 4.01, 1006
SQL, 178, 914

star (*). *See* asterisk (*)

starting Object Browser, 1220

Startup mode, 119-120

State property
Command object, 1305
Connection object, 1294, 1297
Recordset object, 1316

statement autocompletion, 1206

statements (SQL). *See* SQL statements

static reports, exporting as XML, 1072-1074, 1087-1088

Static reserved word, 1185-1186

static tables, emulating crosstab queries, 981-986

static variables, 1185-1186

static Web reports, 701

static-value combo boxes, creating, 668-671

Status property
Field object, 1320
Recordset object, 1316, 1318-1319

StayInSync property (Recordset object), 1316

StopAllMacros method, 1224

StopMacro method, 1224

Stored Procedure Tools, Design ribbon, 32

stored procedures, 893
in ADP Navigation Pane, 873
append procedures, 896-899
crosstab queries, emulating, 986-994
delete procedures, 900-901
execute rights, 857-859
make-table procedures, 894-896
parameterized Command object, 1310-1313
transactions in, 938-940
update procedures, 894-896, 899-900
updating tables, 577
in upsized projects, troubleshooting, 999
writing, 935-936
parameters, 936, 938

Str function, 429

StrComp function, 430

strFormName argument (OpenForm method), 1225

String data type, 1181

String function, 430

string identifiers (delimiters), 919
defined, 337
text identifiers versus, 337

string literals. *See* text literals

string operators, 276

strings
concatenation operators, 417
text-manipulation functions, 428-432

StrReverse function, 430

structured information, 1144

Structured Query Language. *See* SQL

structures, 1192-1195. *See also* user-defined data types
Do Until…Loop, 1196-1197
Do While…Loop, 1196-1197
For…Next, 1195-1196
If…Then…End If, 1192-1193
Select Case…End Select, 1193-1195
While…Wend, 1197
With…End With, 1188-1189

Students template, 76

style sheets (XML). *See also* CSS; XSL
defined, 1060
for exported tables/queries, 1066-1067

STYLE tag (HTML), 1067-1069
Sub reserved word, 1177
Subdatasheet Expanded table property, 209
Subdatasheet Height table property, 209
Subdatasheet Name table property, 208
subdatasheets, 478-479, 519
browse-mode editing, 883
query subdatasheets, adding, 481-483
table properties, 208-209
table subdatasheets, adding, 479-481
Subform Field Linker dialog, 802
Subform Wizard, 686-691, 798
subforms, 582
adding to tab control pages, 682-683, 686-691
controls, VBA references to, 1241
PivotChart subforms, 798-801
cloning linked forms/subforms, 801-803
editing design, 803-804
linking, 801
using forms as, 798-799
properties, 611-614
troubleshooting, 620-621
subgroups, grouping reports with, 749
subprocedures, 118. *See also* event handling
arguments, 1190-1191
calling in class modules, 1247
custom subprocedures, 1178
executing, 1172, 1177
functions as, 1221-1223
functions versus, 1177-1178
subqueries, 382, 514-516, 933-935
subreports, 702, 746
linking to bound reports, 758-760
reports as, 753-754
unlinked subreports, 761
subroutines. *See* subprocedures
subsites (WSS 3.0)
adding, 1094-1097
configuring, 1097-1101
subtraction operator, 415
subtypes, selecting for Field Size property, 215-217
summary calculations, 495
on all table records, 496-497
on selected table records, 497-500
with SQL aggregate functions, 495-496
summary queries, 383-385, 519
choosing data sources for, 770-771
converting parameter queries to, 500-501
creating for Chart Wizard, 771-773
data sources, selecting, 770-771
troubleshooting, 406
Supports method (Recordset object), 1322, 1325-1326
surrogate keys, 182
switchboard class modules
creating, 1213-1215
debugging, 1217-1219
testing, 1215-1219
Switchboard Manager, 163, 1164-1168
switchboards, 1164
Sybase, linking/exporting tables, 827-828
symbolic constants, 1189. *See also* named constants
data types, specifying, 1189
declaring, 1189
intrinsic, 1190
system-defined, 1189
symbols (SQL), list of, 918-919
synchronizing SharePoint lists, 1135-1137
System Info (.nfo) files, creating, 158
System Information window, 158
system-defined constants, 1189

T

T-SQL (Transact-SQL), 378
Access SQL versus, 914-915
crosstab queries, emulating, 980-994
functions, 412
converting VBA functions to, 428-433
ranking functions, 850
upsizing VBA functions to, 979-980
query syntax, 1273-1276
reserved words, 973-975
views, creating, 197-198
tab controls, 678
adding to forms, 678-679
pages
adding, 679
changing order of, 679-680
controls, adding, 682-683
deleting, 680
setting properties, 681-683
subforms, adding, 686-691
properties, 681-683
TAB files, 337
Tab key in VBA code, 1202
tab order, removing form controls from, 619
Tab Order dialog, 590
tab-delimited text files, 337
tabbed document form view, changing to modal pop-up window, 593-594

tabbed documents, 21, 53
changing Overlapping Windows to, 82-84
Table Analyzer Wizard, 255-259
Table Datasheet view, 123-124, 127
components of, 124-127
Create ribbon, 138-141
Home ribbon command buttons, 128-131
Table Design group (Object Designers page), 148
Table Design view (project designer), 875-877
table headers/captions, adding to exported tables/queries, 1069-1070
table joining and data extraction (function of Access), 116
table properties in project designer, 876-877
Table Properties dialog, 206. *See also* Properties dialog (project designer)
Table Selection dialog, 256
Table Tools (Datasheet ribbon), 28, 132-133
command buttons, 133-135
Table Tools (Design ribbon), 29, 135-136
command buttons, 137
Table Wizard, 234
table-level validation rules, 278-279
testing, 283-285
table-valued functions (TVFs), 926-927
TableDef object, corresponding database object type, 1182
tables, 72
adding, 230-233
to views, 886-890
in ADP Navigation Pane, 873
backups, importance of, 550
browse-mode editing, 575-576
cascading updates/deletions, 241
copying/pasting, 254-255
creating
from copied blocks of cells, 272
in Datasheet view, 234-235
with DDL statements, 942-944
by importing Excel worksheets, 96, 321-329
with make-table queries, 894-896, 551-557
from templates, 233-234
data entry. *See* data entry
data validation, 194
Datasheet view. *See* Datasheet view
defined, 178
deleting, 255, 944
designing, 226-227
assigning field names, 228-229
assigning field properties, 229-230
importance of customer input, 263
information to include, 227-228
display of, 123, 127. *See also* queries; views
dynamic tables, displaying with ASP, 1037-1043
editing, 244-245
changing field data types, 246-247
with InfoPath forms, 1084-1087
rearranging fields, 245-246
entity integrity, 193
exporting, 367-371
to HTML, 1024-1026
Oracle tables, 828
to RDBMSs, 827-828, 846-849
to WSS lists, 1138, 1140
as XML, 1060-1067, 1079
exporting to SharePoint 2007, 1105, 1110, 1138-1140
changes to source tables, 1121-1123
checking in/out databases from Document Libraries, 1123-1125
customizing list views, 1112-1117
from Northwind sample database, 1117-1121
replacing lookup fields, 1125-1129
SharePoint data types, 1110-1111
SharePoint-specific commands/buttons, 1129-1130
troubleshooting, 1142
fields
freezing, 291
hiding, 314
replacing values, 296-297
sorting on, 292-293
unfreezing, 293
viewing hidden, 314
flat tables, 185
form-based updating, 576
HTML tables
exporting reports to, 1026-1029
fixing source with HTML Tidy, 1020-1024
formatting, 1067-1070
headers, adding, 1069-1070
importing, 1006-1016, 1050
linking to, 1017
structure of, 1007-1008
STYLE tag, applying, 1067-1069
XSLT-generated, 1067
importing
with Outlook 2007, 331-335
text files, 337-345

XML data, 1074-1078, 1080-1081
indexes, creating, 242-244
indirect relationships, creating queries from, 459-463
ISAM tables, importing/linking, 348-350
joins. *See* joins
linking. *See also* multiuser applications
with Database Splitter, 813-816
defined, 183
Oracle tables, 828
to Outlook 2007 files, 335-337
to SharePoint lists, 1141-1142
spreadsheet files to, 329-330
troubleshooting, 518
upsizing applications with linked tables, 837
WSS lists to, 1140-1141
lookup fields, 407, 466-467
adding, 109-111
adding fixed-value lookup lists, 472-474
adding foreign keys with Lookup Wizard, 467-471
creating multivalued lookup fields, 474-478
lookup tables, creating with Table Analyzer Wizard, 255-259
modifying
in other databases, 940, 942
for upsizing, 829-830
naming conventions, 94, 264
normalization
defined, 185
first normal form, 185-187
second normal form, 187-188
third normal form, 188-189
fourth normal form, 189-190
fifth normal form, 190
opening, 118
PivotTables. *See* PivotTables
preparing to add, 225-226
primary keys. *See* primary keys
properties
list of, 206-208
modifying for upsizing operations, 829-830
SQL Server tables, 877-879
for subdatasheets, 208-209
records. *See* records
referential integrity, 192-193
related tables
exporting as XML, 1079
importing from XML, 1080-1081
relationships
diagramming, 901
editing, 247-248
establishing, 237-241
SQL Server tables, 879-880
troubleshooting, 575
relinking, 358-359
in sample database. *See* Northwind sample database
SQL Server tables
appending records, 896-899
check constraints, 882
creating, 894-896
Database window, 873
deleting records, 900-901
primary keys, 880-881
project designer. *See* project designer
Properties dialog, 877-883
relationships, 879-880
structure of relational databases, 181
subdatasheets, adding, 479-481
summary calculations, 495
on all table records, 496-497
on selected table records, 497-500
with SQL aggregate functions, 495-496
test tables, creating for testing cascading deletes/updates, 572-573
updatable tables, 273
updating
with queries, 489-494
with SQL statements, 576-577
with stored procedures, 577
Visual FoxPro tables, linking with ODBC, 350-354

Tables group (Create ribbon), 138-139

Tables page
Database window, 873
Properties dialog (project designer), 877-879

tabular reports, 702
creating, 703-704

tags (HTML). *See* markup tags (HTML)

Tasks sample application, 101
Approved By and Assigned To combo boxes, adding, 111-112
Approved By and Assigned To lookup fields, adding, 109-111
importing objects, 102-104
relationships in, 112
renaming fields, 104-107
Requested For combo box, creating, 107-109

Tasks template, 76

tb (tables) prefix, 894

Team sites (WSS), 1093

template-based applications
importing objects to, 102-104
renaming fields, 104-107

templates
ASP
creating, 1038-1041
running from IIS, 1041
creating tables from, 233-234
custom templates, creating, 158
downloading, 73-74, 78, 81
embedded macros in, 77
HTML, 1029-1031
list of, 75-78
from Microsoft Office Online, 81-82
creating databases from, 1131-1137
new features, 22, 52-53
viewing current list of, 81

TempVars collection, 426

tentative append record, 88, 273

test tables, creating for testing cascading deletes/updates, 572-573

testing
aggregate queries, 519
ApplyFilter macro, 1161, 1163-1164
cascading deletes, 573
cascading updates, 574
class modules, 1215-1219
CustomersCSS.asp page, 1051
data validation, 283-285
forms converted to ADP (Access data projects), 1270-1272
option groups, 657
package files, 169
upsized projects, 964

text
copying/pasting, keyboard operations for, 271-272
editing, keyboard operations for, 270
extended characters in searches, 295
formatting
labels, 646-647
text boxes, 646-647
pasting, troubleshooting, 285
selecting, keyboard operations for, 270-271

Text Align field property, 212

text boxes
adding
to forms, 648-649
to tab control pages, 682-683
creating
bound text boxes, 648-649
calculated text boxes, 649-650
formatting text, 646-647
function key assignments, 142-143
keyboard operations for, 272-273
types of, 647-648

text comparison with VBA, 1208

text controls (forms), editing, 606-607

Text data type, 213
converting to/from Date/Time or Number data type, 247
fixed-width Text fields, 217
input masks, 223-225

Text Export Wizard, 370

text fields
changing data types, 247
newline pairs in, 371

text files
exporting tables as, 370-371
fixed-width text files, troubleshooting importing, 372
importing, 337-338
Import Text Wizard, 338-345

Text Filters option, 300

Text Format field property, 212

text identifiers, delimiters versus, 337

text literals, 419-420

text-manipulation functions, 421, 428-432
converting to T-SQL text-manipulation functions, 430

thawing. *See* unfreezing

Thelen, Ed, 286

theta joins
creating, 487-488
defined, 452

third normal form, 188-189

three-part names, 941

Tidy. *See* HTML Tidy

Time function, 427. *See* date/time functions

time-series graphs, 770
adding to reports, 784-787
changing graph type, 780, 782, 784
creating with Chart Wizard, 773-778
modifying design, 778-780
query data source, creating, 770-773

TimeSerial function, 427

timestamp fields, 885

TimeValue function, 427

timing events, 1152-1153

tmp (temporary tables) prefix, 894

toggling
defined, 269
form controls, 637

toolbars. *See also* ribbon user interface
rafted toolbars, 171
VBA editor toolbar, 1200-1202

Toolbox button (VBA editor toolbar), 1201

Tools group (Table Tools, Design ribbon), 137

TOP modifier (SQL), 917

TOP operators in views, 886

totals, adding grand totals to PivotTables, 528-530

totals fields (PivotTables), 526

Totals row (Datasheet view), 96

TP (transaction processing), 194

TPL (Transaction Processing Language), 915

Transact-SQL. *See* T-SQL

transaction isolation levels (Connection object), 1295-1296

transaction processing (TP), 194

Transaction Processing Language (TPL), 915

transaction-processing forms, 583
- appending records with, 616-619
- creating, 583
  - from related tables, 583-584
  - viewing in Layout view, 584-585
- navigation in, 615-616

transactions
- action queries and, 562
- defined, 194-195
- SQL statements and, 576
- in stored procedures, 938-940

Transfer Database command, 840, 1225-1226

transferring ADPs to server, 906-907

TransferSpreadsheet method, 1225-1226

TransferSQLDatabase method, 1225-1226

TransferText method, 1225

translating SQL to QBE, 919
- Access query definitions, creating, 920-921
- SQL Server views, creating, 921-924

trends, data visualization, 547-548

trigonometric functions, 421

Trim function, 430

troubleshooting
- ADO object names, 1331
- aggregate functions, 447
- append queries, 574
- automatically generated indexes, 263
- AutoNumber fields, 263
- charts, reversing x-axis and legend labels, 807
- collections, missing objects, 1247
- compacting databases, 170
- connection errors, 909
- controls, copying, 695
- converting databases, 170
- data validation, 285
- database conversion compile errors, 170
- decision-support applications, 1168, 1276-1277
- exporting reports, 1087-1088
- exporting tables to SharePoint lists, 1142
- filtering records, 316
- forms, 620-621, 1168
  - list boxes and combo boxes, 1276-1277
- HTML Tidy-generated CSS code, 1050-1051
- importing HTML tables
  - fixing source with HTML Tidy, 1020-1024
  - from web pages, 1050
- importing legacy databases, 371-372
- Internet Explorer 7 (IE 7), 1088
- invalid database locked messages, 170
- libraries, missing, 1352
- macros, 1168
- MSDE performance, 864-865
- PivotChart/PivotTable Active X control connections, 807
- PivotCharts, 807
- PivotTables, 546, 807
- projects, missing, 1352
- queries, 406-407
  - Enter Parameter Value dialog, 518
  - with linked tables, 518
- query expressions, 447
- referential integrity, 575
- remote SQL Server database connections, 909
- reports
  - blank pages, 741
  - link expression errors, 766
  - Parameters dialog, 742
  - snapshots, 766
- SSX (SQL Server 2005 Express) performance, 864-865
- stored procedures in upsized projects, 999
- subforms, 620-621
- testing CustomersCSS.asp page, 1051
- upgrading Access 9*x* files to Access 200*x*, 1352
- upsizing operations, 864-865
- WSS export operations, 1142

True constant, 1189

Trust Center pages (Access Options dialog), 155-157

trusted connections, 831

trusted locations, 21, 1174
- default folder as, 78-81
- designating folders as, 412
- specifying, 41

Trusted Locations subpage (Trust Center pages), 155-156

Trusted Publishers subpage (Trust Center pages), 155

Tufte, Edward R., 548

tuples, 178

turning off data-type checking, 424

TVFs (table-valued functions), 926-927

two-digit years, converting to four-digit years, 447
TXT files, 337
for reports, 701
type libraries, references, 1178
Type property
Field object, 1320
Parameter object, 1307-1309
type-declaration characters, 1180-1181

U

UCase function, 430
UDFs (user-defined functions), 412, 868
unary minus sign (-), 414
unbound controls, 631. *See also* calculated controls
unbound object frames, 764
unbound reports, 703
unlinked subreports, 761
unbound static controls, 582
unbound text boxes, 648
UNC (Uniform Naming Convention), 815
UnderlyingValue property (Field object), 1320
underscore (_), wildcard character, 919
Undo button (VBA editor toolbar), 1201
Undo event, 1154
unfreezing fields, 293
Unhide Columns dialog, 314, 1123
Unicode Compression field property, 212
Uniform Naming Convention (UNC), 815
Uniform Product Code (UPC), as primary keys, 191
union queries, 401, 512-514, 569-572
creating, 930-933
custom rows, adding to combo/list boxes, 1267
selecting all combo box items, 1267
Unique Records property (SQL), 489
Unique Values property (queries), 489
Universally Unique Identifiers (UUIDs). *See* GUIDs
unlinked graphs, 770
adding to reports, 784-787
changing graph type, 780, 782, 784
creating with Chart Wizard, 773-778
defined, 773
modifying design, 778-780
query data source, creating, 770-773
unlinked subreports, 761
unsafe expressions, 412
unsafe macros, enabling, 42
unsecured Access 200*x* files, upgrading to Access 2007, 1343
unsecured Access 9*x* files, upgrading to Access 200*x*, 1335
after opening, 1338-1339
fixing missing VBA references, 1339-1341
troubleshooting, 1352
upon initial opening, 1336-1338
unsupported features from previous Access versions, 59
UPC (Uniform Product Code), as primary keys, 191
updatable Recordsets, 390, 392
updatable tables, 273
Update method (Recordset object), 1325
update queries, 401, 563. *See also* action queries; cascading updates
composite primary keys, adding to tables, 564-565
defined, 550
fields, adding to tables, 563-564
foreign keys, adding to tables, 565-567
joining tables, 567-569
parameter values, 936, 938
syntax, 935
UNION queries with, 569-572
update stored procedures, creating, 894-896, 899-900
UpdateBatch method (Recordset object), 1325
updating
downloading template files, 81
query result sets, preventing, 391-393
records, 899-900
cascading updates, 241
tables with queries, 489-494
upgrades. *See also* migrating
Access version differences, 1334
advantages of, 1334-1335
DAO versus ADO, 1353
difficulty of, 1352-1353
HTML to HTML 4.01 and CSS, 1031-1036, 1050-1051
Jet databases to Access databases, 202
MSDE to SQL Server 2005 Express (SSX), 1346-1347
attaching MSDE databases, 1347-1350
removing MSDE, 1347
secured Access 200*x* files to Access 2007, 1343
creating shortcut for Access 2007 front end with Access 200*x* back end, 1344-1345

removing username/password requirement, 1346
specifying default workgroup file, 1345
secured Access 9*x* files to Access 200*x*, 1341
back-end database file upgrades, 1342-1343
in mixed environment, 1341-1342
unsecured Access 200*x* files to Access 2007, 1343
unsecured Access 9*x* files to Access 200*x*, 1335
after opening, 1338-1339
fixing missing VBA references, 1339-1341
troubleshooting, 1352
upon initial opening, 1336-1338
VBA code, optimizing, 1352-1353

upsized databases, moving, 839-840
changing link connection string, 840-842

upsizing. *See also* Upsizing Wizard
to ADP, 948
conforming columns to ANSI SQL, 959-963
correcting errors, 957-959
crossfooting crosstab queries, 994-997
crosstab queries, emulating, 980-994
data types, 978-979
filter references, 968-970
object values, 964-968
planned migrations, 949
second passes, 956-957
security, 997-999
SQL reserved words, 973-978
SQL statements, 970-973
strategic migrations, 1000-1001
testing projects, 964
trial and error, 949-955
troubleshooting, 999
Upsizing Wizard, 948
VBA functions, converting, 979-980
front end with linked tables, 837
queries to SQL Server, 443-444
single-file applications to SQL Server, 828-829
table properties, modifying, 829-830
Upsizing Wizard, 830-834
verifying process, 834-837
troubleshooting operations, 864-865
VBA functions to SQL Server, 979-980

Upsizing Wizard, 163, 826-834. *See also* upsizing
for linked table applications, 837
manually linking client/server tables, 843-849
ODBC table connection string, 837-839
preparation for upsizing, 829-830
single-file Jet applications, 830-834
table properties, modifying, 829-830
verifying upsizing process, 834-837

usability of ribbon user interface, 171-172

user accounts
adding to SQL Server, 852-853
execute rights for stored procedures, 857-859
server and database roles, 853-854
with SQL Server Management Studio, 854-857
verifying protection, 859-860
WSS 3.0
assigning to groups, 1102-1103
editing user information, 1103-1105

user interface. *See also* ribbon user interface
function keys, 141
for fields, grids, and text boxes, 142-143
global function keys, 141-142
Table Datasheet view, 123-124
components of, 124-127

user-defined data types, 1186

user-defined functions (UDFs), 412, 868

user-level security, 59, 118, 1335

username/password requirement, removing, 1346

utilities, list of, 162-163

utility functions (SQL), 916

Utility Functions module, 1203-1207
adding breakpoints, 1203-1205
printing to Immediate window, 1205-1207

UUIDs (Universally Unique Identifiers). *See* GUIDs

V

Val function, 430

validated XML documents, 1058

validating data entry. *See* data validation

validating HTML, 1034

Validation Rule property, 207, 211

Validation Text property, 207, 211, 275

Value property
controls, 1188
Field object, 1320
Parameter object, 1307

variables, 1183. ***See also*** **placeholders**
arrays, 1186-1187
duration, 1185
explicit variables, 1183-1184
identifiers, 919
implicit variables, 1183
invisible variables, 1184
named database objects as, 1187-1188
naming, 1183
object properties as, 1187-1189
scope, 1184-1185
setting object properties, 1188-1189
static variables, 1185-1186
storing parameter values, 937
typographic conventions, 1174-1175
user-defined data types and, 1186
visible variables, 1184

Variant data type, 424-425, 1181

VBA (Visual Basic for Applications), 72, 1172
arguments, 1190-1191
branching, 1192
breakpoints
adding, 1203-1205
setting/clearing, 1202
class modules. *See* class modules
comments, 1199
compiling code, 1189
data types, 1180-1182. *See also specific data types*
corresponding Jet database objects, 1181-1182
type-declaration characters, 1180-1181
flow control, 1191
branching, 1192
conditional statements, 1192-1195
repetitive statements, 1195-1197
functions. *See* functions
Help system, 1202
history of, 1209
labels, 1192
looping, 1195-1198
Do Until…Loop statement, 1196-1197
Do While…Loop statement, 1196-1197
ensuring loop execution, 1197-1198
For…Next statement, 1195-1196
While…Wend loop, 1197
macros versus, 1151, 1172, 1208-1209
modules, 1175-1177
Access modules, 1175
class modules, 1177
Declarations section, 1177
elements of, 1177
form modules, 1176
procedures, 1177
Public variables, declaring, 1177
references, 1178
report modules, 1176
text comparison options, 1208
types of, 1175-1177
Utility Functions module, 1203-1207
variable scope, 1184
naming conventions, 1174-1175
as object-oriented, 1210
optimizing after upgrades, 1352
password-protecting code, 862-863
references, 1178-1179
referring to
controls, 1239-1240
forms, 1238-1239
Office XP Web controls, 1244
reports, 1238-1239
subform controls, 1241
role in Access, 1172
runtime errors, 1198-1199
detecting error type, 1199
Err object, 1199
Error event, 1200
On Error… statement, 1198-1199
security issues, 1174
structures, With…End With, 1188-1189
subprocedures, 118
executing, 1172, 1177
symbolic constants, 1189
intrinsic constants, 1190
system-defined constants, 1189
text comparison, 1208
typographic conventions, 1174-1175
uses, 1173
variables, 1183
arrays, 1186-1187
duration of, 1185-1186
explicit, 1183-1184
implicit, 1183
named database objects as, 1187-1188
naming conventions, 1183
object properties as, 1187-1189
scope of, 1184-1185
static variables, 1185-1186
user-defined data types, 1186
when to use, 1173

VBA code, password-protecting, 862-863

VBA editor, 1200-1202
help system, 1202-1203
Immediate window, printing to, 1205-1208
Module window toolbar, 1200-1202
opening, 1200
pseudo-code, 1189
shortcut keys, 1202
statement autocompletion, 1206
toolbar, 1200-1202

VBA Help button (VBA editor toolbar), 1202
VBA references, fixing during upgrades, 1339-1341
vbCrLf constant, 1190
verification. *See* data verification
Verify SQL Syntax button (view designer toolbar), 885
version control. *See* Document Libraries (SharePoint)
Version property (Connection object), 1294
versions of Access, differences among, 1334
vertical bars. *See* pipes (||)
VFP (Visual FoxPro), 69
View Microsoft Access button (VBA editor toolbar), 1201
viewing
Filter property, 303
forms, changing tabbed document form view to modal pop-up window, 593-594
hidden fields, 314
macro actions, 1149-1151
master/child forms in Layout view, 584-585
Object Browser, 1179
object dependencies, 248-250
references, 1179
relationships, 184
views
in ADP Navigation Pane, 873
default view, selecting for forms, 652-653
duplicate column names, 966-968
nested views, 933
PIVOT operator, emulating crosstab queries, 986-994
Query Design View, 195-196
SharePoint lists, customizing, 1112-1117
SQL Server views, 884-890
adding tables, 886-890
creating from SQL statements, 921-924
duplicating queries, 1272-1273
server-side filters, 884
setting JOIN properties, 886-890
SQL statements for, 886
view designer, 884-890
T-SQL, creating, 197-198
Table Datasheet view, 127
Table Design view, 875-876
Views group (Home ribbon), 128
visible variables, 1184
Visual Basic, 1209
Visual Basic for Applications. *See* VBA
***The Visual Display of Quantitative Information* (Tufte), 548**
***Visual Explanations: Images and Quantities, Evidence and Narrative* (Tufte), 548**
Visual FoxPro (VFP), 69
importing/exporting files from, 347
linking with ODBC, 350-354
supplemental files, 345
Visual Studio, editing RibbonX documents, 1230-1231
visualizing data, PivotTables and PivotCharts, 547-548
void functions, 1177
vw (views) prefix, 894
vwUnion.xml document file, 1064, 1066
vwUnion.xsd schema file, 1063-1064
vwUnion.xsl style sheet, 1066
vwUnion_report.xml file, 1066

W

W3C (World Wide Web Consortium), 1006
web pages. *See also* HTML
exporting reports as, 1071-1074
importing HTML tables from, 1008-1013, 1050
Web reports, 701
Web servers, deploying XML file sets to, 1071
Web-based smart tags, 251-253
Weekday function, 427
WeekdayName function, 428
well-formed XML documents, 1058
WhatsLoaded function, 1206-1207
When Correcting Spelling in Microsoft Office Programs group (Proofing page), 149
WHERE clause (SQL), 391, 462, 918
aggregate functions, 925
joins, 929-930
Like expressions, date constraints, 949
While…Wend loop, 1197
widowed records, preventing in reports, 733-734
Wiki sites (WSS), 1093
wildcard characters, 418, 437, 919
WillChangeField event (Recordset object), 1328
WillChangeRecordset event (Recordset object), 1328
WillConnect event (Connection object), 1303
WillExecute event (Connection object), 1303
WillMove event (Recordset object), 1328

Window events, 1152-1153

Windows Clipboard. ***See*** **Clipboard**

Windows Firewall, enabling SSX (SQL Server 2005 Express) connections, 67-68

Windows SharePoint Services. ***See*** **WSS 3.0**

With…End With structure, 1188-1189

WITHTIES modifier (SQL), 917

wizards, 695-697

Word
- exporting tables to, 367-370
- form letters. *See* form letters

Word Basic, 1209

workgroup files
- default Access 2007 workgroup file, 1343
  - specifying for Access 2007 front end with Access 200x back end, 1345
- upgrading, 1342-1343

workgroup information file, compacting, 1338

workgroup security. ***See*** **user-level security**

worksheets. ***See*** **spreadsheet files**

World Wide Web Consortium (W3C), 1006

writing
- action queries, 935-936
  - parameters, 936, 938
- SELECT queries, 917-918
- stored procedures, 935-936
  - parameters, 936, 938

WSS 3.0 (Windows SharePoint Services), 1092-1093. ***See*** **SharePoint 2007**
- Access tables/queries, exporting to WSS lists, 1138, 1140
- linking lists to Access tables, 1140
- security groups, 1101-1102
  - assigning permissions to groups, 1102-1103
  - editing user information, 1103-1105
- sites
  - adding subsites, 1094-1097
  - configuring subsites, 1097-1101
  - types of, 1093

X

x-axis
- reversing with legend labels, 807
- for time-series graphs, 770

XAML (eXtensible Application Markup Language), 1248

XDocs. ***See*** **InfoPath forms**

XHTML 1.0, 1021
- converting HTML 4.01 to, 1036-1037

XML (Extensible Markup Language), 1056. ***See also*** **InfoPath forms**
- advantages of learning, 1089-1090
- attributes, 1057
- as data interchange format, 1056
- elements, 1057
- exporting
  - related tables as, 1079
  - reports as, 1071-1074
  - tables/queries as, 1060-1067
- formatting exported tables/queries, 1067
  - adding elements, 1069-1070
  - CSS rules, 1067-1069
- history of Microsoft support for, 1052-1053
- importing related tables from, 1080-1081
- importing to tables, 1074-1075
  - as flat XML documents, 1075-1077
  - with XML schemas, 1077-1078
- Internet Explorer 7 (IE 7), troubleshooting, 1088
- namespaces, 1058-1059
- overview, 1057-1060
- style sheets
  - defined, 1060
  - for exported tables/queries, 1066-1067
  - XSL (Extensible Stylesheet Language), 1060

XML documents, 1057
- attribute-centric, 1059-1060
- attributes, 1057
- defined, 1057
- element-centric, 1059
- elements, 1057
- exported file sets, deploying to Web servers, 1071
- exporting
  - queries as, 1060-1064, 1066
  - static reports as, 1072-1074, 1087-1088
  - tables as, 1060-1064, 1066, 1079
- headers, 1057
- importing to tables, 1074-1078, 1080-1081
- validated, 1058
- well-formed, 1058

XML file sets, deploying to Web servers, 1071

.xml files, 1057

XML Infosets, advantages of learning, 1089-1090

XML namespaces, 1058

XML schema, 1058
- defined, 1058
- for exported tables/queries, 1062-1065

importing data with, 1077-1078
InfoPath forms, 1081
tables exported to HTML, 1062-1064, 1066

XML-based business-to-business communication, 742

XML Notepad 2007, editing RibbonX documents, 1231-1233

Xor operator, 417

xp (stored procedures) prefix, 894

XPath (XML Path Language), 1067

XPS
exporting tables to, 367-370
publishing to, 56
for reports, 700

XSL (Extensible Stylesheet Language), 1060

.xsl files, 1060

XSLT (Extensible Stylesheet Language Transformations), 1057, 1060
advantages of learning, 1089-1090
debugging tools, 1090
Xpath sub-language, 1067
XSLT Developer's Guide, 1067

Y

y-axis for time-series graphs, 770

Y2K compliance features, 219

Year function, 428

years, two-digit versus four-digit, 447

Yes constant, 1189

Yes/No data type, 214
standard formats for, 218-219