Contents

Foreword	xvi
About the Author	xx
About the Technical Reviewer	xxii
Acknowledgments	xxı
Introduction	xxvi
Chapter 1 Getting Started	1
What This Book Is All About	1
System Requirements	
Development	
Deployment	
ActiveSync All Over Again	
Installation	
Get Connected	
Smart Device Extensions Walkthrough	
Smart Device Application Wizard	
Forms Designer	
References	
Project Properties	
Sending Extra Files	
Let's Run It	
Security Considerations	
Device Security	
Database Security	24
Future Issues	25
Deployment	25
Deploying the .NET Compact Framework and	
SQL Server CE	25
Deploying Your Application	
Deployment Options	
Conclusion	27

Chapter 2 ADO.NET	29
Namespaces	30
System.Data	30
System.Data.Common	30
System.Data.SqlClient	30
System.Data.SqlServerCe	31
The SqlCeConnection Class	31
Error Handling	34
The SqlCeCommand Class	36
Parameterized Queries	38
Transactions	40
The SqlCeDataReader Class	43
The SqlCeDataAdapter Class	46
Conclusion	49
Chapter 3 Query Analyzer	51
Installation	51
Overview	
The Objects Tab	
Connecting to an Unmanaged Datab	
Disconnecting from a Database	55
Compacting a Database	
Deleting Databases	
Connecting to a Managed Database	56
Showing and Hiding System Tables	56
Retrieving Table Data	56
Removing Managed Databases	57
Creating Databases	57
Creating Tables	58
Adding Columns	60
Creating Indexes	61
Deleting Database Objects	63
The SQL Tab	63
Creating a New SQL Script File	63
Saving a SQL Script File	65
Opening a SQL Script File	
Saving Frequently Used SQL Stateme	nts66
Opening a Saved SQL Statement	67
Conclusion	67

Chapter 4 SQL Server CE Data Definition	
Language	69
Creating a Database	69
Example	
Compacting a Database	72
Example	
Deleting a Database	75
Example	
Creating a Table	
Example 1	
CREATE TABLE Syntax	
Example 2	
Example 3	
Example 4	
Modifying a Table	
Modify	
Example 1	
Add	
Example 2	
Delete	
Example 3	
Deleting a Table	
Example	
Creating an Index	
The Dark Side	
Example	
Deleting an Index	. 103
Example	
Conclusion	105
Chapter 5 Metadata	107
Information Schema	
Building a Metadata Viewer	
Building the Form	
Connection	
Example	114
Tables	
Example	
Table Constraints	
Example	120
Columns	
Example	123

Indexes	128
Example	
Key Column Usage	132
Example	
Provider Types	135
Example	
Conclusion	138
Chapter 6 Data Manipulation Language	130
chapter o bata hamiparation ranguage	133
Inserting Data	139
Syntax	
Parameters	140
Example	141
Retrieving Data	144
Syntax	144
Parameters	144
Example 1	145
Example 2	148
Example 3	149
Joining Tables	150
Syntax	150
Parameters	150
Example 1	151
Example 2	154
Example 3	154
Filtering Data	155
Syntax	155
Parameters	
Example	156
Joining Query Results	158
Syntax	
Parameters	
Example	159
Grouping Data	
Syntax	162
Parameters	
Example	162
Filtering Grouped Data	164
Syntax	165
Parameters	
Example	165

Sorting Data	167
Syntax	168
Parameters	168
Example 1	168
Example 2	171
Updating Data	172
Syntax	172
Parameters	172
Example	173
Deleting Data	
Syntax	176
Parameters	
Example	176
Conclusion	179
Chapter 7 Operator Reference	181
onup === ,	
Arithmetic	181
+ (Add)	182
- (Subtract)	184
* (Multiply)	186
/ (Divide)	187
% (Modulo)	189
Bitwise	190
& (AND)	190
(OR)	192
^ (Exclusive OR)	193
~ (NOT)	195
Comparison	196
= (Equals)	196
> (Greater Than)	
< (Less Than)	
>= (Greater Than or Equal To)	
<= (Less Than or Equal To)	
<> (Not Equal To)	
!= (Not Equal To)	
!< (Not Less Than)	
!> (Not Greater Than)	
Logical	
ALL	
AND	
SOME/ANY	
BETWEEN	
FYICTC	216

IN	218
LIKE	219
NOT	221
OR	222
Unary	224
+ (Positive)	
- (Negative)	
· · · · · ·	
Chapter 8 Function Reference	227
chapter 8 Function Rejerence	221
Aggregate Functions	227
AVG	
COUNT	
MAX	
MIN	
SUM	
Date/Time Manipulation	
DATEADD	
DATEDIFF	
DATENAME	
DATEPART	
GETDATE	
Mathematical Functions	
ABS	
ACOS	
ASIN	
ATAN	
ATN2	
CEILING	
COS	
COT	
DEGREES	
EXP	
FLOOR	
LOG	
LOG10	
PI	
POWER	
RADIANS	
RAND	
ROUND	
SIGN	
SIGN	
OIIN	

SQRT	273
TAN	274
String Manipulation	276
NCHAR	
CHARINDEX	277
LEN	279
LOWER	280
LTRIM	282
PATINDEX	283
REPLACE	285
REPLICATE	286
RTRIM	288
SPACE	289
STR	291
STUFF	292
SUBSTRING	294
UNICODE	295
UPPER	297
System Functions and Variables	298
@@IDENTITY	298
CASE	300
COALESCE	302
CONVERT	303
DATALENGTH	
NEWID	308
Chapter 9 Remote Data Access	311
,	
RDA Architecture	311
Client Agent	
Database Engine	312
Server Agent	313
Security Considerations	313
IIS Security	
SQL Server Security	314
Conclusions	314
Installing the Server Tools	315
Securing Your Connection	325
Generating a CSR	325
Submit Your CSR	334
Creating the Field Memo Database	340
A Table, Columns, and Indexes	341
Creating the RDA Client	343
Time to Code	345
Conclusion	359

Chapter 10	Replication	361
Merge Replic	cation Architecture	361
	nt	
	Engine	
	nt	
	Reconciler	
	Publication	
	Connection	
Creatina the	Replication Client	375
Your Last C	Chance to Code	377
Appendix	The .NET Compact Framework	
	Class Libraries	395
Microsoft.Vi	sualBasic	395
Microsoft.Vi	sualBasic.CompilerServices	396
	ndowsCE.Forms	
System.Colle	ections	402
System.Colle	ections.Specialized	403
System.Compo	onentModel	403
	guration.Assemblies	
•	Common	
	SqlClient	
System.Data.	SqlServerCe	409
	SqlTypes	
	ostics	
	ing	
	ing2D	
	ng.Imaging	
System.Globa	lization	413
	Sockets	
	ection	
System.Resou	irces	420
	me.CompilerServices	
	meInteropServices	
	ity	
System Crynt	oaranhv.X509Certificates	422

System.Security.Policy	422
System.Text	422
System.Text.RegularExpressions	423
System.Threading	423
System.Web.Services	424
System.Web.Services.Description	424
System.Web.Services.Protocols	424
System.Windows.Forms	425
System.Xml	430
System.Xml.Schema	431
System.Xml.Serialization	432
Index	433