The TotalCross Companion

Table of Contents

PART I – THE PLATFORM....6
Welcome....7
Chapter 1 – TotalCross Overview....9
Supported Platforms....9
Virtual Machine Features....9
Thread support....11
Graphics, Palette and Color....12
Images....13
Inheritance and Delegation event models....14
Security....14
Getting Started....14
Bug Reporting....15
Chapter 2 – The TotalCross SDK....16
Directory structure....16
Running the Samples....19
Chapter 3 – Building and deploying your first TotalCross application....20
Building a sample application....21
Running with the Launcher (on JDK)....22
Deploying and running on Win32....23
Chapter 4 – The Launcher....25
Chapter 5 – Deployment Process....28
Parameters....28
Options retrieved from the static initializer....32
Specifying the Icon....34
Adding other files to the package....34
Chapter 6 – Installing your application....35
BlackBerry....35
Deployment....35
Installation....36
Signature....36
iPhone/iPad....37
"Cydia" support....37
Manual installation of DEB files....38
Palm OS....39
Using the installer....39
Manual installation....39
Windows CE....39
Using the installer....39
Manual installation....39
Identifying the right installation for your device....40
Android....40
Installing the device....40
Deployment....40
Installing in Device....41

Debugging....42
Chapter 7 – Using the Release Vms....44
Signing your application....44
Activating your application....44
Manual Activation....45
Using a third server to control licenses....46
Chapter 8 – SuperWaba to TotalCross conversion....49
General Tips....49
Correct way to handle Exceptions....51
Part II – USER INTERFACE....55
Overview....56
Chapter 9 – User Interface styles....56
List of types....56
....63
Support for devices without pen....64
Chapter 10 – Font Support....65
Chapter 11 – The MainWindow class....67
The Android lifecycle....68
Chapter 12 – Adding Controls....70
Relative positioning....70
Making UI adjustments....73
Useful methods....74
Chapter 13 – Events....79
Control Events....79
Event Handling....81
Inheritance Event Model....81
Delegation Event Model....83
The Event class....84
Chapter 14 – Basic Controls....86
Button....86
Edit....88
Label....92
Check....96
Radio and RadioGroupController....97
ComboBox....100
ListBox....103
MultiEdit....107
Grid....108
ToolTip 115
Chapter 15 – Advanced Controls....116
Chapter 16 – The Window class....117
UIColors....122
Chapter 17 – Interface Dialogs....123
MessageBox....123
InputBox....125

KeyboardBox....126
CalculatorBox....127
CalendarBox....127
Chapter 18 – Splitting your application's logic using Container....129
Chapter 19 – Image....130
PART III - UTILITY CLASSES....136
Overview....137
Chapter 21 – totalcross.util....137
Date....137
Vector....141
IntVector....145
Hashtable....148
IntHashtable....150
Properties....152
Random....153
Logger....154
Chapter 22 – totalcross.sys....158
Time....158
CharacterConvert....160
UTF8CharacterConvert....160
Convert....161
Changing the default Character Converter....161
Conversion between String and basic types....161
Character, String and StringBuffer utilities....162
Arrays....164
Other Conversions....165
PART IV – INPUT & OUTPUT....167
Overview....168
Stream....169
DataStream/DataStreamLE....170
ByteArrayStream....175
File....180
File attributes....185
File times....187
PART V – COMPRESSION....189
Overview....190
CompressedStream....190
ZLibStream....190
GZipStream....191
ZLib....191
GZip....192
PART VI – DESKTOP SYNCHRONIZATION....193
Overview....194
Conduit usage....195
Conduit implementation....195
PART VII – NET....196

Socket....197
ServerSocket....200
SOAP Webservices....201
The SOAP class....202
HTTPS / LiteSSL....205
Overview....205
Security background....206
Generating security material....207
Create a private CA....207
Create a client or server X509 certificate....208
Principle of an X509 authentication/encryption....209
LiteSSL features....209
Restrictions....210
LiteSSL usage....211
PART VIII – BARCODE SCANNER....213
PART IX – OPTIMIZATION TRICKS....215
Overview....216
The Tricks....217
PART X – APPENDIXES....227
Appendix I – Copyright....228
Appendix II – Platform specific known features/flaws....229
Palm OS....229
Windows CE....229
BlackBerry....229
iPhone....230
Appendix III – Tutorials for third-party tools....231
Deploying with Ant....231
Configuring Eclipse to Run and Debug TotalCross Programs....232
Appendix IV – Referenced images....234