EP10 Hand-Held Computer
(Model Number 7515)
Windows Embedded 6.5
User Manual

April 5, 2011 **Part No. 8000227.A**

ISO 9001 Certified
Quality Management System

This user manual supports Model Numbers:

- 7515U with FCC ID: GM37515UA and IC: 2739D-7515UA
- 7515C with FCC ID: GM37515CA

© Copyright 2011 by Psion Inc., Mississauga, Ontario

2100 Meadowvale Boulevard, Mississauga, Ontario, Canada L5N 7J9

http:\\www.psionteklogix.com

This document and the information it contains is the property of Psion Inc., is issued in strict confidence, and is not to be reproduced or copied, in whole or in part, except for the sole purpose of promoting the sale of Psion manufactured goods and services. Furthermore, this document is not to be used as a basis for design, manufacture, or sub-contract, or in any manner detrimental to the interests of Psion Teklogix Inc.

Disclaimer

Every effort has been made to make this material complete, accurate, and up-to-date. In addition, changes are periodically added to the information herein; these changes will be incorporated into new editions of the publication. Psion Inc. reserves the right to make improvements and/or changes in the product(s) and/or the program(s) described in this document without notice, and shall not be responsible for any damages, including but not limited to consequential damages, caused by reliance on the material presented, including but not limited to typographical errors.

Psion, Psion Teklogix, and EP10 are trademarks of Psion Inc.

Windows® and the Windows Logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

Bluetooth®

*The **Bluetooth** word mark and logos are owned by Bluetooth SIG, Inc. and any use of such marks by Psion Inc. is under license.*

All trademarks and trade names are the property of their respective holders.

Preliminary Draft

TABLE OF CONTENTS

Chapter 1: Introduction

1.1 About This Manual 3
1.2 Text Conventions 4
1.3 EP10 Hand-Held Features 4
1.3.1 The EP10 Hand-Held 6

Chapter 2: Getting to Know the EP10

2.1 Features of the EP10 Hand-Held 11
2.2 The Battery 12
2.2.1 Battery Safety 13
2.2.2 Removing the Battery Pack 13
2.2.3 Battery Swap Time 13
2.2.4 Charging the Battery 13
2.3 The Keyboard 15
2.3.1 EP10 QWERTY Keyboard 15
2.3.2 Locking the Keyboard 16
2.3.3 Modifier Keys 16
2.3.4 The Keys 17
2.3.5 The Keypad Backlight 19
2.4 The Display 19
2.4.1 Setting the Backlight Intensity & Duration 19
2.4.2 Adjusting the Backlight using the Keyboard 19
2.4.3 Aligning (Calibrating) the Touchscreen 20
2.4.4 Screen Orientation 21
2.5 EP10 Indicators 21
2.5.1 LEDs 21
2.6 Audio Indicators 22
2.6.1 Adjusting Speaker Volume 22
2.7 Monitoring the Battery and Maximizing Run Time 23
2.7.1 Storing Batteries 23
2.8 Uploading Data in a Docking Station 24
2.9 *Bluetooth* Radio 24

Preliminary Draft

2.9.1 Pairing a ***Bluetooth*** Headset 25
2.10 Inserting the microSD and SIM Card 25
2.10.1 Inserting the Cards 26
2.11 The Camera 26
2.12 General Maintenance 26
2.12.1 Caring for the Touchscreen 26
2.12.2 Cleaning the EP10 27

Chapter 3: Using Windows Embedded 6.5

3.1 Navigating in Windows Embedded 6.5 and Applications 31
3.1.1 Navigating using a Touchscreen and Stylus 31
3.2 Windows Embedded 6.5 Desktop – Today Screen 31
3.2.1 Windows Embedded 6.5 Navigation Bar 32
3.2.2 Today's Date, Clock and Alarm 34
3.2.3 Ownership Information 36
3.2.4 E-mail Notification 37
3.2.5 Task Notification 37
3.2.6 Calendar of Upcoming Appointments 40
3.3 Start Menu 43
3.3.1 Customising the Start Menu 43
3.4 Managing Files and Folders 44
3.4.1 Creating a New Folder 45
3.4.2 Renaming a File 45
3.4.3 Copying a File 45
3.4.4 Deleting a File 46
3.5 Using Menus 46
3.5.1 Pop-Up Menus 46
3.6 The Softkey Bar 47
3.7 Programs – Using Applications 49
3.8 Settings 50
3.9 Help 51
3.10 Entering Text 52
3.10.1 Soft Keyboard 52
3.10.2 The Transcriber 53
3.10.3 Block Recognizer and Letter Recognizer 54

Chapter 4: Programs

4.1 Programs 59

Preliminary Draft

4.2 Games 59
4.3 ActiveSync® 59
4.3.1 Synchronization 59
4.4 Calculator 60
4.5 Demo Scanner 60
4.6 Office Mobile 60
4.6.1 Excel Mobile 60
4.6.2 OneNote Mobile 61
4.6.3 Word Mobile 67
4.6.4 PowerPoint Mobile 68
4.7 File Explorer 69
4.8 Getting Started 69
4.9 PTSI Imager Demo 69
4.10 Internet Sharing 70
4.10.1 Creating an Internet Connection 70
4.10.2 Using Internet Sharing 70
4.11 Notes 71
4.11.1 Creating a Note 71
4.11.2 Converting Handwritten Notes to Text 72
4.11.3 Renaming a Note 74
4.11.4 Recording Notes 74
4.11.5 Synchronizing a Note 75
4.12 Pictures & Videos 75
4.12.1 Using the Camera 75
4.12.2 Moving Photos to the EP10 77
4.12.3 Opening a Photo 77
4.12.4 Deleting a Photo 78
4.12.5 Editing a Photo 78
4.12.6 Creating a Slide Show 78
4.12.7 Using the Video Recorder 79
4.13 Remote Desktop Mobile 80
4.13.1 Connecting to a Terminal Server 81
4.13.2 Disconnecting without Ending a Session 81
4.13.3 Ending a Session 81
4.14 Search 82
4.15 Task Manager 82
4.16 Tasks 82

Preliminary Draft

4.17 Internet Explorer 82
4.17.1 Browsing Web Sites 83
4.18 Messaging 84
4.18.1 Folders 84
4.18.2 Synchronizing E-mail with Outlook 84
4.18.3 Changing Synchronization Settings 86
4.19 Windows Media 87

Chapter 5: Settings

5.1 Settings 95
5.2 Personal Settings 95
5.3 App Launch Keys 95
5.4 Buttons Icon 98
5.4.1 Up/Down Control 98
5.4.2 Sequence 99
5.4.3 One Shots 99
5.4.4 Keyboard Macro Keys 101
5.4.5 Unicode Mapping 102
5.4.6 Scancode Remapping 103
5.4.7 Lock Sequence 106
5.5 Input 107
5.5.1 Input Method Tab 108
5.5.2 Options–Additional Choices 112
5.6 Lock 113
5.7 Menus 114
5.7.1 Start Menu Tab 114
5.8 Owner Information 115
5.9 Phone 116
5.10 Sound & Notifications 116
5.10.1 Sounds 117
5.10.2 Notifications 117
5.11 Today Screen 118
5.11.1 Appearance 118
5.11.2 Items 118
5.12 System Tab Settings 119
5.13 About 119
5.14 About Device 120

Preliminary Draft

5.15 Backlight 120
5.15.1 Battery Power 120
5.15.2 External Power 121
5.15.3 Intensity 121
5.16 Certificates 122
5.16.1 Choosing a Certificate 124
5.17 Clock & Alarms 124
5.18 Customer Feedback 124
5.19 Encryption 125
5.20 Error Reporting 126
5.21 GPS (Global Positioning System) 127
5.22 GPS (Global Positioning System) Settings 128
5.23 Manage Triggers 133
5.23.1 Trigger Mappings 134
5.24 Managed Programs 137
5.25 Memory 137
5.25.1 Main Tab 138
5.25.2 Storage Card 138
5.26 Power Icon 138
5.26.1 Battery Tab 139
5.26.2 Advanced Tab 139
5.26.3 Battery Details 140
5.26.4 Built-In Devices 141
5.26.5 Card Slots 141
5.26.6 Suspend Threshold and Estimated Battery Backup 142
5.26.7 Suspend Mode 143
5.27 Regional Settings 143
5.28 Remove Programs 144
5.29 Screen Icon 144
5.30 Task Manager 145
5.31 Teklogix Error Handling Service 147
5.31.1 ErrorLogInfo 147
5.31.2 NetLog 148
5.32 Teklogix Imagers Settings 149
5.33 Scanner Settings 150
5.33.1 Bar Code Settings – The Scanner Menu 151
5.33.2 Options Tab 152

Preliminary Draft

5.33.3 Translations Tab 154
5.33.4 Ports Tab 157
5.34 Total Recall 160
5.34.1 Creating a Backup Profile 161
5.34.2 Restoring a Profile 164
5.35 TweakIT 164
5.35.1 Advanced Interface And Network 165
5.35.2 Advanced Services Settings 166
5.35.3 Radio Features 167
5.35.4 User System Setting 168
5.35.5 Registry Editor 169
5.36 Windows Update 169
5.37 Connections Tab 169
5.37.1 Navigation Bar Hotkeys 170
5.38 Beam 172
5.39 *Bluetooth* Setup 172
5.39.1 The Devices Tab 173
5.39.2 ***Bluetooth*** Mode 176
5.39.3 ***Bluetooth*** COM Ports 177
5.39.4 Outgoing Port 178
5.39.5 Services 178
5.39.6 Active Connections 179
5.39.7 About Tab 180
5.39.8 The ***Bluetooth*** GPRS Phone 180
5.40 Connection Properties 182
5.40.1 Port Settings 183
5.40.2 Call Options 184
5.41 Connections – Connecting to the Internet 184
5.41.1 Modem Connection Setup 185
5.42 Wireless Manager Icon 189
5.42.1 Flight Mode – Disabling Wireless Components 189
5.42.2 Setting Up a Network Card 190
5.42.3 Network Adaptor Cards 190
5.42.4 Changing Network Card Settings 192
5.42.5 VPN Connection Setup 192
5.42.6 Managing an Existing Connection 193
5.42.7 Selecting a Network 194
5.42.8 Proxy Server Setup 195

Preliminary Draft

5.43 Wireless Statistics....197
5.44 Wireless WAN....197
5.44.1 Softkey Bar Icons....197
5.44.2 Establishing a Connection....198
5.44.3 Disconnecting from a Network....199
5.44.4 Advanced Information....199
5.44.5 Tools Menu....201
5.44.6 SMS Menu....209
5.45 Windows Update....213

Chapter 6: Peripheral Devices & Accessories

6.1 Carrying Accessories....219
6.1.1 The Hand Strap with Tether – Model No. RV6021....219
6.1.2 Attaching the Tether – Model No. RV6020....221
6.1.3 Carrying Pouch....222
6.2 The Battery....222
6.3 Adaptor Cable Options....223
6.4 Chargers and Docking Stations....223
6.4.1 Important Safety Instructions....223
6.4.2 Installation: Chargers and Docking Stations....224
6.4.3 Power Consumption Considerations....225
6.5 Desktop Docking Station – Model No. RV4000....225
6.5.1 Operator Controls....226
6.5.2 Indicators....226
6.5.3 Operation....226
6.5.4 Cleaning the RV4000....228
6.5.5 Troubleshooting....229
6.6 Quad Docking Station – Model No. RV4004....230
6.6.1 Operator Controls....230
6.6.2 Indicators....230
6.6.3 Quad Dock Operation....231
6.6.4 Cleaning the RV4004....232
6.6.5 Troubleshooting....233
6.7 Quad Charger – Model No. RV3004....233
6.7.1 Charging the EP10 Battery....233
6.7.2 Installation....233
6.7.3 Operator Controls....234
6.7.4 Charge Indicators....234

Preliminary Draft

6.7.5 Charging Batteries....235
6.7.6 Troubleshooting....235
6.8 Snap Modules....236
6.9 AC Wall Adaptor – Model No. PS1050-G1....237
6.10 Vehicle Power Outlet Adaptor – Model No. RV3050....237
6.11 The Non-Powered Vehicle Cradle – Model No. RV1000....238
6.11.1 Important Instructions....239
6.11.2 Vehicle Cradle Operation....239
6.11.3 Vehicle Cradle Mounting Recommendations....240
6.11.4 Cleaning the RV1000 Vehicle Cradle....242
6.12 The Powered Vehicle Cradle – Model No. RV1005....242
6.12.1 RV1005 Vehicle Cradle Mounting Recommendations....244
6.12.2 Cable Arrangement....245
6.12.3 Electrical Requirements....245
6.12.4 USB and Serial Connections....247
6.12.5 Using the Vehicle Cradle....248
6.12.6 Maintaining the Vehicle Cradle....248
6.13 EA11 Imager....249
6.13.1 Operating Two Dimensional (2D) Imagers....249
6.14 *Bluetooth* Peripherals....250
6.15 Digital Camera....251

Chapter 7: Specifications

7.1 EP10 Specifications – Model No. 7515....255
7.1.1 Hardware....255
7.1.2 Software....256
7.1.3 Wireless Communication....256
7.1.4 Power Management....257
7.1.5 Expansion Slot....257
7.1.6 Bar Code Application....257
7.1.7 Digital Camera....257
7.1.8 Voice Over IP (VOIP)....257
7.1.9 Accessories....257
7.1.10 Approvals....258
7.1.11 Environmental Specifications....258
7.2 Radio Specifications....259
7.2.1 Murata 802.11 a/b/g/n Direct Sequence Spread Spectrum Radio....259
7.2.2 Murata *Bluetooth* Radio....260

Preliminary Draft

7.2.3 Sierra Wireless MC5728V 261
7.2.4 Cinterion PH8 GSM/GPRS/EDGE Radio 263
7.3 Lithium-Ion 3600 mAh Battery Specifications 265
7.4 Internal Imager 267
7.4.1 EA11 Decoded 2D Imager 267

Appendix A: Wireless Wide Area Network (WWAN)

A.1 Wireless WAN A-1
A.1.1 Taskbar Icons A-1
A.1.2 Establishing a Connection A-2
A.1.3 Advanced Information A-4
A.1.4 Tools Menu A-6
A.1.5 SMS Menu A-15
A.1.6 Voice A-16
A.2 Power Mode A-17

Appendix B: Port Pinouts

B.1 Dock Port Pinout B-1
B.2 Battery Contact Pinout B-2

Appendix C: Bar Codes Settings

C.1 Scanner Menu C-1
C.2 Decoded (Internal) Scanner C-2
C.2.1 Options – Decoded (Internal) Scanner C-2
C.2.2 Advanced Options – Decoded (Internal) C-3
C.2.3 Decoded (Internal) 2D Scanning Options C-5
C.2.4 Data Options — Decoded (Internal) Scanner C-5
C.2.5 Code 39 ..... C-6
C.2.6 Code 128 ..... C-9
C.2.7 EAN 13 ..... C-10
C.2.8 EAN 8 ..... C-10
C.2.9 UPC A C-11
C.2.10 UPC E C-11
C.2.11 UPC/EAN Shared Settings C-12
C.2.12 Code 93 ..... C-13
C.2.13 Codabar C-14
C.2.14 MSI Plessey C-14
C.2.15 Interleaved 2 of 5 ..... C-16
C.2.16 Discrete 2 of 5 ..... C-16

Preliminary Draft

C.2.17 RSS Code C-17
C.2.18 Composite C-18
C.2.19 PDF-417 ..... C-18
C.2.20 Micro PDF-417 ..... C-19
C.3 Decoded C-20
C.3.1 Options – Decoded Scanner C-20
C.3.2 Advanced Options – Decoded Scanner C-20
C.3.3 Code 39 ..... C-21
C.3.4 Code 128 ..... C-23
C.3.5 EAN 13 ..... C-24
C.3.6 EAN 8 ..... C-25
C.3.7 UPCA C-25
C.3.8 UPC E C-26
C.3.9 UPC/EAN Shared C-26
C.3.10 Code 93 ..... C-27
C.3.11 Codabar C-28
C.3.12 MSI Plessey C-29
C.3.13 Code 11 ..... C-30
C.3.14 Interleaved 2 of 5 ..... C-30
C.3.15 Matrix 2 of 5 ..... C-31
C.3.16 Discrete 2 of 5 ..... C-32
C.3.17 Telepen C-32
C.3.18 RSS Code (Reduced Space Symbology) C-33
C.3.19 Composite C-34
C.3.20 TLC-39 ..... C-34
C.3.21 PDF-417 ..... C-35
C.3.22 Micro PDF-417 ..... C-35
C.3.23 Codablock C-36
C.4 Imager C-37
C.4.1 Options – Imager C-37
C.4.2 Code 39 Settings C-38
C.4.3 Code 128 Settings C-38
C.4.4 EAN 13 ..... C-38
C.4.5 EAN 8 ..... C-39
C.4.6 UPC A C-39
C.4.7 UPC E C-40
C.4.8 Code 93 ..... C-40
C.4.9 Codabar C-40
C.4.10 Interleaved 2 of 5 ..... C-40

Preliminary Draft

C.4.11 RSS Code (Reduced Space Symbology) C-41
C.4.12 Composite C-41
C.4.13 PDF-417 ..... C-41
C.4.14 Micro PDF-417 ..... C-42
C.4.15 2D Data Matrix C-42
C.4.16 2D QR Code C-43
C.4.17 2D Maxicode C-43
C.4.18 2D Aztec C-43
C.4.19 Postal: PlaNET C-44
C.4.20 Postal: PostNET C-44
C.4.21 Postal: Australian C-44
C.4.22 Postal: Japanese C-44
C.4.23 Postal: Korean C-45
C.4.24 Postal: Royal C-45
C.4.25 Postal: Kix C-45
C.4.26 Postal: Canadian C-46

Appendix D: Teklogix Imagers Applet

D.1 Required Applets D-1
D.2 Presets D-1
D.2.1 Predefined Presets D-2
D.2.2 Bar Code Predefined Presets D-2
D.2.3 Bar Code Decoding Camera Predefined Presets D-3
D.2.4 Image Capture Predefined Presets D-4
D.3 Using The Teklogix Imagers Applet D-4
D.3.1 Configuring The Image Capture Presets D-4
D.3.2 Selecting A Camera D-5
D.3.3 Setting The Active Preset D-5
D.3.4 Viewing A Preset D-6
D.3.5 Creating A Custom Preset D-6
D.3.6 Modifying A Custom Preset D-7
D.3.7 Removing A Custom Preset D-9
D.4 Configuring The Bar Code Decoding Camera Presets D-9
D.4.1 Selecting A Camera D-10
D.4.2 Setting The Active Preset D-10
D.4.3 Viewing A Preset D-10
D.4.4 Creating A Custom Preset D-11
D.4.5 Modifying A Custom Preset D-12
D.4.6 Removing A Custom Preset D-13

Preliminary Draft

D.4.7 Configuring The Bar Code Decoding Symbologies D-13
D.4.8 Setting The Active Preset D-14
D.4.9 Viewing A Preset D-14
D.4.10 Creating A Custom Preset D-15
D.4.11 Modifying A Custom Preset D-16
D.4.12 Removing A Custom Preset D-17
D.4.13 Configuring Symbologies in the Teklogix Imagers Applet D-17
D.4.14 Filter Tab – Manipulating Bar Code Data D-18
D.4.15 Translation Tab – Configuring Rules D-20
D.4.16 Advanced Tab D-20
D.5 Teklogix Scanners Applet D-22

Preliminary Draft

INTRODUCTION 1

1.1 About This Manual 3
1.2 Text Conventions 4
1.3 EP10 Hand-Held Features 4
1.3.1 The EP10 Hand-Held. 6

Preliminary Draft

Preliminary Draft

1.1 About This Manual

This manual describes how to configure, operate and maintain the EP10 Hand-Held Computer (Model Number 7515).

Chapter 1: Introduction
provides a basic overview of the EP10 Hand-Held.

Chapter 2: Basic Checkout
describes the steps required to get the EP10 ready for operation

Chapter 2: Getting to Know the EP10
describes the features and outlines how to charge and maintain the battery. This chapter also provides information about indicators, microSD and SIM card installation along with general EP10 maintenance.

Chapter 3: Using Windows Embedded 6.5
describes the Microsoft® Windows Embedded 6.5 Today screen and how to use it. This chapter also outlines basics like moving around a window, displaying menus, and so on.

Chapter 4: Programs
provides a description of the Windows Embedded 6.5 Programs options and how to use them.

Chapter 5: Settings
provides details about Windows Embedded 6.5 Settings options and how to use them.

Chapter 6: Peripheral Devices & Accessories
describes the peripherals and accessories available for your EP10.

Chapter 7: Specifications
details radio, imager and battery specifications.

Appendix A: Wireless Wide Area Network (WWAN)
provides details about Wireless WAN radio.

Appendix B: Port Pinouts
describes port pinouts.

Appendix C: Bar Codes Settings
describes the bar codes supported by the imager available for the EP10.

Appendix D: Teklogix Imagers Applet
describes the Teklogix Imagers applet and outlines how to use it.

Preliminary Draft

1.2 Text Conventions

Note: Notes highlight additional helpful information.

Important: These statements provide particularly important instructions or additional information that is critical to the operation of the equipment.

Warning: These statements provide critical information that may prevent physical injury, equipment damage or data loss.

1.3 EP10 Hand-Held Features

Important: For all safety, regulatory and warranty information, refer to the 'EP10 Hand-Held Regulatory & Warranty Guide', PN 8000235.

For a complete list of EP10 Hand-Held features, physical attributes and approvals, refer to Chapter 7,"Specifications".

The EP10 is a personal digital assistant operates with the Windows Embedded 6.5 operating system with a phone option. This EP10 is intended for use in commercial and light industrial applications with a focus on real time wireless data transactions. All possible bar code input methodologies are supported by one of a variety of scanners available. Optimization for specific operational environments is supported with a wide range of peripheral options and carrying accessories.

Model

- EP10 Hand-Held – Model Number 7515

Platform

- AM3715 Processor
- 800 MHz (ARM Cortex A8)
- On-board RAM: 256 MB SDRAM
- On-board ROM: 2 GB Flash

Operating System

- Microsoft Windows Embedded 6.5

Preliminary Draft

User Interface

- **Display (Backlit)**
  - 3.7 in. VGA portrait mode
  - Backlight feature 165 cd/m2 output
  - Sunlight readable with integrated touchscreen
  - Colour 480 x 640 graphic TFT
  - Passive stylus or finger operation
- **Audio**
  - Built-in 85db mono speaker
  - microphone
  - receiver
- **Keyboard (Backlit)**
  - QWERTY
  - High reliability keypad ultra-white backlight
  - Ergonomically enhanced for ambidextrous one-hand operation
- **Camera**
  - 3.2 Mega Pixel Colour
  - Auto Focus
  - Dual LED Flash
  - Video capture capability

Wireless Communication

- On-board IEEE 802.11a/b/g/n
- Bluetooth v2.1 radio (CCX V4 Certified)
- UMTS 3.5G HSPA + CDMA EV-DO Rev A radio options
- Integrated 5 band Antenna, supports both voice and data
- SiRF starIV GPS

Note: 802.11a/b/g/n and Bluetooth are available simultaneously.

Preliminary Draft

Enhanced Features

- Accelerometer
- Digital Compass
- Gyroscope
- Light Sensor
- Proximity Sensor

Expansion Slot

- One microSD slot

VOIP (Voice Over IP)

- Push-to-talk

1.3.1 The EP10 Hand-Held

Figure 1.1 EP10 Hand-Held - QWERTY

Preliminary Draft

Figure 1.2 Phone Keys

Note: Refer to "Sending & Ending Phone Calls using the Phone Keypad" on page 33 for details about these keys.

Preliminary Draft

Preliminary Draft

GETTING TO KNOW THE EP10 2

2.1 Features of the EP10 Hand-Held 11

2.2 The Battery 12

2.2.1 Battery Safety 13

2.2.2 Removing the Battery Pack 13

2.2.3 Battery Swap Time 13

2.2.4 Charging the Battery 13

2.2.4.1 Chargers and Docking Stations 14

2.3 The Keyboard. 15

2.3.1 EP10 QWERTY Keyboard. 15

2.3.2 Locking the Keyboard 16

2.3.3 Modifier Keys 16

2.3.3.1 Activating Modifier Keys & the Shift-State Indicator 16

2.3.3.2 Locking Modifier Keys 17

2.3.4 The Keys 17

2.3.5 The Keypad Backlight 19

2.4 The Display. 19

2.4.1 Setting the Backlight Intensity & Duration 19

2.4.2 Adjusting the Backlight using the Keyboard. 19

2.4.3 Aligning (Calibrating) the Touchscreen 20

2.4.4 Screen Orientation 21

2.5 EP10 Indicators. 21

2.5.1 LEDs 21

2.6 Audio Indicators 22

2.7 Monitoring the Battery and Maximizing Run Time 23

2.7.1 Storing Batteries 23

2.8 Uploading Data in a Docking Station 24

2.9 Bluetooth Radio 24

2.9.1 Pairing a Bluetooth Headset 25

2.10 Inserting the microSD and SIM Card 25

Preliminary Draft

2.10.1 Inserting the Cards 26
2.11 The Camera 26
2.12 General Maintenance. 26
2.12.1 Caring for the Touchscreen 26
2.12.2 Cleaning the EP10 27

2.1 Features of the EP10 Hand-Held

RIGHT SIDE

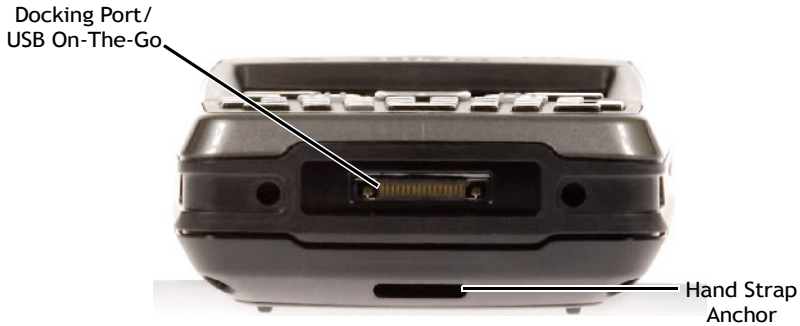
TOP

LEFT SIDE

Preliminary Draft

Figure 2.1 Back of EP10

Figure 2.2 Ports



2.2 The Battery

The EP10 operates with a 3600 mAh, Lithium-Ion battery pack, Model No. RV3010.

Preparing the EP10 for operation requires that a battery pack be charged and installed in the EP10.

Preliminary Draft

2.2.1 Battery Safety

Important: ***Before attempting to install, use or charge the battery pack, it is critical that you review and follow the important safety guidelines in the quick reference guide entitled 'EP10 Hand-Held Regulatory & Warranty Guide', PN 8000235.***

2.2.2 Removing the Battery Pack

Important: ***Always shut down the EP10 <u>before</u> removing the battery. To safely remove the battery, press and hold down the Power button until the 'Shutdown' screen is displayed. Choose 'Shutdown' and tap on OK.***

Keep in mind also that all EP10s are equipped with internal super-capacitors that will save the current data for up to 5 minutes while the battery is swapped.

Refer to "Preparing the EP10 for Operation" on page 13 for more details about removing and installing the battery.

2.2.3 Battery Swap Time

Assuming the default power saving parameters and battery reserve level have not been altered, battery swap time is approximately 5 minutes – you will not lose data if the battery is replaced within this time frame.

To protect data, the safest place to store data is on a microSD memory card or externally to the device on a USB memory stick or on a PC.

The *Suspend Threshold* feature allows you to determine the battery capacity at which the EP10 will be shut down. If left at the default value, *Maximum Operating Time*, the EP10 will run until the battery is completely empty; the RAM is only backed up for a short period of time. If you choose *Maximum Backup Time*, the EP10 shuts off with more energy left in the battery so RAM can be backed up for a longer period of time.

(Refer to "Suspend Threshold and Estimated Battery Backup" on page 142 for details about reserving battery power for data backup purposes.)

2.2.4 Charging the Battery

Batteries shipped from the factory are charged to approximately 40% of capacity. They must be fully charged prior to use.

Preliminary Draft

Note: Do not leave a spare battery to charge for more than 72 hours. Charging for more than 72 hours may damage the battery or lead to charge capacity reduction.

Important: If the battery is overheated (>60° C) or if the battery capacity is very low (<100 mAh), the unit will not switch on when the Power key is pressed. Under the above conditions, when AC power is applied, the EP10 will still refuse to power up; instead, a yellow LED will begin blinking and until the battery is replaced, or in the case of low battery capacity, the battery is charged to an acceptable level, the EP10 will not switch on.

Keep in mind also that, along with the battery, the EP10 is equipped with internal, super-capacitors that preserves data stored on the EP10 for a short period of time while the battery is swapped.

2.2.4.1 Chargers and Docking Stations

Important: FOR DETAILED INFORMATION about chargers and docking stations, refer to Chapter 6: "Peripheral Devices & Accessories" beginning on page 215.

Lithium-Ion battery packs must be charged before use. These batteries can be charged with a variety of chargers and docking stations. These include:

- AC wall adaptor (Model No. R3055) operates as an AC power source and when plugged in, also charges the battery installed in the EP10. (see page 237)
- Desktop Docking Station (Model No. RV4000) operates as both a charger and a docking station. Operating as a charger, both the battery installed in the EP10 and a spare battery can be charged simultaneously. (see page 225)
- Quad Docking Station (Model No. RV4004) can charge the battery of up to four EP10s inserted in the docking station. (see page 230)
- Quad Battery Charger (Model No. RV3004) can charge up to four batteries inserted in the charger (see TBD)
- USB & Charger Snap Module (Model No. RV4001) allows you to connect a Mini-B USB cable and a power cable to the EP10. (see TBD)
- DE9 RS232 & charger Snap Module (Model No. V4002) provides an RS232 connection and charge power to the EP10. (see TBD)

Preliminary Draft

Note: Refer to "Monitoring the Battery and Maximizing Run Time" on page 23 for additional information about the battery.

Important: To avoid damaging the battery, chargers will not begin the charge process until the battery temperature is between 0°C to 40°C (32°F to 104°F).

2.3 The Keyboard

2.3.1 EP10 QWERTY Keyboard

The EP10 is available with a QWERTY keyboard with [Send] and [End] phone keys.

Figure 2.3 QWERTY Keyboard with Phone Keys

Most of the keys on these keyboards operate much like a desktop computer. Where a key or key function is not consistent with the PC keyboard, the differences are noted.

The [BLUE] modifier key provide access to additional keys and system functions. These functions are colour coded in blue print above the keyboard keys.

Preliminary Draft

Note: Almost all keys can be reprogrammed to suit your requirements.

2.3.2 Locking the Keyboard

You can lock the keyboard to prevent accidental key presses. To set up the locking/unlocking key sequence:

- Tap on **Start>Settings>Buttons**. Tap on the right arrow icon in the bottom-right corner of the screen to scroll to the **Lock Sequence** tab.

Refer to "Lock Sequence" on page 106 for details about setting up this function.

2.3.3 Modifier Keys

The [SHIFT], [CTRL], [ALT], and [BLUE] keys are modifier keys. Pressing a modifier key changes the function of the next key pressed. For example, on a QWERTY keyboard, the '@' symbol is printed in blue on the [A] key. Pressing the [BLUE] key, a modifier key, followed by the [A] key displays the '@' symbol rather than the letter *A*.

The [SHIFT], [CTRL] and [ALT] keys operate much like a desktop keyboard except that they are not chorded (two keys held down simultaneously). The modifier key must be pressed first followed by the key whose function you want modified.

*Note: Keep in mind that the [ALT] and [CTRL] keys are only available on keypads that are **not** equipped with phone keys. You can, however, access the [CTRL] key using the onscreen, soft keyboard.*

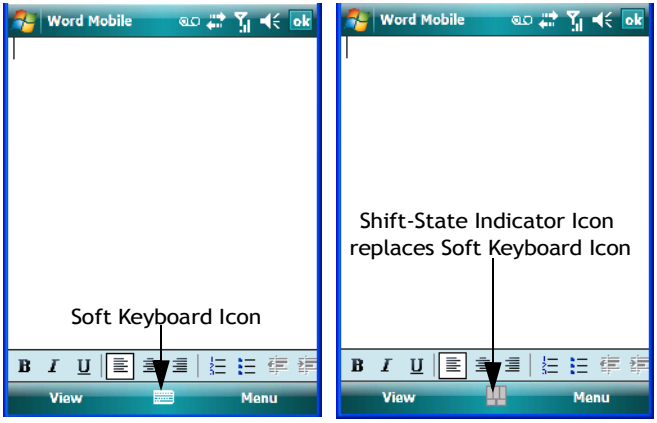
2.3.3.1 Activating Modifier Keys & the Shift-State Indicator

When a modifier key is pressed, it is represented in the shift-state indicator icon in the softkey bar at the bottom of the screen, making it easier to determine whether or not a modifier key is active. If the shift-state indicator icon is not visible (you can only see the soft keyboard icon), you may need to take a few steps to display the shift-state indicator icon.

- Tap on **Start>Settings** followed by the **Buttons** icon.
- Tap on the **One Shots** tab at the bottom of the screen.
- Tap in the check box next to *Show modifier key state* to display the shift-state indicator icon.

Preliminary Draft

Figure 2.4 Shift-State Indicator Icon



2.3.3.2 Locking Modifier Keys

Note: The locking behaviour of the modifier keys can be changed so that, for example, pressing a modifier key ***once*** *will lock the key 'on'. Refer to "One Shots" on page 99 for details. Note too that by default, the [ORANGE] key is locked 'on' when pressed only once.*

When a modifier key is locked 'on', it will remain active until it is pressed again to unlock or turn it off.

To help you identify when a modifier key is locked 'on', the key is represented in the shift-state indicator icon with a black frame around it.

Figure 2.5 Shift-State Indicator Icon – Locked Modifier Key

Once a modifier key is unlocked or turned off, it is no longer displayed in the shift-state indicator icon.

2.3.4 The Keys

The [SHIFT] Key

The [SHIFT] key is used to display uppercase alpha characters and provide access to the symbols above the numeric keys. You can lock this key 'on' so that when you press an alpha

Preliminary Draft

key, an upper case character is displayed. When you press a numeric key, the associated symbol on the numeric key is displayed on the screen.

If you press the [SHIFT] key twice, it is locked 'on' essentially acting as a [CAPS] key, displaying uppercase characters. In this state, if you type a numeric key, the number rather than the symbol above it is displayed. Press [SHIFT] again to turn the [CAPS] function off.

The Arrow Keys

The Arrow keys are located near the top of the keyboard. The arrow keys move the cursor around the screen–up, down, left and right. The cursor is the flashing box or underline character that indicates where the next character you type will appear.

The [BKSP/DEL] Key

The [BKSP] key (sometimes referred to as destructive backspace) moves the cursor one character to the left, erasing the incorrectly entered key stroke.

The [DEL] key ([BLUE] [BKSP]) erases the character at the cursor position.

The [ALT] and [CTRL] Keys

The [ALT] and [CTRL] keys modify the function of the next key pressed and are application dependent.

The [TAB] Key

Typically, the [TAB] key moves the cursor to the next field to the right or downward.

The [ESC] Key

Generally, this key is used as a keyboard shortcut to close the current menu, dialog box or activity and return to the previous one.

The [SPACE] Key

Pressing this key inserts a blank space between characters. In a Windows dialog box, pressing the [SPACE] key enables or disables a checkbox.

The [SCAN] Keys

The EP10 is equipped with two [SCAN] keys located on the keyboard just below the display along with [SCAN] buttons situated on the left and right sides of the hand-held. [SCAN] keys activate the scanner beam. For units that do not have internal scanners, these keys can be remapped to serve other functions.

Preliminary Draft

The Function Keys-[F1] to [F10]

Function keys [F1] to [F10] perform special, custom-defined functions. These keys are accessed by pressing [BLUE] followed by numeric keys [1] to [10]. They can be used with the Windows Mobile 6.5 operating system or another application.

The Macro Keys

While macro keys are not physically stamped on the keyboard, up to 12 macro functions can be added using the *Scancode Remapping* function. Refer to "Scancode Remapping" on page 103 for details about mapping keys.

For details about creating a macro, refer to "Keyboard Macro Keys" on page 101.

2.3.5 The Keypad Backlight

The intensity of the keypad backlight can be configured using the *Backlight* icon accessed by tapping on *Start>Settings*. Refer to "Backlight" on page 120 for details about this option.

2.4 The Display

EP10s are equipped with display backlighting to improve character visibility in low light conditions. The backlight switches on when a key is pressed or the screen is tapped.

2.4.1 Setting the Backlight Intensity & Duration

To set the backlight intensity and the duration of time that the backlight will remain on, you'll need to choose the *Backlight* icon.

- Tap on **Start>Settings** and then, tap on **System tab>Backlight icon.**

Refer to "Backlight" on page 120 for details.

2.4.2 Adjusting the Backlight using the Keyboard

The display backlight can be adjusted using a keyboard key sequence. The key sequence varies depending on the type of keyboard:

- For *alphanumeric* keyboards, lock the **[ORANGE]** key 'on'. Press **[ESC]** until a satisfactory brightness level is attained.(TBD)

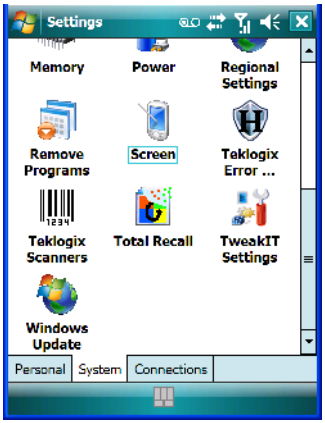
Preliminary Draft

Important: ***Keep in mind that this sequence cycles the display backlight up to full brightness and once reached, begins to dim the backlight until the display fades to black – nothing is visible. At this point, you'll need to continue pressing these keys until the display brightens up to a usable level.***

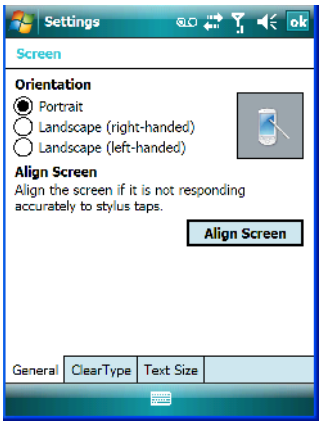
2.4.3 Aligning (Calibrating) the Touchscreen

If your touchscreen has never been aligned (calibrated) or if you find that the stylus pointer is not accurate when you tap on an item, follow the steps below.

- Tap on **Start>Settings**. Tap on the **System** tab to display the *Screen* icon.



- Tap on the **Screen** icon to display the *Alignment* tab.



Preliminary Draft

- Tap on the **Align Screen** button, and follow the directions on the screen to align (calibrate) the screen.

Note: This window provides two additional tabs: ClearType and Text Size. Tapping on the ClearType tab allows you to enable the ClearType option to smooth screen font appearance. The Text Size tab allows you to increase or decrease the size of the font displayed on the screen.

2.4.4 Screen Orientation

In addition to screen calibration, the *Screen* icon allows you to determine how your screen will be oriented – *portrait* or *landscape (right- or left-handed).*

- Tap on **Start>Settings>System** tab.
- Tap on the **Screen** icon.
- In the **General** tab, tap on the orientation that best suits the way in which you use your EP10.

2.5 EP10 Indicators

The EP10 uses LEDs (Light Emitting Diodes), onscreen messages and audio tones to indicate the various conditions of the EP10, the batteries, the scans and so on.

2.5.1 LEDs

Three LEDs are located on the upper-right side of the EP10, just above the display. When you press the **Power** button, the LED flashes yellow to indicate that the EP10 has been powered up. The LED table following outlines the behaviour of the LED while the EP10 is docked in a charger.

Keep in mind that the application running on the EP10 can dictate how the application LED operates. Review the documentation provided with your application to determine LED behaviour.

Table 2.1 Function of EP10 LEDs

LED	Function
Green Charge LED (left-most LED)	Charge indicator. See the table below for descriptions of Charge LED behaviour.

Preliminary Draft

Table 2.1 Function of EP10 LEDs

LED	Function
Yellow Application LED (centre LED)	Application LED. This LEDs behaviour is application dependent.
Blue Radio Power LED (right-most LED)	Radio power indicator.

If the EP10 is attached to an external power supply, the charge LED (the left-most LED) reflects the battery charge status.

Table 2.2 EP10 Charge LED Behaviour

LED Behaviour	Charge Status
Solid Green	Charge complete
Slow Blinking Green (LED *off* longer than *on*)	Charge in progress. Battery charged to less than 80% capacity.
Long Blinking Green (LED *on* longer than *off*)	Battery charged to greater than 80% capacity.
Fast Blinking Green (LED switches on and off rapidly)	Charge failure. (Defective battery or battery outside temperature range (0° C to 50° C))

Note: When the Power button is pressed, the yellow LED will flash to let you know that the hand-held is powered up. At this point, you can go ahead and release the Power button.

2.6 Audio Indicators

The audio speaker provides a variety of sounds when a key is pressed, a keyboard character is rejected, scan input is accepted or rejected, an operator's entry does not match in a match field or the battery is low. To specify how you want your EP10 to respond under various conditions, refer to "Sounds" on page 117.

2.6.1 Adjusting Speaker Volume

The *Volume* button is located on the left side of the EP10, just above the *Scan* button. It is a rocker button; pressing the top half of the button increases volume while pressing the bottom half of the button decreases it.

Preliminary Draft

2.7 Monitoring the Battery and Maximizing Run Time

Note: When the battery is at 50% capacity, a 'low battery' warning is displayed. When the battery is at about 10% capacity, a 'very low battery' notification bubble appears.

As Lithium-Ion batteries age, their capacity decreases gradually, and they are generally considered depleted after approximately 2 years of use (less than 60% of original capacity remaining). Keep in mind however that heavy usage or operating the EP10 at temperature extremes will shorten the battery life.

Lithium-Ion batteries do not require conditioning cycles and the EP10 battery system (including chargers) requires no user interaction to maintain peak performance.

To maximize the run time of your batteries, consider the following:

- The display backlight is a large drain on the battery. Try to keep its brightness as low as possible.
- The EP10 is 'event' driven – that is, when it is not in use, the EP10 reverts to *sleep* mode (even when it appears to be running), saving battery power. Events include a key press, touchscreen taps and scan triggers. Power consumption is reduced if you avoid unnecessary events, and allow the EP10 to sleep as much as possible.
- The battery is a 'smart battery' with built-in intelligence.

Tapping on the *Power* icon under *Start>Settings>System* tab displays a dialog box that provides detailed information about the battery status of the battery installed in your EP10.

- When the EP10 is switched off, it goes into a low-power, suspend state but continues to draw a small amount of power from the battery. This should not be an issue unless the EP10 is left in suspend state for more than a week – for long-term storage, the battery should be removed.

2.7.1 Storing Batteries

Long term battery storage is not recommended. If storage is necessary:

- Always try to use a 'first-in first-out' approach to minimize storage time.
- Lithium-Ion batteries age much faster at elevated temperatures. Store batteries at temperatures between 0° C and 20° C.
- Always charge batteries to at least 40 to 60% before storing them. Batteries can be damaged by an over-discharge phenomenon that occurs when an empty battery is stored for a long period of time such that the cell voltage drops below a lower limit.
- To minimize storage degradation, recharge stored batteries to 40 to 60% every 4 or 6 months to prevent over-discharge damage.

Preliminary Draft

- A 'never used' Lithium-Ion battery that has been stored for 3 years may have limited or no useful life remaining once put into service. Think of batteries as perishable goods.

2.8 Uploading Data in a Docking Station

Important: Review the documentation provided with the user application installed in your EP10 before performing data uploads.

The desktop docking station and quad docking station are typically used to upload transaction data to a server computer when a radio link is not available.

Note: Refer to "Chargers and Docking Stations" on page 223 for more details.

The desktop docking station can complete batch uploads to a Client USB connected PC or server. An optional 10/100baseT Ethernet module is also available.

Unlike the desktop docking station, the quad docking station supports only TCP/IP connections to a PC or server through a 10/100baseT Ethernet connection.

When an EP10 is properly inserted in a docking station, a dock icon is displayed in the navigation bar at the top of the screen. The EP10 also detects the presence of the Ethernet network.

2.9 *Bluetooth* Radio

Note: Integrated Bluetooth radios are standard on EP10 units. Keep in mind also that Bluetooth is available simultaneously with WAN and 802.11g on a single EP10.

The EP10 is equipped with an on-board *Bluetooth* radio. This type of radio enables short range data communication between devices. The Bluetooth also provides the capability to use a *Bluetooth*-enabled cellular phone as a data modem, exchanging information with other *Bluetooth* devices. Refer to "The Bluetooth GPRS Phone" on page 180 for setup details.

Preliminary Draft

2.9.1 Pairing a *Bluetooth* Headset

*Note: Headset pairing information is also available in the **Getting Started Centre** in the **Today** screen on your EP10.*

Before pairing a headset or any other *Bluetooth* device with your EP10, make certain that the *Bluetooth* device power is enabled; it is *enabled* by default. If, for some reason, it has been disabled:

- Tap on **Start>Settings>System tab** and then, tap on the **Power icon** to display the *Power* dialog box.
- Tap on the **Built-in Devices tab**, and tap in the checkbox next to **Enable Bluetooth**.
- Next, tap on **Start>Settings>Connections tab>Bluetooth icon**.
- Tap on the **Mode tab**, and check **Turn on Bluetooth**. Tap **OK**.
- Turn your headset on and place it within a few feet of your EP10.
- If needed, set your headset to visible so that the EP10 can detect it and establish a connection.

Most headsets are in pairing mode by default. If this is not the case, follow the headset manufacturer's instructions to place the headset in pairing mode.

- Tap on **Start>Settings>Connections tab>Bluetooth icon**.
- In the *Devices* tab, tap **Add new device**. Wait for the EP10 to scan for devices.
- Choose the **headset device** from the list and tap on **Next**.

If the headset has authentication enabled, the EP10 then prompts you to provide a passcode.

- Type the **passcode** (or PIN – Personal Identification Number), and then tap on **Next**.

The EP10 then displays a list of services. Choose the *Hands Free* service. (If you are attempting to pair another device, choose it from this list.)

- With *Hands Free* checked (enabled), tap **Finish**. The headset is now paired.

2.10 Inserting the microSD and SIM Card

There are two card holders available in the battery compartment of the EP10 – the lower holder is provided for a microSD (micro Secure Digital) and the upper holder is for a SIM (Subscriber Identity Module) card.

The microSD cards provide additional non-volatile memory to your EP10. SIM cards provide access to the voice option, the Internet, and so on.

Preliminary Draft

2.10.1 Inserting the Cards

- Switch off the EP10 – press and hold down the **Power** key, and when the *Shutdown* screen is displayed, choose **Shutdown** and tap on **OK**.
- Slide the battery latch to the right to unlock the battery, and remove it.
- Pull the SD door down as the arrow icon on the door indicates.(TBD)
- Orient the microSD or SIM card according to the legend stamped into the plastic. the SD and SIM doors have guides or rails into which you can slide the card
- For microSD, slide the card into the guides in the microSD door on the left-hand slot.(TBD)
- For SIM cards, slide the card in the right-hand slot.(TBD)
- Slide the protective door back into place, and snap it shut.

2.11 The Camera

A built-in digital camera is available for the EP10. This option allows you snap still photographs or create short video clips. The *Pictures & Videos* applet is used to access and configure the camera. For more details about the camera, refer to “Pictures & Videos” on page 75.

2.12 General Maintenance

2.12.1 Caring for the Touchscreen

The top of the touchscreen is a thin, flexible polyester plastic sheet with a conductive coating on the inside. The polyester can be permanently damaged by harsh chemicals and is susceptible to abrasions and scratches. Using sharp objects on the touchscreen can scratch or cut the plastic, or crack the internal conductive coating.

The chemicals listed below must not come into contact with the touchscreen:

- sodium hydroxide,
- concentrated caustic solutions,
- benzyl alcohol, and
- concentrated acids.

If the touchscreen is used in harsh environments, consider applying a disposable screen protector (model number CH6110TBD). These covers reduce the clarity of the display slightly but will dramatically extend the useful life of the touchscreen. When they become scratched and abraded, they are easily removed and replaced.

Preliminary Draft

2.12.2 Cleaning the EP10

Important: Do not immerse the EP10 in water. Dampen a soft cloth with mild detergent to wipe the unit clean.

- Use only mild detergent or soapy water to clean the EP10 unit.
- Avoid abrasive cleaners, solvents or strong chemicals for cleaning. The plastic case is susceptible to harsh chemicals. The plastic is partially soluble in oils, mineral spirits and gasoline. The plastic slowly decomposes in strong alkaline solutions.
- To clean ink marks from the keypad or touchscreen, use isopropyl alcohol.

Preliminary Draft

Preliminary Draft

USING WINDOWS EMBEDDED 6.5 3

3.1 Navigating in Windows Embedded 6.5 and Applications 31
3.1.1 Navigating using a Touchscreen and Stylus 31
3.2 Windows Embedded 6.5 Desktop – Today Screen. 31
3.2.1 Windows Embedded 6.5 Navigation Bar 32
3.2.2 Today's Date, Clock and Alarm 34
3.2.3 Ownership Information. 36
3.2.4 E-mail Notification 37
3.2.5 Task Notification 37
3.2.6 Calendar of Upcoming Appointments 40
3.2.6.1 Creating and Editing Appointments. 40
3.2.6.2 Adding Reminders 41
3.2.6.3 Using Categories 42
3.2.6.4 Deleting Appointments 43
3.3 Start Menu 43
3.3.1 Customising the Start Menu 43
3.4 Managing Files and Folders 44
3.4.1 Creating a New Folder 45
3.4.2 Renaming a File 45
3.4.3 Copying a File 45
3.4.4 Deleting a File 46
3.5 Using Menus 46
3.5.1 Pop-Up Menus 46
3.6 The Softkey Bar 47
3.7 Programs – Using Applications 49
3.8 Settings 50
3.9 Help. 51
3.10 Entering Text 52
3.10.1 Soft Keyboard. 52
3.10.2 The Transcriber 53

Preliminary Draft

3.10.3 Block Recognizer and Letter Recognizer 54

Preliminary Draft

3.1 Navigating in Windows Embedded 6.5 and Applications

Graphic user interfaces like Windows Embedded 6.5 for portable devices or desktop Windows (2000, XP, etc.) utilize 'point and click' navigation. On the EP10, this is accomplished using a touchscreen and stylus rather than a mouse.

3.1.1 Navigating using a Touchscreen and Stylus

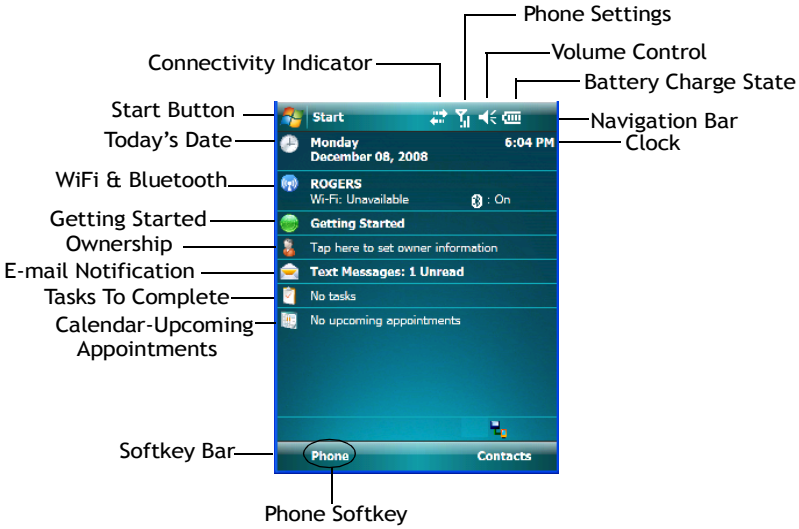
Note: If the touchscreen is not registering your screen taps accurately, it may need recalibration. Refer to "Aligning (Calibrating) the Touchscreen" on page 20.

A touchscreen is a standard feature on all EP10s. Each is equipped with a stylus – a pointing tool – stored in a slot at the bottom of the unit.

- Use the stylus to tap on the appropriate icon to open files and folders, launch applications and programs, make selections, and so on.

3.2 Windows Embedded 6.5 Desktop - Today Screen

Keep in mind that if your EP10 is running Windows Embedded 6.5, the *Today* screen will offer Phone connectivity in the *Navigation Bar* at the top of the screen and a *Phone* softkey in the *Softkey Bar* at the bottom of the screen.

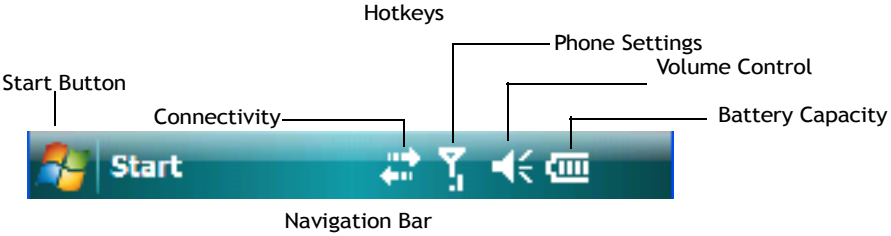


Preliminary Draft

The *Today* screen displays all your important information – tasks, unread e-mails and upcoming appointments – all in one place. The *Start* menu provides access to everything else you'll need.

3.2.1 Windows Embedded 6.5 Navigation Bar

The navigation bar along the top of the screen provides icons that, when tapped, open their associated programs. If you're unit is equipped with *Windows Embedded 6.5*, you'll be see a *Phone* hotkey for quick access to phone settings.



Note: When a peripheral is attached to the docking/usb port of the EP10, an associated icon is displayed briefly in the navigation bar to indicate that the EP10 has recognized the connection.

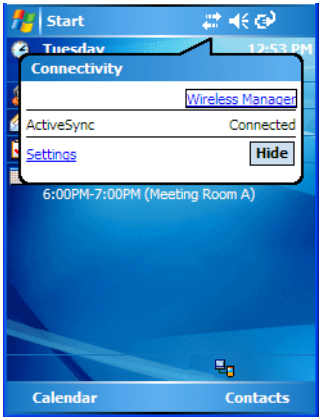
Start Button

Tapping on the **Start** button displays the *Start* menu.

Preliminary Draft

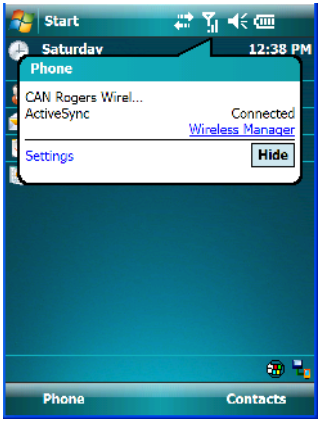
Connectivity

The *Connectivity* hotkey provides a shortcut to the *Connections* tab in the *Settings* window. This tab provides access to *Bluetooth*, network, network card and internet connection setups.



Phone Settings

If your EP10 is running Windows Embedded 6.5, it is equipped with a phone option. An EP10 in which a SIM card and radio are installed can access phone settings along with the Wireless Manager from this pop-up bubble. Any active connections are also listed here.

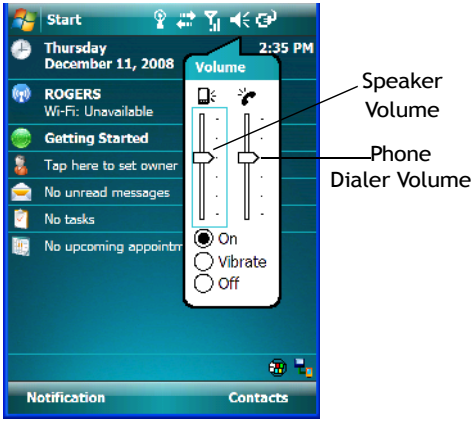


Volume Control

Tapping on this icon displays a sliding tab that allows you to adjust the speaker volume or turn the speaker on and off.

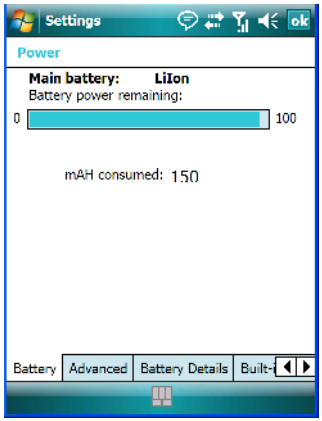
Preliminary Draft

Two volume adjustments are provided – one for the speaker volume and the other for the phone dialer volume.



Battery Capacity

Tapping on the *Battery* hotkey displays the Battery tab allowing you to view the remaining battery capacity in the battery.



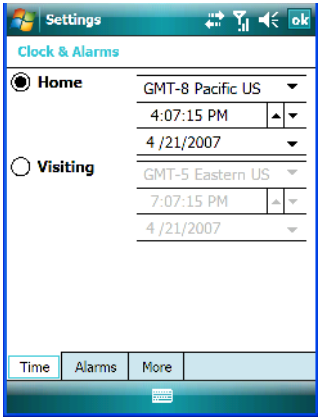
3.2.2 Today's Date, Clock and Alarm

This option displays the current date. If you need to adjust the date or set an alarm:

- In the *Today* screen, tap on **today's date**.

Preliminary Draft

The *Clock & Alarms* screen is displayed.

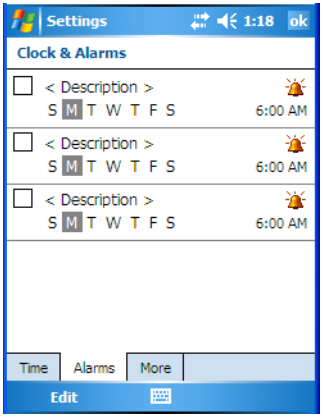


- Tap on the drop-down menu arrows to set the GMT, time and date.

An option to set the date and time for a visiting time zone is also available.

To set an alarm:

- Tap on the **Alarms** tab.

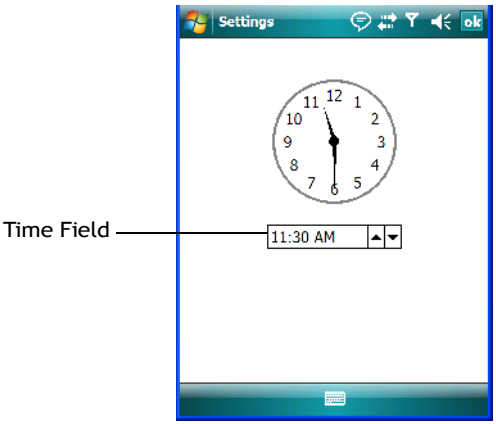


You can set a maximum of three alarms.

- Tap in the **checkbox** to enable an alarm.
- Tap the **day** on which you want the alarm to go off – **Sunday** through **Saturday**.

Preliminary Draft

- Tap on the **time** to display the clock.



- To set the time, in the *time* field below the clock, tap on the **hour** to highlight it, and type the hour at which you want the alarm to ring. To set the minutes, highlight the **minutes**, and type the appropriate minutes, *or*

  You can also assign the alarm activation time using the clock graphic. Position the stylus on the **hour hand** of the clock, and drag it to the correct hour. Do the same for the **minute hand**.

- Tap on **OK** to save your changes.

Note: Tapping on the 'More' tab displays a dialog box in which you can choose to 'Display the clock on the title bar in all programs'.

3.2.3 Ownership Information

This option allows you to add your personal information to the EP10. Some of this information will be displayed in the desktop *Today* screen.

Preliminary Draft

- Tap on **Owner**, listed in the *Today* screen as *Tap here to set owner information* to display a screen in which you can type information.

- Type your **name, company name, address, telephone number** and **e-mail address**.

Note: You can type information using the EP10 keyboard, or you can tap on the soft keyboard icon in the bottom right corner of the softkey bar to display an onscreen keyboard.

The *Ownership* screen has two additional tabs–*Notes* where you can add any pertinent, additional information and *Options* where you can specify whether you want the desktop to display your 'identification' information or your 'note' information.

3.2.4 E-mail Notification

If you have any e-mail, it will be indicated in the *Today* desktop screen. To view your e-mail, tap on the **E-mail notification** option represented by an icon in the shape of an envelope.

Refer to "Messaging" on page 84 for details about setting up your Inbox.

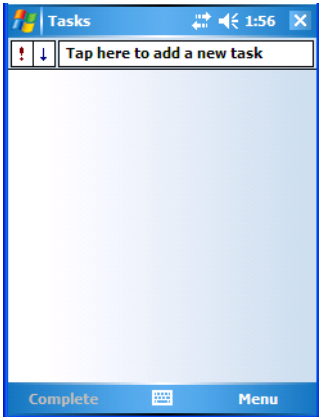
3.2.5 Task Notification

Tasks lets you create lists of entries representing your responsibilities, upcoming projects, and so on. If you've assigned any tasks, this option lets you know how many active tasks you have.

Note: You can synchronize the Task Notification option using ActiveSync so that any tasks are displayed on your EP10 as well as your PC. Refer to "Synchronization" on page 59 for details.

Preliminary Draft

- Tap on the **Tasks** option to display a list of tasks.



Creating a Task

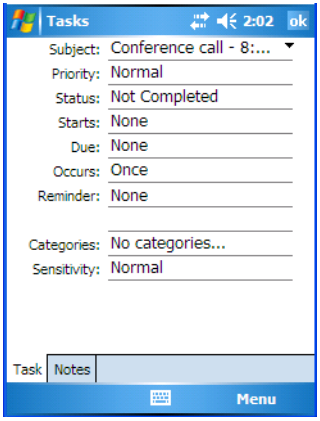
- Tap in the field labelled **Tap here to add a new task**. The text is replaced with a blinking cursor. If you prefer to type the task using the soft keyboard, tap on the *soft keyboard* icon in the softkey bar.
- Type your task description.
- Tap anywhere in the blank part of the screen, or press the Power button to add the task to your list.

Editing a Task

- Tap on a **task** in the task list to highlight it. Tap **Edit** in the softkey bar at the bottom of the screen to display a detailed task screen where you can define task characteristics.

Preliminary Draft

Figure 3.1 Task Details Screen



Each of the nine items in this screen, when tapped, displays a drop-down menu where you can choose from a list of options.

- Once you've completed all the appropriate fields, tap on **OK** to save your changes.

Note: You can also tap on the Notes tab to add additional information about the task your are defining.

The task will be listed in the *Today* screen as an *Active Task*.

Deleting a Task

- Press and hold the stylus on a task until a pop-up menu is displayed.
- Tap on **Delete Task**.

Marking a Task as Completed

- In the **Tasks** list, tap the **checkbox** next to the items that are completed.

Sorting Tasks

- In the **Tasks** list, tap on the **Menu** option in the lower-right corner of softkey bar, and tap on **Sort By**.

You can choose from **Status, Priority, Subject, Start Date** or **Due Date**. The tasks are arranged in the list according to the criterion you chose.

Limiting the Tasks Displayed in the Task Screen

- Tap on **Menu** in the lower-right corner of softkey bar, and tap on **Filter**.

Preliminary Draft

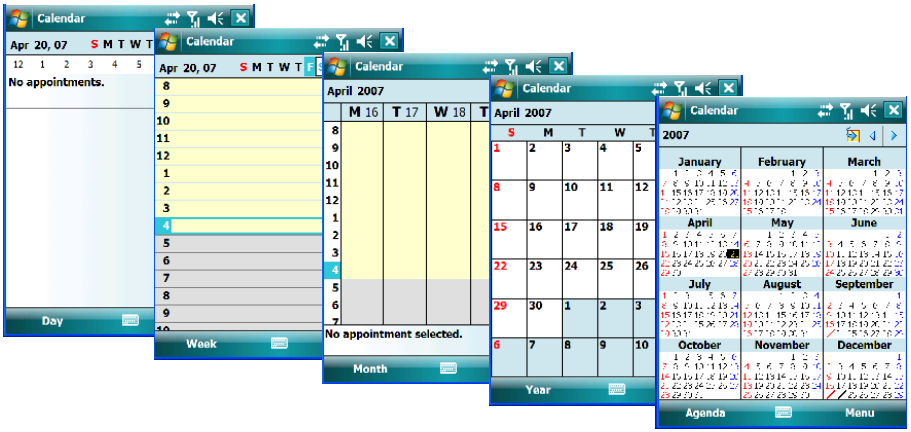
You can choose **All Tasks, Recently Viewed, No Categories, Active Tasks**, or **Completed Tasks**. The tasks are displayed on the screen according to the preference you chose.

3.2.6 Calendar of Upcoming Appointments

This option is used to map out all your upcoming appointments, meetings and so on in the weeks, months and years ahead.

Note: You can synchronize the Calendar using ActiveSync so that any meetings, appointments and so on are displayed on your EP10 Today screen as well as on your PC. Refer to "Synchronization" on page 59 for details.

- Tap on the **Upcoming Appointments** option in the Today screen, or tap on **Start>Calendar** to display the calendar.



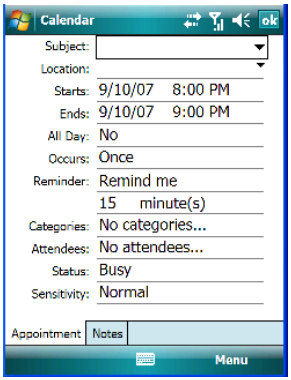
The default calendar displays an *Agenda* of appointments for the week, divided into days. You can choose to leave the calendar as is, or you can tap on the *Day* softkey to reflect the *Week, Month* or *Year*.

3.2.6.1 Creating and Editing Appointments

- In the *Calendar* screen, tap on **Menu** in the softkey bar, and then tap on **New Appointment**.

Preliminary Draft

Figure 3.2 Appointment Detail Screen



- In the *Subject* field, name the appointment.
- Complete the remaining fields to reflect your appointment details.

Note: Refer to "Adding Reminders" on page 41 for details about reminders. Refer to "Using Categories" on page 42 for information about this option.

- Tap on **OK** to save your changes and close the screen.

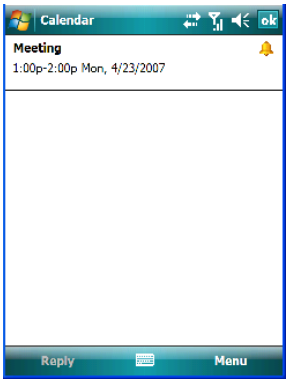
3.2.6.2 Adding Reminders

If you want to be reminded in advance of an appointment:

- In the *Reminder* field, choose **Remind me** from the drop-down menu.
- In the second *Reminder* field, tap on the number in the field to display a drop-down menu where you can define a numeric value of 1, 5, 10, 15, 30. Tap on **minute(s)** to display a drop-down menu from which you can choose the time unit for your reminder – minute(s), hour(s), day(s) or week(s).
- Tap **OK** to finish. You are returned to the view you were in before adding the reminder.

Preliminary Draft

- Tap the appointment in the **Calendar** screen to display it in a summary screen. The reminder is indicated by the small, bell icon.

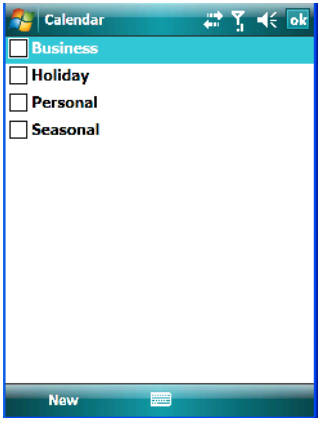


3.2.6.3 Using Categories

Categories help you organize and track the different types of data you keep on your EP10.

To assign an appointment to a category:

- Tap on an **appointment** in the *Today* screen. In the *Calendar* screen, tap on the **appointment** again.
- Tap the **Categories** field to display the *Categories* screen.



- Tap in the **checkbox next to the category** to which you want to assign the appointment.
- Tap **OK**. Your appointment is assigned to the category or categories you chose.

Preliminary Draft

*Note: You can create a new category by tapping on **New** in the softkey bar at the bottom of the screen.*

3.2.6.4 Deleting Appointments

- Tap and hold the stylus on the **appointment** you want to delete.
- Tap on **Delete Appointment** in the pop-up menu.

3.3 Start Menu

To display the Start menu:

- Tap on the **Start** button in the upper-left corner of the *Navigation Bar*.

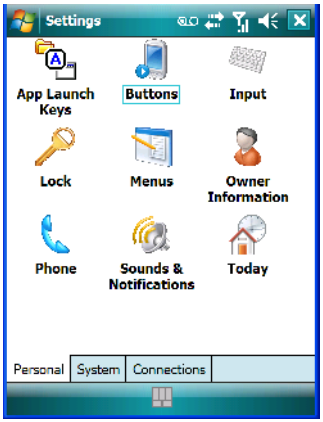
- Tap on the **Start** menu item with which you want to work.

3.3.1 Customising the Start Menu

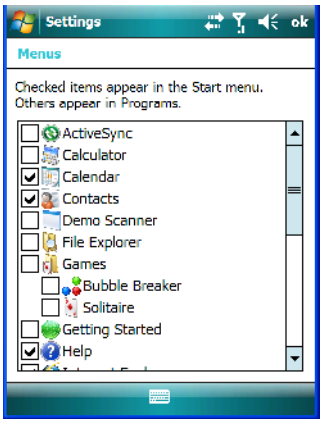
You can choose the items you want to appear in the *Start* menu – items you use most often.

Preliminary Draft

- Tap on **Start>Settings**.



- In the *Personal* tab, tap on the **Menus** icon.



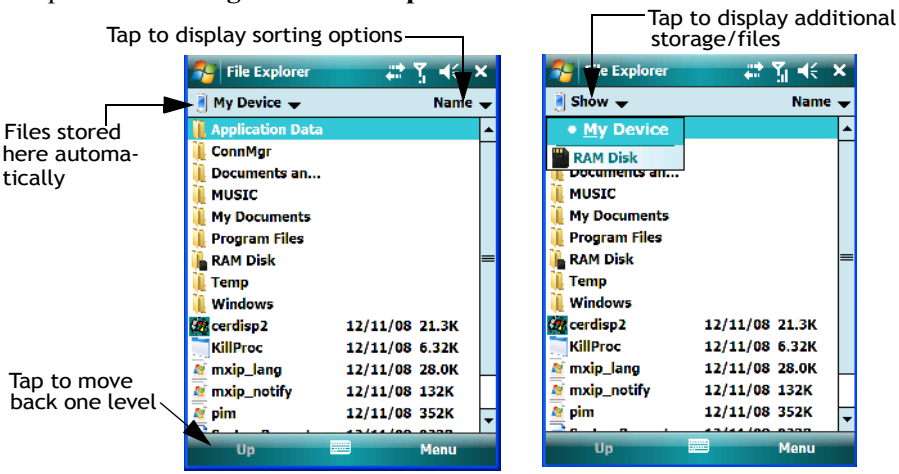
- Tap the **checkboxes** next to the items you would like to appear in your *Start* menu. When you've completed your selections, tap on **OK**.

3.4 Managing Files and Folders

Windows Embedded 6.5 files are stored in folders and sub-folders that are accessible with *File Explorer*. You can open, save, rename, copy and paste files in the same manner as you would on any desktop PC.

Preliminary Draft

- Tap on **Start>Programs>File Explorer**.



3.4.1 Creating a New Folder

- Tap **Start>Programs>File Explorer**.
- Tap **Menu>New Folder** in the softkey bar at the bottom of the screen.
- Use the EP10 keyboard or the soft keyboard to assign a name to the folder.

3.4.2 Renaming a File

- Press and hold the stylus on the file you want to rename. A ring of dots is displayed followed by a pop-up menu.
- Tap **Rename**. The file name is highlighted. Type a new name.

3.4.3 Copying a File

- Press and hold the stylus on the file you want to copy. A ring of dots is displayed followed by a pop-up menu.
- Tap on **Copy** in the pop-up menu.
- Navigate to the location where you want to copy the file.
- Press and hold the stylus in a blank area of the screen—away from other icons—until a pop-up menu is displayed.
- Tap Paste to copy the file to the new location.

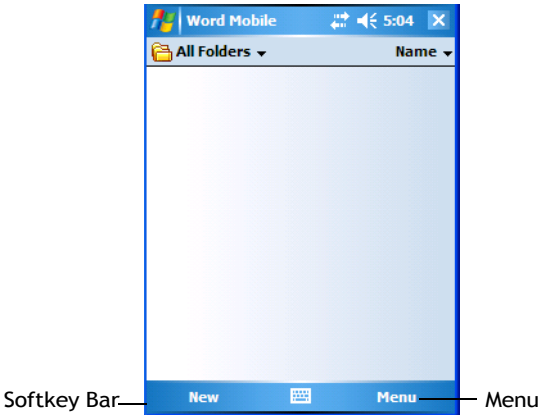
Preliminary Draft

3.4.4 Deleting a File

- Press and hold the stylus on the file or folder you want to delete until a pop-up menu is displayed.
- Tap **Delete** to remove the file.

3.5 Using Menus

In Windows Embedded 6.5, the menu is located in the *softkey bar* at the bottom of the screen.



To execute a command:

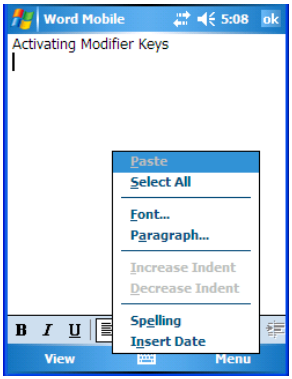
- Tap on **Menu** to display the commands associated with it, and then tap on the command you want to execute.

3.5.1 Pop-Up Menus

Pop-up menus are available in many screens and programs. They offer quick access to a group of useful commands in addition to those available in the menu bar. To display a pop-up menu:

Preliminary Draft

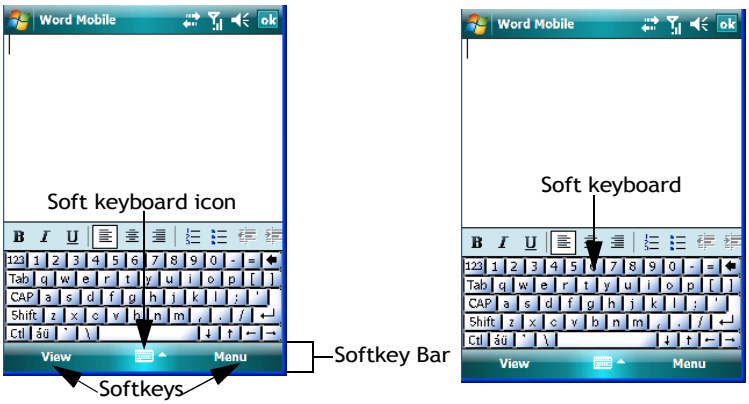
- Gently press and hold the stylus on the screen. A ring of dots is displayed on the screen followed by a pop-up menu.



- Tap on the **command** you want to execute.

3.6 The Softkey Bar

The EP10 is equipped with a *softkey bar* at the bottom of the screen. It displays *softkeys* that allow you to access menus and commands. It also displays the *soft keyboard* icon.



Softkeys

Tapping on a softkey displays information associated with the softkey–for example, in the sample screen above, the *Menu* softkey displays the commands associated with Word Mobile. The *View* softkey lets you to tailor how the Word document will be displayed.

Preliminary Draft

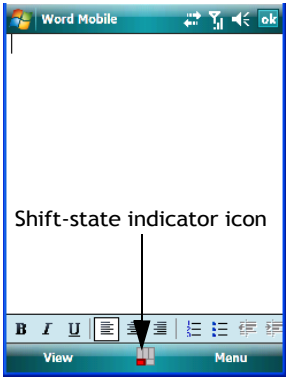
The Soft Keyboard Icon

Tapping on the *soft keyboard* icon displays an onscreen keyboard you can use as an alternative to the EP10 keyboard.

Shift-State Indicator Icon

The softkey bar can also display the shift-state indicator icon. This icon indicates active modifier keys–[SHIFT], [ALT], [CTRL], [ORANGE] and [BLUE].

- Tap on **Start>Settings>Buttons>One Shots**. Tap in the checkbox next to *Show modifier key state,* to replace the *soft keyboard* icon with the *shift-state indicator* icon.



When a modifier key is pressed, it is displayed in the *shift-state indicator* icon. In the example above, the [ORANGE] key was activated.

To distinguish a ‘locked’ modifier key – a key that has been locked ‘on’ – from a modifier key that is only active until the next key is pressed, ‘locked’ keys are encircled in a black frame in the *shift-state indicator* icon. Refer to “Activating Modifier Keys & the Shift-State Indicator” on page 16 for details.

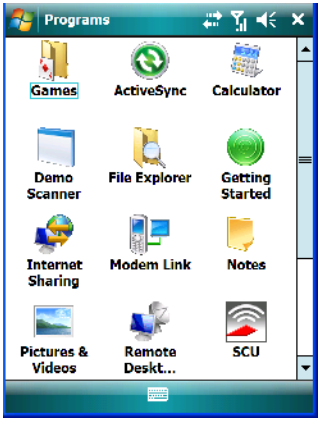
Note: You can still access the soft keyboard while the shift-state indicator icon is displayed. Tapping on this icon displays the soft keyboard. Tapping on the shift-state indicator icon again removes the soft keyboard.

Preliminary Draft

3.7 Programs - Using Applications

- Tap **Start>Programs** to display the programs installed on your EP10.

Figure 3.3 Program Screen Icons



Opening an Application

- Tap on a **Program icon** to launch the associated program.

Minimizing an Application

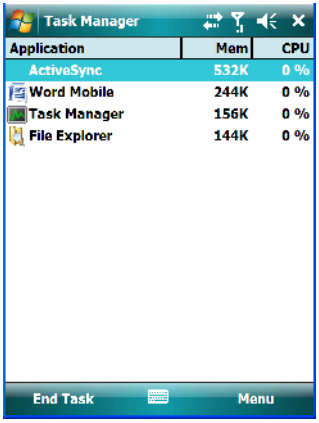
- Tap on the **X** button in the upper-right corner of an application screen to minimize the application.

*Note: Although it looks like a Close button, this button does **not** close the application–it only minimizes it.*

Preliminary Draft

Opening, Closing and Switching Applications

- Tap on **Start>Settings**. Tap on the **System** tab and then the **Task Manager** icon – the *Task Manager* screen is opened.



The *Task Manager* screen lists all running tasks (applications). This applet provides a number of options to manage your opened applications.

- **End Task:** To shut down an application, **highlight the program** in the list, and tap on the **End Task** softkey in the taskbar at the bottom of the screen.
- **End All Tasks:** To shut down *all* applications, tap on the **Menu** softkey, and choose **End All Tasks**.
- **Switch To:** To make an application listed in this screen active, highlight the application, and tap on **Menu>Switch To**.

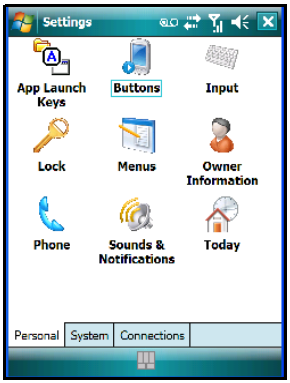
For additional information about the *Task Manager*, refer to “Task Manager” on page 145.

3.8 Settings

- Tap **Start>Settings** to display the setting options for your EP10.

Preliminary Draft

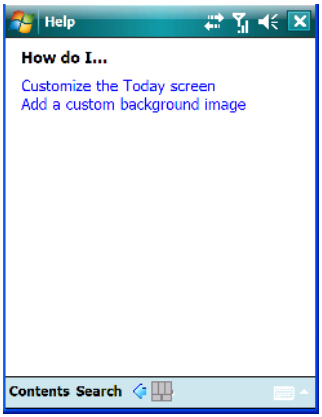
Figure 3.4 Settings Icons



Settings are divided into three tabs – *Personal, System* and *Connections*. Refer to Chapter 5: "Settings" for details about the options available to you.

3.9 Help

Tapping on the *Help* option displays a screen of help topics that are content-specific; if for example, the *Today* screen is displayed and you tap on *Start>Help*, the help screen will provide topics about the *Today* screen. You can perform a help content search by tapping on the *Contents* or *Search* softkeys. Keep in mind that help is not always available.



Preliminary Draft

3.10 Entering Text

Note: For additional information about tailoring text entry using the soft keyboard, the transcriber, the block recognizer and the letter recognizer, refer to "Input" on page 107.

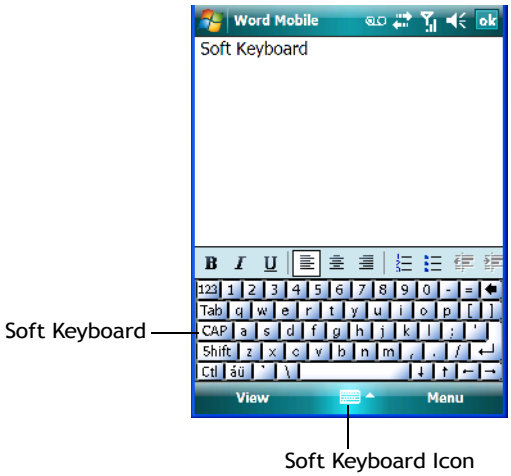
You can enter text using either the soft keyboard or the EP10 keyboard. You can also use the Transcriber to handwrite information directly on the touchscreen using your stylus.

- Open an existing document or create a new one– tap **Start>Office Mobile>Word Mobile** and tap on **New** in the softkey bar to create a new document.

If you're using the EP10 keyboard to enter text, there are no special steps. Just begin typing – the text, spaces, etc. will appear in the document.

3.10.1 Soft Keyboard

The *soft keyboard* is laid out just like the keypad on a PC keyboard. By tapping the stylus on letters and modifier keys like the [SHIFT] key, you can enter text in a document.



If the soft keyboard is not already displayed:

- Tap on the **soft keyboard icon** in the softkey bar.
- Tap on the keys in the soft keyboard to enter text in your document.

To switch to a numeric keyboard:

- Tap on the **123** key in the upper-left corner of the soft keyboard.
- Tap on this key again to return to the standard keyboard.

Preliminary Draft

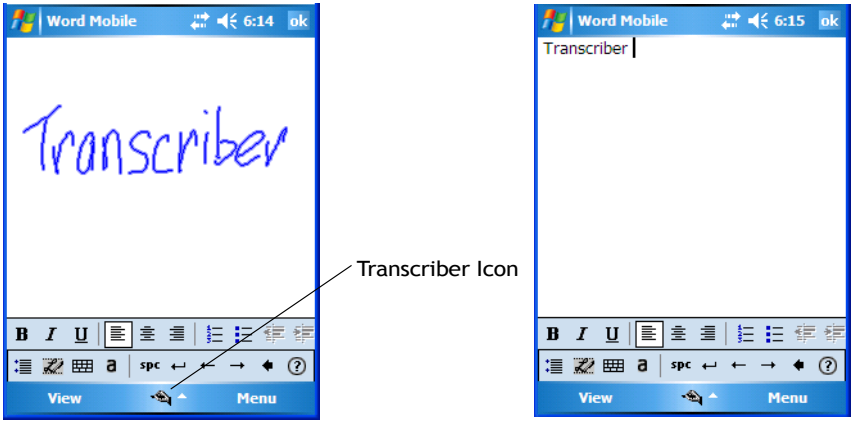
3.10.2 The Transcriber

To access the *Transcriber*, with your document opened:

- Tap on the **arrow** next to the keyboard icon, and choose **Transcriber** from the pop-up menu.
- Review the introductory screen. It provides some shortcut symbols you can draw on your screen to work with the *Transcriber*.
- When you've finished reading the introductory screen, tap **OK**.

The *Transcriber* menu and icon bars are displayed at the bottom of the document.

Figure 3.5 Transcriber Screen



- Use your stylus to write a few words anywhere on the screen.

After a few seconds, your words are recognized (or not) and are transcribed into typed text.

Note: Character recognition is more successful if you write using large letters.

Editing Text within the Transcriber

With your document open, make certain that you are in *transcriber* mode–the *Transcriber* icon should be displayed in the lower-right corner of the softkey bar.

- Double-tap to select a word or triple-tap to select a paragraph, ***or***

  Draw a line through the text you want to select and wait a few seconds until the Transcriber highlights the text.
- Once the text is highlighted, write the new text that is to replace the highlighted information, ***or***

Preliminary Draft

Press and hold the stylus on the selected text to display a pop-up menu. Choose **Cut, Copy, Paste** or **Clear** (delete).

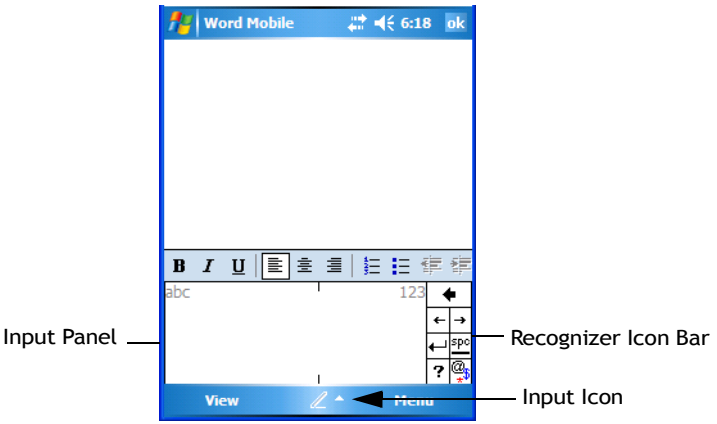
Note: You can also use the softkey bar tools or the shortcuts listed in the introductory screen to help you edit a document within the Transcriber.

3.10.3 Block Recognizer and Letter Recognizer

While the *Transcriber* attempts to recognize natural handwriting and transcribe it, *Block Recognizer* and *Letter Recognizer* attempt to teach you how to conform your handwriting to what the EP10 can recognize.

Block Recognizer

- Open a document, and tap on the arrow next to the *input* icon. Choose **Block Recognizer**.



There are two points to remember when using Block Recognizer. First, limit your writing to the ***Block Recognizer input panel***–do not write in the body of the document. Second, write only ***uppercase letters*** with your stylus.

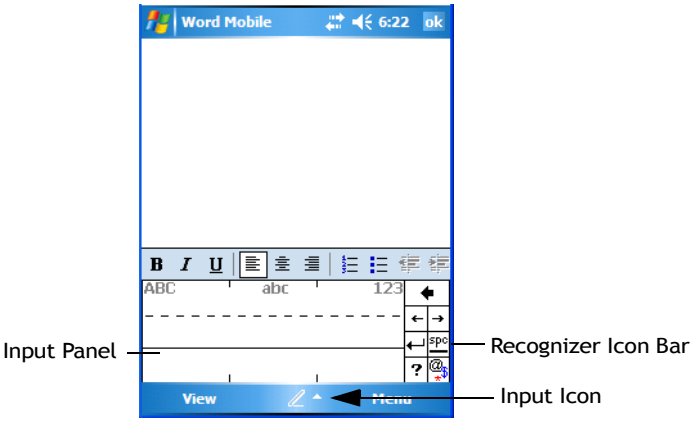
- Tap on the ? icon in the *Recognizer Icon Bar* to display the *Character Recognizer* screen. This screen provides a visual demonstration of how to enter letters that will be recognized. Tap on a character in the soft keyboard for a demonstration of how to form a recognizable letter.
- In the *Block Recognizer* panel, write letters to the left (abc) and numbers to the right (123) on the input panel. ***Remember to write using uppercase letters***–they will be printed on the screen as lowercase unless you follow the step below to create an upper-case letter.

Preliminary Draft

- To create an uppercase character, draw a line straight up the 'abc' panel.
- Use the *Recognizer Icon Bar* to move around the screen, add spaces, special characters, and so on.

Letter Recognizer

- Open a document, and tap on the arrow next to the *input* icon. Choose **Letter Recognizer**.



There are two points to remember when using *Letter Recognizer*. First, limit your writing to the ***Letter Recognizer Input Panel***–do not write in the body of the document. Second, write only ***lowercase letters*** with your stylus.

- Tap on the ? icon in the *Recognizer Icon Bar* to display the *Character Recognizer* screen. This screen provides a visual demonstration of how to enter letters that will be recognized. Tap on a character in the soft keyboard for a demonstration of how to form a recognizable letter.
- To create an uppercase character, write a lowercase letter on the left side (ABC) of the input panel.
- To create a lowercase character, write a lowercase letter in the middle (abc) of the input panel.
- Write numbers on the right side (123) of the input panel.

Preliminary Draft

Preliminary Draft

PROGRAMS 4

4.1 Programs 59
4.2 Games 59
4.3 ActiveSync® 59
4.3.1 Synchronization 59
4.4 Calculator 60
4.5 Demo Scanner 60
4.6 Office Mobile 60
4.6.1 Excel Mobile 60
4.6.1.1 Workbook Components 61
4.6.2 OneNote Mobile 61
4.6.3 Word Mobile 67
4.6.3.1 Data Entry Modes 68
4.6.3.2 Sharing Documents with your PC 68
4.6.4 PowerPoint Mobile 68
4.7 File Explorer 69
4.8 Getting Started 69
4.9 PTSI Imager Demo 69
4.10 Internet Sharing 70
4.10.1 Creating an Internet Connection 70
4.10.2 Using Internet Sharing 70
4.11 Notes 71
4.11.1 Creating a Note 71
4.11.2 Converting Handwritten Notes to Text 72
4.11.3 Renaming a Note 74
4.11.4 Recording Notes. 74
4.11.5 Synchronizing a Note 75
4.12 Pictures & Videos 75
4.12.1 Using the Camera 75
4.12.2 Moving Photos to the EP10 77

Preliminary Draft

4.12.3 Opening a Photo 77
4.12.4 Deleting a Photo 78
4.12.5 Editing a Photo 78
4.12.6 Creating a Slide Show 78
4.12.7 Using the Video Recorder 79
4.13 Remote Desktop Mobile 80
4.13.1 Connecting to a Terminal Server. 81
4.13.2 Disconnecting without Ending a Session 81
4.13.3 Ending a Session 81
4.14 Search 82
4.15 Task Manager 82
4.16 Tasks 82
4.17 Internet Explorer 82
4.17.1 Browsing Web Sites 83
4.18 Messaging 84
4.18.1 Folders 84
4.18.2 Synchronizing E-mail with Outlook 84
4.18.3 Changing Synchronization Settings 86
4.19 Windows Media 87

Preliminary Draft

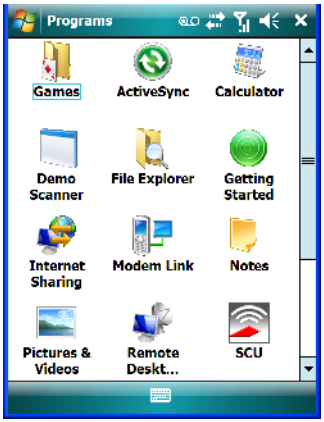
4.1 Programs

The *Programs* menu provides access to all the applications available on your EP10.

- Tap on **Start>Programs** to display this screen.

Tapping on an icon in this screen launches the associated applet.

Figure 4.1 Programs Tabs



4.2 Games

Your EP10 is equipped with a few standard games – Bubble Breaker and Solitaire – should you feel the need to pass the time.

4.3 ActiveSync®

For PCs using the Microsoft Windows XP operating system, ActiveSync® – Microsoft PC connectivity software – can be used to connect the EP10 to PCs running this software. By connecting the EP10 to a PC through your desktop docking station and running ActiveSync on the PC, you can view EP10 files, drag and drop files between the EP10 and the PC, connect to the Internet, and so on.

4.3.1 Synchronization

For details about synchronizing your PC with you EP10, visit the following Microsoft internet site:

http://www.microsoft.com/windowsmobile/activesync/default.mspx

Preliminary Draft

4.4 Calculator

Tapping on *Start>Programs>Calculator* displays a standard calculator.

- Use your stylus to tap the calculator buttons.

4.5 Demo Scanner

The *Demo Scanner* icon is used to test how the EP10 reads and writes bar codes. The *Demo Scanner* dialog box contains buttons at the bottom of the dialog box that allow you to *Scan*, *Reset* or change bar code *Setting*.

4.6 Office Mobile

This icon contains the following abridged Microsoft programs: *Excel Mobile*, *OneNote Mobile*, *PowerPoint Mobile* and Word Mobile. Keep in mind that if *Office Mobile* is listed in your *Start* menu, this icon will not be displayed in the *Programs* window.

4.6.1 Excel Mobile

Excel Mobile is an abridged version of Microsoft Excel, an electronic spreadsheet program. If you're familiar the Excel application on your PC, you'll be able to navigate *Excel Mobile*.

In addition to providing the tools to manipulate text and numeric values like statistics, percentages, using formulas that perform calculations, and so on, this program can also include graphics such as pie charts.

Excel Mobile allows you to copy Excel workbooks from your PC onto your EP10 and update them while you're away from your desk.

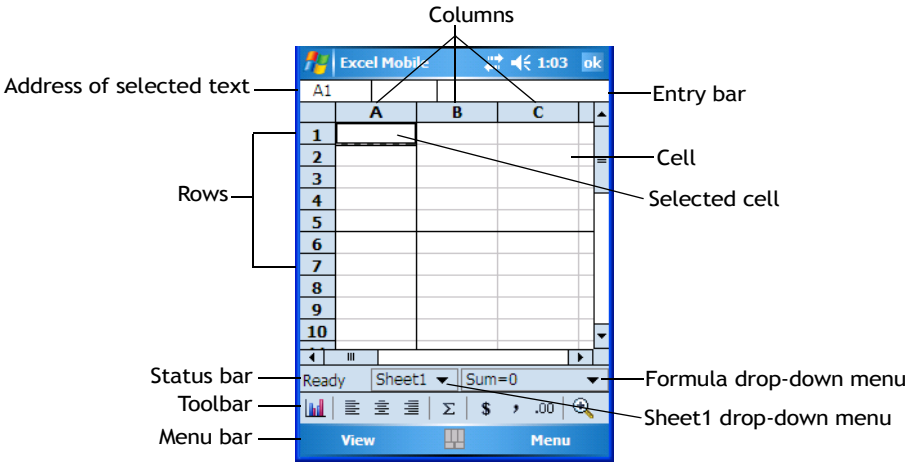
- Tap on **Start>Programs>Office Mobile>Excel Mobile**.

If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile** and then tap on **Excel Mobile**.

- If a list of workbooks is displayed rather than a new sheet, you'll need to create a new workbook. To create a workbook:
- In *Excel Mobile*, tap the **Menu>File>New**.

Preliminary Draft

4.6.1.1 Workbook Components



- If the toolbar is not visible, tap on the **View>Toolbar**.

You can enter data, work with rows and columns and create formulas as you would when working with Excel on your PC.

Using Excel Mobile Help

If you need help using this application, you can review the instructions in the associated help files. To display Excel Mobile help files:

- Launch the *Excel Mobile* program.
- Tap on **Start>Help**, and review the instructions provided.

4.6.2 OneNote Mobile

You can use *OneNote Mobile* to take notes wherever you are and then synchronize your notes with a notebook section in the OneNote version on your PC. For example, you can:

- Snap pictures of business cards on your EP10 and then bring them into *OneNote* on your PC.
- Create short text notes and voice recordings on your EP10 to remind you about important meetings, ideas, etc. and synchronize them with your notes.
- Prepare information in *OneNote* on your PC and then transfer it to your EP10 where it will be available to you wherever you and your EP10 go.

Preliminary Draft

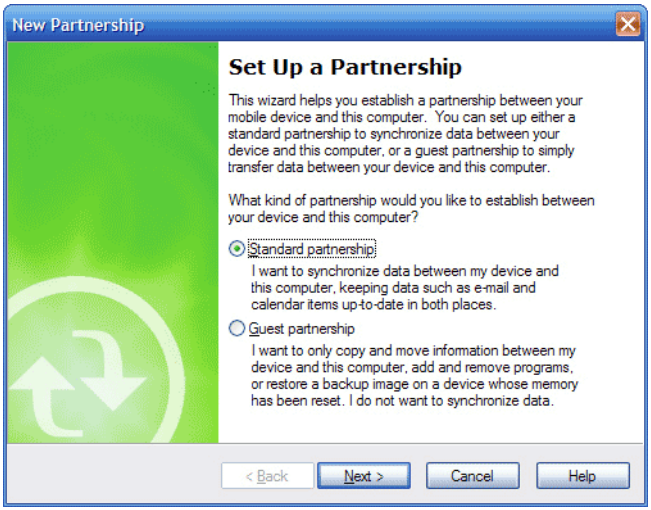
Important: ***Remember that you must have Microsoft Office OneNote 2007 and the latest version of ActiveSync installed on your PC before you can set up a partnership between your EP10 and your PC.***

ActiveSync can be installed from the Getting Started CD included with your EP10. Refer to "The Getting Started CD" on page 15 for details.

Setting Up A Partnership

- Start **Office OneNote** and **ActiveSync** on your PC
- Connect the EP10 to your PC; you can use a USB cable or a *Bluetooth* connection.

When a connection is established between the EP10 and your PC, ActiveSync displays a *New Partnership* screen.



- Choose **Standard partnership**, and tap on **Next**.
- To share information between *OneNote Mobile* and *Office OneNote 2007* on your PC, tap **Synchronize with this desktop computer**, and then tap on **Next**.
- Tap on **Finish** to begin the partnership between the EP10 and the PC. Now you'll be able to pass notes back and forth between your PC and your EP10.

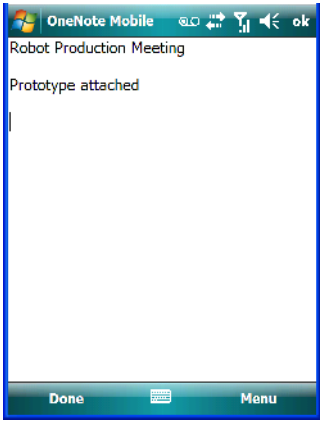
Creating A Note

- If *Office Mobile* is listed in your *Start* menu, tap on ***Start>Office Mobile>OneNote Mobile*** icon.

Preliminary Draft

If this is not the case, tap on **Start>Programs>Office Mobile** icon. Tap on the **OneNote Mobile** icon.

- Tap on **New** to create a note page. Begin typing.



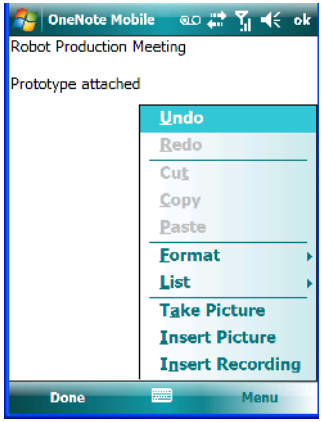
- When you complete your note, tap on **Done**.

Note: Remember that you can tap on the Menu softkey to Undo typing, add Formats (Bold, Italic, Underline, Strikethrough), include Lists (Numbered, Bulleted, Clear)

Preliminary Draft

Using the OneNote Menu

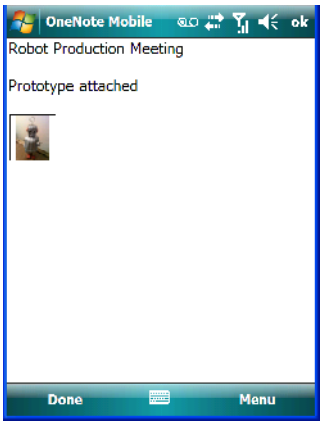
Tapping on Menu displays a list of options to help you work with the OneNote Mobile applet.



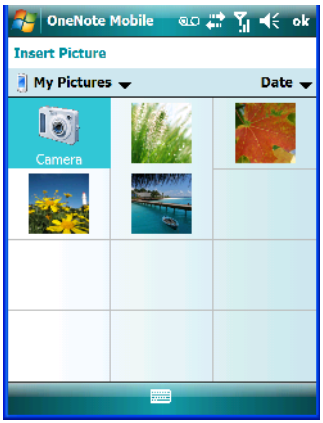
- **Undo**, **Redo**, **Cut**, **Copy** and **Paste:** These commands operate in the same way as they do in any Windows Office application.
- **Format:** Tapping on this command lists the formatting options you can apply to your note: *Bold*, *Italic*, *Underline*, *Strikethrough* and *Clear All*.
- **Take Picture:** When you tap on this option, the EP10 switches to camera mode so that you can snap a picture to include in your note.

Preliminary Draft

Press **[ENTER/Power]** to snap a photo that is automatically inserted into your note.

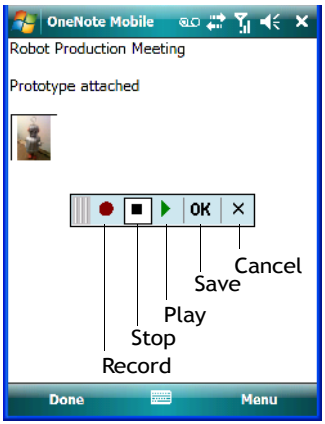


- **Insert Picture:** Tapping on this command automatically displays your *My Pictures* folder where you can tap on an existing picture to insert it into your note.



Preliminary Draft

- **Insert Recording:** When you tap on this command, a recording panel is displayed.



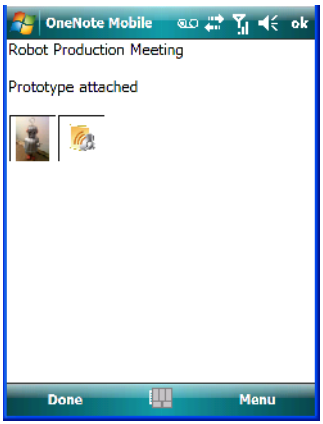
Tap on the **Record** button to *record* your message.

Tap on **Stop** when you've completed your message.

Tap on **Play** to *listen* to your voice message.

To *discard* your message, tap on **X** – the **Cancel** button.

To *save* your message, tap on **OK**. An audio icon is displayed in your note. You can tap on it to listen to your message.



Synchronizing EP10 One Note With PC OneNote

- Connect the EP10 to your PC using either a USB cable or *Bluetooth*.

When the connection is complete, take one of the following steps:

Preliminary Draft

- In *Microsoft ActiveSync* on your *PC*, choose **Sync**.

  or

  On your *EP10*, tap on **Start>ActiveSync**, and then tap on **Sync**.

During synchronization, the notes you created on your EP10 are copied to a new Office OneNote 2007 notebook called *OneNote Mobile* on your *PC*. When synchronization is done, you can drag the transferred notes into any other sections and other notebooks on your PC.

*Note: If you prefer to synchronize EP10 notes automatically, you can set up ActiveSync so that synchronization is continuous or occurs on a schedule. In ActiveSync on your PC, in the **Tools** menu, tap **Options**, and then tap on the **Schedule** tab.*

4.6.3 Word Mobile

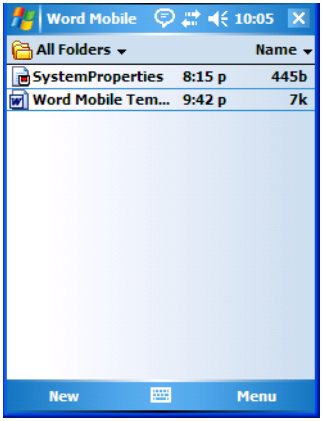
If you've used Microsoft Word on your Mac or PC, Word Mobile will be familiar to you. Keep in mind however that *Word Mobile* is designed for a small screen and limited memory.

Note: Keep in mind also that a Word document created on your PC can lose key formatting features such as styles and tables if you make changes to it on your EP10.

- Tap on **Start>Programs>Office Mobile>Word Mobile**.

If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile** and then tap on **Word Mobile**.

If you've already create a *Word* document, it will be listed in the *Word Mobile* window.



- Tap on **New** in the softkey bar to create a new Word document.

Preliminary Draft

Using Word Mobile Help

If you need help using this application, you can review the instructions in the associated help files. To display Word Mobile help files:

- Launch the *Word Mobile* program.
- Tap on **Start>Help**, and review the instructions provided.

4.6.3.1 Data Entry Modes

In addition to the soft keyboard, you can enter text using Block Recognizer, Letter Recognizer or Transcriber. Refer to "Entering Text" on page 52 for details.

You can also use the EP10 keyboard for data entry.

4.6.3.2 Sharing Documents with your PC

Documents created on a PC are recognized by your EP10. However, some formatting is lost when a Word document is converted to a Word Mobile document. This loss also occurs when you open a *.doc* file and change it on the EP10.

Important: ***To avoid problems, you can work on copies of .doc files. In addition, keep in mind that you can use the Terminal Services Client program to log onto a desktop PC that is also running Terminal Services, and then you can use any program on your PC, including Microsoft Word (rather than Word Mobile). Refer to "Remote Desktop Mobile" on page 80 for details.***

4.6.4 PowerPoint Mobile

PowerPoint Mobile works just like the desktop version that may be installed on your PC. To launch this program on your EP10:

- Tap on **Start>Programs>Office Mobile>PowerPoint Mobile**.

If *Office Mobile* is listed in your *Start* menu, tap on **Start>Office Mobile** and then tap on **PowerPoint Mobile**.

Using PowerPoint Mobile Help

If you need help using this application, you can review the instructions in the associated help files. To display PowerPoint help files:

- Launch the *PowerPoint Mobile* program as described above.
- Tap on **Start>Help**, and review the instructions provided.

Preliminary Draft

4.7 File Explorer

Windows Embedded 6.5 files are stored in folders and sub-folders that are accessible through *File Explorer*. You can open, save, rename, copy and paste files in the same manner as you would on any desktop PC.

Important: Refer to "Managing Files and Folders" on page 44 for details about this program.

4.8 Getting Started

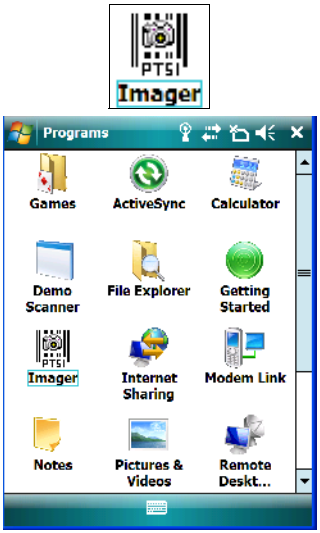
For information about the Getting Started applet, refer to "The Getting Started Centre ??" on page 19.

4.9 PTSI Imager Demo

Note: This icon is only available when an HHP 5000 imager is installed in your EP10.

To run a demonstration of the *Teklogix Imager* applet features:

- Tap on **Start>Programs>PTSI Imager** icon.



Important: For details about this applet, refer to Appendix D: "Teklogix Imagers Applet".

Preliminary Draft

4.10 Internet Sharing

This option allows you to use your EP10 to connect your PC to the Internet. Before you can use *Internet Sharing*, you must make certain that you have established a data connection on your EP10.

4.10.1 Creating an Internet Connection

Follow the steps in this section only if you have not already setup an Internet connection.

You'll need the following information before you begin:

From your cellular service provider: data connectivity information, access point name and PAP/CHAP security settings.

From your Internet service provider (ISP) or wireless service provider: access point name and password and any additional security information.

For a GPRS, 1xRTT or dialup connection:

- Tap on **Start>Settings>Connections** tab. Tap on the **Connections** icon.
- Under *My Work Network*, tap **Add a new modem connection**.
- Type a **name** for the connection, and choose **Cellular Line (GPRS)**, or for 1xRTT connections, choose **Cellular Line**. Tap on **Next**.
- Type the **phone number** or **access point name** provided by your service provider, and tap **Next**.
- Type the **credentials** supplied by your service provider, and tap **Finish**.

4.10.2 Using Internet Sharing

- Make certain that your data connect is running, and that you can access the Internet from the EP10.

If you are using a USB cable to connect to your PC, you will need to disable the ActiveSync USB connection.

- On your PC, open the **ActiveSync** window, and tap on **File>Connection Settings.**
- Disable **Allow USB connection** by tapping in the checkbox to the left of this option.
- Connect the EP10 to your PC using *Bluetooth* or a *USB cable*.
- On your EP10, tap **Start>Programs>Internet Sharing**.
- Choose the **PC Connection** type – USB or Bluetooth.
- Choose the **network connection** that the EP10 should use to connect to the Internet.

Preliminary Draft

- Tap **Connect**. It takes approximately 30 seconds to establish a connection. (If you are prompted to turn on *Bluetooth*, tap **Yes**.)

If your are using a ***Bluetooth*** connection, execute the following steps ***on your PC***:

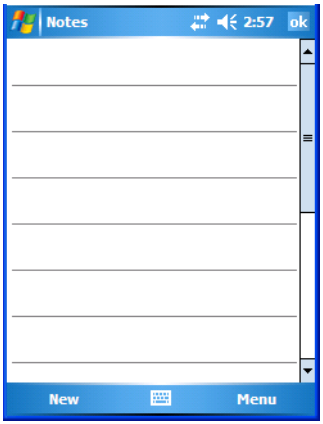
- Tap **Start>Control Panel>Network Connections**.
- Right-click on **Bluetooth Network Connections**, and click on View **Bluetooth Network Devices.**
- If the EP10 is listed as a *Network Access Point*, choose **Connect**. If it is not listed, choose **Create a new connection** and use the *New Connection Wizard* to add the EP10 to the list.

4.11 Notes

The Notes application is an electronic notepad you can use to jot down your ideas quickly. You can enter text using the soft keyboard, the EP10 keyboard, or you can write on the screen using your stylus. You can also record a message.

Notes can also be shared through e-mail and synchronization with your PC.

- Tap on **Start>Programs>Notes** to launch this application.
- If a blank *Note* like the sample screen here is not displayed, tap on **New** in the softkey bar.



4.11.1 Creating a Note

- Choose an entry mode for your note.

Preliminary Draft

To enter text with the *soft keyboard*, the *Transcriber*, the *Block* or the *Letter Recognizer*, tap the stylus on the arrow to the right on the *soft keyboard* icon to choose your text input method.

To use your stylus to handwrite on the screen, tap on the pen icon .

Important: Refer to "Entering Text" on page 52 for text entry details.

- Compose your note using the method you've chosen.
- Tap on **OK** when you're done.

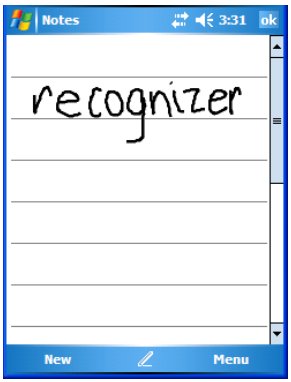
Your note is automatically saved. The file name is the first line of the note if you used the keyboard–otherwise, it's named Note1, Note2 and so on.

4.11.2 Converting Handwritten Notes to Text

When you use the pen tool, you can write notes in your own handwriting and keep them as is, if you like. You can also teach the EP10 to recognize your handwriting and convert it into printed text.

To convert handwriting into text:

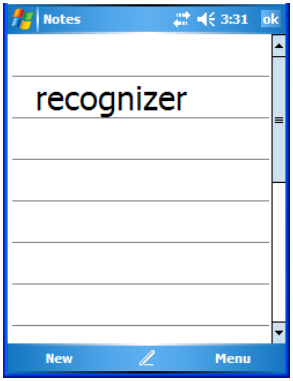
- Tap on the pen tool and compose a note using your stylus.



- Tap on **Menu>Tools>Recognize**.

Preliminary Draft

The text in the note is converted from handwritten to printed text.



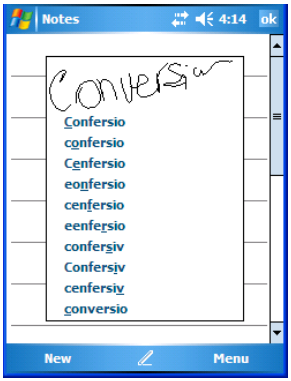
Note: To convert only a specific portion of your handwritten note into printed type, tap the stylus just before the first letter of the text, pause for a second, and then drag your stylus across the text you want to select. Then, tap on ***Tools>Recognize*** *to convert only the highlighted text.*

Failed Conversions

The Recognize tool sometimes gets the conversion wrong. If some words are not converted properly:

- Press and hold the stylus on the incorrectly converted word.
- In the pop-up menu, choose **Alternative** to display a list of possible alternatives to the incorrectly converted word. Your handwritten version is displayed along the top of the menu.

Figure 4.2 Incorrect Conversions



Preliminary Draft

- Tap on the correct word in the list.
- If the correct word is not listed, as is the case in the sample screen above, tap on the soft keyboard icon to display the soft keyboard, and type the correct word.

4.11.3 Renaming a Note

- Press and hold the stylus on the file name in the *Notes* screen that you want to rename. In the pop-up menu, choose **Rename/Move, *or***

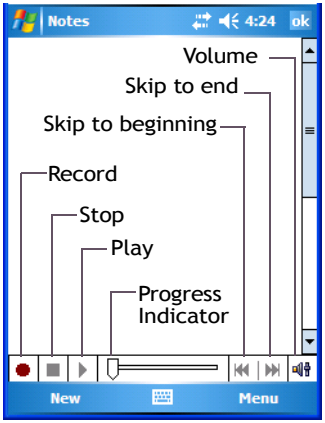
Tap the file name to select it, and tap on **Menu>Rename/Move**.

- In the *Name* field, type the new name, and tap **OK**.

4.11.4 Recording Notes

It's sometimes easier to record a note than to write it down just to make certain that you've captured an idea before it drifts away. To make an audio recording:

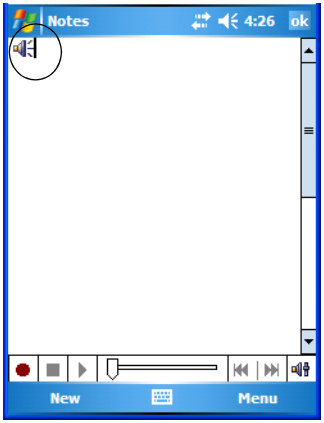
- Tap on **New** to open a fresh note.
- Tap on **Menu>View Recording Toolbar**.



- Tap on the **Record** button–a beep alerts you that your device is now ready to record.
- Begin speaking into the microphone on the EP10, or move the EP10 to within a few feet of the source of the sound you want to record.
- Tap on the **Stop** button when you've completed your recording.
- Tap on **OK** to save the note.

Preliminary Draft

A speaker icon is displayed in the note indicating the presence of a recording within the note.



- To play the recorded note, tap on the speaker icon.

4.11.5 Synchronizing a Note

Like *Tasks, Contacts* and so on, the *Notes* program can be synchronized with Outlook on your PC. In this way, all notes, recordings and drawings created in the *Notes* program are copied to your PC and can be edited in Outlook's Notes module.

- To review the steps required to synchronize a note, with a *Note page opened*, tap on **Start>Help**.

Follow the steps in the EP10 help file to synchronize your note.

4.12 Pictures & Videos

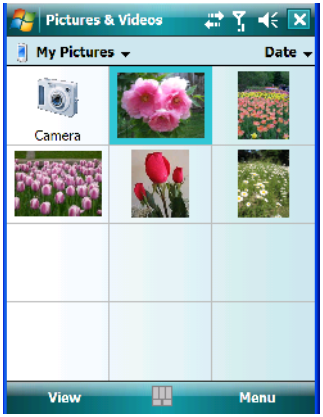
The *Pictures & Videos* applet allows you to snap photographs and record video footage. It is also a photo and video viewing program.

Important: ***The Pictures & Videos program can only display .bmp or .jpg formats. Photos in other formats will need to be converted on your PC before they are transferred to the EP10.***

4.12.1 Using the Camera

- Tap on **Start>Programs>Pictures & Videos**.

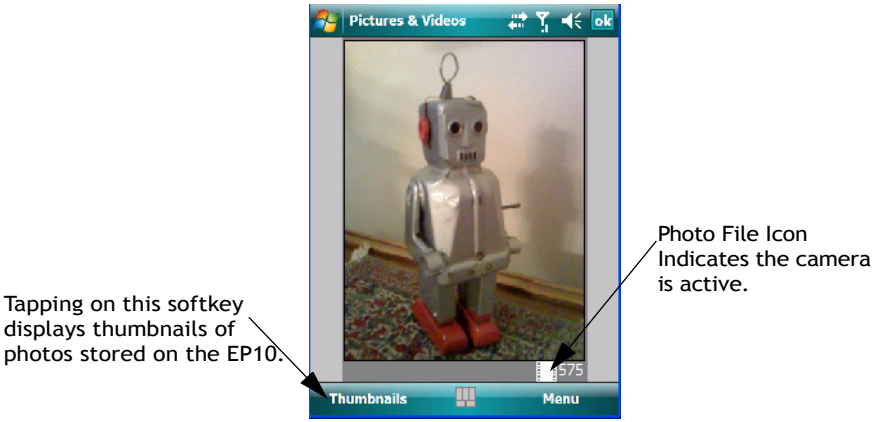
Preliminary Draft



Keep in mind that if there are no pictures stored on your EP10 as yet, you'll only see the *Camera* icon in this screen.

- Tap on the **Camera icon** to activate the camera.

The screen will display the image your camera is pointed at. (The camera is built into the back of the EP10.)

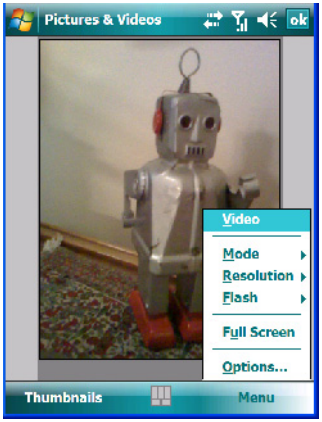


- Frame the image in the EP10 screen. Press **[ENTER/Power]** to snap the photograph.

Photo Menu

When the camera is activated, tapping on *Menu* displays a set of commands to help you modify how your camera operates, the quality of the photos it takes, and so on. You can also use this menu to activate the video recorder rather than the still camera.

Preliminary Draft



Note: 'Video' is a toggle command. When the still camera is activated, 'Video' is available in this menu. When the video recorder is activated, 'Still' (camera) is available in this menu.

4.12.2 Moving Photos to the EP10

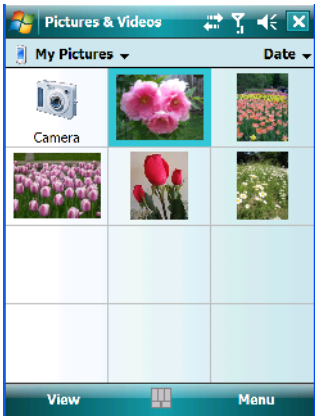
- Connect your device to your PC with ActiveSync.
- On your PC, using Windows Explorer (right-click *My Computer* and click on *Explorer*), drag photos from their folder to the *Mobile Device>My Pictures* folder.

4.12.3 Opening a Photo

- To open a photo, tap on **Start>Programs>Pictures & Videos**. You'll see a thumbnail of your photos.

Preliminary Draft

- Tap on a thumbnail to open the photo.



Note: If you've stored your photos on a storage card, you'll need to tap on the storage card icon to display your photos.

4.12.4 Deleting a Photo

- Press and hold the stylus on the thumbnail photo you want to delete to display a pop-up menu. Tap on **Delete**.
- Confirm your choice when prompted.

4.12.5 Editing a Photo

- Tap a thumbnail photo to open it.
- Tap on **Menu>Edit**.

The *Rotate* command is now displayed in the softkey bar. Additional editing tools are now listed in the *Menu*.

4.12.6 Creating a Slide Show

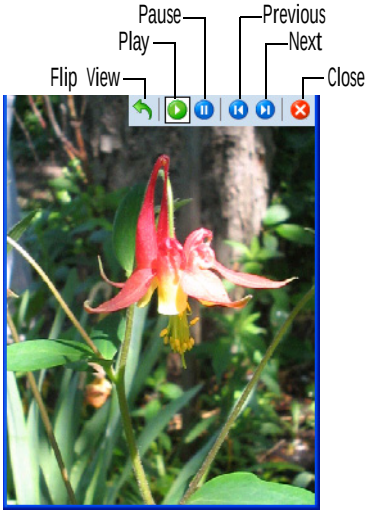
To view a slide show:

- Tap on the **Menu>Play Slide Show**.

The slide show begins–in slide show mode, photos are displayed for about five seconds, one after the other.

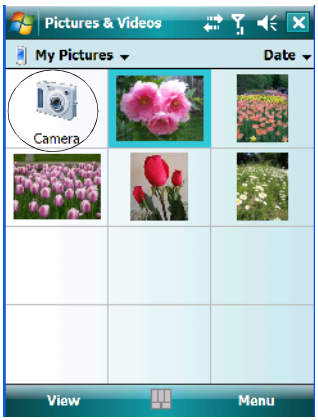
Preliminary Draft

- To display the slide show tool bar, tap anywhere on the photo.



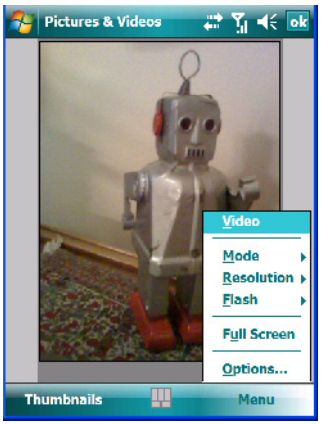
4.12.7 Using the Video Recorder

- Tap on the **Camera** icon.



Preliminary Draft

- In the bottom-right corner of the *camera* screen, tap on **Menu>Video**.



- Press **[ENTER/Power]** to begin recording.

- To end the video, press **[ENTER/Power]** again, or tap on the **Stop** softkey.

Note: When the 'Video' recorder is activated, a Menu is available to tailor the operation of the recorder, the quality of the recording, and so on.

4.13 Remote Desktop Mobile

This program allows you to log onto a Windows Terminal Server and run the desktop programs from the server on your EP10.

Preliminary Draft

4.13.1 Connecting to a Terminal Server

- Tap on **Start>Programs>Remote Desktop Mobile**
- In the *Server* dialog box, type the **Terminal Server name** or **TCP/IP address**, or choose a server from the drop-down menu.
- Tap on **Connect**.
- In the *Remote Desktop Connection* window, type your **user name, password**, and **domain** (if required). Tap on **OK**.

4.13.2 Disconnecting without Ending a Session

Important: ***These commands are accessed from the Start menu in the Terminal Services screen used to access the PC's commands. Do NOT use the Start menu on your EP10.***

- In the *Remote Desktop Connection* window, tap on **Start>Shutdown**.
- Tap on **Disconnect>OK**

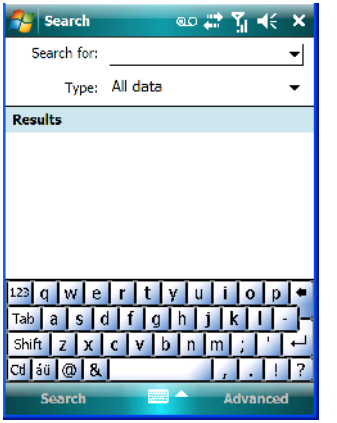
4.13.3 Ending a Session

- In the *Terminal Services Client* screen, tap on **Start>Shutdown**.
- Tap on **Log Off>OK**.

Preliminary Draft

4.14 Search

- Tap **Start>Programs**, and then tap on the **Search** icon.



- In the *Search for* field, type the item for which you're looking.
- To narrow your search, tap on the **Type** drop-down menu and choose from a list of pre-existing programs. To search through all files, leave this option at *All Data*.

4.15 Task Manager

Refer to "Task Manager" on page 145 for details about this applet.

4.16 Tasks

This program helps you stay ahead of your schedule by managing your tasks, appointments, and so on. For details about Tasks, refer to "Task Notification" on page 37.

4.17 Internet Explorer

*Note: Internet Explorer is available from the Start menu by default. If you prefer it only be accessed from the **Programs** window, tap on **Start>Settings**, tap on the **Menus icon** and uncheck **Internet Explorer**.*

Preliminary Draft

You can connect to *Internet Explorer* in two ways: by connecting the EP10 directly to the Internet or by connecting through your PC while the EP10 is attached via ActiveSync (see "ActiveSync®" on page 59).

4.17.1 Browsing Web Sites

There is little difference between the standard Internet Explorer found on your PC and that found on your EP10, sometimes referred to as *Pocket Internet Explorer*. You can enter URLs, set a 'home page', turn images on and off, e-mail links to friends, and so on.

To go to a web site:

- Connect your EP10 to the Internet. (If you're not certain how to do this, tap on **Start>Internet Explorer** to display a blank window. Next, tap on **Start>Help** and follow the steps listed.)
- Tap on **Start>Programs>Internet Explorer** to open *Internet Explorer*.

If *Internet Explorer* is listed in the *Start* menu rather in the *Program* screen, tap on **Start>Internet Explorer**.

- Tap on the address bar – the field near the top of the screen where URLs are entered – to highlight the current URL.
- Type a new URL in the address bar.

Tapping on the *softkeys* in the softkey bar at the bottom of the screen display *Internet Explorer* commands like those you find on your PC.

Preliminary Draft

4.18 Messaging

*Note: Messaging is available from the Start menu by default. If you prefer it only be accessed from the **Programs** window, tap on **Start>Settings**, tap on the **Menus icon** and uncheck **Messaging**.*

The *Messaging* program is used to send and receive e-mail on your EP10. To send and receive e-mail, you'll need to synchronize your PC or connect to a Post Office Protocol 3 (POP3) or Internet Message Access Protocol 4 (IMAP4) mail server.

For each of these methods, you need to set up an e-mail account with one exception – Outlook e-mail accounts are set up by default.

4.18.1 Folders

If you use an Outlook e-mail account, messages in the Inbox folder in Outlook are automatically synchronized with your EP10. You can use ActiveSync on your PC to synchronize additional folders. The folders and messages you move are mirrored on the server.

For POP3 accounts, if you move e-mail messages to a folder you create, the link between the messages on the EP10 and the copies on the mail server are broken. When you next connect, the mail server will recognize that the messages are missing from the EP10 Inbox folder and delete them from the server, preventing duplication of messages. Keep in mind however that you will not have further access to messages that you moved to folders from anywhere except with the EP10.

For IMAP4 accounts, the folders you create and the messages you move are reflected on the server, making messages available any time whether you connect to your mail server from your EP10 or your PC.

4.18.2 Synchronizing E-mail with Outlook

By synchronizing the EP10 *Messaging* program with Outlook on your PC, your e-mail is available on both the EP10 and on your PC.

Note: Synchronizing e-mail does not require that the EP10 have an independent connection to the Internet.

Preliminary Draft

- In ActiveSync on your PC, tap on **Tools>Options** in the tool bar at the top of the screen.

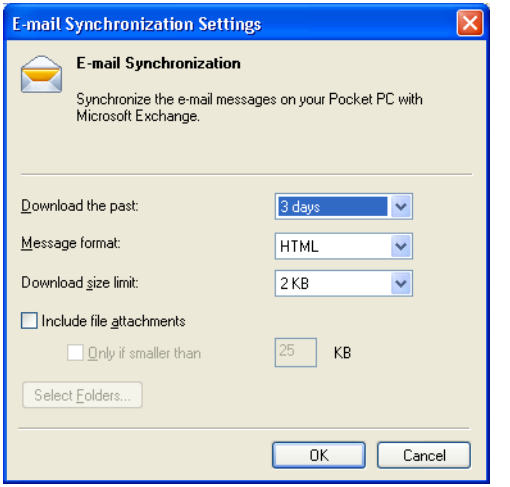
- Make certain that a check mark is displayed in the checkbox next to *E-mail*. Tap on **OK**.

Once you check *E-mail* for synchronization, Outlook e-mail messages are synchronized as part of the general synchronization process. The next time you synchronize with ActiveSync, the e-mail in Outlook on your PC will be transferred to the Messaging program on your EP10.

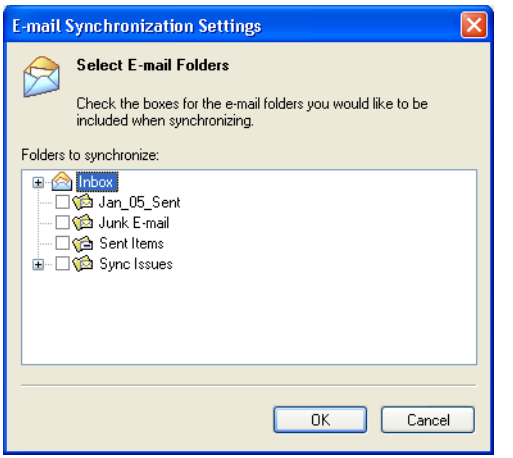
Preliminary Draft

4.18.3 Changing Synchronization Settings

- In ActiveSync on your PC, double-tap the **E-mail** item in the *Sync Options* tab.



- Tap on the **Select Folder** button.



- Add a checkmark next to the folders in this screen that you want to synchronize with your EP10, and tap on OK.

The *E-mail Synchronization* screen is displayed again.

- If you want to accept file attachments, add a check mark next to *Include file attachments*. To limit the size, tap on Only if smaller than, and specify a size in the KB box.
- Tap on **OK**.

Preliminary Draft

4.19 Windows Media

Windows Media allows you to play music and videos on your EP10. You can use *Windows Media* to play digital audio and video files that are stored on your EP10 or on the Web.

- To work with this applet, tap on **Start>Programs>Windows Media**.
- To find detailed instructions about this option, tap on **Start>Help**, and in the list of help files, tap on **Use Windows Media Player Mobile**.

Preliminary Draft

Preliminary Draft

SETTINGS 5

5.1 Settings 95
5.2 Personal Settings 95
5.3 App Launch Keys 95
5.4 Buttons Icon 98
5.4.1 Up/Down Control 98
5.4.2 Sequence 99
5.4.3 One Shots. 99
5.4.4 Keyboard Macro Keys 101
5.4.5 Unicode Mapping 102
5.4.6 Scancode Remapping. 103
5.4.7 Lock Sequence 106
5.5 Input 107
5.5.1 Input Method Tab. 108
5.5.1.1 Word Completion 112
5.5.2 Options–Additional Choices 112
5.6 Lock 113
5.7 Menus. 114
5.7.1 Start Menu Tab 114
5.8 Owner Information 115
5.9 Phone 116
5.10 Sound & Notifications 116
5.10.1 Sounds. 117
5.10.2 Notifications. 117
5.11 Today Screen 118
5.11.1 Appearance 118
5.11.2 Items. 118
5.12 System Tab Settings. 119
5.13 About 119

Preliminary Draft

5.14 About Device. 120
5.15 Backlight 120
5.15.1 Battery Power 120
5.15.2 External Power 121
5.15.3 Intensity 121
5.16 Certificates 122
5.16.1 Choosing a Certificate 124
5.17 Clock & Alarms 124
5.18 Customer Feedback 124
5.19 Encryption 125
5.20 Error Reporting. 126
5.21 GPS (Global Positioning System) 127
5.22 GPS (Global Positioning System) Settings 128
5.23 Manage Triggers 133
5.23.1 Trigger Mappings 134
5.23.1.1 Add and Edit Trigger Mapping 135
5.24 Managed Programs. 137
5.25 Memory 137
5.25.1 Main Tab 138
5.25.2 Storage Card 138
5.26 Power Icon 138
5.26.1 Battery Tab 139
5.26.2 Advanced Tab 139
5.26.3 Battery Details 140
5.26.4 Built-In Devices 141
5.26.5 Card Slots 141
5.26.6 Suspend Threshold and Estimated Battery Backup 142
5.26.7 Suspend Mode 143
5.27 Regional Settings. 143
5.28 Remove Programs 144
5.29 Screen Icon. 144
5.30 Task Manager 145

Preliminary Draft

5.31 Teklogix Error Handling Service 147
5.31.1 ErrorLogInfo 147
5.31.2 NetLog 148
5.32 Teklogix Imagers Settings. 149
5.33 Scanner Settings. 150
5.33.1 Bar Code Settings – The Scanner Menu 151
5.33.2 Options Tab 152
5.33.2.1 Double Click Parameters 152
5.33.2.2 Display Parameters 153
5.33.2.3 Data Handling 154
5.33.3 Translations Tab. 154
5.33.3.1 Case Rules 156
5.33.4 Ports Tab 157
5.33.4.1 Port Replicator Port A (COM5:). 158
5.34 Total Recall 160
5.34.1 Creating a Backup Profile. 161
5.34.2 Restoring a Profile 164
5.35 TweakIT 164
5.35.1 Advanced Interface And Network 165
5.35.2 Advanced Services Settings. 166
5.35.3 Radio Features 167
5.35.4 User System Setting. 168
5.35.5 Registry Editor 169
5.36 Windows Update 169
5.37 Connections Tab. 169
5.37.1 Navigation Bar Hotkeys 170
5.38 Beam 172
5.39 Bluetooth Setup 172
5.39.1 The Devices Tab 173
5.39.1.1 Pairing a Device 175
5.39.2 Bluetooth Mode 176
5.39.3 Bluetooth COM Ports 177
5.39.4 Outgoing Port 178
5.39.5 Services 178
5.39.6 Active Connections 179

Preliminary Draft

5.39.7 About Tab . . . 180
5.39.8 The Bluetooth GPRS Phone . . . 180
5.40 Connection Properties . . . 182
5.40.1 Port Settings . . . 183
5.40.2 Call Options . . . 184
5.41 Connections – Connecting to the Internet . . . 184
5.41.1 Modem Connection Setup . . . 185
5.41.1.1 Advanced Modem Settings . . . 188
5.42 Wireless Manager Icon. . . . 189
5.42.1 Flight Mode – Disabling Wireless Components . . . 189
5.42.2 Setting Up a Network Card . . . 190
5.42.3 Network Adaptor Cards . . . 190
5.42.4 Changing Network Card Settings . . . 192
5.42.5 VPN Connection Setup . . . 192
5.42.6 Managing an Existing Connection. . . . 193
5.42.6.1 Editing a Connection . . . 193
5.42.6.2 Changing a Connection Setting Name . . . 193
5.42.7 Selecting a Network . . . 194
5.42.8 Proxy Server Setup. . . . 195
5.42.8.1 Changing Advanced Proxy Server Settings . . . 196
5.43 Wireless Statistics . . . 197
5.44 Wireless WAN . . . 197
5.44.1 Softkey Bar Icons . . . 197
5.44.2 Establishing a Connection . . . 198
5.44.3 Disconnecting from a Network . . . 199
5.44.3.1 Shutting Down the Wireless WAN User Interface . . . 199
5.44.4 Advanced Information . . . 199
5.44.4.1 Entering a PIN . . . 199
5.44.4.2 Error States . . . 200
5.44.5 Tools Menu. . . . 201
5.44.5.1 Data Connection Configuration. . . . 201
5.44.5.2 Security Configuration . . . 205
5.44.5.3 Network Configuration . . . 206
5.44.5.4 Driver Mode Configuration. . . . 207
5.44.5.5 Modem Information . . . 207
5.44.6 SMS Menu . . . 209
5.44.6.1 New SMS . . . 210

Preliminary Draft

5.44.6.2 Inbox 210
5.44.6.3 Outbox 211
5.44.6.4 SMS Configuration 212
5.45 Windows Update 213

Preliminary Draft

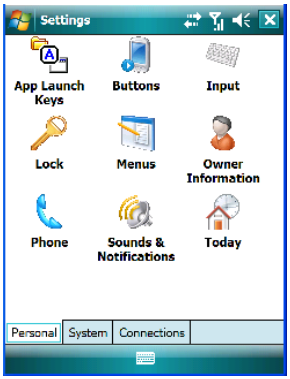
Preliminary Draft

5.1 Settings

The *Settings* screen is divided into three tabs – *Personal*, *System* and *Connections*.

- Tap on **Start>Settings** to display this screen.

Figure 5.1 Settings Tabs



5.2 Personal Settings

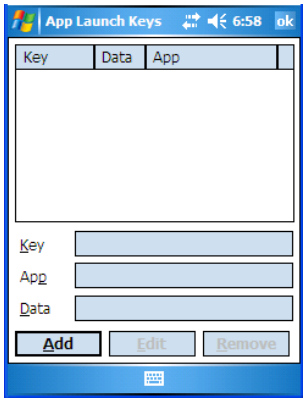
The *Personal* tab allows you to tailor the general behaviour of your EP10 such as defining input methods, *Start* menu options, owner information, password assignment, sound specifications, and so on.

5.3 App Launch Keys

The *App Launch Keys* icon allows you to map a key to an application so that you can then launch the application from a single key-press.

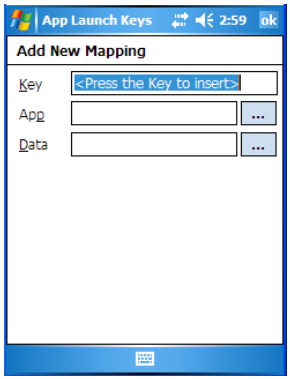
Preliminary Draft

- Tap on **Start>Settings**, and then tap on the **App Launch Keys** icon.



To assign an application key:

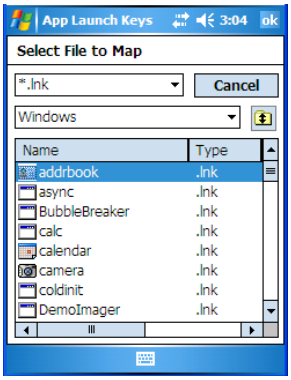
- Tap the **Add** button.



- Press the key you want to use to launch an application. (If an unsupported key is pressed, a message appears on this screen letting you know.)

Preliminary Draft

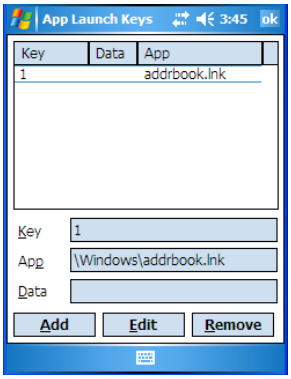
The cursor moves to the *App* field and a new screen is displayed where you can choose the application to which you want to assign the application key. If you need to, you can *Browse* through the information in your EP10 until you locate the application you want to launch.



- Once you've selected the file you want to map, tap on **OK**.

The cursor moves to the *Data* field. You can use this field if you need to define special parameters to your application launch key. If you don't want to assign any parameters, you can leave the *Data* field blank. If, for example, you want to assign an application launch key to launch the *Word Mobile* application, you can leave this field blank. If you want to assign an application launch key that will open a specific document in the *Word Mobile* application, you need to browse to and choose that document while the cursor is in the *Data* field.

- Tap on **OK**.



- If you need to *Edit*, *Remove* or *Add* another *App Launch Key*, you can do it from this final screen. Otherwise, tap on **OK** to save you *Application Launch Key*.
- To launch the application you chose, press the application key you assigned.

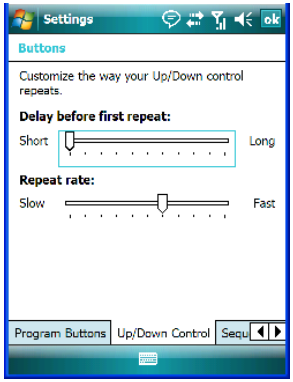
Preliminary Draft

5.4 Buttons Icon

- Tap on **Start>Settings**, and then tap on the **Buttons** icon to display your options.

Note: The 'Program Buttons' option is not available on the EP10.

5.4.1 Up/Down Control

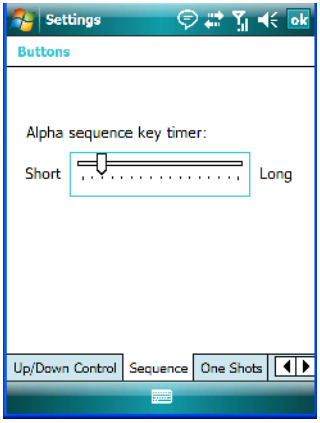


Sliding the *Delay before first repeat* bar to the left decreases the delay between key repeats while sliding the bar to the right increases the repeat delay time.

Sliding the *Repeat rate* bar to the left slows the rate at which an [Up/Down] button repeats when pressed. Sliding the bar to the right increases the key repeat rate.

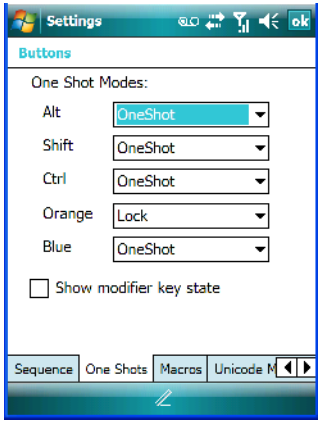
Preliminary Draft

5.4.2 Sequence



This slider determines the allowable pause between alpha key presses on a keypad. For example, suppose you want to type the letter ‘c’ – you would need to press the [2] key *three* times. With the [ORANGE] key locked ‘on’, if you press [2] twice and then pause between key presses for 1 second, the letter ‘b’ will be selected automatically. Moving the *Sequence* slider to the right increases the pause time between alpha key presses.

5.4.3 One Shots



The options in this tab allows you to determine how modifier keys on your EP10 behave. For each modifier key – [ALT], [SHIFT], [CTRL], [ORANGE] and [BLUE] – you have the following options in the drop-down menu: Lock, OneShot, and OneShot/Lock.

Preliminary Draft

Important: Once you've assigned a One Shot mode to a modifier key, you need to tap on the OK button at the top of the tab to activate your selection.

Lock

If you choose *Lock* from the drop-down menu, pressing a modifier key once locks it 'on' until you press the modifier key a second time to unlock or turn it off.

OneShot

If you choose *OneShot*, the modifier key remains active only until the next key is pressed.

OneShot/Lock

OneShot/Lock allows you to combine these functions. If you choose this option and press the modifier key ***once***, it remains active only until the next key is pressed.

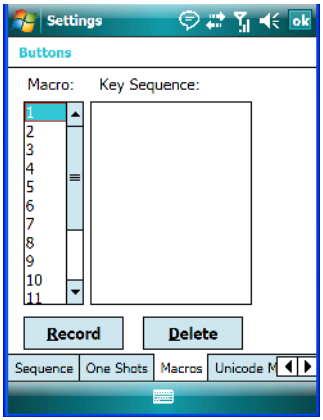
If you choose *OneShot/Lock* and then press the modifier key ***twice***, it is locked 'on', remaining active until the modifier key is pressed a third time to turn it 'off'.

Show Modifier Key State

When you enable *Show modifier key state*, a *shift-state indicator* icon replaces the soft keyboard icon in the softkey bar at the bottom of the screen. When a modifier key is pressed, a square in this icon is highlighted. A 'locked' modifier key is displayed in the *shift-state indicator* icon with a black frame around it.

Preliminary Draft

5.4.4 Keyboard Macro Keys



Macro keys are not labelled on the keypad. However, you can map up to 12 macro functions using the keyboard remapping function described in “Scancode Remapping” on page 103. A macro has 20 programmable characters (or “positions”). The macro keys can be programmed to replace frequently used keystrokes, along with the function of executable keys including [ENTER/Power] and [BKSP], function keys, and arrow keys.

Recording and Saving a Macro

- In the *Macro* menu, highlight a macro key number–for example, macro 1 to assign a macro to macro key [M1]. Tap on the **Record** button.

A *Record Macro* screen is displayed.

- Type the **macro sequence** you want to assign to the Macro key. You can type text and numbers, and you can program the function of special keys into a macro.

Preliminary Draft

- When you've finished recording your macro sequence, tap on **Stop Recording**.

A new screen – *Verify Macro* – displays the macro sequence you created.

- Tap on the **Save** button to save your macro. Your macro key sequence is listed in the *Macro* screen.
- Tap on **OK** to save your macro key assignment.

Executing a Macro

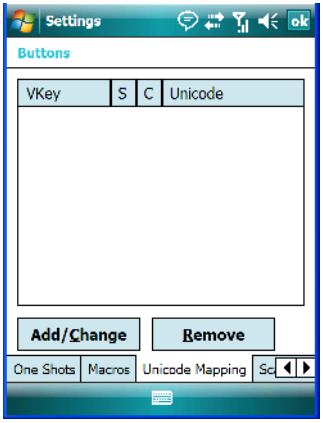
- Press the macro key to which you've assigned the macro to execute it.

Deleting a Macro

- In the *Macros* tab, highlight the macro number you want to delete.
- Tap on the **Delete** button.

5.4.5 Unicode Mapping

- Tap on the **Unicode Mapping** tab to display this screen.



The *Unicode Mapping* tab is used to map combinations of virtual key values and [CTRL] and [SHIFT] states to Unicode™ values. This tab shows the configured Unicode character along with the Unicode value. For example, "a (U+0061)" indicates that the character "a" is represented by the Unicode value "0061", and so on. Keep in mind that Unicode configurations are represented as hexidecimal rather than decimal values.

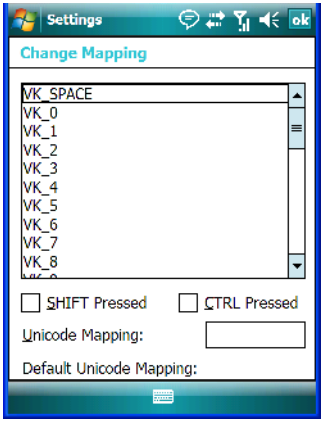
All user-defined Unicode mappings are listed in the *Unicode Mapping* tab in order of virtual key value, and then by order of the shift state. If a Unicode mapping is not listed, the Unicode mapping is mapped to the default Unicode value.

Preliminary Draft

Adding and Changing Unicode Values

Important: Changes to Unicode mappings are not saved until you exit the Unicode Mapping tab by tapping on [OK].

- Tap on the **Add/Change** button.



- Highlight a value in the Unicode mapping list.
- Position the cursor in the **Unicode Mapping** field, and type a **Unicode value** for the highlighted key.

Note: To add a shifted state – [SHIFT] and/or [CTRL], tap on the checkbox next to 'SHIFT Pressed' and/or 'CTRL Pressed'.

Removing Unicode Values

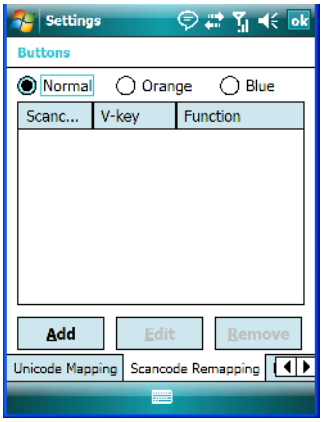
- In the *Unicode Mapping* tab, highlight the item you want to delete, and tap the **Remove** button.

5.4.6 Scancode Remapping

A scancode is a number that is associated with a physical key on a keyboard. Every key has a unique scancode that is mapped to a virtual key, a function or a macro. Scancode Remapping allows you to change the functionality of any key on the keyboard. A key can be remapped to send a virtual key (e.g. VK_F represents the 'F' key; VK_RETURN represents the [ENTER/Power] key, etc.), perform a function (e.g. turn the scanner on, change volume/contrast, etc.) or run a macro.

Preliminary Draft

There are three different tables of scancode mappings: the Normal table, the Blue table and the Orange table. The *Normal* table defines unmodified key presses; the *Blue* table defines key presses that occur when the [BLUE] modifier is on; the *Orange* table defines key presses that occur when the [ORANGE] modifier is on. The default mappings of these scancodes can be overwritten for each of these three tables using the Scancode *Remapping* tab.



The first column in the *Scancode Remapping* tab displays the Scancodes in hexidecimal. If the scancode is remapped to a virtual key, that virtual key is displayed in the next column labelled ‘V-Key’. A virtual key that is ‘Shifted’ or ‘Unshifted’ is displayed in the third column labelled ‘Function’.

If the scancode is remapped to a function or a macro, the first and second columns remain blank while the third column contains the function name or macro key number (e.g., Macro 2).

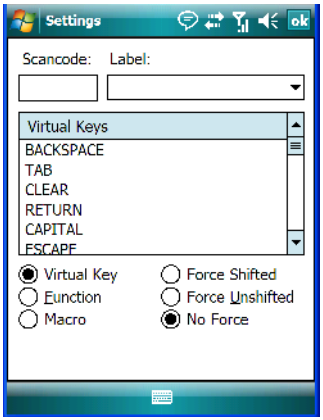
Adding a Remap

To add a new remapping:

- Tap the **Add** button at the bottom of the dialog box.

Preliminary Draft

The *Remap Scancode* dialog box is displayed.



- Type the **scan code in hexidecimal** in the field labelled **Scancode**.

Note: The 'Label' field displays the default function of the scancode you are remapping.

Virtual Key, Function and Macro

The radio buttons at the bottom of the dialog box allow you to define to what the scan code will be remapped to: Virtual Key, Function or Macro.

When *Virtual Key* is selected, you can choose to force [SHIFT] to be on or off when the virtual key is sent. If No Force is selected, the shift state is dependent on whether the shift state is on or off at the time the virtual key is sent.

When *Function* is selected, a list of valid functions appears in the dialog box.

When *Macro* is selected, the macro keys available on your unit are listed in the dialog box.

- Choose **Virtual Key>Function** or **Macro**.
- Choose a function from the *Function list*, and tap on **OK**.

Editing a Scancode Remap

- In the *Scancode Remapping* tab, tap on the remap you want to edit.
- Tap on the **Edit** button, and make the appropriate changes.
- Tap on **OK** to save your changes.

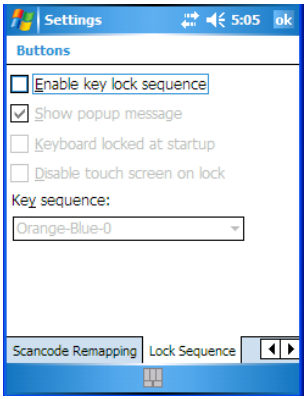
Preliminary Draft

Removing a Remap

- In the *Scancode Remapping* tab, highlight the scancode you want to delete, and tap on the **Remove** button.
- Tap on **OK**.

5.4.7 Lock Sequence

The *Lock Sequence* tab allows you to lock the EP10 keyboard to prevent keys from being pressed accidentally when, for example, the unit is inserted in a holster.



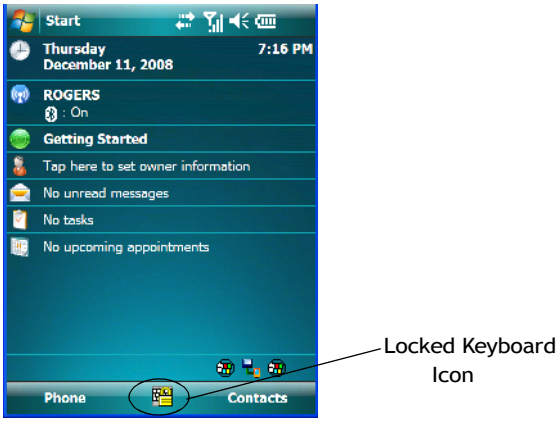
- To lock the keyboard, tap in the checkbox next to **Enable key lock sequence**.

Note: It is useful to leave the 'Show popup message' enabled (default) so that anyone attempting to use the EP10 keyboard will see the key sequence they will need to enter to unlock the keyboard displayed on the screen.

- If you want the keyboard to be locked at startup, tap in the checkbox next to *Keyboard locked at startup*. Otherwise, leave this option disabled.
- In the *Key sequence* drop-down menu, choose the key sequence you will use to lock and unlock the keyboard.
- Tap on **OK**.
- To *lock* the keyboard, type the **key sequence** you chose – for example, *Orange-Blue-0*.

Preliminary Draft

A *locked keyboard* icon is displayed in the softkey bar when the keyboard is locked.



- To *unlock* the keyboard, type the **key sequence** again.

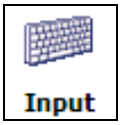
5.5 Input

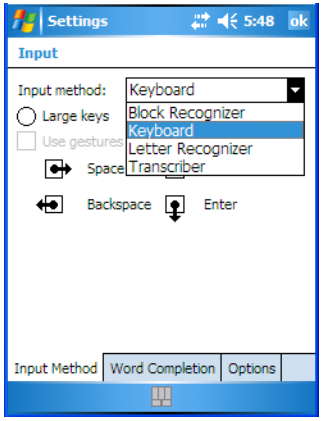
The *Input* icon provides access to text input options you can use to tailor the soft keyboard, block recognizer, letter recognizer and transcriber along with voice recording options.

Preliminary Draft

5.5.1 Input Method Tab

- Tap on **Start>Settings** and then on the **Input** icon to display your options.





A drop-down menu next to *Input method* allows you to tailor your methods of input – *Block Recognizer, Keyboard, Letter Recognizer* and *Transcriber*.

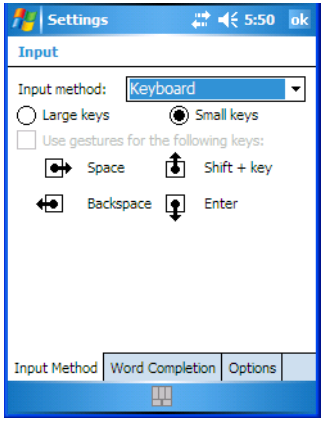
Block Recognizer

Block Recognizer teaches you how to conform your handwriting to what the EP10 can recognize.

Important: Refer to "Block Recognizer and Letter Recognizer" on page 54 for additional details.

Preliminary Draft

Keyboard Options



This screen is displayed when you choose *Keyboard* in the *Input method* drop-down menu. You can use it to customize the soft keyboard. You can choose *Large Keys* or *Small Keys* to increase or decrease the size of the keys displayed on the soft keyboard.

If you enable *Use gestures for the following keys*, these keys are removed from the soft keyboard. Gestures are handwriting shortcuts for the keyboard keys. Before you can enable this option, you'll need to tap on the radio button to the left of *Large keys*.

Letter Recognizer Options

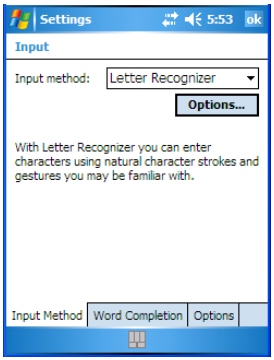
Letter Recognizer teaches you how to conform your handwriting to what the EP10 can recognize.

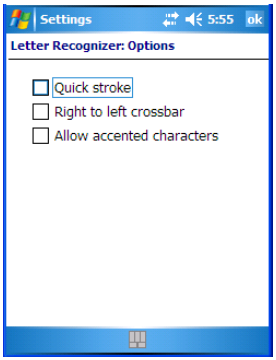
Important: Refer to "Block Recognizer and Letter Recognizer" on page 54 for additional details.

To display additional letter recognition options, tap on the **Options** button in the *Letter Recognizer* screen.

Preliminary Draft

Figure 5.2 Letter Recognizer Quick Settings



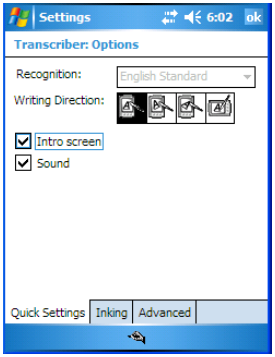


These options allow the *Letter Recognizer* to better interpret any specialized strokes and accents you may wish to use.

Transcriber Options

Note: Before you can display the Options for Transcriber, you need to select Transcriber as the active input method. Tap on the arrow to the right of the keyboard icon in the taskbar, and choose Transcriber.

When you choose *Transcriber* as the input method, three tabs of options are available to you – *Quick Settings, Inking* and *Advanced*.



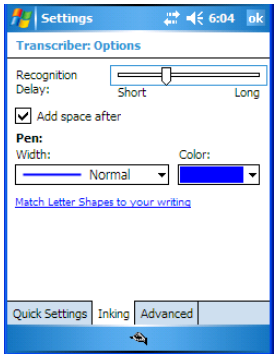
Quick Settings

The *Quick Settings* tab allows you choose the writing direction–the icons indicate direction. In addition, you can choose to enable or disable the display of the Introductory screen and the sound each time you launch the *Transcriber*.

Preliminary Draft

Inking

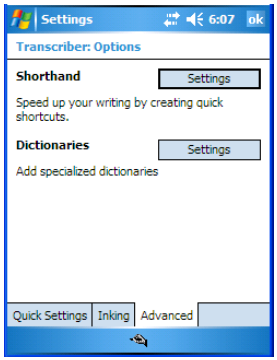
In the *Inking* tab, you are presented with a number of options. *Recognition Delay* allows you to determine the time delay between writing something on the *Transcriber* screen and its recognition into printed text.



Enabling *Add space after* automatically adds a space after each word you write. The *Pen* option allows you to choose the line *Width* and *Colour*. Finally, tapping on *Match Letter Shapes to your writing* displays a screen in which you can learn how to form letters to help the EP10 to recognize the most often used characters.

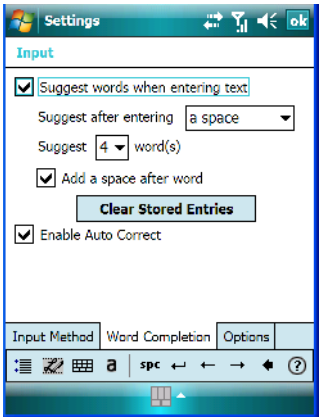
Advanced

In this tab, *Shorthand* allows you to create a shortened word that the *Transcriber* will recognize and expand into a complete word automatically. You can also insert data such as a date or run a program.



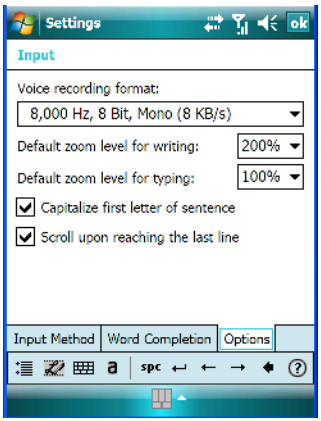
Preliminary Draft

5.5.1.1 Word Completion



This tab speeds the writing process regardless of the input method chosen. When you begin entering a word, this option displays what it assumes is the complete word, saving you having to type the word in its entirety. You can also tailor how and when you want word suggestions made.

5.5.2 Options-Additional Choices



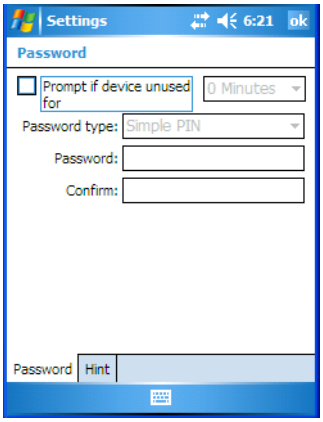
This tab offers a few choices including choosing a voice recording format, zoom percentage for writing and typing, automatic capitalization of the first letter in a sentence and automatic scrolling when you've reached the bottom of the screen.

Preliminary Draft

5.6 Lock

To protect the data stored in your EP10, you can assign a password that must be entered each time the unit is switched on.

- Tap on **Start>Settings**, and then tap on the **Lock** icon.



It is critical that you store your password in a safe place. If you forget it, a ‘clean start’ must be performed by certified Psion Teklogix personnel. A clean start returns the EP10 to factory settings. Only the data stored in a CF or SD memory card are preserved.

- Tap in the checkbox next to *Prompt if device unused* to turn on password protection.
- Choose the amount of time that the unit can remain idle before you are prompted to enter your password.
- In the *Password type* drop-down menu, choose the type of password you prefer to assign. *Simple PIN* allows you to enter a minimum of four numeric characters. *Strong alphanumeric* requires a minimum of 7 characters and must contain at least three of the following: uppercase and lowercase alpha characters, numbers and punctuation.
- Tap on the **Hint** tab to enter a word or phrase that will remind you of your password. The EP10 will display the hint after the wrong password is entered five times.
- Tap on **OK**. A dialog box asks whether or not you want to save you password settings. Tap on **YES** to save your password assignment.

Preliminary Draft

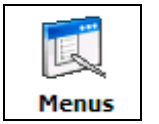
5.7 Menus

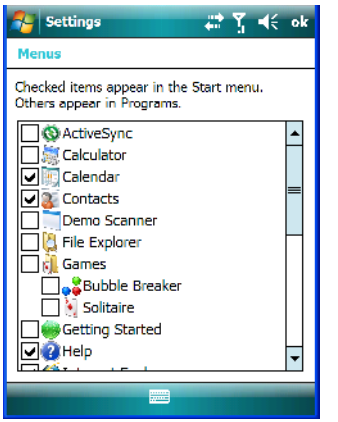
The *Menus* icon allows you to display options to customise the *Start Menu*.

- Tap on **Start>Settings** and then tap on the **Menus** icon.

5.7.1 Start Menu Tab

This tab allows you to define the items that will be listed in your *Start* menu.





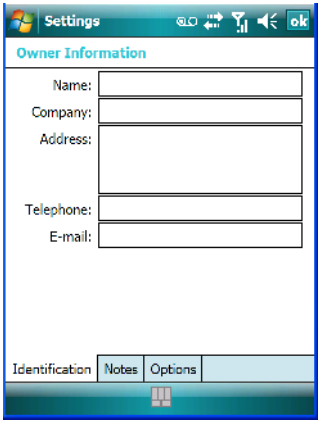
- In the *Start Menu* dialog box, tap on the items you want to appear in your *Start* menu.

The checked items will be listed in your *Start* menu.

Preliminary Draft

5.8 Owner Information

Tapping on *Start>Settings* and then tapping on the *Owner Information* icon allows you to add your personal information to the EP10. Some of this information will be displayed in the desktop *Today* screen.

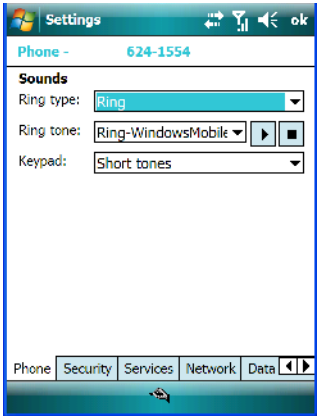


Important: Refer to "Ownership Information" on page 36 for details about this option.

Preliminary Draft

5.9 Phone

Tapping on *Start>Settings* and then tapping on the *Phone* icon allows you to adjust phone settings such as the ring type and tone, choose phone services such as barring calls, and you can also determine network selections.



Important: Refer to "Managing Phone Settings" on page 39 for details about this option.

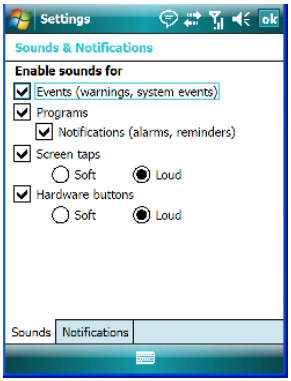
5.10 Sound & Notifications

The *Sounds & Notifications* icon allows you to specify when your EP10 will emit sounds.

Preliminary Draft

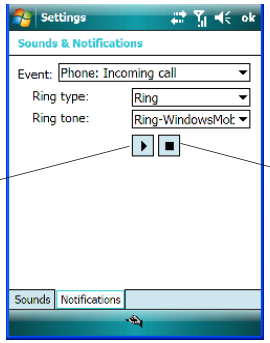
5.10.1 Sounds

- Tap on **Start>Settings**, and then tap on the **Sounds & Notifications icon** to display this dialog box.



- Tap in the checkboxes and radio buttons to enable the event(s) that will cause your unit to emit a sound.

5.10.2 Notifications



This tab allows you to determine how you are notified about different events.

- Choose an event from the *Events* drop-down menu.
- Choose the **Ring type** and **Ring tone**. Tap on the arrow below *Ring tone* to test your choices. The small square button stops the ring test.

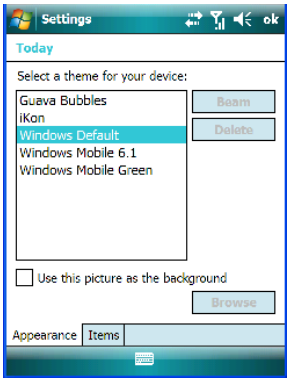
Preliminary Draft

5.11 Today Screen

This option allows you to tailor the appearance of the *Today* screen – the desktop screen.

- Tap on **Start>Settings**, and then tap on the **Today** icon.

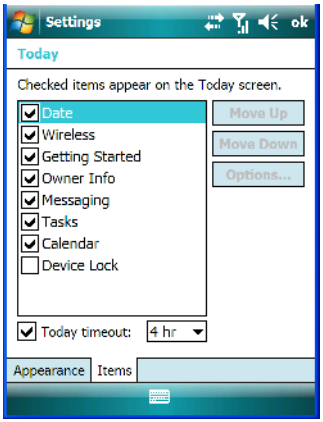
5.11.1 Appearance



This screen allows you to customize the background displayed on the *Today* screen.

- Choose the background you want to use from the list.

5.11.2 Items



This tab allows you to choose and to sort the item(s) that you want listed in the *Today* screen.

Preliminary Draft

- Tap in the checkbox to the left of the item(s) you want displayed in the *Today* screen.
- To rearrange the list of items, highlight the item you want to move up or down and tap on the **Move Up** or **Move Down** button. Keep in mind that the *Date* cannot be moved.

5.12 System Tab Settings

To display the icons grouped in the *System* tab:

- Tap on **Start>Settings**, and tap on the **System** tab.

5.13 About

Tapping on *Start>Settings>System* tab, and then the *About* icon displays a grouping of tabs that provide device information.

Version Tab

This tab outlines the Windows Embedded 6.5 version, processor information, memory size and a description of the expansion card, if one is in use.

Device ID Tab

This tab provides fields in which you can assign a Device name and Description (optional) for the EP10. This name is used by the EP10 to identify itself to other devices.

Keep in mind that this must be a unique name across a network. If you are unable to connect to a network because another device with the same name is already connected, you'll need to assign a new name here.

Copyrights

The *Copyright* tab lists the copyright information for the software loaded on your EP10.

Preliminary Draft

5.14 About Device

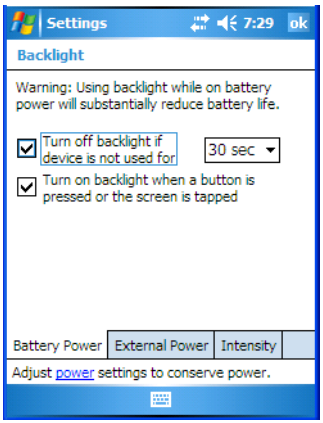
Tapping on the *About Device* icon under *Settings>System* tab provides access to three tabs related to your EP10. The *Properties* tab lists hardware information related to your EP10. The *Copyrights* tab lists the copyrights that apply to your EP10. The *Experience* tab allows you to choose a category to help you define your Experience. These categories include *Microsoft settings*, *Psion Teklogix settings* and *Custom settings* in a drop-down menu. Each category contains a group of default settings. If you change a default setting, the category is automatically changed to *Custom settings*.

5.15 Backlight

- Tap on **Start>Settings**, then tap on the **System** tab. Tap on the **Backlight** icon.

Tapping on the *Backlight* icon allows you to determine the power properties of the EP10.

5.15.1 Battery Power



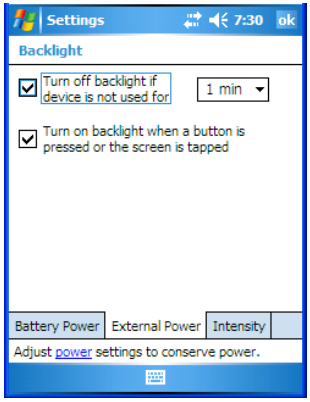
This tab allows you to tailor the EP10 backlight behaviour to best preserve battery life.

- To define how long the backlight should stay on when the EP10 is not in use, tap in the checkbox to the left of **Turn off backlight if device is not used for.**
- Tap on the drop-down menu, and choose the number of seconds or minutes the backlight will remain on when the EP10 is idle.

Preliminary Draft

- To **Turn on backlight when a button is pressed or the screen is tapped**, tap in the checkbox to the left of this option.

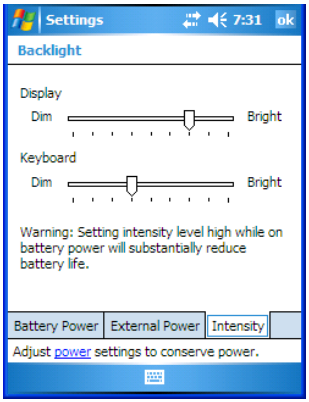
5.15.2 External Power



This tab determines the behaviour of the backlight when the EP10 is using external rather than battery power.

Important: Refer to "Battery Power" on page 120 for details about these options.

5.15.3 Intensity



This tab is used to adjust the light intensity of the *display backlight* and the *keyboard backlight*. Sliding the bar to the left lowers the light intensity, and sliding it to the right raises the intensity.

Preliminary Draft

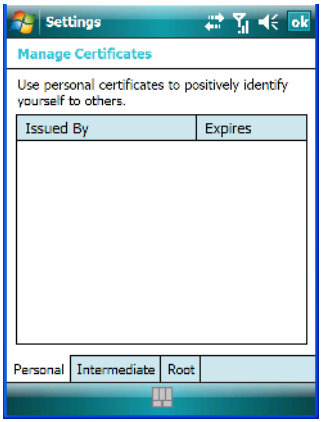
5.16 Certificates

A public key is transmitted as part of a certificate. The certificates listed in the *Certificates* tabs ensure that the submitted public key is, in fact, the public key that belongs to the submitter. The EP10 checks that the certificate has been digitally signed by a certification authority that the EP10 explicitly trusts.

Your EP10 has certificates already preinstalled in the unit. *Personal* certificates establish your identity, *Intermediate* certificates, as the name suggests, identifies intermediate certification authorities and *Root* certificates establish the identity of the servers with which you can connect.

- Tap on **Start>Settings**, and then tap on the **System** tab.
- Tap on the **Certificates** icon.

Personal Tab



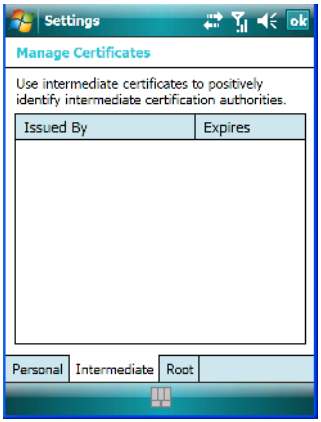
The *Personal* tab lists the name of the certificate issuer and the expiration date.

- To view additional information about a personal certificate, tap on a certificate in the list.
- To delete a certificate, tap and hold the stylus on the item you want to delete until a pop-up menu is displayed. Tap on the **Delete** command.

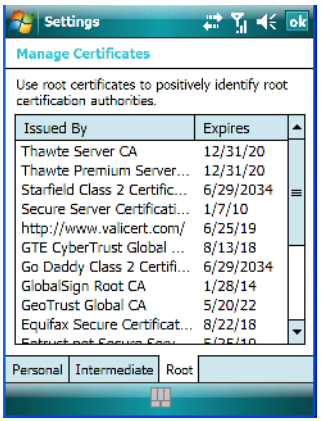
Preliminary Draft

Intermediate Certificates

The items in this list help identify intermediate certification authorities.



Root Certificates



- To view details about a certificate – who issued the certificate, to whom it was issued, the issue date and the expiry date – tap on a certificate in the list.
- To delete a certificate, tap and hold the stylus on the certificate you want to delete.
- In the pop-up menu, tap on the **Delete** command.

Preliminary Draft

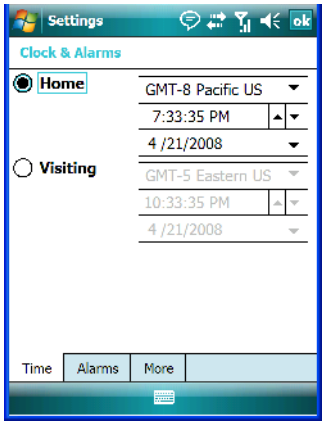
5.16.1 Choosing a Certificate

Normally, certificates already configured for your network are chosen automatically by the EP10. If a certificate cannot be chosen automatically, you must choose it from the *Certificates* list.

- To choose a certificate, tap the desired certificate. Your EP10 will connect automatically.

5.17 Clock & Alarms

Located under *Start>Settings>System* tab, the *Clock & Alarm* icon allows you to set the current date and time, and it allows you to define up to three alarms.

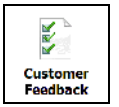


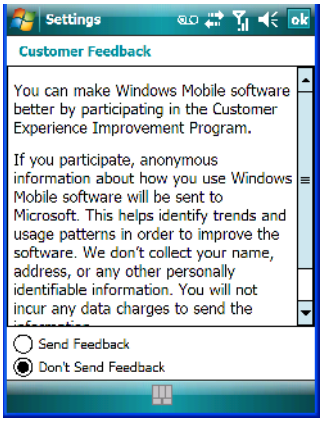
Important: ***Refer to "Today's Date, Clock and Alarm" on page 34 for details about setting up these options.***

5.18 Customer Feedback

This option allows Microsoft to track how you use your EP10 so that they can make improvements to the software. The radio buttons allow you to turn this feature on or off.

Preliminary Draft





Note: If you want to make this option inaccessible, go to Start>Settings and tap on the About Device icon. In the Experience tab, remove the checkmark to the left of Enable Customer Feedback and SQM (reset required). As indicated, you'll need to reset the EP10.

5.19 Encryption

This option allows you to encrypt the data on your storage card.

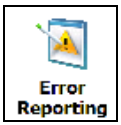
Preliminary Draft

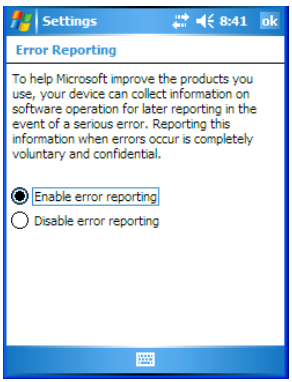
- Tap on **Start>Settings>System tab>Encryption icon.**

5.20 Error Reporting

Error Reporting allows you to enable or disable Microsoft error reporting prompts.

- Tap on **Start>Settings**. Tap on the **System** tab followed by the **Error Reporting** icon.



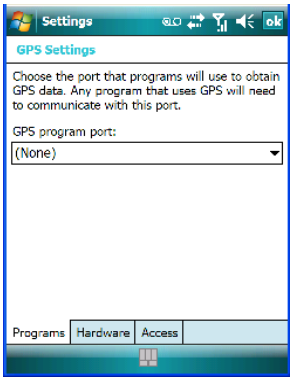


Preliminary Draft

5.21 GPS (Global Positioning System)

With a *Global Positioning System* (GPS) receiver, you can locate your exact position on a map. However, even without a GPS receiver, several different mapping programs can run on your EP10.

- Tap on **Start>Settings>System tab>GPS icon.**

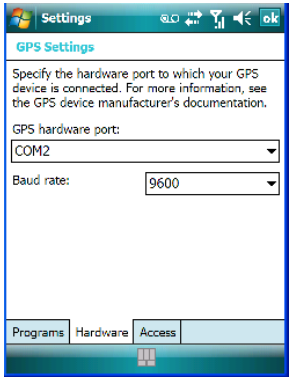


- Tap on the **GPS program port** drop-down menu, and choose the communication (COM) port that the GPS software will use to communicate with the GPS receiver.

Note: Your EP10 may automatically detect the GPS receiver that you are using and enter the settings in the Hardware tab. If not, you'll need to enter this information yourself. You can find this information in the user manual of the GPS receiver.

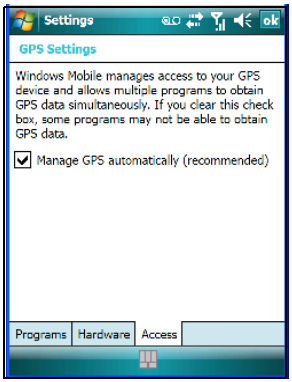
Preliminary Draft

- Tap on the **Hardware** tab, and choose a **GPS hardware port** and the appropriate **Baud rate**.



Windows Embedded 6.5 automatically manages access to the GPS receiver. However, some programs may not work with automatic configuration. If this is the case:

- Tap on the **Access** tab, and disable *Manage GPS automatically (recommended)*.



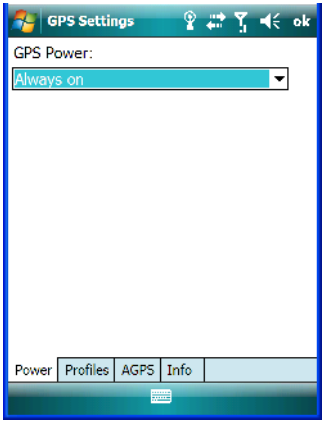
You can go to *www.microsoft.com/pocketstreets* if a map-viewing program is not included with your EP10, and copy the file to your EP10.

5.22 GPS (Global Positioning System) Settings

This applet allows you to define how the GPS module operates. You can determine when the GPS module can draw power and under what conditions, and choose from a set of GPS profiles built into the modem. You can also set up AGPS (Assisted Global Positioning System).

Preliminary Draft

- Tap on **Start>Settings>System tab>GPS Settings icon**.



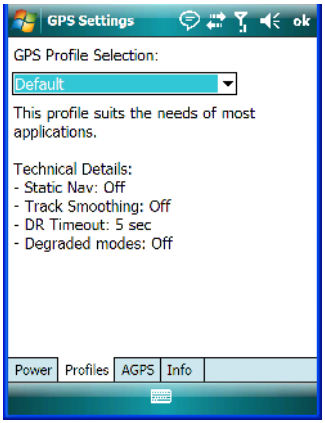
Power Tab

This tab allows you to dictate how the GPS module behaves. The *GPS Power* drop-down menu is used to control when the GPS is powered on and off.

- *Off* – the GPS module is left off, always.
- *Always on* – the GPS module is powered on at all times regardless of the power state of the EP10 (suspend or standby).
- *On, and off in suspend* – the GPS module is powered on, but if the EP10 is in suspend mode, the GPS module is turned off.
- *On, and low power in suspend* – the GPS module remains in a low-power state while the EP10 is in suspend mode.

Preliminary Draft

Profiles Tab

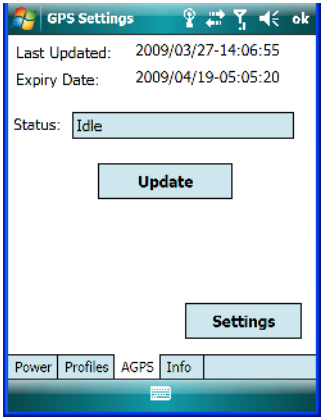


Tapping on the *GPS Profile Selection* drop-down menu allows you to choose an appropriate profile: *Default*, *Automotive* or *Pedestrian*.

- *Default* profile is a good general profile suitable for most uses.
- *Automotive* profile is designed for in-vehicle use, providing quick location updates as the vehicle moves. When the GPS module is set to this profile and the vehicle enters an area such as a tunnel where satellite coverage is interrupted, it *will* attempt to predict the vehicle position.
- *Pedestrian* profile is designed for those using the GPS module while walking. It takes into account the slower pace of the pedestrian when mapping the location of the user. When the GPS module is set to this profile and the operator moves into an area where satellite coverage is interrupted, the GPS module *will not* attempt to predict the operator's movement.

Preliminary Draft

AGPS (Assisted Global Positioning System) Tab



To determine your location, a GPS module receives data from three or more GPS satellites in fixed orbit around the Earth. The GPS module triangulates your location based on the time it takes for signals to get to and from the satellites. This works well in fairly clear areas – outdoors, for example. However, if you're attempting to triangulate your location in city centres where signals bounce off tall concrete buildings or from within a building, the GPS module will have greater difficulty calculating a fix.

AGPS reduces Time To First Fix (TTFF) and increases the likelihood of finding and keeping a fix in poor coverage areas such as indoor sites. AGPS downloads satellite ephemeris (orbital) data to the EP10 periodically through WiFi or WWAN. The downloaded data is used by the GPS module to speed the process of getting a fix.

Update

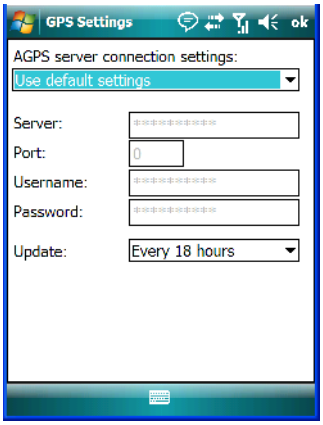
- Click on the **Update** button to download *Extended Ephemeris (EE)* files from a secure host on the internet using any interface that has an internet connection (WWAN or WiFi). These files contain several days worth of ephemeris (orbital) data that can be used if the satellite's broadcast ephemeris is not available.

The *Status* field above the *Update* button displays the progress of the download, and once successfully downloaded, the *Status* field will read *Idle*.

Preliminary Draft

Settings

- Click on the **Settings** button to define the *AGPS server connection settings*.



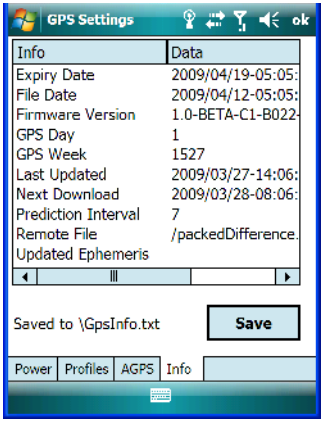
The *AGPS server connection settings* drop-down menu allows you to choose from two settings: *Use default settings* and *Use custom settings*.

The *Use default settings* option is generally acceptable for most applications. Note that aside from the *Update* field in which you can choose how long the fix is stored in your EP10, the field values cannot be edited.

The *Use custom settings* option is generally used to configure devices that will have access only to an *intranet* rather than the *Internet* and should only be altered with the assistance of qualified Psion Teklogix personnel. They will be able to help you configure your Psion Teklogix device(s) and web server to retrieve the ephemeris data.

Preliminary Draft

Info Tab



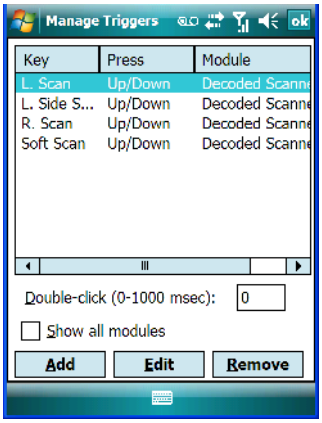
This tab provides general information about the GPS module such as the firmware version, the date on which files were last updated, and so on. If GPS module support service is required, you may be asked to tap on the *Save* button in this tab and forward the information to Psion Teklogix support staff.

5.23 Manage Triggers

Manage Triggers allows you to configure how bar code scanners and other devices are triggered. You can configure the trigger ID for each trigger button for both single- and double-click, and the double-click time.

Preliminary Draft

- Tap on **Start>Settings>System tab>Manage Triggers icon**.



5.23.1 Trigger Mappings

A trigger mapping is an association between a particular key on the keyboard and a driver or application, the module(s) – sometimes referred to as “trigger consumer(s)” – of the trigger source. Along with keyboard keys, trigger sources can also be grip triggers, external hardware triggers or software-based. When the specified key is pressed, the trigger consumer (for example, a decoded scanner) is sent a message.

Important: ***It is not possible to have two or more identical mappings — for example [F1] cannot be mapped to the Non-Decoded Scanner twice — even if the trigger type is different.***

A keyboard key that is used as a trigger source will no longer generate key data or perform its normal function. For example, if the space button is used as a trigger source, it will not be able to send space characters to applications.

Double-Click

When a key is pressed and released, then pressed again within the configured time (between 0 to 1000 milliseconds), a double-click occurs. See also “Trigger Press Type” on page 136.

Preliminary Draft

Show All Modules

By default, the trigger mapping list only shows active mappings. Mappings for drivers or applications that are not currently active are not normally displayed. By checking this checkbox, all mappings, both active and inactive, are displayed.

Add

Tapping this button brings up the *Add* mapping dialog (see below), so that you can add new trigger mappings.

Edit

Tapping this button brings up the *Edit* mapping dialog, so that you can edit existing trigger mappings.

Remove

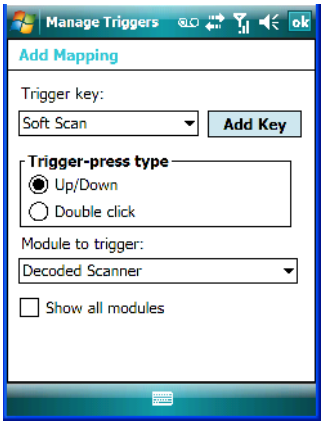
Tapping this button removes an existing mapping.

OK

The *OK* button in the top right of the *Manage Triggers* screen saves all changes made. If the [ESC] key is pressed, all changes are discarded.

5.23.1.1 Add and Edit Trigger Mapping

- Tap on **Add** to add a new trigger map, or tap on **Edit** to edit an existing trigger map.



Trigger Key

This drop-down list allows you to specify the source of the trigger events, such as the Grip Trigger, Left Scan, etc., for the *trigger module* selected.

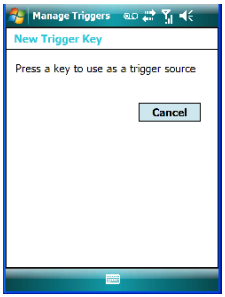
Preliminary Draft

Note: It is possible to map the same source to different modules (trigger consumers) – for example, to both the Imager and Non-Decoded Scanner. If so, both devices/operations will occur simultaneously. This is not recommended in most cases, especially with devices such as Imagers.

It is also possible to map different sources to the same module (trigger consumer).

Add Key

Only existing trigger sources are shown in the Source combo-box. To add a new source to this list, tap on the **Add Key** button. A dialog box pops up, allowing you to select the keyboard key to use as a trigger source.



Trigger Press Type

You can enable either an **Up/Down** or **Double Click** response to a trigger press. Normally, when a trigger (keyboard key, etc.) is pressed and released, a "trigger down" event is sent to the "owner" – that is, the application receiving the trigger press information – followed by a "trigger up". If *Double Click* is chosen in this menu, when the trigger is pressed, released, and then pressed again, a "double-click" event will occur. If a mapping with the *Up/down* type has also been configured for the same source, it will only receive the first set of trigger events.

Module to Trigger

This identifies the driver or application receiving the trigger presses.

Show All Modules

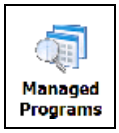
By default, inactive owners are not shown. By checking this checkbox, all owners, both active and inactive, are displayed.

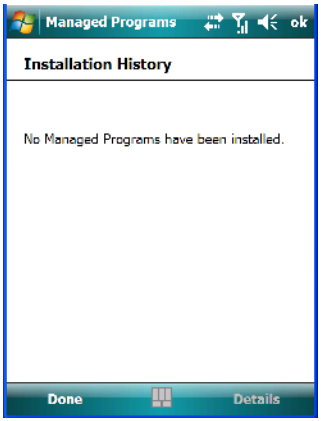
Preliminary Draft

5.24 Managed Programs

Managed Programs lets you view, download and install applications that are deployed by the *System Center Mobile Device Manager* (a server-side solution that helps enable IT to have control of their device deployment with respect to security, management and access to the corporate network). To access *Managed Program*:

- Tap on **Start>Settings>System** tab>**Managed Programs** icon.





Note: Your system administrator can provide the details you'll need to use Managed Programs effectively.

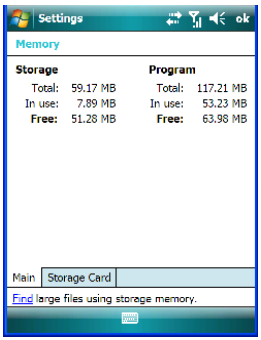
5.25 Memory

This applet allows you to view memory use and storage card memory allocation. To display the options for this applet:

- Tap on **Start>Settings**. Tap on the **System** tab followed by the **Memory** icon.

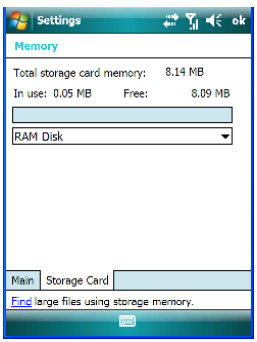
Preliminary Draft

5.25.1 Main Tab



This tab lists the memory allocated for file and data storage and for program storage.

5.25.2 Storage Card



The *Storage Card* screen indicates the total storage card or RAM disk memory along with the amount in use.

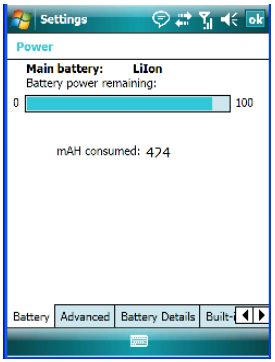
5.26 Power Icon

This icon allows you to view and manage battery use.

- Tap on **Start>Settings**. Tap on the **System** tab followed by the **Power** icon.

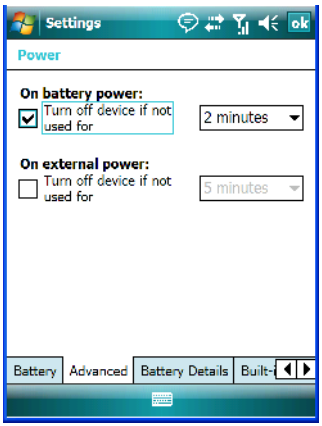
Preliminary Draft

5.26.1 Battery Tab



This tab allows you to view the remaining battery capacity.

5.26.2 Advanced Tab



The *Advanced* tab allows you to manage battery consumption.

On Battery Power

When the EP10 is operating on battery power, this option allows you to determine how long the unit will remain on when it is not in use.

Preliminary Draft

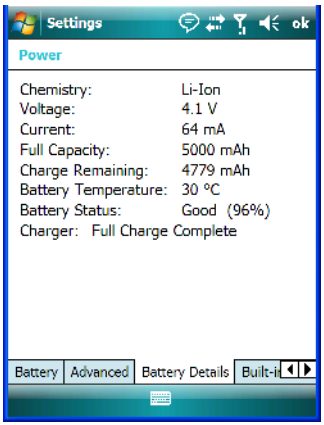
- Tap in the checkbox to the left of **On battery power** to enable this option. Tap in the drop-down menu to choose the number of minutes your unit can remain idle before it shuts down.

On External Power

When the EP10 is drawing external rather than battery power, this option allows you to determine the number of minutes the unit will remain on when not in use.

- Tap in the checkbox to the left of **On external power** to enable this option. Tap in the drop-down menu to choose the number of minutes your unit can remain idle before it shuts down.

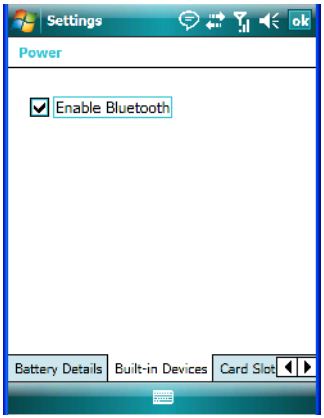
5.26.3 Battery Details



This tab lists the specifications and battery capacity status of the battery installed in the EP10. This is a view-only screen.

Preliminary Draft

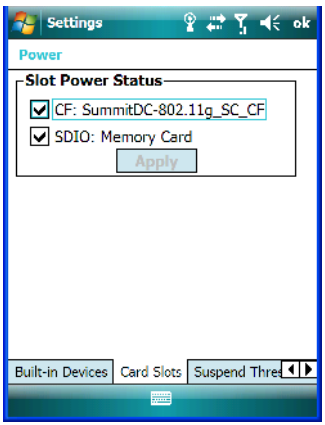
5.26.4 Built-In Devices



Built-In Devices

Checking the box next to *Enable Bluetooth* switches on the built-in *Bluetooth* radio.

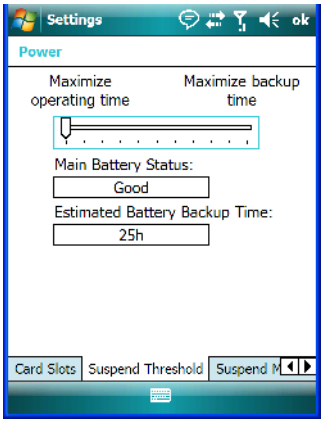
5.26.5 Card Slots



When you select one or more of the card slots listed, power is supplied to the enabled slot(s). Clicking on the *Apply* button activates your selections. Keep in mind that if the characters on this button appear in grey typeface, the checked slots have already been enabled.

Preliminary Draft

5.26.6 Suspend Threshold and Estimated Battery Backup



The *Estimated Battery Backup* is the amount of battery power that has been reserved or set aside to protect data until a fully charged battery can be installed in the EP10. When the battery capacity is depleted up to the *Estimated Battery Backup* reserve specified in the *Suspend Threshold* tab, the EP10 shuts off automatically and uses the reserve power to preserve the data stored on the EP10. Once the EP10 shuts down, it cannot be switched on until a fresh battery is installed, or the unit is inserted in a docking station or cradle.

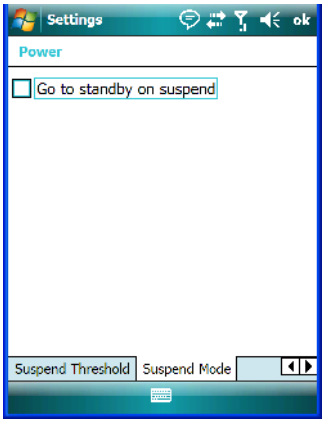
- Slide the **Suspend Threshold** button to the right to increase the battery capacity reserved for backup purposes. Data will be preserved to a maximum of 124 hours.
- Slide the **Suspend Threshold** button to the left to decrease the power reserved for backup purposes; this increases the EP10's operating time – the amount of time the EP10 will operate before shutting down – but reduces the power reserved for backup purposes to a minimum of 24 hours.

Internal super-capacitors will protect the data stored in the EP10 while the depleted battery is swapped for a fully charged one.

Important: Once the battery is removed, the super-capacitors will preserve the data stored on the EP10 for approximately 5 minutes. It is critical that you install a charged battery before this time elapses.

Preliminary Draft

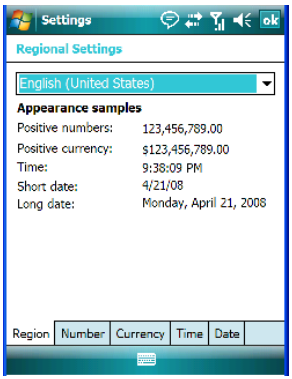
5.26.7 Suspend Mode



When this option is enabled, any time the EP10 enters suspend mode (e.g., an idle time out, Power button press or through the Start menu), *Go to standby on suspend* forces the EP10 to enter *Standby* mode. In *Standby* mode, applications, processors and services (e.g., Bluetooth) continue to run even while the EP10 is powered down, making them instantly available when the unit is powered up again.

5.27 Regional Settings

To display the *Regional Settings* screen, tap on **Start>Settings**, and then tap on the **System** tab followed by the **Regional Settings** icon.



Preliminary Draft

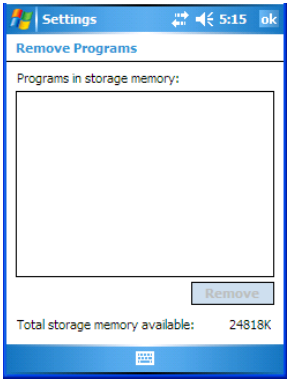
- Tap on the drop-down menu to choose your language and region.

Once you've selected a language and region, you may need to adjust the way numbers, currency, the time and the date appear in your EP10.

- Tap on the tab associated with each of the items and choose how each item should be displayed on your EP10.

5.28 Remove Programs

- Tap on **Start>Settings**. Tap on the **System tab** followed by the **Remove Program** icon.



Tapping on the *Remove Programs* icon displays a screen listing the programs that can be removed from your unit.

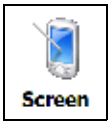
- To remove a program, highlight it and then tap on the **Remove** button.

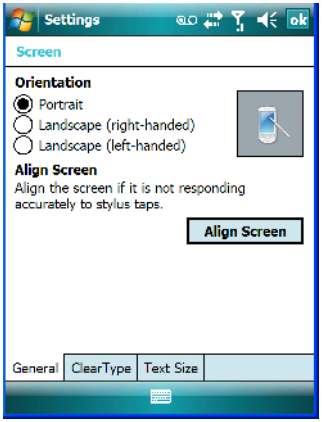
5.29 Screen Icon

This icon allows you to *align* (calibrate) your touchscreen, turn *ClearType* on and off and adjust the size of the text displayed on the EP10 screen.

Preliminary Draft

- Tap **Start>Settings.** Tap on the **System tab**, and then tap on the **Screen icon.**





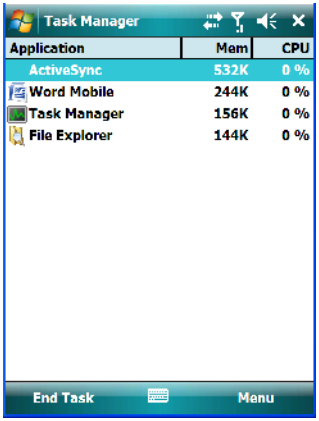
Important: Refer to "Aligning (Calibrating) the Touchscreen" on page 20 for details.

5.30 Task Manager

The *Task Manager* screen lists all running tasks (applications) or processes. This applet provides a number of options to manage these.

Preliminary Draft

- Tap on **Start>Settings**. Tap on the **System** tab and then the **Task Manager** icon – the *Task Manager* screen is opened.

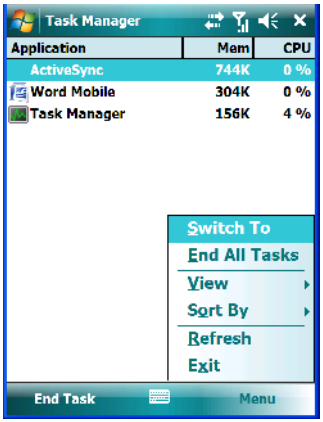


- **End Task:** To shut down an application, **highlight the program** in the list, and tap on the **End Task** softkey in the taskbar at the bottom of the screen.

Task Manager Menu

The *Task Manager* menu provides additional options to help you manage your applications.

- Tap on the **Menu** softkey in the taskbar.



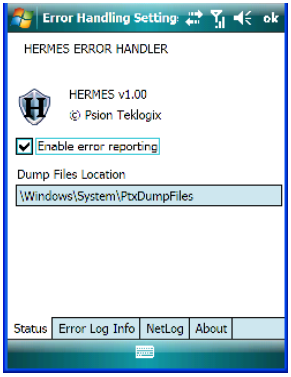
- **Switch To:** Makes the highlighted application active.

Preliminary Draft

- **End All Tasks:** Shuts down all applications listed.
- **View:** Allows you to list either all running applications or all processes.
- **Sort By:** Allows you to sort active applications or processes based on *Memory size*, *CPU* or application or process *Name*.
- **Refresh:** Updates the list of applications or processes.
- **Exit:** Closes the *Task Manager*.

5.31 Teklogix Error Handling Service

- Tap on **Start>Settings**. Tap on the **System** tab followed by the **Teklogix Error Handling Service** icon.

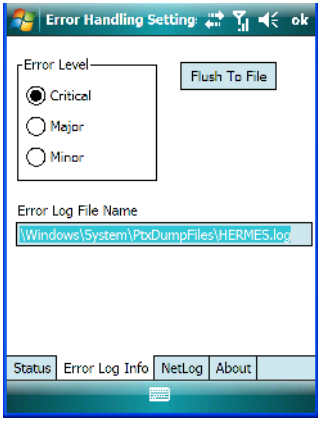


Teklogix Error Handling Service is an error diagnostic tool. Tapping in the checkbox next to *Enable error reporting* enables this service.

5.31.1 ErrorLogInfo

- To log an error, tap on the **ErrorLogInfo** tab.

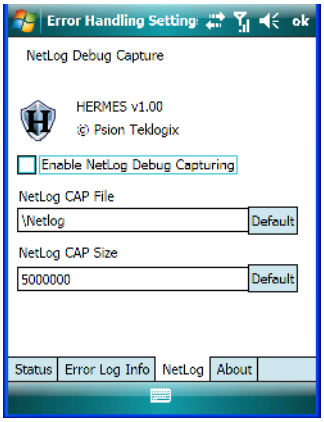
Preliminary Draft



- Choose an **Error Level**, and tap on **FlushToFile** to log the information file.

Psion Teklogix personnel can help you retrieve and forward the information file to our offices.

5.31.2 NetLog



The *NetLog* option is used to log network traffic. When you tap in the checkbox to the left of *Enable NetLog Debug Capturing*, debug data is collected so that, if necessary, it can be forwarded to a Psion Teklogix technician for evaluation. You can also define where you want the data stored and the maximum size of the file.

Preliminary Draft

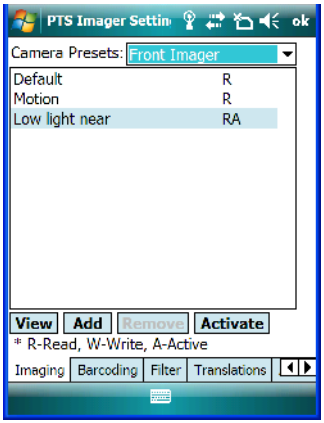
5.32 Teklogix Imagers Settings

The *Teklogix Imagers* applet is used to create, modify, delete and activate imager settings. The principle uses of the applet are to decode bar codes and to capture images.

Note: This icon is only when displayed when the HHP 5000 imager is installed in your EP10 hand-held.

To launch this applet:

- Tap on **Start>Settings>System** tab, and then tap on the **Teklogix Imagers** icon.



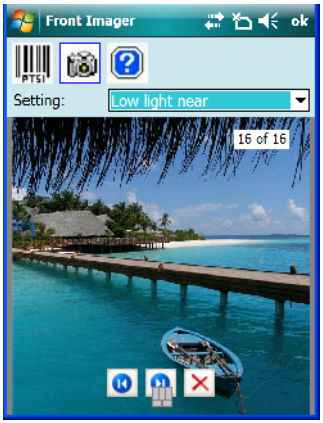
Important: Refer to Appendix D: "Teklogix Imagers Applet" for details about this applet.

A *PTSI Imager* demo applet is also provided to illustrate how the imager works.

Preliminary Draft

To launch the demo:

- Tap on **Start>Programs**, and then tap on the **PTSI Imager** icon.

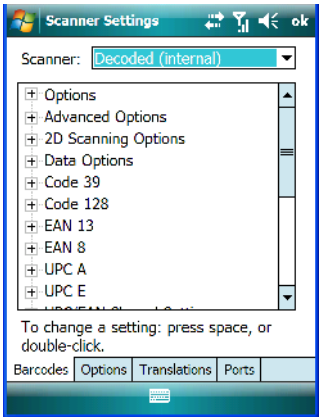


5.33 Scanner Settings

The *Teklogix Scanners* icon in the *Settings* menu provides access to dialog boxes in which you can tailor bar code options and choose the bar codes your scanner will recognize.

Preliminary Draft

- Tap on **Start>Settings**, and then tap on the **System** tab followed by the **Teklogix Scanner** icon.



5.33.1 Bar Code Settings – The Scanner Menu

The drop-down menu to the right of the *Scanner* option allows you to choose from one of the following scanner types used with your EP10: *Decoded (internal)*, *Decoded (Intermec ISCP)* or *Imager*.

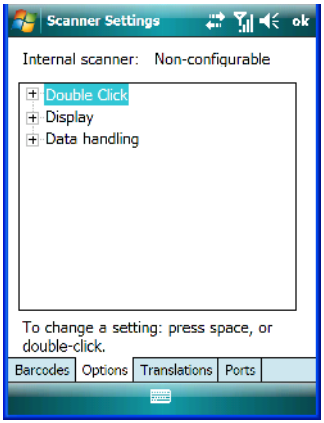
The symbologies listed change to reflect the scanner you choose and the bar codes it supports.

Important: Appendix C: "Bar Codes Settings" provides descriptions of the bar codes listed in the scanner menus.

Preliminary Draft

5.33.2 Options Tab

This tab allows you to tailor the double-click parameters and the display options associated with your scanner.



5.33.2.1 Double Click Parameters

Click Time (msec)

This parameter controls the maximum gap time (in milliseconds) for a double-click. If the time between the first and second clicks of the scanner trigger is within this time, it is considered a double-click. The allowable range is 0 to 1000. A value of zero disables this feature.

A double-click produces different results depending on whether or not a value is assigned in the “Click Data” parameter. When a value is not assigned for the “Click Data”, double-clicking the scanner trigger overrides the target dot delay set in the “Dot Time” parameter and initiates a normal scan sweep. If a value is assigned for the “Click Data” parameter, double-clicking the scanner trigger inserts the “Click Data” value rather than initiating a scan.

Click Data

For both integrated and external scanners, this parameter determines which character is sent to the application installed in your EP10 following a double-click. A dialog box appears, asking that you press the key you want to insert. The ASCII/Unicode key value of the keypress is displayed.

Preliminary Draft

5.33.2.2 Display Parameters

Scan Result

When this parameter is enabled, the type of bar code and the result of the scan appear on the screen. Note that this information is only displayed after a successful decode and is visible only while the scanner trigger is pressed. When the trigger is released, this information is cleared from the screen.

Scan Indicator

When this parameter is enabled, the laser warning logo appears on the display whenever the scanner is activated.

Scan Result Time (sec)

The value assigned to the "Scan Result Time (sec)" parameter determines how long the scan results of a successful scan are displayed on the screen. Time is measured in seconds, and a value of "0" (zero) disables the parameter. When you choose this option, a dialog box appears where you can enter a value.

Note: To remove the scan result from the screen before the "Result Time" has expired, point the scanner away from the bar code and press the trigger.

Good Scan Beep And Bad Scan Beep

These parameters determine whether or not the EP10 emits an audible scanner 'beep' when a good (successful) scan or a bad (unsuccessful) scan is performed. Set these parameters to either *on* to enable the beeper or *off* to disable it.

Soft Scan Timeout

This parameter is used by the SDK "Scan" function (soft-scan: starting a scan session via the SDK function, instead of a physical user trigger press). The value assigned to this parameter determines the soft-scan timeout from 1 to 10 sec. (default is 3 sec.).

Scan Log File

If this parameter is enabled, the input barcode and the modified/translated output bar code are logged in the file \Flash Disk\ScanLog.txt. Keep in mind that if the "Scan Log File" is enabled, there is a slight performance effect when performing multiple scans since the log file is written to persistent storage.

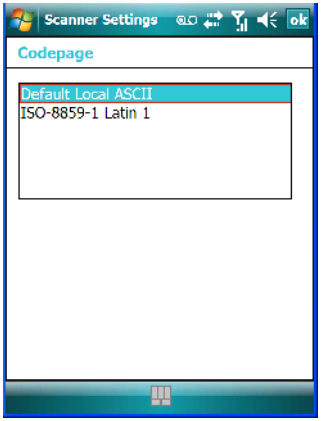
Preliminary Draft

5.33.2.3 Data Handling

This option allows you to choose the code page your EP10 will use to display data – *Default Local ASCII* or *ISO-8859-1 Latin 1*.

Codepage:

Tapping on this option displays a window in which you can define the code page your EP10 will use.



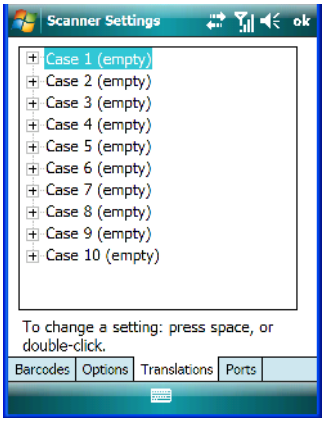
If you choose *Default Local ASCII*, the code page of the local OS is used. For example, if the local OS uses double-byte Chinese characters, choosing this option will filter data through the local ASCII of *that* OS and display it accurately, in this example, using double-byte characters.

If you choose *ISO-8859-1 Latin 1*, data will be displayed according to the character mapping of this Latin 1 code page, ignoring the local OS code page.

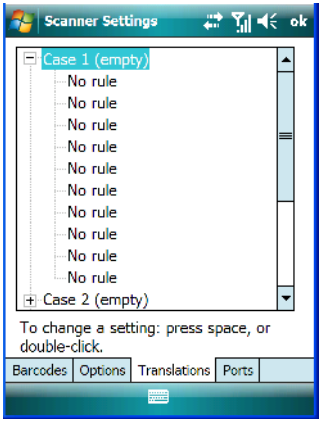
5.33.3 Translations Tab

The *Translations* tab allows you to define up to 10 cases, each consisting of up to 10 rules in sequential order. Only one case will be applied to a bar code and a case will only be applied if all rules specified in the case are successful – if a rule within a case fails, the entire case fails.

Preliminary Draft

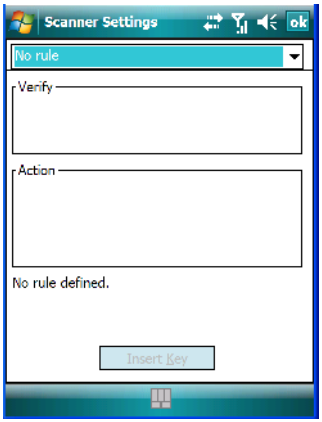


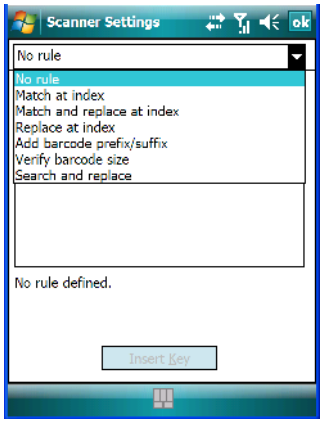
- In the *Translations* tab, tap on a **Case #** to create rules.



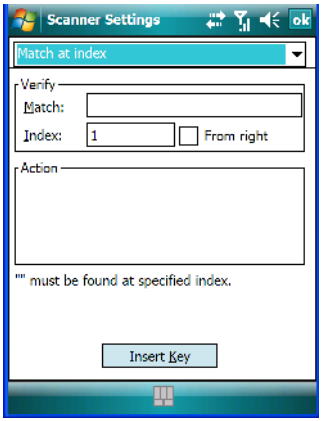
Preliminary Draft

- Tap on the **No rule** drop-down menu to display the rules.





When you choose a rule, an associated screen is displayed in which you can define the rule.



5.33.3.1 Case Rules

The case rules are defined as follows:

- **No rule** – ignored.
- Match at index – matches the match string at a specified index.
- **Match and replace at index** – matches the match string at a specified index and replaces/changes it.
- **Replace at index** – replaces/changes unspecified data in a given range.
- **Add barcode prefix/suffix** – adds a global prefix or suffix.

Preliminary Draft

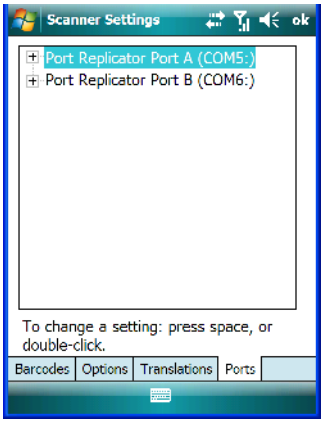
- **Verify barcode size** – verifies the bar code size. This rule should generally be assigned first, before creating subsequent rules.
- **Search and replace** – replaces all instances of the match string. (Note that this rule cannot fail.)

Warning: Keep in mind that the effects of previously applied rules must be taken into account when creating subsequent rules. For example, if the bar code size is important, it should be checked before any rules that might change the size are applied.

The information about the status of each case/rule is displayed in the scan log file (see "Scan Log File" on page 153) when enabled. This is useful if a case fails, and you are trying to determine why a rule is failing.

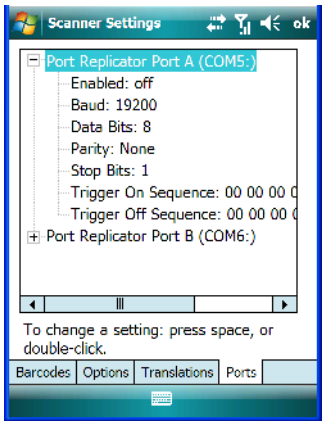
5.33.4 Ports Tab

While you cannot configure the scanner, you can configure communications with a serial decoded scanner using the options in this tab.



Preliminary Draft

5.33.4.1 Port Replicator Port A (COM5:)

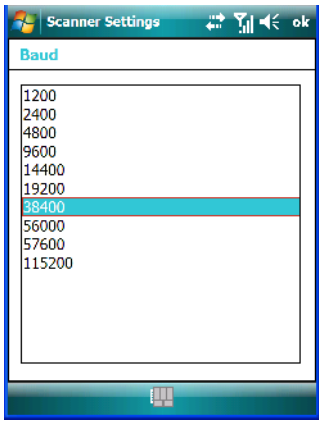


Enabled

This parameter allows you to turn this port *on* (enable) and *off*.

Baud

Double-tapping on this parameter displays a pop-up window in which you can choose an appropriate baud rate.



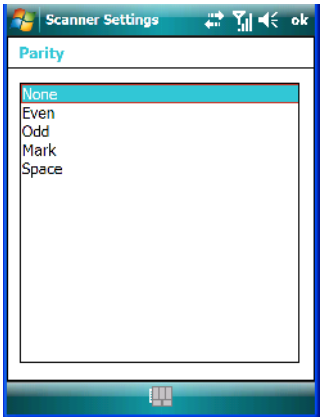
Data Bits

This parameter determines the number of data bits included in each asynchronous data byte. Most devices use 8 bit data bytes. Double-tapping on this option displays a pop-up window in which you can choose either *7* or *8* data bits.

Preliminary Draft

Parity

This parameter determines the type of parity checking used on the data going through the tether port. Double-tapping on this option displays a pop-up window in which you can choose the appropriate *Parity*.



Stop Bits

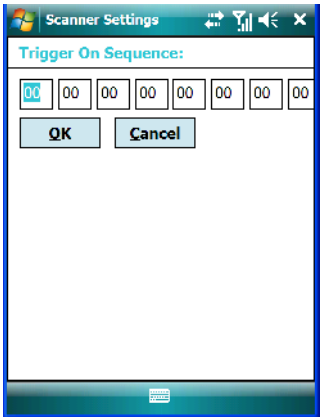
This parameter specifies the number of stop bits – *1*, *1.5*, *2* – used for asynchronous communication.

Trigger On Sequence And Trigger Off Sequence

If a SICK scanner connected to the EP10 port requires a serial stream of data bytes to trigger the scanner *on* and another to trigger the scanner *off*, the *Trigger On Sequence* and *Trigger Off Sequence* parameters allow you to define these serial streams.

Preliminary Draft

Double-tapping on *Trigger On Sequence* or *Trigger Off Sequence* displays a screen with a hex array of 10 elements.



These parameters work in conjunction with *Manage Triggers* sending on and off data streams to the trigger module you assigned. For example, supposed you launch *Manage Triggers* and choose *Decoded Scanner* as the 'module to trigger'. Next, you assign a 'trigger key' – for this example, a period ('.'). To define the serial stream of data bytes to control the *on* and *off* function of the 'trigger key', enter a hex value in the *Trigger On Sequence* and the *Trigger Off Sequence* fields. When you press the trigger key, the *Trigger On Sequence* is sent and when you release the trigger key, the *Trigger Off Sequence* is sent, turning the trigger key *on* and *off*.

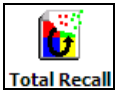
5.34 Total Recall

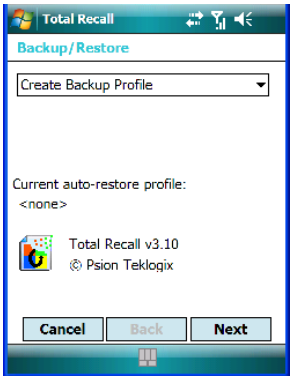
Total Recall is a Psion Teklogix utility developed to back up/restore applications and settings.

Note: In Windows Embedded 6.5, the registry and installed programs are stored in the Flash file system and are not lost on reset. However, in special cases, Psion Teklogix personnel may find it necessary to perform a 'clean start'; this will reset not only the registry settings to factory defaults but will also erase any files or applications stored or installed on the built-in Flash file system, including any Total Recall profiles. This is why any data that needs to be protected must be stored on a microSD card or externally to the device on a USB memory stick or on a PC.

Preliminary Draft

- Tap on **Start>Settings**. Tap on the **Total Recall** icon.

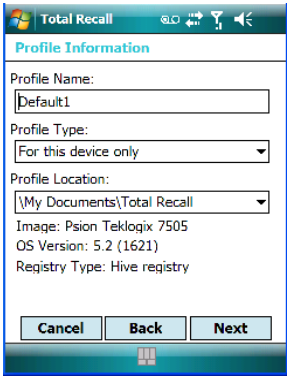




In the drop-down menu, you can choose: *Create Backup Profile, Restore Selected Profile, View Selected Profile Data*, and *Delete Selected Profile*. Keep in mind that until a profile is created, only one option is available – *Create Backup Profile*.

5.34.1 Creating a Backup Profile

- Tap on the **Next** button to begin the process.



Profile Information

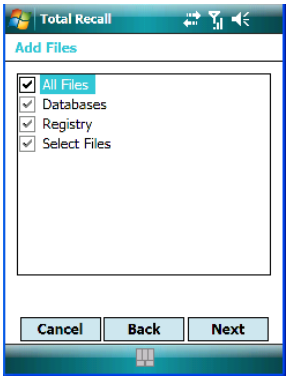
This dialog box lists the possible storage destinations for the profile file.

- To begin, type a name for the profile in the field labelled *Profile Name.*

Preliminary Draft

- Next, choose the *Profile Type* you want to create:
  - *For this device only* – creates a backup that is manually restored by the operator.
  - *AutoRestore for this device only* – creates a profile that automatically restores itself following a cold start.
- Finally, choose a *Profile Location*.
- Tap on the **Next** button to display the next dialog box, *Add Files*.

Add Files



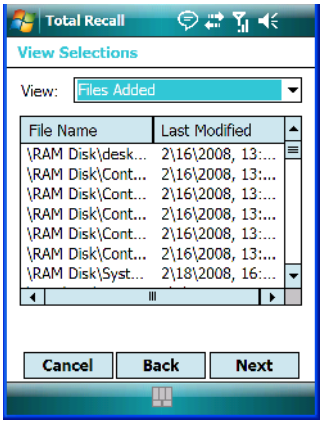
By default, **All Files** is selected so that all installed or copied files, database entries and the registry will be saved. You can, however, limit the backup to Databases, the Registry and/or Selected Files.

- Tap on the **Next** button to view your selections.

Preliminary Draft

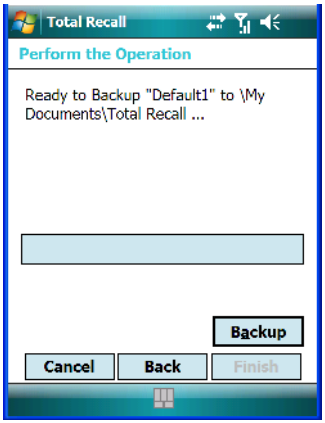
View Selections

Depending on what you have selected for inclusion in your profile, you can view a list of all files, selected files, databases, and/or the registry.



- If you're satisfied with the items in the profile, tap on **Next**.

Performing the Backup



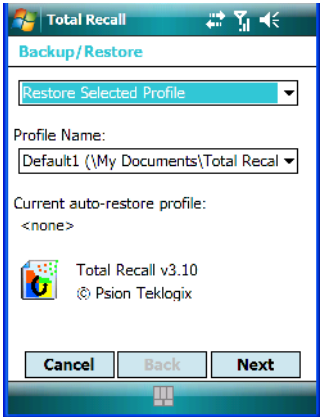
- Tap on **Backup** to begin the process and create a profile.

When the backup is finished, a dialog box is presented stating that the backup has been completed successfully.

- Tap on **Finish** to exit *Total Recall*.

Preliminary Draft

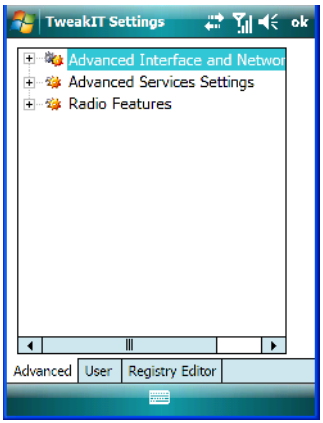
5.34.2 Restoring a Profile



To manually restore a profile:

- Choose **Restore Selected Profile** from the drop-down menu, and choose the **Profile Name** you want to restore.
- In the next screen, tap on **Restore** to restore your profile.

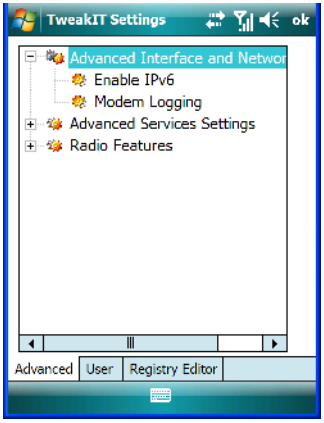
5.35 TweakIT



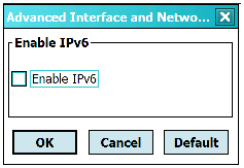
This utility allows you to ‘tweak’ or adjust *Advanced* system settings (interface, network and servers), *User* settings (font size and docking port message), and provides a *Registry Editor*.

Preliminary Draft

5.35.1 Advanced Interface And Network

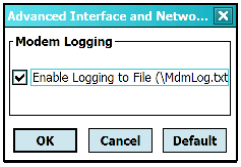


Enable IPv6



This option allows you to enable Internet Protocol, version 6, that has been published to use 128-bit IP address (replacing version 4).

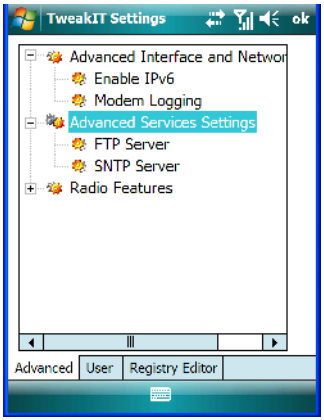
Modem Logging



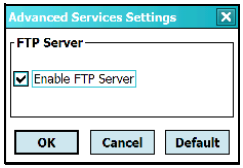
When this option is enabled, the EP10 logs AT commands (e.g., dial-out information, password string, etc.) that the administrator can monitor for debugging purposes. Modem commands are stored in: \MdmLog.txt.

Preliminary Draft

5.35.2 Advanced Services Settings



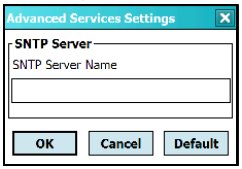
FTP Server



This option is enabled by default to allow file transfers. Keep in mind that data transfer in either direction is restricted to the Temp folder – that is, data are always loaded from the *FTP Server* to the *Temp* folder and from the *Temp* folder to the *FTP Server*.

If this option is disabled, a warm reset must be performed to accept the change.

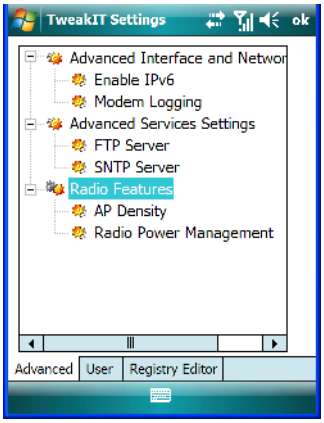
SNTP (Simple Network Time Protocol) Server



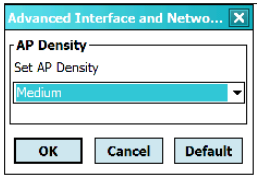
The *SNTP Server Name* typed in this dialog box is used to synchronize EP10 time with that of the time server. A warm reset must be performed once the server name has been entered.

Preliminary Draft

5.35.3 Radio Features



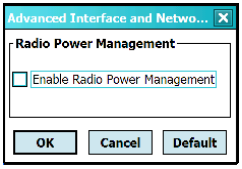
AP Density



This option allows you to determine the signal strength at which the EP10 radio will begin searching for a new Access Point (AP): *High*, *Medium* or *Low*. If this option is set to *High*, the radio will begin searching for a new Access Point while still at a fairly strong signal strength. Setting *AP Density* to *Low* will cause the radio to wait until the signal strength is significantly low before attempting to connect to another Access Point.

Depending on your site configuration – for example, the shelving, the Access Point coverage, etc. – a higher setting may improve through-put, increase and maintain signal strength, and reduce missed transmissions.

Radio Power Management

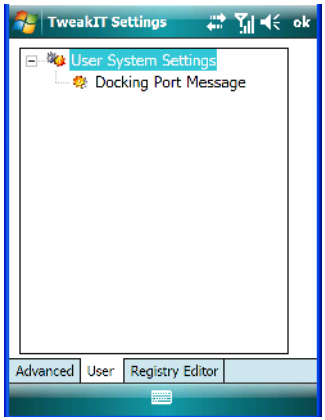


When this option is enabled, access points that support it will use *Radio Power Management* guidelines to control the EP10 radio. Access points determine how often the EP10 radio

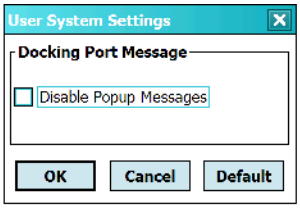
Preliminary Draft

enters sleep mode when no activity is detected to reduce power consumption. Another benefit is that when *Radio Power Management* is enabled, even when no activity is detected, the access point does not disassociate the EP10.

5.35.4 User System Setting



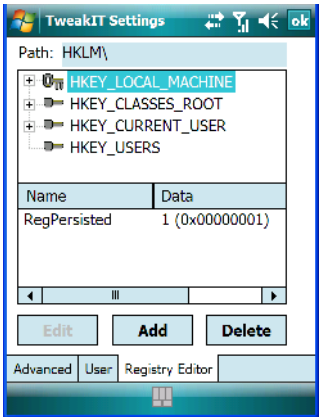
Docking Port Message



Checking this box blocks the message that normally pops up on the display when the EP10 is docked.

Preliminary Draft

5.35.5 Registry Editor



This option is reserved for senior administrators who have a strong understanding of registry keys and values. Careless registry editing can cause irreversible damage to the EP10.

5.36 Windows Update

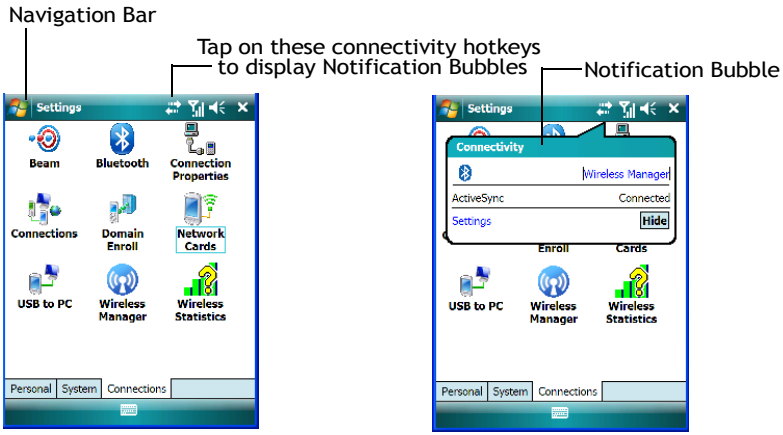
This program checks for software updates, and if found, downloads updates to your EP10. You can choose to have updates checked automatically, or if you prefer, you can determine when your unit will check for updates.

5.37 Connections Tab

This tab is used to setup connections using *Bluetooth* and 802.11 radios.

Preliminary Draft

- Tap on **Start>Settings>Connections** tab to display your connection options.



5.37.1 Navigation Bar Hotkeys

Some of the connectivity icons in the *Navigation Bar* along the top of the screen are *hotkeys* that offer shortcuts to connection setups. Tapping on a hotkey displays a bubble that provides information about your connections and provides a shortcut to the *Wireless Manager* applet where you can set up your connections.

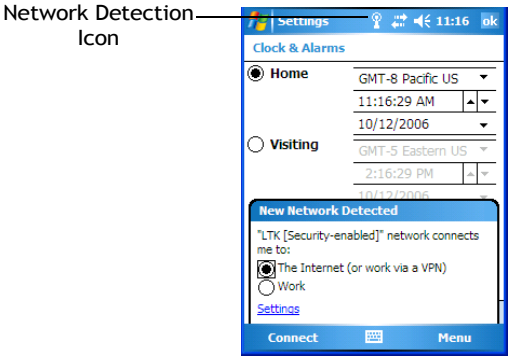
Automatic Notification

The *Navigation Bar* also displays *notification* icons to let you know, for example, that a network as been detected. or if your EP10 is equipped with a phone, that you've missed a call, a voice mail or a text message.

Preliminary Draft

Automatic Network Detection

If a wireless network is available when you switch on your hand-held, a *notification bubble* may appear letting you know which networks have been found. You can choose a network from here.



Tapping on *Connect* in the softkey bar at the bottom of the screen will automatically connect to a network that's already been set up. Tapping on *Settings* in the *network bubble* will launch the *Wireless Manager* applet.

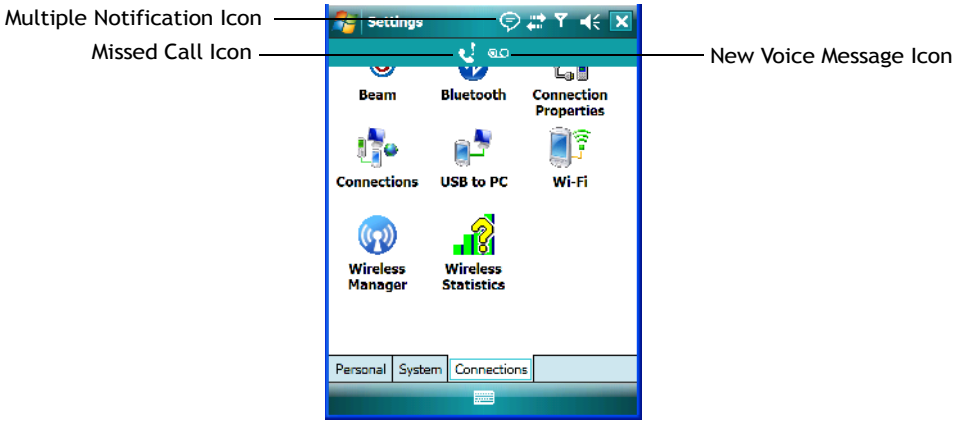
If you prefer not see this *notification bubble*, you can tap on the *Menu* button in the softkey bar, and choose not to display the *notification bubble*.

Multiple Notifications

If more than one item is detected, all the items can be accessed by tapping on the small *multiple notification* icon shaped like a word bubble in the *Navigation Bar*. Tapping on it

Preliminary Draft

displays a group of notification icons – in the sample screen below, a *missed call* icon and a *new voice message* icon.



Tapping on any of these icons displays an associated *notification bubble* with information about and access to the missed call(s) or voice message(s).

5.38 Beam

This option is not available for the EP10.

5.39 *Bluetooth* Setup

Bluetooth is a global standard for wireless connectivity for digital devices and is intended for Personal Area Networks (PAN). The technology is based on a short-range radio link that operates in the ISM band at 2.4 GHz. When two *Bluetooth*-equipped devices come within a 10 meter range of each other, they can establish a connection. Because *Bluetooth* utilizes a radio-based link, it does not require a line-of-sight connection in order to communicate.

- Tap on **Start>Settings**. Tap on the **Connections tab** followed by the **Bluetooth icon**.

Preliminary Draft

5.39.1 The Devices Tab

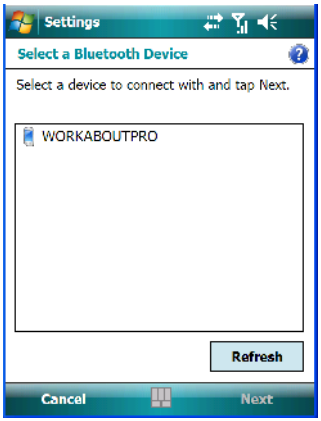
This tab allows you to scan for other *Bluetooth* enabled devices, and it allows you to pair devices.

Note: You may need to enable your Bluetooth radio before you begin. Refer to "Bluetooth Mode" on page 176 for details.

To add a new device:

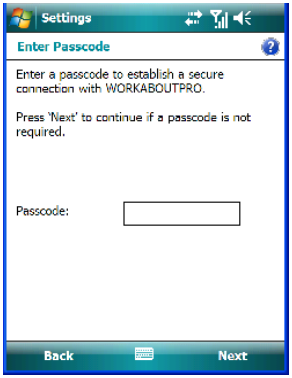
- Tap on **Add new device...**.

The EP10 scans for a *Bluetooth* device within a 10 meter range. Any *Bluetooth* devices within range appear in the *Bluetooth* list box



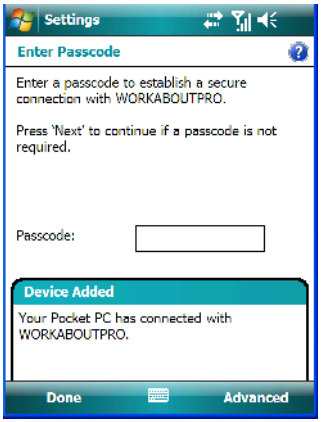
Preliminary Draft

- Highlight the device you want to add. Tap on **Next**.



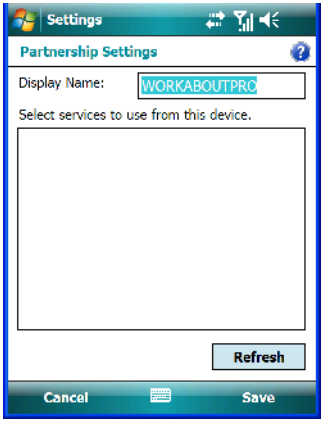
- If required, type your **Passcode**. If not, skip this step and just tap on **Next**.

A pop-up message lets you know that your device has been connected to your EP10.



Preliminary Draft

- To change the *Display Name*, tap on the **Advanced** button. This is an ***optional*** step.



- Tap on **Save**.

Note: To connect to a Bluetooth-equipped device that's already been added, tap on the item in Bluetooth list box.

5.39.1.1 Pairing a Device

If you intend to pair devices (a headset, for example), power on and bring the device within 10 meters of the EP10 before proceeding with the discovery process described below.

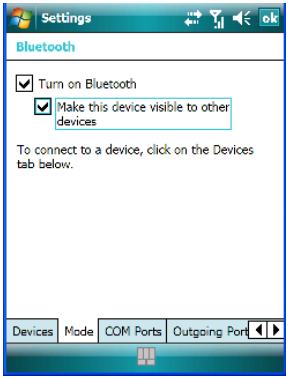
Important: Follow the steps under "Pairing a Bluetooth Headset" on page 25 to pair a Bluetooth a headset with your EP10.

If you prefer, you can go to the Today screen, and tap on – Getting Started>Set up Bluetooth – to get pairing information.

Preliminary Draft

5.39.2 *Bluetooth* Mode

- Tap **Start>Settings**. Tap on the **Connections** tab following by the ***Bluetooth*** icon. Next, tap on the **Mode** tab.

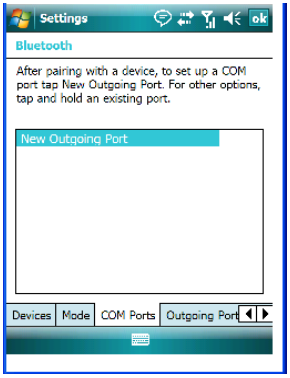


When *Turn on Bluetooth* is checked, *Bluetooth* features are available. If this option is disabled, you cannot send or receive information using *Bluetooth*.

When *Make this device visible to other devices* is enabled, other *Bluetooth* devices within range (approximately 10 meters) can detect your EP10 and can establish a bond or use a *Bluetooth* service. Note that other devices can detect your unit whether or not a bond has been created.

Preliminary Draft

5.39.3 *Bluetooth* COM Ports



New Outgoing Port

When you pair the EP10 with another device, *New Outgoing Port* is listed in this dialog box. Tapping on this option allows you to assign an outgoing COM port number.

- To work with an existing COM port number, tap and hold the stylus on an existing port.

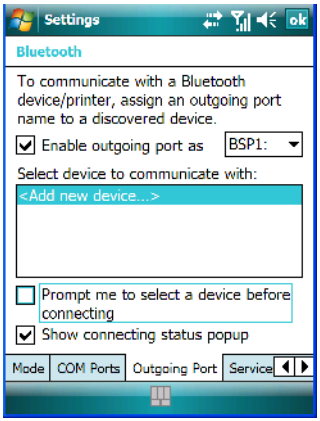
To assign a *new* port number, make certain that your EP10 is connected to the other device via *Bluetooth*.

- In the *COM Ports* tab, tap on **New Outgoing Port**.
- Choose a **COM port number** from the list.

Note: If a port cannot be created, the number you've chosen is already in use. Choose a different port number.

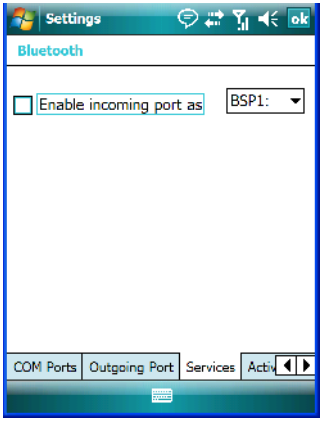
Preliminary Draft

5.39.4 Outgoing Port



Outgoing Port acts as a serial port that can be used to connect to a list of *Bluetooth* devices (one at a time). This tab allows you to assign and enable an outgoing port and choose the device with which you want to communicate from the list. You can also tailor the behaviour of your EP10 so that you are prompted to choose the device with which you want to communicate.

5.39.5 Services

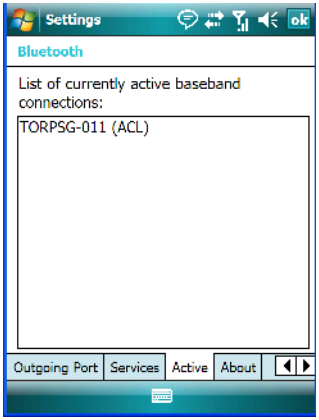


The *Bluetooth Services* tab is used to assign a virtual serial port for incoming *Bluetooth* (serial) communications. Virtual ports are required because while normally, an application uses a true COM (hardware) port to transmit data, *Bluetooth* uses a virtual port.

Preliminary Draft

You can assign either a *BSP* or a *COM* prefix from the drop-down menu. BSP (*Bluetooth* Serial Port) was created by Microsoft to allow *Bluetooth* to have its own serial prefix in order to free up virtual COM prefixes as these are limited and are widely used. (In Windows Embedded 6.5, the *COM Ports* tab is used to assign a virtual outgoing COM port to a Paired *Bluetooth* service, and the *Outgoing Port* tab is used to assign multiple outgoing *Bluetooth* services to a single virtual port.)

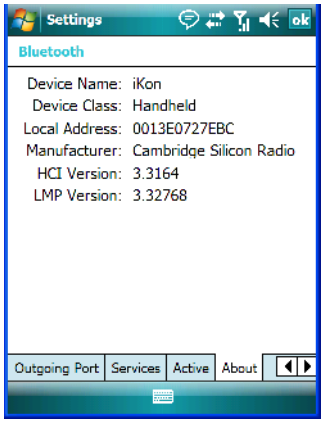
5.39.6 Active Connections



This tab displays the currently active *Bluetooth* connections, listing the device name(s). The type of link is also included with the device name(s). Keep in mind that the information listed in this tab is ‘view only’; it cannot be edited.

Preliminary Draft

5.39.7 About Tab

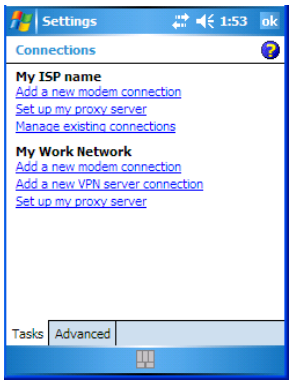


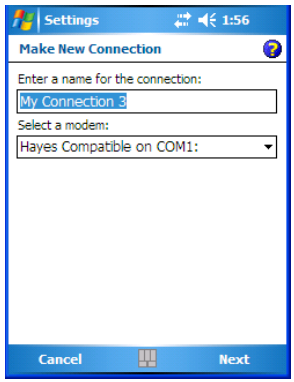
The *About* tab displays information about the *Bluetooth* module, such as the manufacturer name, local address and version. Like the *Active* tab, this information cannot be edited.

5.39.8 The *Bluetooth* GPRS Phone

Once you've completed the *Bluetooth* settings, you can go ahead and set up communication through your *Bluetooth*-equipped phone.

Before you begin, make certain that the *Bluetooth* phone is turned on, that the *Bluetooth* radio in your EP10 and in your phone are switched on, and that the EP10 and phone are within 10 metres of each other. Both should be discoverable.





1. Tap on **Start>Settings** and then tap on the **Connections** tab.
2. Tap on the **Connections** icon. Tap on **Add a new modem connection**.

Preliminary Draft

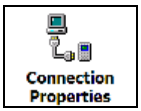
3. Type a name for the connection.
4. Tap on the **Select a modem** drop-down menu, and choose ***Bluetooth***. Tap on **Next**.
5. Make certain that the phone is discoverable. Some phones also need to be pairable in order to accept a bonding request. Refer to your phone documentation for additional information.
6. If the phone appears in the *My Connections* list, skip to step 12.
7. In the list, tap **phone** and then tap on **Next**.
8. In the *PIN* screen, type a personal identification number (PIN) – you can enter up to 16 characters.
9. Enter the ***same*** PIN on the phone.
10. If you wish, you can edit the name of the phone in the *Name* field.
11. Tap on the **Finish** button.
12. In the *My Connections* list, tap on the phone and then on **Next**.
13. Enter the dial-up phone number for this connection, and tap on **Next**.
14. In the *User name, Password* and *Domain* fields, enter the logon information for this connection, and tap on **Finish**.

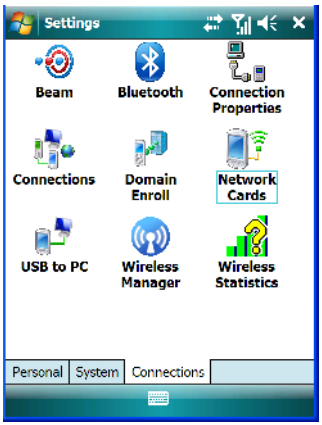
You can begin using the *Bluetooth* phone connection, for example, to send and receive e-mail, browse the Internet with Internet Explorer, and so on.

Preliminary Draft

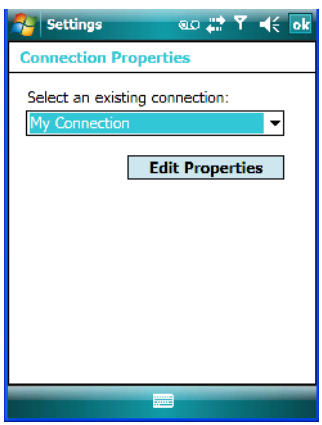
5.40 Connection Properties

This applet is used to set up serial modem connections.





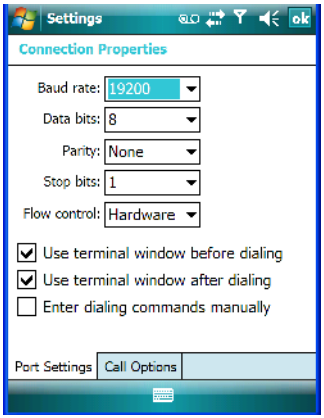
- Tap on **Start>Settings>Connections tab>Connection Properties icon**



- Choose a **connection** from the drop-down menu, and tap on **Edit Properties**.

Preliminary Draft

5.40.1 Port Settings



Baud Rate

In the **Baud rate** drop-down menu, choose a new baud rate. Check your modem documentation for the appropriate baud rate.

Data Bits

This parameter determines the number of bits for the data going through this port. Possible values are: *4, 5, 6, 7, 8*.

Parity

This parameter determines the type of parity checking used on the data going through the port. The options are: *none, odd, even, mark* and *space*.

Stop Bits

This parameter specifies the number of stop bits – *1, 1.5, 2* – used for asynchronous communication.

Flow Control

This parameter selects the type of flow control used in your hand-held. The EP10 can perform *Software* or *Hardware* handshaking, or you can choose *None*.

Preliminary Draft

5.40.2 Call Options

Cancel Call If Not Connected Within

Tap in the checkbox to enable this option to make certain that the EP10 does not stay online too long while waiting to connect with a network.

Enter the number of seconds after which the call will be cancelled.

Wait For Dial Tone Before Dialing

To speed connection when using a modem, disable this option – tap in the checkbox to the left of this option.

Wait For Credit Card

If you are paying for calls with a credit card, enter the number of seconds you want the EP10 to wait for a credit card prompt.

Extra Dial-String Modem Commands

Type your credit card number in this field.

5.41 Connections - Connecting to the Internet

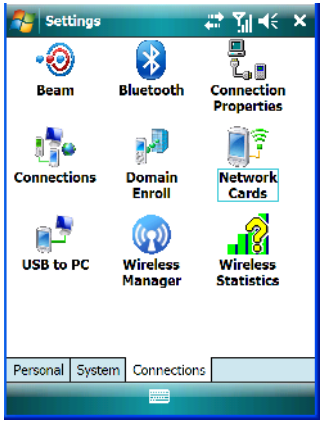
To activate a connection, make certain that any necessary equipment is installed in your EP10 such as a radio.

You'll need the following information from your ISP to make an internet connection:

- ISP server phone number,
- user name, *and*
- password.

Preliminary Draft

1. Tap **Start>Settings**, and then tap on the **Connections** tab.



2. Tap on the **Connections** icon.

*Note: In the Connections window, the **Tasks** tab is used to create new connections and manage existing ones. The **Advanced** tab allows you to choose a network. If you need to change these settings, contact your ISP or network administrator before making changes.*

3. Under **My ISP**, tap on **Add a new modem connection**.
4. In the **Select a modem** drop-down menu, choose a modem connection. If you haven't already created a modem connection, refer to "Modem Connection Setup" on page 185.
5. To connect to the Internet, launch the program you want to use. For example, launch Internet Explorer on your EP10 to browse the Internet. Your EP10 automatically connects.

Note: To set up a network card or wireless network connection to your ISP, add a new connection under My Work Network.

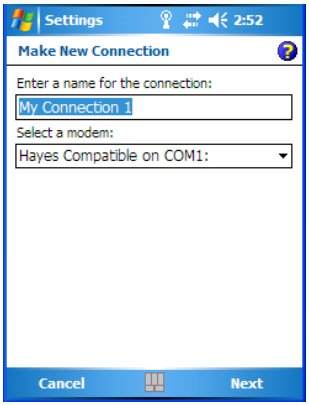
5.41.1 Modem Connection Setup

Before you begin, you'll need the following information from your ISP or network administrator: telephone number, password, domain name, *and* TCP/IP settings.

Preliminary Draft

If your EP10 does not have access to a mobile phone network, insert a modem card in the unit.

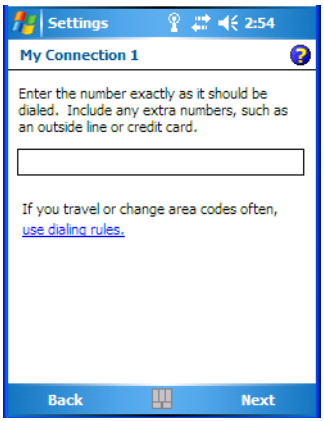
1. Tap **Start>Settings**. Tap on the **Connections** tab followed by the **Connections** icon.
2. To create a new connection in either My ISP or My Work Network, tap on **Add a new modem connection**.
3. In the *Make New Connection* screen, type a name for the connection.



4. In the drop-down menu under *Select a modem*, tap on your modem type.

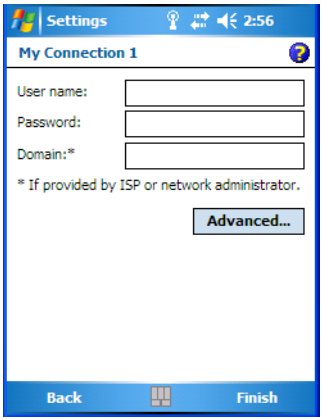
Note: If your modem is not listed in the drop-down menu, choose Hayes Compatible on COM1.

5. Tap on the **Next** button.



Preliminary Draft

6. In the next screen, enter the phone number ***exactly*** as you want it dialed. If, for example, you need to dial ***9*** for an outside line, enter 9 at the beginning of the phone number.
7. Tap on the **Next** button.



8. Type the **User Name, Password** and **Domain Name** as provided by your ISP or network administrator.

*Note: Generally, you will **not** need to change any of the Advanced settings. For information about the Advanced settings, refer to "Advanced Modem Settings"*

Changes to Advanced settings are only required in the following instances:

To change the baud rate settings, dialing string commands or credit card options.

To change port settings.

To enter TCP/IP settings because the server to which you are connecting does not dynamically assign addresses.

9. Tap on the **Finish** button.

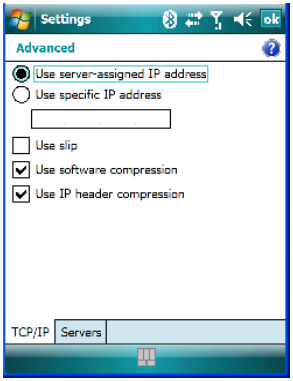
If you need to edit the *Advanced* settings, refer to "Advanced Modem Settings" in the next section.

Preliminary Draft

5.41.1.1 Advanced Modem Settings

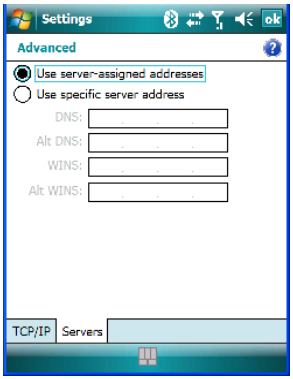
TCP/IP Settings Tab

If your server assigns IP addresses dynamically, you will not need to change these settings. If you need to make changes, contact your ISP or network administrator for addresses.



Server Settings Tab

If your server assigns IP addresses dynamically, you will not need to change these settings.



Servers requiring assigned IP addresses may also need a way to map computer names to IP addresses. The EP10 supports a variety of name resolution options: *DNS*, *Alt DNS*, *WINS* and *Alt WINS*.

Your ISP or network administrator can determine which name resolution you need, and can also provide the server address. In addition, you will want to ask if alternate addresses are available. An alternate address may allow you to connect when the primary server is not available.

Preliminary Draft

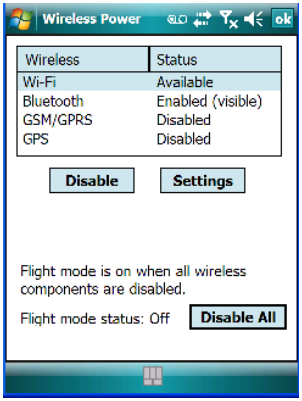
5.42 Wireless Manager Icon

The *Wireless Manager* icon acts as a connection manager, providing access to *Wi-Fi*, *Bluetooth*, *GPS* and *GSM/GPRS* settings.

Important: ***The 'Wireless Manager' option provides detailed Help files to assist you in setting up your EP10. Help is available from the Connections tab – not from within the Wireless Manager dialog box.***

To access Wireless Manager help files, tap on Start>Settings>Connections tab. Tap on Start>Help.

- Tap on **Start>Settings>Connections tab>Wireless Manager icon**.



- To access radio *Settings*, highlight a radio in this dialog box, and tap on the **Settings** button.
- To turn off a radio, highlight the radio and tap on the **Disable** button.

5.42.1 Flight Mode - Disabling Wireless Components

To disable all wireless components when, for example, you are taking your EP10 onto a plane where wireless connections need to be shut down:

- Tap on the **Disable All** button.

To enable wireless components:

- Tap on **Enable All**.

Preliminary Draft

To disable a particular radio connection rather than all connections:

- Highlight an *Available* (enabled) radio listed in this dialog box, and then tap on the **Disable** button.

5.42.2 Setting Up a Network Card

Network (802.11) cards are used to connect to a network so that you can browse the Internet, download e-mail and so on. You can connect to an existing network, or you can set up a new connection on your EP10.

Important: The EP10 is equipped with context sensitive Help Files. If you find that you're unsure how to proceed with a network connection at any point during setup, tap on the question mark icon in the navigation bar at the top of the screen.

5.42.3 Network Adaptor Cards

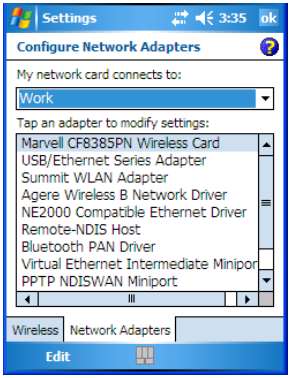
Important: For 802.11b/g (Summit) CF card adaptor setup details, refer to "Setting Up the 802.11a/b/g/n Radio" on page 21.

When the network card is inserted in your unit for the first time, the *Network Settings* screen is displayed automatically so that you can configure the card. If it does not appear, or if you want to change settings:

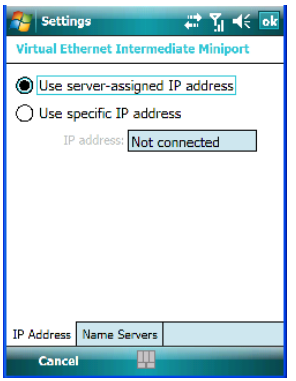
- Tap on **Start>Settings>Connections tab**.

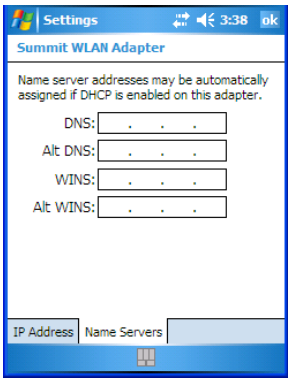
Preliminary Draft

- Tap on the **Network Cards icon**.



- If you need to specify server information, double-tap on the appropriate **adaptor**, and then tap on the **IP Address** and/or **Name Servers** tab.





Note: Because most networks use DHCP, you should not need to change these settings unless instructed to do so by your network administrator.

- If necessary, use a network cable to connect the network card to your network. Refer to the documentation shipped with your network card for details.
- To activate the connection, launch the desired program (e.g., Internet Explorer). The EP10 will connect automatically.

Preliminary Draft

5.42.4 Changing Network Card Settings

- If you use your network card in two locations such as work and home, you'll need to change the network to which the network card connects.
- Tap on **Start>Settings>Connections tab>Network Cards icon**.
- In the *Configure Network Adapters* dialog box, tap on the drop-down menu under *My network card connects to,* choose either **The Internet** or **Work**.

5.42.5 VPN Connection Setup

A VPN connection provides a secure connection to servers through the Internet.

Before you begin, you need the following information from your network administrator: password, domain name, TCP/IP settings and a host name or IP address of the VPN server.

- Tap on **Start>Settings**. Tap on the **Connections tab** followed by the **Connections** icon.
- Under *My Work Network*, tap on **Add a new VPN server connection**.
- In the *Name* field, type a name for this connection.
- In *Host name/IP*, type the **VPN server name** or **IP address**.
- Tap on the **VPN type** radio button next to the type of authentication for your EP10: *IPSec/L2TP* or *PPTP*. Your network administrator will let you know which option applies to your hand-held.
- Tap on **Next**.
- Choose the **type of authentication** in this screen. If you choose *A pre-shared key*, type the key provided by your network administrator.
- Tap on **Next**.
- Type your **user name, password** and **domain name**. If a domain name was not provided to you, try the connection without entering a domain name.

Note: Normally, you will not need to change any advanced settings. You will need to make changes only under only the following circumstances:

The server to which you are connecting does not dynamically assign addresses, and TCP/IP settings need to be entered.

Server DNS or WINS settings need to be changed.

If you need to edit the *Advanced* settings, refer to "Advanced Modem Settings" on page 188 for details about this tab.

- Tap on **Finish**.

Preliminary Draft

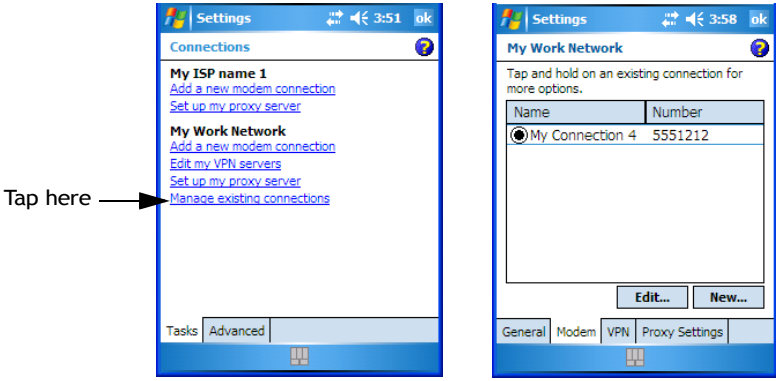
- Launch a program like *Internet Explorer* to activate the connection. The VPN connection will start automatically.

5.42.6 Managing an Existing Connection

Once you've defined a connection, a new option appears in the first Connections screen– *Manage existing connections*.

5.42.6.1 Editing a Connection

- Tap on **Settings>Connections tab**. Tap on the **Connections icon**.
- Tap on **Manage existing connections**.



- To launch a connection from this screen, press and hold the stylus on the connection you want to activate. Choose **Connect** from the pop-up menu.
- To delete a connection, press and hold the stylus on the connection you want to delete. Choose **Delete** from the pop-up menu.

*Note: You can also create a new connection by tapping on the **New** button. To make changes to the settings for this connection, tap on **Edit**.*

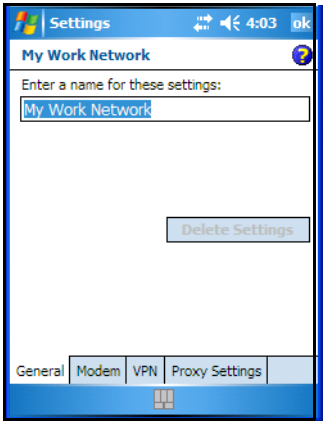
5.42.6.2 Changing a Connection Setting Name

Your EP10 has two sets of connection settings: *My ISP* and *My Work Network*. If you want to change one or both of these options to something more familiar to you, follow these steps.

- Tap on **Start>Settings**. Tap on the **Connections** tab followed by the **Connections** icon.
- Under *My Work Network* or *My ISP*, tap on **Manage existing connections**.

Preliminary Draft

- Tap on the **General** tab.



- Type the name you prefer in the field labelled *Enter a name for these settings*.
- Tap on **OK**.

5.42.7 Selecting a Network

Important: Normally, you will not need to change these settings. Contact your ISP or network administrator before making any changes.

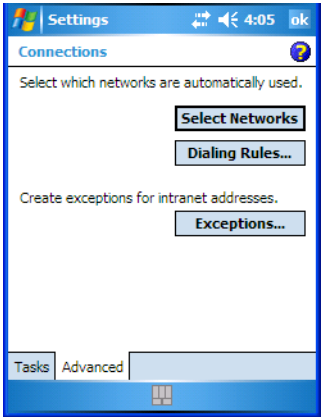
Private networks are used for work-related activities. Internet networks are used for home connection to your ISP. The *My Work Network* settings are used for private network connections (corporate networks), while *My ISP* settings are used for Internet network connections.

When you use programs such as *Internet Explorer*, your EP10 automatically connects using private network settings under *My Work Network* or Internet settings under *My ISP*, depending on specifications. You can determine how your EP10 connects.

- Tap **Start>Settings**. Tap on the **Connections tab** followed by the **Connections icon**.

Preliminary Draft

- Tap on the **Advanced** tab.



- Tap on **Select Networks**.
- In the appropriate lists, choose **My ISP** or **My Work Network**.

5.42.8 Proxy Server Setup

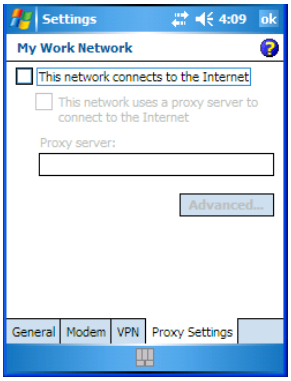
Note: If you are connected to your ISP or private network during synchronization, the EP10 will download the appropriate settings during synchronization from your PC. If these settings are not on your PC, or if they need to be changed, you'll need to set up the proxy server connection manually.

To set up the proxy server connection manually, you'll need the following information: proxy server name, server type, port, type of Socks protocol used, and the user name and password.

- Tap **Start>Settings**. Tap on the **Connections tab** followed by the **Connections icon**.

Preliminary Draft

- Under *My Work Network*, tap on **Set up my proxy server**.

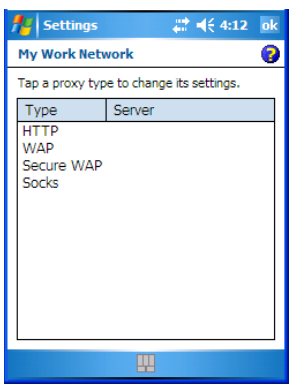


- Add a checkmark next to **This network connects to the Internet** and **This network uses a proxy server to connect to the Internet**.
- In the *Proxy server* field, type the proxy server name.
- Tap on **OK** to save your changes.

*Note: If you need to change advanced settings such as a port number or proxy server type, you'll need to tap on the **Advanced** button rather than tapping on **OK**. Advanced settings are described in "Changing Advanced Proxy Server Settings" on page 196.*

5.42.8.1 Changing Advanced Proxy Server Settings

- To change advanced settings such as the port number or proxy server type, tap on the **Advanced** button.



Preliminary Draft

- Tap on the *proxy type* you want to change. For the appropriate server type, type the proxy server name and port.
- Tap on **OK**.

5.43 Wireless Statistics

- Tap on **Start>Settings>Connections tab>Wireless Statistics icon** to display the communication statistics of your wireless connection along with the radio card name, MAC address, driver version and NDIS Compliance information.
- Tap on the **Zero** button to reset the statistics.

5.44 Wireless WAN

An EP10 equipped with a UMTS radio has wide area networking *data* transfer capabilities.

5.44.1 Softkey Bar Icons

Wireless WAN icons in the softkey bar indicate the status of your wide area network connection. Note that these icons are only visible when a GSM/GPRS, CDMA/1xRTT or UMTS radio is installed in the unit, and the interface is enabled.

The letter in the signal strength icon (G for GSM/GPRS, U for UMTS and X for CDMA/1xRTT) indicates that a packet data service is available and initialized. Keep in mind that the signal strength icon is displayed without a letter if packet data service is not available or if it is available but not yet initialized.

User interaction is required (e.g. the user is required to enter a PIN).

A non-recoverable (fatal) error has occurred.

GSM/GPRS Status Indicators

Signal strength is between 1% and 20%.

Signal strength is between 21% and 40%.

Signal strength is between 41% and 60%.

Signal strength is between 61% and 80%.

Signal strength is between 81% and 100%.

Preliminary Draft

A GPRS packet data connection is active.

CDMA/1xRTT

Signal strength is between 1% and 20%.

Signal strength is between 21% and 40%.

Signal strength is between 41% and 60%.

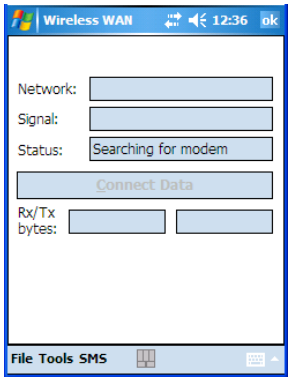
Signal strength is between 61% and 80%.

Signal strength is between 81% and 100%.

A CDMA/1xRTT packet data connection is active.

5.44.2 Establishing a Connection

- Tap on **Start>Settings**. Tap on the **System tab** followed by the **Wireless WAN icon**.



Note: If you are prompted to enter a PIN, refer to "Entering a PIN" on page 199 for details.

The *Status* field indicates when the unit is ready to connect–the *Connect Data* button is enabled.

- Tap on the **Connect Data** button.

The progress of the connection is tracked in the *Status* field.

- PPP link to modem active

Preliminary Draft

- Authenticating user
- User authenticated
- Connected

Note: Keep in mind that these states may be displayed fairly quickly if the progress of the connection is rapid.

When the connection state reaches *PPP link to modem active*, the softkey bar icon changes to indicate an active connection. The *Connect Data* button changes, displaying *Disconnect.*

5.44.3 Disconnecting from a Network

To disconnect from the network:

- Tap on the **Disconnect** button, and then on **OK**.

When the EP10 network connection is severed, the *Status* field displays *Ready to Connect*.

A unit equipped with a GSM/GPRS expansion board displays the signal strength in the main Wireless WAN screen, even while a connection is active. Units equipped with certain other modems (e.g. Sierra Wireless UMTS and CDMA modems, Novatel UMTS modems) do not display the signal strength while a connection is active.The *Rx bytes* and *Tx bytes* fields estimate the amount of data transmitted and received, respectively.

5.44.3.1 Shutting Down the Wireless WAN User Interface

While it is not usual to shut down the GSM/GPRS user interface, you can accomplish this by tapping on the *File* menu and choosing the *Exit* command in the *Wireless WAN* screen.

Note: Once you've shut down the user interface, you can only enable the radio by tapping on the Wireless WAN icon to display the dialog box.

5.44.4 Advanced Information

In most cases, when a GSM/GPRS radio and SIM are installed in your EP10, setup is automatic. Follow the steps outlined under the heading "Establishing a Connection" on page 198 to make a connection. The information in this section is for advanced setup purposes.

5.44.4.1 Entering a PIN

If a PIN is required, a PIN entry dialog box is displayed.

- Type your **PIN**, and press [ENTER/Power].

Preliminary Draft

Note: If you exceed the number of allowable attempts, a PUK entry window is brought to the foreground. You'll need to enter a new PIN number.

Once the correct PIN or PUK is entered or if none was required, the modem is instructed to perform a GSM network registration followed by a GPRS attach. The main *Wireless WAN* dialog box reflects the progress of the initialization.

- Searching for modem
- Initializing modem
- SIM is ready
- Searching for network
- Registered on network
- Searching for packet data
- Ready to connect

If the modem loses the connection to the GSM network, the following states are repeated: *Searching for network*, *Registered on network*, *Searching for packet data* and *Ready to connect*.

5.44.4.2 Error States

The following temporary error states–states that may disappear without interaction– may be displayed:

- Emergency calls only

The modem has found a network but is not allowed to register (e.g. no roaming agreement between networks). The modem keeps searching for another network.

- No network found

A network is not currently available. The modem continues searching for a network.

- Packet data not available

The current network does not support packet data.

- Packet data not allowed

The modem is not allowed to use packet data on the current network (e.g. no packet data roaming agreement between network; a roaming agreement for voice may still be in place). It is also possible that you do not have a subscription for packet data at all.

The remaining error states are permanent:

- SIM is missing

Preliminary Draft

The SIM card is missing. After the SIM has been inserted a reset may be required.

- SIM failure

The SIM card is permanently disabled (e.g. because the wrong PUK has been entered too many times). A new SIM is needed.

- Modem failure

The modem did not respond to commands as expected. If a reset does not clear this condition, the modem may need to be replaced.

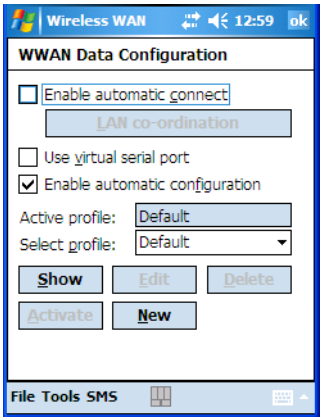
- NDIS error

An internal software error has occurred. If a reset does not clear this condition, Psion Teklogix technical support may need to investigate further.

5.44.5 Tools Menu

The *Tools* menu in the main *Wireless WAN* dialog box offers some additional, advanced setup features.

5.44.5.1 Data Connection Configuration



Enable Automatic Connect

If the *Enable automatic connect* checkbox is checked (unchecked by default), the Wireless WAN user interface will attempt to establish a packet data connection whenever packet data is available (e.g. after resume from suspend without further user interaction).

To activate the automatic connection mode:

- Tap on the **OK** button.

Preliminary Draft

While automatic connection mode is enabled, the *Connect Data* button in the main Wireless LAN dialog box changes to *Disable Auto*.

To close the currently active connection (if any) and disable the automatic connection mode:

- Tap on **Disable Auto**.

Important: Automatic connection mode should not be used if applications other than the Wireless WAN user interface (e.g. Connection Manager) are expected to open and close connections.

If the automatic connection mode is enabled and another application closes the packet data connection, the WWAN user interface will immediately try to re-establish the connection.

Use Virtual Serial Port

If *Use virtual serial port* is enabled, packet data connections are established through the virtual serial port of the WWAN driver rather than through the WWAN driver directly. This checkbox should only be checked if certain third-party VPN (Virtual Private Network) clients are used that do not work correctly otherwise. The default setting is disabled (unchecked).

Note: The connection setup takes longer through the virtual serial port.

Enable Automatic Configuration

In most cases, the data connection is configured automatically and no user interaction is required. This is true even if multiple SIM cards from different operators are used with the same device. The connection parameters are adjusted automatically when a new SIM card is detected (this may require a reset). The connection parameters are retrieved from a database.

Manual configuration should be necessary only if:

- One or more parameters in the database are incorrect or a new operator is not yet in the database. (The database should be corrected for subsequent software releases.)
- An operator has assigned individual packet data user names and passwords.
- A very large site has their own APN. Such connections always have to be configured manually.
- A customer has subscribed for a static IP address. By definition this must be configured manually.

Preliminary Draft

Important: For CDMA/1xRTT, automatic configuration is not available – connections must be configured manually. Under APN, the packet service access number must be entered (typically "#777").

In the following section, all the parameters that need to be configured for a connection (such as APN, user name, password, DNS server addresses etc.) are referred to as a profile. Every profile is identified by an arbitrary, unique name. The profile named *Default* is special in that it is always present and can neither be edited nor deleted. (A sample dialog box is presented on the page following.) The *Default* profile uses parameters from a built-in database. The home network (the network that issued the SIM) is used for the database look-up. While there can be many configured profiles, only one profile can be active at any time.

If connection profiles are configured manually then the *Enable automatic configuration:* checkbox should normally be unchecked.

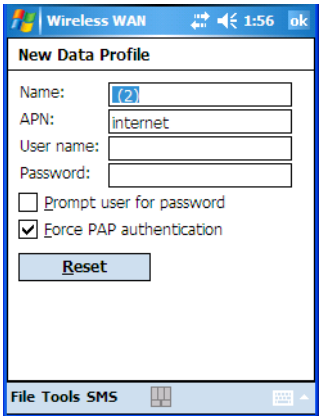
In one particular use case, manually configured profiles may be combined with automatic configuration. If multiple SIM cards are used with the same device, each SIM card being from a different operator and some or all of them requiring a manually set up profile, automatic configuration may be used to automatically pick the correct manually configured profile for each SIM card. For this to work each profile has to be configured while the corresponding SIM card is inserted in the device and initialized (i.e. the status is at least SIM is ready).

The *Select profile* drop-down list in the data configuration profile selects which profile a subsequent action applies to. A profile named *Default* is always present and contains the current parameters from the database. The following actions are available:

- **Show** – The parameters for the selected profile are displayed when you tap on this button. For the *Default* profile, the publicly known password is shown – otherwise, the password is hidden.
- **Edit** – The parameters of the selected profile can be edited when you choose the *Edit* button. Keep in mind that you cannot edit the *Default* profile.
- **Delete** – The selected profile is deleted. You cannot delete the *Default* profile.
- **Activate** – When this button is chosen, the selected profile is made the active profile. Activation is possible only if the *Enable automatic configuration:* checkbox is unchecked.

Preliminary Draft

- **New** – Tapping on the *New* button allows you to create a new profile.

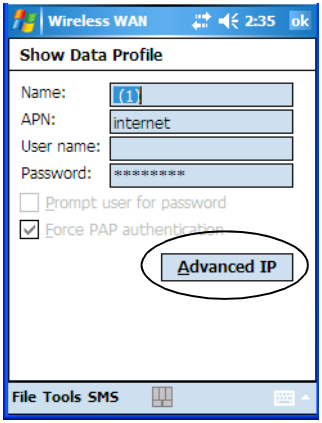


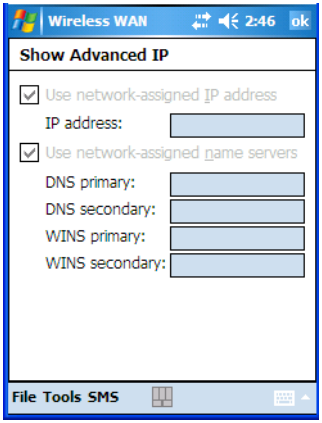
The name of the newly created profile must be different from all existing profiles. Also, the name cannot be *Default*. When the *New Data Profile* dialog box is opened, a proposal for a unique name is filled in the corresponding entry field. If a manually configured profile has a secret password and unauthorized access to the device is a concern even after the SIM PIN has been entered, the password should not be entered in the *New Data Profile* dialog box and the *Prompt user for password* checkbox should be checked instead. In this case, you will be prompted for the password each time a connection is initiated (the *Connect Data* button in the main *Wireless WAN* dialog box is selected).

- **Reset** – The *Reset* button in the *New Profile* and *Edit Profile* dialog boxes resets all entry fields to the values they had when the dialog box was opened.

Preliminary Draft

- **Advanced IP** – The *Advanced IP* button in the *Show Profile* and *Edit Profile* dialog boxes opens another dialog box that allows you to configure a static IP address as well as the IP addresses for the primary and secondary DNS and WINS resolvers.





5.44.5.2 Security Configuration

The *Security Configuration* dialog box is called up through the *Tools* menu.

Note: Security configuration is not available with CDMA modems.

The *Security Configuration* dialog box allows you to enable, disable and change the PIN. You will need the current PIN to make any of these changes. The PIN must be enabled in order to be changed. (If the PIN is disabled, the *New PIN* entry field is greyed out.)

Note: Keep in mind that some network operators do not allow the SIM PIN to be disabled. A new PIN must consist of 4 to 8 numeric digits.

The *Require PIN on resume* checkbox is independent of the aforementioned settings. By default, this checkbox is unchecked. While the checkbox remains unchecked, any PIN entered on startup or through the *Security Configuration* dialog box and submitted successfully to the modem is stored in memory for as long as the device is not rebooted. This stored PIN is then used without further user interaction whenever the modem requires a PIN (such as resume after suspend or modem removal). The stored PIN is also automatically entered in the *Current PIN* text box whenever the *Security Configuration* dialog box is called up.

Preliminary Draft

If unauthorized access to the device is a concern, the *Require PIN on resume* checkbox should be checked. In this case, you will be prompted whenever a PIN is required and the PIN is not stored.

5.44.5.3 Network Configuration

Note: Network configuration is not available with CDMA modems.

In the main *Wireless WAN* screen:

- Tap on the **Tools** menu, and choose **Network**.

By default the GSM radio modem automatically chooses from the available and allowed networks (allowed networks are the home network and all other networks with which the home network has a roaming agreement). You may find there are some situations in which you want to override this default behaviour. For example, you may want to disable roaming if you find yourself in a border area where the home network is not available but a foreign roaming partner is available. Abroad, you may find that an available network does not have packet data roaming agreements. In this case, you'll need to manually select the network which you know to support packet data roaming.

Automatic network selection is enabled or disabled by checking or unchecking *Enable automatic network select* in the *Network* dialog box. When automatic network selection is disabled, you must select a network manually.

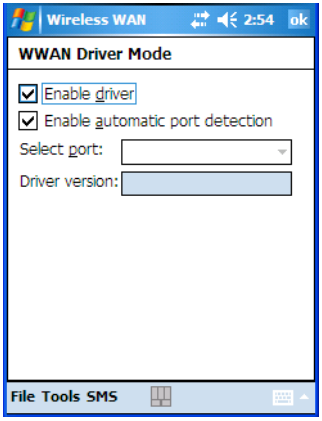
Available networks can also be viewed without changing any settings. Scanning for available networks is a lengthy operation – a progress bar is shown while the scan is active. For every network that is found, the network name, country, status and numeric network identifier (MCC/MNC, Mobile Country Code followed by the Mobile Network Code) is displayed.

Note: Your home network operator will need to let you know which other networks have roaming agreements. Even when a network is listed with an 'Available' status, it does not necessarily follow that it can be used or that the roaming agreement covers packet data.

A status of 'Forbidden' indicates that the network cannot be used. If you choose a network that is not covered by a roaming agreement, the status in the main WWAN dialog box changes to 'Emergency calls only', 'No network found', 'GPRS not available' or 'GPRS not allowed'.

Preliminary Draft

5.44.5.4 Driver Mode Configuration



By default, the Wireless WAN driver is enabled (the *Enable driver* checkbox is checked). The driver must be disabled in order to access the modem directly (e.g. dial-up data, fax, or in order to manually submit AT commands to the modem for development, testing, approvals, etc.). In most cases, the Virtual WWAN serial port can be used and it is not necessary to disable the WWAN driver. If the *Enable driver* checkbox is ***not*** checked, the driver is shut down as soon as the *OK* button in the *Driver Mode* dialog box tapped.

If, on the other hand, the Wireless WAN driver is not running and the *Enable driver* checkbox is checked, the Wireless WAN driver is started as soon the *Driver Mode* dialog box is closed using the *OK* button.

Note: When the driver is not running, no network status or signal strength can be displayed.

Since all currently supported modems are automatically detected, the *Enable automatic port detection* checkbox should always be checked. If this checkbox is not checked, a serial port can be selected manually. This experimental feature allows the driver to be used with an internal GSM modem that was not recognized by the automatic detection or an external GSM modem connected to a serial port of the computer through USB or through *Bluetooth*. An external modem connected to a serial port must support 115.2kbit/s, 8bit, no parity and hardware flow control.

5.44.5.5 Modem Information

The fields in this dialog box cannot be edited – they only display information about the EP10 modem. If the network operator has not programmed a user's phone number into the

Preliminary Draft

SIM, the *Phone* field remains empty. The modem serial number is called IMEI for GSM modems and ESN for CDMA modems.

The SIM ID is sometimes referred to as the ICC ID (International Charge Card Identifier). Not all modems support the retrieval of the SIM ID. In particular, the Novatel Merlin UMTS modems and the Option Globetrotter modems do not support SIM ID retrieval.

If the main menu shows an error status, at least partial modem information may be available.

Modem Power Modes

The power mode of the modem is controlled through the Power icon rather than through the *Wireless WAN* user interface.

To adjust PC Card and CF card modems settings:

- Tap on **Start>Settings**, and then tap on the **System tab** followed by the **Power icon**.
- Tap on the **Built-in Devices tab**.

If the checkbox for a modem is unchecked, power is not applied to the modem and a driver is not loaded (neither the serial port driver nor the Wireless WAN driver). If the checkbox is checked, power is applied to the modem and the drivers are loaded when the EP10 is turned on. Power is removed from the modem when the EP10 enters suspend mode.

To enable a modem module that is built into the unit:

- Tap on **Start>Settings**, and then tap on the **System** tab followed by the **Power** icon.

For a modem module that is built into the EP10, the settings can be found under the *Built-in Devices* tab. In this case, one of the following power modes can be selected:

- Disabled – No power is applied to the modem and no driver is loaded.
- Enabled – Off in Suspend

Power is applied to the modem and the drivers are loaded when the EP10 is turned on. Power is removed from the modem when the terminal enters suspend mode.

- Enabled – Always On

When the EP10 enters suspend mode, the modem remains powered indefinitely.

- Enabled – Keep on for 5 min
- Enabled – Keep on for 15 min
- Enabled – Keep on for 30 min
- Enabled – Keep on for 1 hour
- Enabled – Keep on for 2 hours

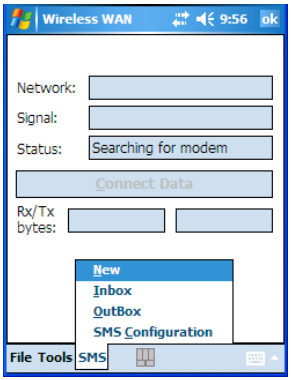
Preliminary Draft

When the EP10 enters suspend mode, the modem remains powered. If the EP10 is not turned on again during the configured time, the unit briefly wakes up from suspend mode, shuts down the modem, and enters suspend mode again. The default mode is Enabled - Keep on for 1 hour.

At the cost of a slightly increased power consumption in suspend mode, the modes where the modem remains powered during suspend mode have several advantages. When the EP10 wakes from suspend mode, the modem is ready immediately; modem or network initialization is not required. A packet data session can thus remain active during suspend mode. In these modes, the modem is also able to wake up the EP10 if the network status changes, or there is a new incoming SMS.

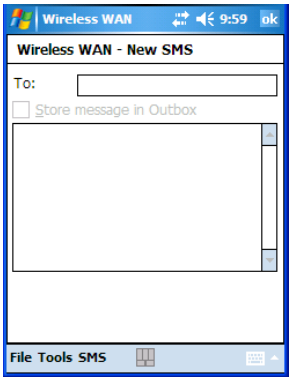
5.44.6 SMS Menu

SMS functions are accessed through the SMS menu. For modems that support a SIM card, the SIM initialization typically takes longer than the network initialization, resulting in a noticeable delay before the SMS functions become available.



Preliminary Draft

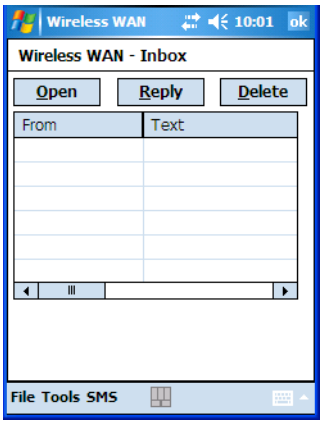
5.44.6.1 New SMS



Tapping on *New* opens a dialog box for sending a new SMS message. The recipient's phone number (to be entered in the To field) can consist of the digits 0 through 9, as well as the * and # characters, optionally preceded by one + character, indicating an international number (i.e. the country code follows immediately after the + character).

By checking the *Store message in Outbox* field, a new message can be stored in the *Outbox* before being sent. If no storage space is available or the modem does not support the storage of outgoing messages, this checkbox is disabled.

5.44.6.2 Inbox



Tapping on *Inbox* opens the list of received messages. Reading 50 messages, for example, from the SIM can take about 30 seconds. By default the list of messages is sorted with the

Preliminary Draft

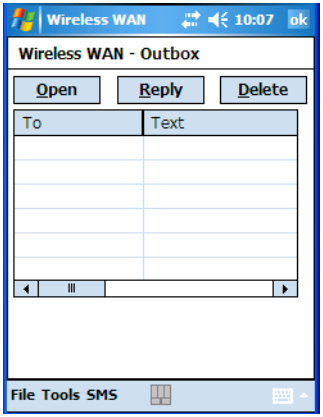
most recently received message first. The list can be sorted by any other column by clicking on the corresponding column heading.

Clicking the same column heading twice reverses the sort order. Pressing any letter or digit moves the highlight to the next message whose address begins with that letter or number.

Note: The date and time formats can be changed through the Regional Settings in the Control Panel. For a new date or time format to take effect, the Inbox has to be closed and re-opened.

The *Open* button opens the selected message in a new window such that the entire message can be read including the original formatting (line breaks are replaced by spaces in the Inbox message list). Pressing the *Reply* button opens the new message dialog as described above, except the destination phone number is already filled in. Pressing the *Delete* button erases the message.

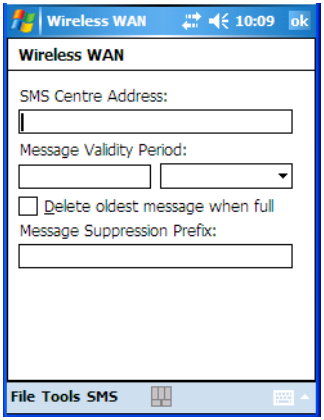
5.44.6.3 Outbox



Tapping on *Outbox* opens a list of sent messages. Otherwise the *Outbox* behaves exactly as the *Inbox* described above. The date and time when a message was sent is not available for GSM modems.

Preliminary Draft

5.44.6.4 SMS Configuration



Tapping on *SMS Configuration* opens the SMS configuration dialog. The *SMS Centre Address* follows the same rules as the recipient's phone number in the *New* message dialog. The *Message Validity Period* parameter is sent to the SMS Centre with each message sent subsequently and instructs the SMS Centre on how long it should attempt to deliver the message to the recipient (the SMS Centre may impose an upper limit on the validity period regardless of the setting).

Note: Only certain discrete validity period values can be sent and thus, the validity period is rounded to the nearest allowed value. The next time the SMS configuration dialog is opened, the rounded value is shown.

The user interface tries to keep the SMS storage location available for a new incoming message if the *Delete oldest message when full* checkbox is checked. In this case, when a new message arrives and the SMS storage becomes full, the oldest received message is deleted. If any string is entered as the *Message Suppression Prefix*, messages beginning with that string will not be shown in either the *Inbox* or *Outbox*. In this way, messages intended for another application running on the same device can be hidden.

Preliminary Draft

5.45 Windows Update

This program checks for software updates, and if found, downloads updates to your EP10. You can choose to have updates checked automatically, or if you prefer, you can determine when your unit will check for updates.

Preliminary Draft

Preliminary Draft

PERIPHERAL DEVICES & ACCESSORIES 6

6.1 Carrying Accessories 219
6.1.1 The Hand Strap with Tether – Model No. RV6021 219
6.1.2 Attaching the Tether – Model No. RV6020 221
6.1.3 Carrying Pouch 222
6.2 The Battery 222
6.3 Adaptor Cable Options 223
6.4 Chargers and Docking Stations 223
6.4.1 Important Safety Instructions. 223
6.4.2 Installation: Chargers and Docking Stations 224
6.4.3 Power Consumption Considerations 225
6.5 Desktop Docking Station – Model No. RV4000 225
6.5.1 Operator Controls 226
6.5.2 Indicators 226
6.5.3 Operation 226
6.5.3.1 Charging the EP10 Battery 226
6.5.3.2 Charging a Spare Battery 227
6.5.3.3 Operating the USB Dock 227
6.5.4 Cleaning the RV4000. 228
6.5.5 Troubleshooting 229
6.5.5.1 Docking Station does not Power On 229
6.5.5.2 EP10 Charge Indicator LED Stays Off 229
6.5.5.3 EP10 Charge LED Fast Flashes Green 229
6.5.5.4 Dock Battery LED Fast Flashes Green with Battery Inserted . . . 229
6.5.5.5 Dock Battery LED does not Turn On when Battery is Inserted . . 229
6.6 Quad Docking Station – Model No. RV4004 230
6.6.1 Operator Controls 230
6.6.2 Indicators 230
6.6.3 Quad Dock Operation 231
6.6.3.1 Charging the EP10 Battery 231
6.6.3.2 Connecting to the Ethernet Network 231
6.6.4 Cleaning the RV4004. 232

Preliminary Draft

6.6.5 Troubleshooting . . . 233
6.6.5.1 EP10 Charge Indicator LED Stays Off . . . 233
6.6.5.2 EP10 Charge Indicator LED Fast Flashes Green . . . 233
6.6.5.3 Green LED OFF When Connected to a Network . . . 233
6.6.5.4 Yellow LED OFF When Connected to a 100Base-T Network . . . 233
6.6.5.5 Powered Adaptor LED Stays Off . . . 233
6.7 Quad Charger – Model No. RV3004 . . . 233
6.7.1 Charging the EP10 Battery . . . 233
6.7.2 Installation . . . 233
6.7.3 Operator Controls . . . 234
6.7.4 Charge Indicators . . . 234
6.7.5 Charging Batteries . . . 235
6.7.6 Troubleshooting . . . 235
6.7.6.1 Improper Battery Storage . . . 235
6.7.6.2 Power LED Does Not Light Up . . . 235
6.7.6.3 Indicator Does Not Light When Battery Installed . . . 235
6.8 Snap Modules . . . 236
6.9 AC Wall Adaptor – Model No. PS1050-G1 . . . 237
6.10 Vehicle Power Outlet Adaptor – Model No. RV3050 . . . 237
6.11 The Non-Powered Vehicle Cradle – Model No. RV1000 . . . 238
6.11.1 Important Instructions . . . 239
6.11.2 Vehicle Cradle Operation . . . 239
6.11.2.1 Operator Controls . . . 239
6.11.2.2 Indicators . . . 239
6.11.2.3 Placing the EP10 in the Vehicle Cradle . . . 239
6.11.2.4 Removing the EP10 from the Vehicle Cradle . . . 240
6.11.3 Vehicle Cradle Mounting Recommendations . . . 240
6.11.3.1 Mounting Template . . . 240
6.11.4 Cleaning the RV1000 Vehicle Cradle . . . 242
6.12 The Powered Vehicle Cradle – Model No. RV1005 . . . 242
6.12.1 RV1005 Vehicle Cradle Mounting Recommendations . . . 244
6.12.1.1 Mounting Template . . . 245
6.12.2 Cable Arrangement . . . 245
6.12.3 Electrical Requirements . . . 245
6.12.3.1 Wiring Vehicle Power to the Cradle . . . 246
6.12.4 USB and Serial Connections . . . 247
6.12.5 Using the Vehicle Cradle . . . 248

Preliminary Draft

6.12.6 Maintaining the Vehicle Cradle 248
6.13 EA11 Imager 249
6.13.1 Operating Two Dimensional (2D) Imagers 249
6.14 Bluetooth Peripherals 250
6.15 Digital Camera 251

Preliminary Draft

Preliminary Draft

6.1 Carrying Accessories

There are a variety of carrying accessories to help the operator work safely and comfortably with the EP10.

Carrying Accessory	Model Number
Hand Straps	RV6021 (with stylus and tether) - PN TBD
Carrying Pouch	RV6090 leather pouch (non-functional access to DC port, includes belt clip TBD model no. & functional or non-functional)
Stylus Tether Kit	RV6020 (model no. TBD) stylus and tether)

Important: Do not use adhesives such as Loctite to secure screws on carrying accessories. These chemicals may damage the plastic casing.

6.1.1 The Hand Strap with Tether – Model No. RV6021

The hand strap with tether can be attached to the back of the EP10 to provide a secure means for operators to carry the hand-held.

Attaching the Hand Strap

The hand strap is attached by fixing the ends of the strap to the anchors located on the back and bottom of the unit (see Figure 6.1 on page 220).

Preliminary Draft

Figure 6.1 Attaching The Hand Strap

1. Attach the hand strap to the EP10 by looping the Velcro tab around the pin and adhering the tab to the Velcro pad (TBD).
2. Remove the bracket and screws from the EP10.
3. Slide the bracket through the plastic loop on the hand strap and install the screws.
4. Adjust the hand strap by pulling up the Velcro tab and readjusting to your hand as needed.

Attaching the Stylus and Tether

The stylus tether can be attached to the hand strap at the back of the EP10.(TBD)

1. If not assembled, thread the tether cord through the stylus as shown, pulling the cord tight.
2. Thread the tether through the eyelet on the strap.
3. Pass the stylus through the tether loop and pull the tether snug.
4. Slip the stylus into the elastic holder, and you're finished.

Preliminary Draft

6.1.2 Attaching the Tether – Model No. RV6020

The tether can be installed to the back of the EP10 to provide a secure means for attaching the stylus to the hand-held. (TBD)

Figure 6.2 Attaching the Tether

PLACE HOLDER

Attaching the Velcro Retainer

Attach the retainer to the EP10 by looping the Velcro tab around the pin and adhering the tab to the Velcro pad (TBD).

Preliminary Draft

Attaching the Stylus Tether to the Retainer

1. If not assembled, thread the tether cord through the stylus as shown, pulling the cord tight.
2. Thread the tether through the eyelet on the strap.
3. Pass the stylus through the tether loop and pull the tether snug.
4. Slip the stylus into the elastic holder, and you're finished.

6.1.3 Carrying Pouch

A protective carrying pouch (Model No. TBD) is available for EP10. The pouch is equipped with a belt clip to allow the operator to safely carry the EP10 when it is not in use.

Figure 6.3 EP10 Carrying Pouch

6.2 The Battery

The EP10 operates with a 3600 mAh, Lithium-Ion battery pack.

Note: For information about inserting, removing and charging the battery, refer to "The Battery" on page 12. For battery specifications, refer to "Lithium-Ion 3600 mAh Battery Specifications" on page 265.

Preliminary Draft

6.3 Adaptor Cable Options

The following are adaptors can be ordered for your EP10 (PN TBD):

Model Number	Adaptor Cable Description
CA1033	Tether to USB Host.
CA1032	Tether to USB Device. (For ActiveSync)
WA4010 - G1	USB to Ethernet adaptor.
CH1050	Power cable used with quad docking station RV4004.

6.4 Chargers and Docking Stations

Important: Keep in mind when ordering a charger or docking station, you must also order the appropriate power cord separately.

Psion Teklogix offers a variety of chargers and docking stations for the EP10. These include:

- Snap Modules are mobile adaptor designed for the EP10. Two models are available – USB and Charge Snap Module, Model RV4001 and DE9 RS232 and Charge Snap Module, Model RV4002.
- AC Adaptor – Model PS1050 - G1 (AC Wall Adaptor Brick RV3055)
- Vehicle Power Outlet Adaptor – Model RV3050
- Desktop Docking Station – Model RV4000
- Quad Docking Station – Model RV4004
- Quad Charger – Model 3004

6.4.1 Important Safety Instructions

- Before using the AC adaptor, Desktop Docking Station, Quad Charger, or Quad Docking Station, read all instructions and markings on the housing.
- Use the AC adaptor, batteries, and other attachments recommended or sold by Psion Teklogix.
- The mains power cord (sold separately) shall comply with the national safety regulations of the country where the equipment is to be used.
- These docking stations cannot be used with non-EP10 PDAs. Although they may share the same battery terminating connector, they are designed with different applications in mind.

Preliminary Draft

- Do not operate the AC adaptor with a damaged cord or plug. Replace immediately.
- Do not disassemble the AC adaptor; it should be repaired by qualified service personnel. Incorrect reassembly may result in electric shock or fire.
- To reduce the risk of damage to the electric plug and cord when unplugging a docking station, pull the plug rather than the cord.
- Make sure the cord is positioned so that it is not stepped on, tripped over, or otherwise subjected to damage or stress.
- Do not operate the AC adaptor, the RV4000, or the RV4004, if it is struck by a sharp blow, dropped, or otherwise damaged in any way; it should be inspected by qualified service personnel.
- To reduce the risk of electric shock, unplug the AC adaptor from the outlet before attempting any maintenance or cleaning.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in fire or electric shock. If an extension cord must be used, make sure:
  - The plug pins on the extension cord are the same number, size, and shape as those on the adaptor.
  - The extension cord is properly wired and in good electrical condition, and that the wire size is larger than 18 AWG.
- Do not expose the AC adaptor to rain or snow. However, both the RV4000 and RV4004 are designed to accept a wet EP10 hand-held without harmful effect.
- Do not place batteries in the docking stations if they are cold—temperatures below 0°C (32°F). Allow them to warm up to room temperature for at least 30 minutes.
- Do not use a docking station if after an overnight charge, the battery feels warmer than the charger housing. The dock should be inspected by qualified service personnel.
- Do not use a docking station if the battery, while charging, becomes more than lukewarm.

6.4.2 Installation: Chargers and Docking Stations

When installing a charger or docking station, consider the following guidelines.

- Keep chargers and docking stations away from excessive dirt, dust and contaminants.
- Chargers will not charge batteries outside an ambient temperature range of 0° C to 40 °C (32° F to 104° F). It is recommended that the charger or docking station be operated at room temperature–between 18° C and 25° C (64° F to 77° F) for maximum performance.

Preliminary Draft

After unpacking your unit:

- Visually inspect the charger for possible damage.
- Install the IEC power cord and apply power.

6.4.3 Power Consumption Considerations

Check to ensure the mains circuit supplying chargers and/or docking stations is adequate for the load, especially if several chargers and docking stations are being powered from the same circuit.

- Quad docking station can consume up to 1.9A @ 120 VAC or 1.5 A @ 240 VAC.

6.5 Desktop Docking Station – Model No. RV4000

Important: The RV4000 desktop docking station is shipped with its own user manual. It is critical that it be reviewed for additional information and updates.

Note: To preserve battery integrity, the desktop docking station will proceed with a charge only when the battery temperature falls between 0° C and 40° C (32° F to 104° F).

The RV4000 desktop docking station is a desktop model designed to:

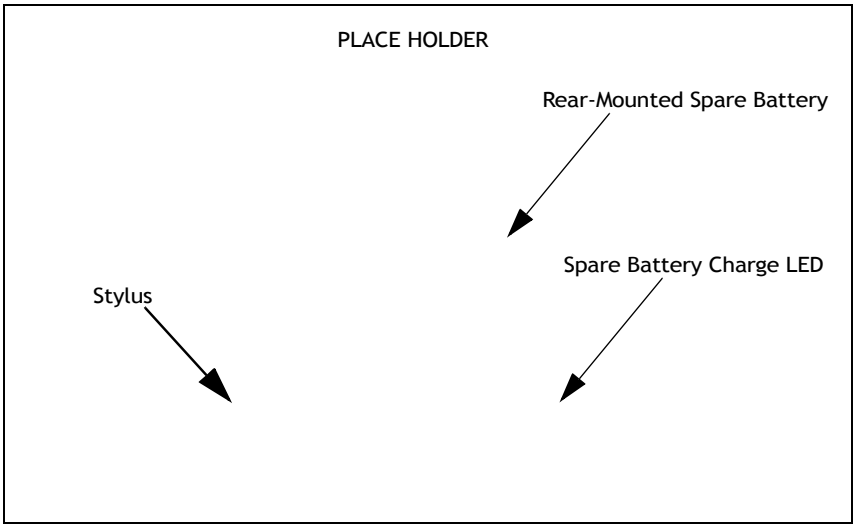
- Fast charge the internal battery.
- Fast charge the spare battery pack (see Figure 6.4 on page 226)
- Supply Type A and Type B USB connectivity to the EP10 (see Figure 6.5 on page 228).

The RV4000 storage temperature is -30° C to +60° C (-22° F to 140° F). Operating temperature and humidity are: 5 - 95% non-condensing and 0° C to 40°C (32° F to 104° F).

The desktop docking station provides sufficient power to concurrently support all the above functions. The RV4000 uses careful charge algorithms designed to maximize battery life while ensuring the shortest possible charge time. The charger supports proprietary Psion Teklogix Smart Batteries and handles a range of voltages and charge algorithms. See “The Battery” on page 12 for battery capacity, charge times and battery life for the EP10 battery. See “Charging a Spare Battery” on page 227 for spare battery charge information.

Preliminary Draft

Figure 6.4 RV4000 Desktop Docking Station – Front View



Important: This docking station can only be used to charge Psion Teklogix approved Lithium-Ion batteries.

6.5.1 Operator Controls

The RV4000 has one operator control – the USB door on the rear that switches from Type A to Type B (see “Operating the USB Dock” on page 227).

6.5.2 Indicators

The RV4000 desktop docking station is equipped with a single LED on the front panel that indicates the charge status of the spare battery.

6.5.3 Operation

6.5.3.1 Charging the EP10 Battery

The RV4000 supplies DC power to enable the EP10 internal fast charger. Normally, it takes 2.5 to 3.0 hours to charge the 3600 mAh battery installed in the EP10.

When the EP10 hand-held is installed in the dock, the battery charge LED on the EP10 (the left-most LED) lights up to indicate the unit has external power and may charge the internal battery. The EP10 charge LED follows the same convention as the RV4000 docking station

Preliminary Draft

LED. Refer to “Charging a Spare Battery” in the next section for details about LED behaviour.

Note: Battery charging continues whether the EP10 is switched on or off.

6.5.3.2 Charging a Spare Battery

Note: Do not store a spare battery in a charger for more than 72 hours. Doing so may damage the battery or reduce its charge capacity.

- Insert the spare battery in the charge well at the back of the RV4000, aligning the contacts on the battery with the contacts in the spare battery charge well.

A full charge takes 2.5 to 3.0 hours for the 3600 mAh battery.

When the battery capacity reaches 95%, the LED turns solid green and remains in this state once the battery is completely charged.

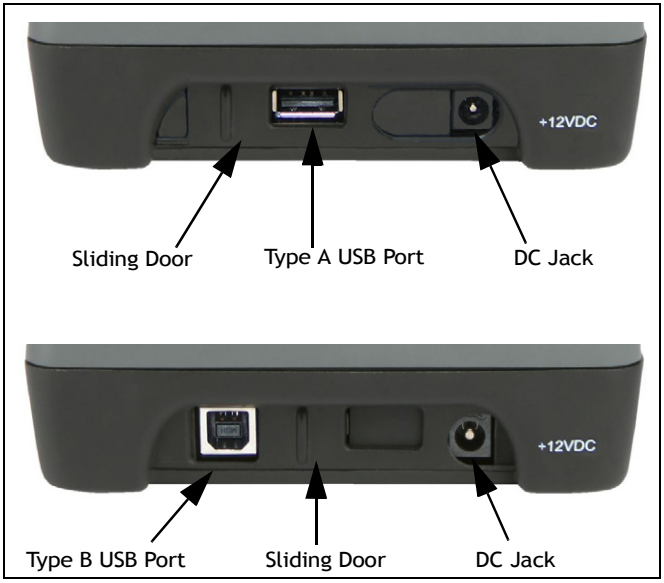
6.5.3.3 Operating the USB Dock

The RV4000 Desktop Docking Station offers a rear-mounted host or device USB connection to the EP10. The EP10 supports communication with low- and full-speed USB 1.1 compliant devices and hosts through the docking station. The Type B receptacle may be used for ActiveSync® among other applications typical for a Type B device (Figure 6.5 on page 228).

- Move the sliding door to the left or right to alternate between the Type A and Type B USB ports.

Preliminary Draft

Figure 6.5 RV4000 Desktop Docking Station Rear View



Linking an EP10 to a PC

The desktop docking station can be connected to a PC so that you can exchange files in the same way that you would between PC drives. A USB cable is included with your docking station.

Note: For details about data transfer through Windows XP and ActiveSync and through Vista, refer to "Data Transfer Between the PC & the EP10" on page 17.

To link the EP10 to a PC:

- Insert the EP10 in the desktop docking station.
- Insert the USB cable into the docking station Type B USB connector. Attach the other end of the cable to a USB port on the PC.

6.5.4 Cleaning the RV4000

Important: Do not immerse the unit in water. Dampen a soft cloth with mild detergent to wipe the unit clean.

Preliminary Draft

- Use only mild detergent or soapy water on a slightly damp cloth to clean the RV4000. Avoid abrasive cleaners, solvents or strong chemicals for cleaning. The plastic case is susceptible to harsh chemicals. It is partially soluble in oils, mineral spirits and gasoline and slowly decomposes in strong alkaline solutions.
- To clean ink marks from the label, use isopropyl alcohol.

6.5.5 Troubleshooting

6.5.5.1 Docking Station does not Power On

- When first connected to the DC power supply, the spare charger LED should turn ON and remain on for 3 seconds. If this does not occur, the charger is defective and requires service.

6.5.5.2 EP10 Charge Indicator LED Stays Off

When an EP10 is docked into a powered RV4000 and the EP10 charge indicator LED stays off, there may be a problem with the unit or with the docking station. Use an EP10 with a properly functioning charge indicator to isolate the problem.

6.5.5.3 EP10 Charge LED Fast Flashes Green

If the EP10 charge LED (the left-most LED) fast flashes green when it is docked:

- Remove the EP10 and disconnect the adaptor DC power cable.
- Wait at least 20 seconds, and then plug the cable in again.
- If the EP10 LED still shows a fault, the EP10 requires service.

6.5.5.4 Dock Battery LED Fast Flashes Green with Battery Inserted

- Try inserting a battery that has been tested in another charger and is known to work.
- If the spare charge slot LED continues to fast flash green with the known working battery, the charger is defective and requires service.
- *Your Psion Teklogix battery and desktop docking station are carefully designed for safety and capacity performance in accordance with IEEE 1725. If the battery or charger are not Psion Teklogix approved products, or the safety mechanism is faulty, the spare charge slot LED or EP10 LED will rapidly flash green.*

6.5.5.5 Dock Battery LED does not Turn On when Battery is Inserted

- Inspect the charge slot contacts for damage. Are they bent, flattened, twisted or broken?
- Reinstall the battery and check that it is fully seated in the slot.
- Try inserting a battery that you know to be working in the charger slot.

Preliminary Draft

- Disconnect and reconnect the DC adaptor, and check that the spare battery LED indicator flashes at power-up.
- If the charge slot fails to charge the known working battery, it is defective and requires service.

6.6 Quad Docking Station – Model No. RV4004

Important: The RV4000 desktop docking station is shipped with its own user manual. It is critical that it be reviewed for additional information and updates.

The RV4004 Quad Docking Station is a desktop model designed to accept up to four EP10 PDAs. The docking station powers the EP10s and their internal battery charger. The docking station also connects from one to four EP10s to a 10/100 Base-T Ethernet network and allows for Ethernet data transfer.

Figure 6.6 RV4004 Quad Docking Station Front View

PLACE HOLDER

6.6.1 Operator Controls

The RV4004 has no operator controls or power switch.

6.6.2 Indicators

The quad docking station is equipped with two rear Ethernet LEDs and no front LEDs.

Preliminary Draft

6.6.3 Quad Dock Operation

6.6.3.1 Charging the EP10 Battery

- Insert the DC power MINI FIT JR plug into the RV4004 rear DC input receptacle. The adaptor LED should be ON when powered from the mains.

The RV4004 supplies DC power to enable the EP10 internal fast charger. Normally, a full charge of the 3600 mAh EP10 battery will take from 2.5 to 3.0 hours.

- Insert up to four EP10s into the docking station charge wells, pressing down gently but firmly to seat them securely.
- During the charge, the EP10 LED slow flashes green.
- When the battery capacity reaches 95%, the LED turns solid green.

Note: Battery charging continues whether the EP10 is switched on or off.

6.6.3.2 Connecting to the Ethernet Network

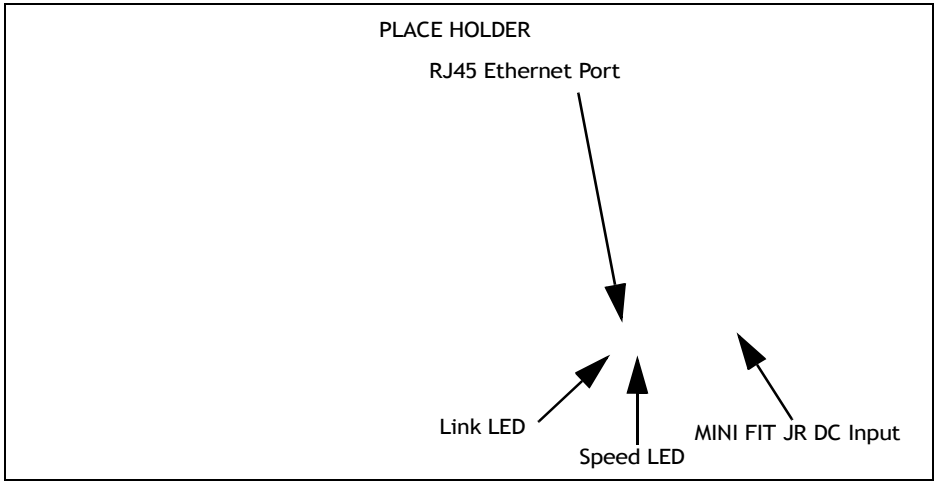
The rear-mounted RJ45 connector incorporates LEDs that indicate data traffic (see Figure 6.7) when:

- The EP10 is in the docking station and powered on;
- The docking station is powered by the AC adaptor;
- The docking station is connected to Ethernet network with a Category 5 cable plugged into the RJ45 rear socket.

The green Link LED flashes to indicate the presence of data traffic. The yellow Speed LED is steady ON when the network is 100 Mbps and OFF when the network is 10 Mbps.

Preliminary Draft

Figure 6.7 RV4004 Quad Docking Station Rear View



Network Access

The EP10 automatically detects insertion into the docking station and loads the appropriate drivers to communicate with the network.

Network Addressing

The host application uses standard TCP/IP protocol to name, locate and communicate with a specific EP10 on the network.

If a link is established between an EP10 and a host, the application on the host and on the EP10 must have a recovery mechanism in the event that the EP10 is removed from the dock, interrupting the link.

6.6.4 Cleaning the RV4004

Important: Do not immerse the unit in water. Dampen a soft cloth with mild detergent to wipe the unit clean.

- Use only mild detergent or soapy water on a slightly damp cloth to clean the RV4004. Avoid abrasive cleaners, solvents or strong chemicals for cleaning. The plastic case is susceptible to harsh chemicals. The plastic is partially soluble in oils, mineral spirits and gasoline. The plastic slowly decomposes in strong alkaline solutions.
- To clean ink marks from the label, use isopropyl alcohol.

Preliminary Draft

6.6.5 Troubleshooting

6.6.5.1 EP10 Charge Indicator LED Stays Off

When an EP10 is docked into a powered RV4004 and its charge indicator LED stays off, there could be a problem with the EP10 or with the docking station. Use an EP10 with a properly functioning charge indicator to isolate the problem.

6.6.5.2 EP10 Charge Indicator LED Fast Flashes Green

If the EP10 charge indicator fast flashes green when the EP10 is in any of the four sites:

- Remove the EP10s and disconnect the adaptor DC power cable.
- Wait at least 20 seconds, and then plug the cable in again.
- If the EP10 indicator still shows a fault, the EP10 requires service.

6.6.5.3 Green LED OFF When Connected to a Network

- Check the Category 5/5e cable. Replace if the cable is suspect.
- Contact your network administrator.

6.6.5.4 Yellow LED OFF When Connected to a 100Base-T Network

- Check the Ethernet cable. Replace if the cable is suspect.
- Contact your network administrator to ensure the network is running at 100 Mbps.

6.6.5.5 Powered Adaptor LED Stays Off

- Check the AC cable. Replace with the same type if the cable is suspect.
- If the adaptor's LED stays OFF, the adaptor is defective and requires service.

6.7 Quad Charger – Model No. RV3004

6.7.1 Charging the EP10 Battery

Quad Battery Charger (Model No. RV3004) can charge up to four batteries simultaneously.

6.7.2 Installation

The charger can be wall mounted using the wall mount kit (MT2031TBD) or it can be operated on a flat surface. Install the charger in an area that is free from excessive dirt, dust and contaminants. The ambient temperature must be in the range 5°C to 39°C (41°F to 102°F) (TBD). The charger will not charge batteries outside of this temperature range. For

Preliminary Draft

maximum performance, it is recommended that the charger be operated at room temperature – a temperature range between 18°C to 25°C (64°F to 77°F).

The charger can consume up to 6 A at 120 VAC, 3A at 240 VAC. Check to ensure the mains circuit supplying the charger is adequate for this loading (especially if several chargers are being powered from the same circuit). After unpacking the unit:

- Visually check the charger for damage.
- Install the IEC power cord and apply power.

Important: ***Use IEC-320 C13 power cords approved by Psion Teklogix, with the ground pin connected to a proper earth-grounded receptacle. Check with a qualified electrician if you are uncertain of your receptacle grounding.***

All charge indicators flash momentarily at powerup to indicate that the charger is ready for operation.

If you choose to wall mount the charger, detailed installation instructions are included in the *EP10 Quad Charger Quick Start Guide (PN TBD)* included with the charger kit. Be sure to locate the charger in an area where there is no risk of injury to persons walking in the vicinity.

6.7.3 Operator Controls

The gang charger does not have operator controls or a power switch. There is no dedicated indicator light to show that the charger is powered, but the charge slot LEDs will light.

6.7.4 Charge Indicators

Each battery charge slot is equipped with four LEDs to indicate the charge status of the battery. When the EP10 batteries are inserted in the charger, the colour and behaviour of the LEDs associated with the charge wells in use indicate the status of the charge.

Table 6.1 Charge Status Indicator LEDs

Charge LED Behaviour	Function
OFF	No battery detected.
Solid Green	Battery charging complete. Each LED represents 25% battery capacity.
Flashing Green	Charge in progress. Each LED represents 25% battery capacity.

Preliminary Draft

Charge LED Behaviour	Function
Flashing Yellow	Battery is not charging due to out-of-temperature conditions.
Solid Red	Unable to read battery or non Psion Teklogix battery.

6.7.5 Charging Batteries

- Install the battery with the battery contacts facing the charger. Slide the battery between the guide rails until it lightly latches in place.

The 4-LED bar for the battery bay shows 25% charger per LED. A flashing green LED shows charging is under way. The LED directly below the slot in which a battery is inserted lights up immediately. If the battery temperature is outside 5°C to 39°C (41°F to 102°F), the LED flashes yellow until the temperature is acceptable. A fully discharged battery will normally take from 3 to 4 hours to charge. At full capacity, it turns solid green.

When the battery is fully charged, the charger stops applying power; the battery cannot be overcharged if left in the charger slot.

6.7.6 Troubleshooting

6.7.6.1 Improper Battery Storage

Storing batteries in the gang charger for extended periods (more than a week or two) is not recommended. Lithium-ion batteries lose capacity if they are maintained at full charge for long periods of time. See the battery handling recommendations in “The Battery” on page 12.

6.7.6.2 Power LED Does Not Light Up

- Remove all batteries, and unplug the charger.
- Connect another device to the mains outlet to ensure there is power.
- Remove the IEC mains power cable from the charger, and check it for damage.
- Reconnect the mains cable in the charger and mains outlet.

6.7.6.3 Indicator Does Not Light When Battery Installed

- Remove the battery, and clean the contacts on the battery and the charge slot.
- Reinstall the battery, and check that it is fully seated in the slot.
- Inspect the charge slot contacts for damage (are they bent, flattened, twisted or broken).
- Try inserting a battery that you know to be working in the charger slot.

Preliminary Draft

- Reconnect the mains power cable, and check that the slot indicator flashes at powerup.

6.8 Snap Modules

The Snap Module is a mobile power adaptor that snaps on the base of the EP10. Two types of Snap Modules are available:

- USB and Charge Snap Module – Model No. RV4001. This accessory powers and charges the EP10, and it provides a USB connection.
- DE9 RS232 and Charge Snap Module – Model No. RV4002. This accessory powers and charges the EP10 and provides a RS232 connection.

The Snap Modules are compatible with the AC Wall Adaptor and the Vehicle Power Outlet Adaptor.

To attach an adaptor to the EP10:

- Make sure that the adaptor connector and EP10 docking connector are free of dust or any other debris before connecting them.
- A slot in the side rail on each side of the hand-held accommodates the locking clips of the adaptor. To attach the adaptor, align it with the base of the hand-held and gently slide up until the locking clips snap into place. Refer to TBD illustration.
- To remove the adaptor, press down on the base of the clip arms to release them from the EP10 side rails and slide the adaptor off.

PLACE HOLDER

Snap Module installation illustration

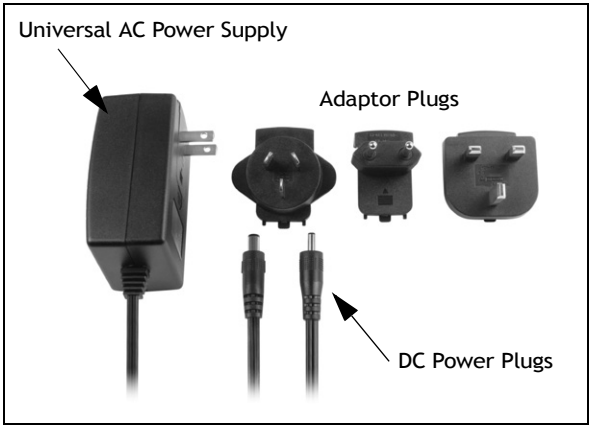
Preliminary Draft

6.9 AC Wall Adaptor - Model No. PS1050-G1

The AC wall adaptor available for your EP10 allows you to operate your EP10 using AC power while charging the battery inserted in the unit.

Adaptor plugs suitable for use in the following countries are shipped with the AC wall adaptor: United Kingdom, Switzerland, Japan, Israel, Australia, Europe, and North America (see Figure 6.8 on page 237).

Figure 6.8 AC Wall Adaptor Plugs



- Choose the adaptor plug that is suitable for use in your country. Slide the adaptor plug into the Universal AC power supply, snapping it into place. These two pieces, coupled together, are referred to as an AC wall adaptor.
- Insert the DC power plug into the DC IN port at the base of the EP10, located between the tether and LIF ports.
- Plug the pronged end into an AC outlet.

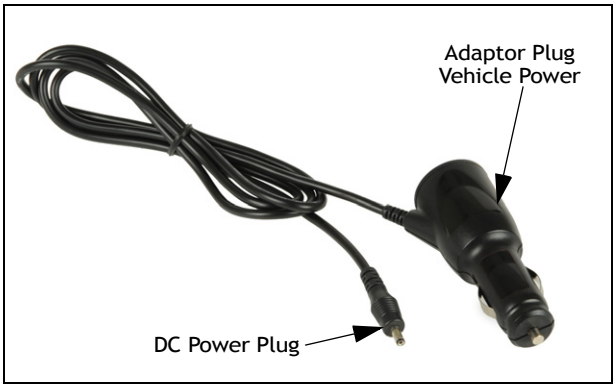
6.10 Vehicle Power Outlet Adaptor - Model No. RV3050

Important: ***It is critical that you review the safety instructions outlined in the quick start guide enclosed with your vehicle power adaptor before using the accessory.***

The vehicle power outlet adaptor allows you to power your EP10 and recharge your battery using power drawn from your vehicle's power outlet.

Preliminary Draft

Figure 6.9 Vehicle Power Outlet Adaptor



- Insert the DC power plug into the DC IN port at the base of a snap module – Model No. RV4001 or RV4002 (see TBD).
- Insert the vehicle power outlet adaptor plug into the power outlet in your vehicle.

6.11 The Non-Powered Vehicle Cradle – Model No. RV1000

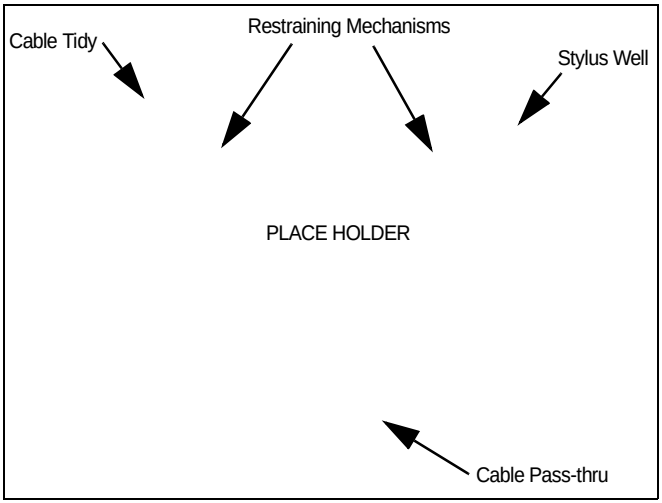
The RV1000 vehicle cradle is a passive device, designed to securely grip the EP10. The cradle design permits access for the DC input cable to connect to the EP10 (see Figure 6.10 on page 239).

- A stylus holder.
- A loop for tethering the stylus.
- A cable tidy for draping the power cables or storing the disconnected DC plug.

Note: Shock and vibration specifications for the EP10 are verified using Psion Teklogix-approved RAM mounts and mounting hardware. Use of non-certified Psion Teklogix mounting hardware is not recommended, and may void warranty coverage.

Preliminary Draft

Figure 6.10 RV1000 Vehicle Cradle



6.11.1 Important Instructions

The RV1000 storage temperature is -40°C to +70°C (-40°F to 158°F). Operating humidity and temperature is 5 - 95% non-condensing and -30°C to 60°C (-22°F to 140°F).

6.11.2 Vehicle Cradle Operation

6.11.2.1 Operator Controls

The vehicle cradle has no operator controls or power switch.

6.11.2.2 Indicators

The RV1000 has no front indicators. The EP10 LED serves as the power indicator.

6.11.2.3 Placing the EP10 in the Vehicle Cradle

Connect the vehicle power to the EP10 prior to inserting it in the vehicle cradle.

The vehicle cradle is designed with a front opening through which you can pass the connected cable while inserting the EP10 (see Figure 6.10 on page 239).

When placing the EP10 into the vehicle cradle, press firmly on the top of the hand-held and the EP10 will bottom out on the cradle base. This action will make the final fit to the cradle base to allow the rear restraining mechanism to resist vibration.

Preliminary Draft

6.11.2.4 Removing the EP10 from the Vehicle Cradle

When removing the EP10, apply slight pressure to the rear and pull upwards. The rear-first motion will assist in disengaging the rear restraining mechanism.

6.11.3 Vehicle Cradle Mounting Recommendations

Warning: ***Before mounting a vehicle cradle in a vehicle, there are a number of operator safety issues that require careful attention. An improperly mounted cradle may result in one or more of the following: operator injury, operator visibility obstruction, operator distraction and/or poor ease of egress for the operator. Psion Teklogix strongly recommends that you seek professional mounting advice from the vehicle manufacturer.***

Cable routing within a vehicle cab also requires careful consideration, especially for separately tethered scanners and other devices with loose cables. If you are unable to obtain suitable advice, contact Psion Teklogix for assistance (see Appendix A: "Summit Client Utility (SCU)". Note also that for better protection, the equipment should be mounted inside the vehicle roll cage.

Pedestal mounts are recommended for all fixed mount locations because they offer optimal operator access. In addition, for safety reasons, only pedestal mounts with fully locking joints should be used in vehicles. Always adjust the pedestal for the optimum viewing angle, and securely tighten the hex and wing screws.

Important: ***EP10 vehicle cradles are designed to be compatible with any RAM®-B mounting interface. For other mounting options please contact our Technical Support offices.***

The most effective way to mount the vehicle cradle RAM mount is to use the seven #M4 threaded inserts on the rear of the unit. Bolts must not extend more than 5mm into the vehicle cradle. You may also remove the rear Ram-B mount accessory to custom mount the vehicle cradle to a surface other than the recommended RAM-B (Figure 6.11 on page 241).

6.11.3.1 Mounting Template

The vehicle cradle is shipped with detailed mounting instructions including a drill template. Refer to the *RV1000 EP10 Hand-Held Vehicle Cradle Quick Start Guide (PN 8000234)*.

In every case, please take the following precautions:

1. When installing the cradle, ensure the driver's view is not obstructed.

Preliminary Draft

2. Install cradles so as not to obstruct vehicle safety features, i.e. air bags, seat belts, etc.
3. Ensure cradle is secured to the vehicle in a safe location. Injury may result otherwise.
4. Ensure the mounting has the capacity to hold the cradle and the EP10. Cradle plus EP10 weight is approximately 1kg (2.2 lb.).
5. Psion Teklogix has recommended and approved mounts. Consult Psion Teklogix Customer Service for direction.

Figure 6.11 Removing the RAM Mount

PLACE HOLDER

To accommodate the service loop of the power cable, leave a 10.2 cm (4 in.) clearance at the bottom of the vehicle cradle. Leave a 17.8 cm (7 in.) clearance at the top of the vehicle cradle to allow easy removal of the EP10. When selecting a mounting location, refer to the detailed assembly instructions that are packaged with the pedestal.

Important: ***Before Psion Teklogix releases a product, our engineering team exposes that product to vibration tests to ensure the EP10 will remain secure during normal use. But as a low cost mount, the cradle will not defend against shock if the vehicle undergoes a front or rear impact. Take care to mount the cradle in an upright position in case of accidents.***

If you choose to use a third party company-produced cradle, Psion Teklogix cannot take responsibility for the effects of that third party product when it causes failure to our device.

Preliminary Draft

6.11.4 Cleaning the RV1000 Vehicle Cradle

Important: Dampen a soft cloth with mild detergent to wipe the unit clean.

- Use only mild detergent or soapy water on a slightly damp cloth to clean the RV1000. Avoid abrasive cleaners, solvents or strong chemicals for cleaning. The plastic case is susceptible to harsh chemicals. The plastic is partially soluble in oils, mineral spirits and gasoline. The plastic slowly decomposes in strong alkaline solutions.
- To clean ink marks from the label, use isopropyl alcohol.

6.12 The Powered Vehicle Cradle – Model No. RV1005

The RV1005 Powered Vehicle Cradle (12-24 VDC) is designed to securely grip the EP10 when locked in and provides an easy single-handed release mechanism when the EP10 needs to be quickly removed from the cradle. The cradle design permits access for the DC input cable to connect to the EP10 (see Figure 6.15 on page 248). The cradle is also equipped with:

- One USB A connector.
- LED charge indicator.
- A stylus holder and tether latch.
- Built in speaker, identical to the one on EP10, that offers hands-free functionality. The powered cradle detects when the EP10 is docked and can automatically transfer the speaker function from the EP10 to the cradle.
- Depending on the cradle variant, there can be up to two full RS-232 connectors.
  - PN 1081148-500: no RS-232 connectors.
  - PN 1081148-400: one RS-232 connector.
  - PN 1081148-200: two RS-232 connectors.

The cradle comes with four mounting screws and a *RV1005 Powered Cradle Quick Start Guide* (PN 8000164), with illustrated electrical and mounting instructions.

Before Psion Teklogix releases a product, our engineering team exposes that product through a series of severe testing to ensure that it will survive in the rugged environments in which our products are typically used. These tests usually include shock and vibration testing as well as IP testing for water and dust, electrical shock, etc.

If a third party vehicle mount is used, the third party should perform the same type of testing in order to ensure that the design will maintain the factory specifications of the product. If the third party company is unwilling to perform the necessary testing and take responsibility

Preliminary Draft

for the effects of the design, then we highly recommend using Psion Teklogix designed and supported accessories.

If you elect to use a third party company produced cradle, Psion Teklogix cannot take responsibility for the effects of that third party product if it causes failure of our device.

Important: ***Before using a vehicle cradle, read all instructions and markings on the housing.***

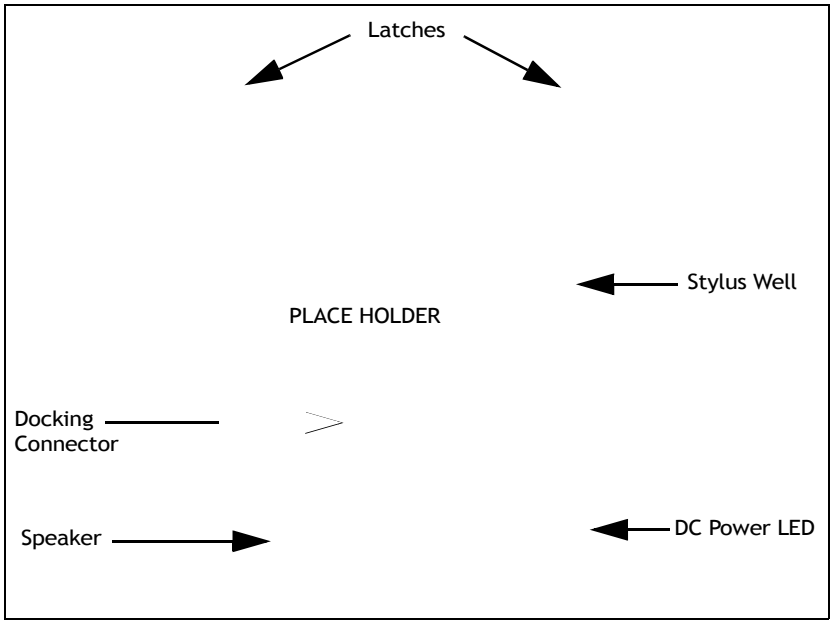
Do not operate a vehicle cradle if damaged by a sharp blow, dropped, or otherwise damaged in any way; qualified service personnel should inspect for internal damage.

Shock and vibration specifications for the EP10 are verified using Psion Teklogix-approved RAM® mounts and mounting hardware. Use of non-certified Psion Teklogix mounting hardware is not recommended, and may void warranty coverage.

Do not expose to rain or snow! However, the Powered Vehicle Cradle is designed to accept a wet EP10 handheld without harmful effect.

This Powered Vehicle Cradle cannot be used with non- EP10 cradle accessories.

Figure 6.12 RV1005A Front View



Preliminary Draft

6.12.1 RV1005 Vehicle Cradle Mounting Recommendations

Important: ***Before mounting a vehicle cradle in a vehicle, there are a number of operator safety issues that require careful attention. An improperly mounted vehicle cradle may result in one or more of the following: operator injury, operator visibility obstruction, operator distraction and/or poor ease of egress for the operator. Psion Teklogix strongly recommends that you seek professional mounting advice from the vehicle manufacturer.***

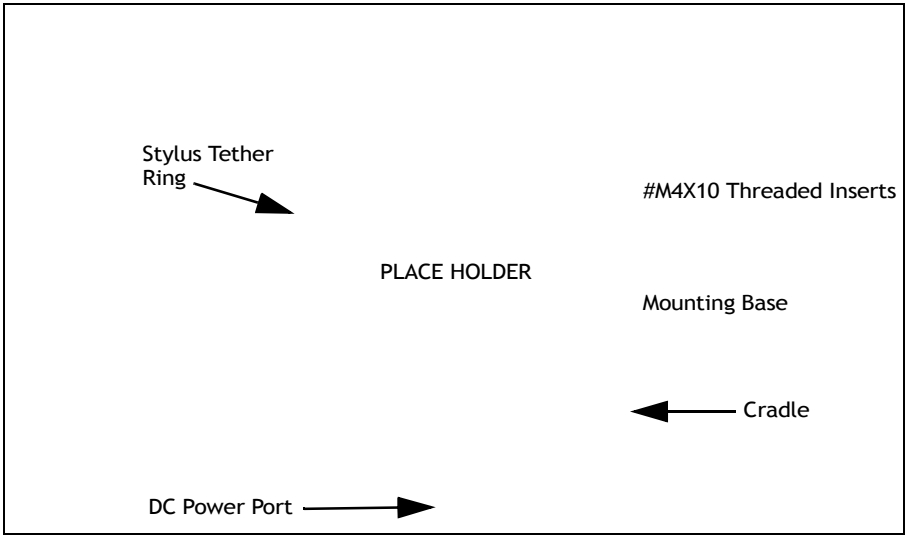
Cable routing within a vehicle cab also requires careful consideration, especially for separately tethered scanners and other devices with loose cables. If you are unable to obtain suitable advice, contact Psion Teklogix for assistance.

In addition, for safety reasons, only pedestal mounts with fully locking joints should be used in vehicles. Always adjust the pedestal for the optimum viewing angle, and securely tighten the hex and wing screws.

The EP10 Powered Vehicle Cradle is designed to be compatible with any RAM-B mounting interface.

The most effective way to mount the vehicle cradle RAM mount is to use the four #M4X12 threaded inserts on the rear of the unit (see Figure 6.13). Bolts are supplied with the cradle and must not extend more than 7 mm into the vehicle cradle.

Figure 6.13 RV1005 Rear View



Preliminary Draft

If you wish to custom mount the vehicle cradle to a surface other than the recommended RAM-B, please take the following precautions:

- When installing the cradle, ensure the driver's view is not obstructed.
- Install cradles so as not to obstruct vehicle safety features, i.e. air bags, seat belts, etc.
- Ensure cradle is secured to the vehicle in a safe location. Injury may result otherwise.
- Ensure the mounting has capacity to hold the cradle and EP10. Cradle plus EP10 weight is approximately 1.3 kg.
- Psion Teklogix has recommended and approved mounts—consult Customer Service for instructions.

To accommodate the service loop of the connecting cable, leave a 10 cm clearance at the bottom of the vehicle cradle. Leave a 17 cm clearance at the top of the vehicle cradle to allow easy removal of the EP10. Refer to the detailed assembly instructions that are packaged with the pedestal when selecting a mounting location.

6.12.1.1 Mounting Template

For detailed mounting instructions including a drill template, refer to the *RV1005 EP10 Hand-Held Vehicle Cradle Quick Reference Guide (PN 8000165 TBD)*.

6.12.2 Cable Arrangement

Before installing cables between the cradle and other devices, review the following:

- Ensure that drilling holes will not damage the vehicle or its wiring.
- Protect cable runs from pinching, overheating and physical damage.
- Use grommets to protect cables that pass through metal.
- Use plastic straps and tie-downs to secure cables and connectors in their desired location, away from areas where they may get snagged or pulled.
- Keep cables away from heat sources, grease, battery acid and other potential hazards.
- Keep cables away from control pedals and other moving parts that may damage the cables or interfere with the operation of the vehicle.

6.12.3 Electrical Requirements

The Powered Vehicle Cradle is designed to allow the EP10 to be powered by a vehicle battery. The battery installed in the EP10 is also recharged by the vehicle battery system.

Preliminary Draft

Warning: Applying a voltage above 36VDC or reversing polarity may result in permanent damage to the vehicle cradle power section and will void the product warranty. For safety reasons, disconnect the vehicle cradle power cable when the vehicle battery is being charged by an source other than the vehicle alternator.

6.12.3.1 Wiring Vehicle Power to the Cradle

The Powered Vehicle Cradle uses the vehicle power outlet or the vehicle fuse box to power from the vehicle battery system. The Vehicle Outlet Power Adaptor (Model No. RV3050) is used for the vehicle power outlet; the Power Extension cable (PN 1081146) is used for the vehicle fuse box.

Figure 6.14 Vehicle Outlet Power Adaptor and Power Extension Cable

Warning: A properly trained technician must perform the power connection using Power Extension cable (PN 1081146) and the RV1005. Improper connection can damage the vehicle or the cradle.

This cable can be used to provide power to RV1005 from a fused circuit. The vehicle cradle should be added to a fused circuit with a new maximum load capacity of the original load plus the cradle load, which is 4A.

Power cables are equipped with fuses and instructions are supplied with each cable. Use only a 4A slow blow Safety-approved fuse in the fuse assembly.

These cables should only supply operating power from the vehicle to the Powered Vehicle Cradle from 12VDC or 24VDC systems.

Preliminary Draft

- The Powered Vehicle Cradle draws no more than 1.9 A @ 12 VDC or 0.95 A @ 24 VDC. Any additional wiring, connectors or disconnects used should be rated for at least 4A. The Powered Vehicle Cradle and peripherals can be used with both negative ground systems when using the Power Extension cable. Peripheral wiring should be closely examined to avoid ground loops in positive ground systems.
- There is the option of connecting power to the cradle before or after the 'key' switch.
  - It is preferable to wire *after* the key switch. In this configuration, when the key is turned ON, the vehicle will power the cradle and docked EP10, charging the internal battery when needed. When the vehicle ignition is OFF, the EP10 docked in the cradle will run on its internal battery.
  - However, if the operator switches the key off repeatedly for long periods during a shift, it may make more sense to wire the vehicle cradle before the switch. In this case, the EP10 will always operate from vehicle power and that power will charge the battery when needed.
  - Keep in mind that the EP10 will continue to operate with or without vehicle power as long as the internal battery has sufficient charge.

6.12.4 USB and Serial Connections

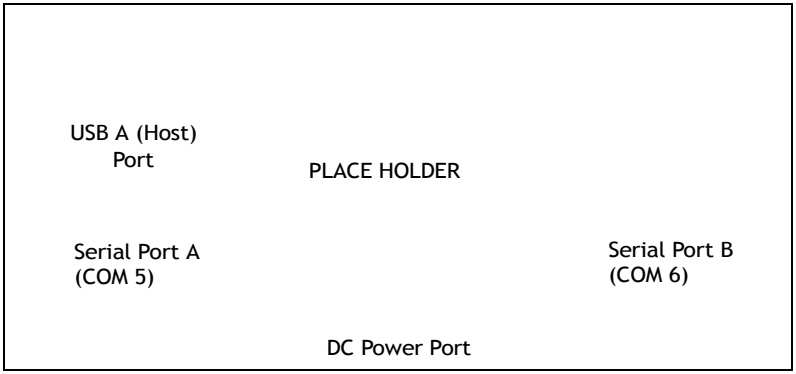
Important: Depending on the configuration, the RV1005 Powered Vehicle Cradle has up to three data connectors and one power connector.

The Powered Vehicle Cradle full configuration consists of two serial DE-9M ports and one USB Type A port located at the base of the product. These are COM and USB ports that allow the communication of serial and USB devices with the EP10. These ports are:

- One powered USB A (Host).
- One full Serial port.
- One Serial port that provides power over pin 9. This port is located nearest the front LED and is marked as COM 6 in Figure 6.15.

Preliminary Draft

Figure 6.15 RV1005 Ports



Peripherals such as scanners, printers, GPS, etc., may be used with the EP10 and the cradle. Check with Psion Teklogix if there is any compatibility issue with the device you want to use with the EP10 and the cradle.

6.12.5 Using the Vehicle Cradle

If your EP10 is equipped with a shoulder strap or protective cover, these accessories need to be removed before installing the unit in a vehicle cradle. There is no need to remove hand straps or tethered devices from the unit.

- Slide the EP10 into the cradle, and press firmly downward to the point where resistance is met. Press the EP10 down through the resistance until it bottoms in the cradle – the locks on the latches will engage. This can be one smooth motion if you wish. Electrical contact will not be made until the EP10 is fully inserted. On a vehicle, it's a good idea to pull up on the EP10 to be certain that it is secure.
- To remove the unit, push the latches upwards – the EP10 will be released so that it can be removed.

6.12.6 Maintaining the Vehicle Cradle

- Do not immerse the unit in water. Dampen a soft cloth with mild detergent to wipe the unit clean.
- Use only mild detergent or soapy water on a slightly damp cloth to clean the vehicle cradle.
- Avoid abrasive cleaners, solvents, or strong chemicals for cleaning.
- The vehicle cradle has a plastic case and stamped logo that is susceptible to harsh chemicals. The plastic and stamping is partially soluble in oils, mineral spirits and gasoline. They slowly decompose in strong alkaline solutions.

Preliminary Draft

- To clean ink marks from the label, use isopropyl alcohol.
- The two-lock assembly in the Powered Vehicle Cradle holds the EP10 firmly in place. Although this mechanism is designed for at least 20,000 cycles, it will wear over time and will no longer lock the EP10 securely in the cradle. For replacement parts and instructions contact Psion Teklogix. Partial disassembly is required.

6.13 EA11 Imager

The EP10 hand-held supports the EA11 Decoded 2D imager. This imager can be configured using the *Scanner Settings* located under *Settings>System>Teklogix Scanners* (see "Scanner Settings" on page 150) and the Manage Triggers application (see "Manage Triggers" on page 133).

It is critical that you review the safety information in the *"EP10 Hand-Held Regulatory & Warranty Guide"*, PN 8000235 before proceeding.

6.13.1 Operating Two Dimensional (2D) Imagers

An imager takes a snap shot of a single bar code or multiple bar codes (at one time). It can find a bar code regardless of its orientation – that is, even a bar code printed at a 45 degree angle to the EP10 will be decoded successfully.

Note: When scanning multiple bar codes, ensure that all of the desired bar codes are within the field of view of the scanner. It is possible that even when all bar codes are within the field of view, not all of them will be decoded. Only successfully decoded bar codes are passed to the application program. The application program then issues a warning, asking that you scan the missing bar codes.

When scanning a single bar code, ensure that only the desired bar code is within the field of view of the scanner.

Because imagers generally have a shorter depth of field than laser scanners, some practise may be required to find the optimal distance from the types of bar codes being scanned. Although the imager includes illumination LEDs, ambient light will help the imager decode the bar codes, especially if the bar code is far from the EP10.

Preliminary Draft

Important: ***Keep in mind that the imager scanner is a camera, and the LED illumination is a flash. Glare can be an issue on reflective media such as plastic coated bar codes, just as glare is an issue for photographers. When pointing at a shiny surface, either shift the bar code to the side or top, or angle the bar code so that the glare reflects away from the imager scanner.***

Most imagers take several 'snap shots' of the bar code in order to decode it. It is normal for the LEDs to flash two or three times. Hold the unit steady between flashes to improve decode performance.

- Switch the EP10 on. Wait until the unit has booted up completely.
- Aim at the bar code and press the scan key or the trigger. Hold the trigger until a successful or failed scan result is obtained.
- When the scan button or trigger is pressed, a red, oval shaped light (the framing marker) is displayed. Centre the framing marker in the field—either in the centre of the bar code you want to scan or in the centre of the area in which multiple bar codes are to be scanned.

The illumination LEDs will flash (typically several times) and a picture of the bar code(s) is taken.

6.14 *Bluetooth* Peripherals

The EP10 is equipped with a *Bluetooth* radio, making it possible to communicate with a variety of *Bluetooth* peripherals, including GSM/GPRS handsets, scanners, printers and so on.

Psion Teklogix provides built-in support for the *Bluetooth* peripherals listed below.

- GSM/GPRS universal handset
- *Bluetooth* printer
- *Bluetooth* headset

Keep in mind that *Bluetooth* and IEEE 802.11b/g radios both operate in the 2.4GHz band. Although the EP10 includes features to minimize interference, performance of the system will not be optimal if you use both radios simultaneously. Typically, when both radios operate in the EP10 at the same time, they cannot transmit simultaneously – this has a negative impact on overall system throughput. To minimize the impact on the backbone 802.11g network, Psion Teklogix recommends using *Bluetooth* peripherals that have low transaction rates (such as printers and scanners).

Preliminary Draft

Refer to “Bluetooth Setup” on page 172 for information about setting up your *Bluetooth* devices for communication. In addition, review the manual shipped with your *Bluetooth* device to determine the method used to pair with the EP10 host.

6.15 Digital Camera

The EP10 can be equipped with an optional digital camera that can take still pictures or short video clips. Refer to “Pictures & Videos” on page 75 for details about using the camera.

The *Pictures & Videos* applet allows the operator to activate the camera for still shots or video clips. It also provides a number of tools to crop photos, adjust picture contrast and brightness, zoom in and out of photos, and save your adjustments.

Important: ***The “Pictures & Videos” program can only display .bmp or .jpg formats. Photos in other formats will need to be converted on your PC before they can be transferred to the EP10 hand-held.***

Preliminary Draft

Preliminary Draft

SPECIFICATIONS 7

7.1 EP10 Specifications – Model No. 7515 255
7.1.1 Hardware 255
7.1.2 Software 256
7.1.3 Wireless Communication. 256
7.1.4 Power Management 257
7.1.5 Expansion Slot 257
7.1.6 Bar Code Application 257
7.1.7 Digital Camera 257
7.1.8 Voice Over IP (VOIP) 257
7.1.9 Accessories 257
7.1.10 Approvals 258
7.1.11 Environmental Specifications 258
7.2 Radio Specifications 259
7.2.1 Murata 802.11 a/b/g/n Direct Sequence Spread Spectrum Radio 259
7.2.2 Murata Bluetooth Radio 260
7.2.3 Sierra Wireless MC5728V 261
7.2.4 Cinterion PH8 GSM/GPRS/EDGE Radio 263
7.3 Lithium-Ion 3600 mAh Battery Specifications 265
7.4 Internal Imager 267
7.4.1 EA11 Decoded 2D Imager 267
7.4.1.1 EA11 Typical Reading Distances 268

Preliminary Draft

Preliminary Draft

7.1 EP10 Specifications - Model No. 7515

Note: Performance specifications are nominal and subject to change without notice.

7.1.1 Hardware

Physical Dimensions

- Device: 6.2" x 3.1" x 1.2" (158 mm x 78 mm x 30.6 mm)

Weight (with battery pack)

- Weight with battery: 0.8 lb (336 g)

User Interface

- Display (Backlit)
  - 3.7 in. VGA portrait mode
  - Backlight feature 165 cd/m2 output
  - Sunlight readable with integrated touchscreen
  - Colour 480 x 640 graphic TFT
  - Passive stylus or finger operation
- Audio
  - Built-in 85db mono speaker
  - microphone
  - receiver
- Keyboard (Backlit)
  - QWERTY
  - High reliability keypad ultra-white backlight
  - Ergonomically enhanced for ambidextrous one-hand operation
- Camera
  - 3.2 Mega Pixel Colour
  - Auto Focus
  - Dual LED Flash
  - Video capture capability

Preliminary Draft

7.1.2 Software

Platform

- AM3715 Processor
- 800 MHz (ARM Cortex A8)
- On-board RAM: 256 MB SDRAM
- On-board ROM: 2 GB Flash

Operating System

- Microsoft Windows Embedded 6.5

Programming Environment

- HTML, XML
- Mobile Devices SDK
- JavaTM
- Visual Studio® 2008
- Standard protocol APIs - Windows® sockets

Application Software

- Internet Explorer® Mobile included with Windows® Mobile® 6
- Wordpad
- ActiveSync
- Mobile Control Center (MCC) device management

7.1.3 Wireless Communication

*Note: 802.11ab/g/n and **Bluetooth** are available simultaneously.*

- On-board IEEE 802.11a/b/g/n
- Bluetooth v2.1 radio (CCX V4 Certified
  - UMTS 3.5G HSPA radio options (TBD)
  - Integrated 5 band Antenna, supports both voice and data
  - SiRF starIV GPS

Preliminary Draft

7.1.4 Power Management

- Optional High Cap 3600 mAh Li-ion rechargeable battery
- Full Shift operation
- SMART battery
- System backup (5 minutes) during battery swap

7.1.5 Expansion Slot

- One microSD slot

7.1.6 Bar Code Application

Note: User upgradeable.

- 2D EA11 imager

7.1.7 Digital Camera

- 3.2 mega pixel colour
- Auto Focus
- Dual LED Flash
- Video capture capability

7.1.8 Voice Over IP (VOIP)

- Push-to-talk

7.1.9 Accessories

For details about accessories available with the EP10, refer to Chapter 6: “Peripheral Devices & Accessories”.

- **Carrying Accessories:**
  - Hand strap
  - Carrying case
- **Communications:**
  - Quad dock (4-site) with 10/100 BaseT Ethernet and charge functions.

Preliminary Draft

  - Desktop dock with Type A and Type B USB connectivity and charge functions for an internal battery along with a spare battery.
- **Power supplies:**
  - AC wall adaptor
  - Vehicle power outlet adaptor
  - Quad charger (4-site)
  - Snap Module: USB DE9M powered serial plus Charger
  - Snap Module: USB Host/Client plus Power/Charger
- **Vehicle peripherals:**
  - Powered and Non-powered cradle
  - RAM Mount with screws

7.1.10 Approvals

- FCC Parts 15B, 15C, 15E, 22H, 24E, 27
- IC RSS-210, RSS-132, RSS-133
- EN 300 328, EN 301 489, EN 55022, EN55024, EN301 511, EN301 908, EN300 440, EN301 893
- Safety IEC/EN 60950-1
- Laser Safety IEC 60825-1

7.1.11 Environmental Specifications

- Operating Temperature: 14ºF to 122 ºFC (-10ºC to +50ºC)
- Storage Temperature: -4ºF to 140ºF (-20ºC to +65ºC)
- Relative Humidity: 5% to 95% RH non-condensing
- Rain & Dust Protection: IP54, IEC 529
- Drop: 5 ft (1.5 m) - 26 drops to polished concrete
- Tumble: 250 times at 0.5 m
- ESD: +/- 15k Vdc air discharge, +/- 8k Vdc contacts

Preliminary Draft

7.2 Radio Specifications

7.2.1 Murata 802.11 a/b/g/n Direct Sequence Spread Spectrum Radio

Parameter	Sub-parameters	Specifications
Form Factor		Embedded surface mount module, 11.4 x 9.4 mm * This is a combo module containing both Wi-Fi 802.11a/b/g/n and Bluetooth V2.1+EDR radio
Antenna Port	802.11b/g/n	U.FL jack. Non-diversity. Multiplexed between 802.11b/g/n (2.4GHz) and Bluetooth radio
	802.11a/n	U.FL jack. Non-diversity.
Antenna Type	802.11b/g/n	PIFA antenna. Covers 2400-2484 MHz @ <2.0:1 VSWR
	802.11a/n	PIFA antenna. Covers 5150-5860 MHz @ <2.0:1 VSWR
Antenna Gain	802.11b/g/n	3.73 dBi
	802.11a/n	4.85 dBi
Transmit Power	802.11b	+13 to +14 dBm typical
	802.11g	+13 dBm typical
	802.11a	+12 dBm typical
	802.11n (2.4 GHz)	+12 dBm typical
	802.11n (5 GHz)	+12 dBm typical
Frequency Range	802.11b/g/n	2400-2484 MHz
	802.11a/n	5150-5350 MHz, 5480-5720 MHz and 5725-5845 MHz

Preliminary Draft

Parameter	Sub-parameters	Specifications
RX Sensitivity	802.11b	-78 dBm @ 11 Mbps
	802.11g	-67 dBm @ 54 Mbps
	802.11a	-67 dBm @ 54 Mbps
	802.11n (2.4 GHz)	-66 dBm @ 65 Mbps
	802.11n (5 GHz	-66 dBm @ 65 Mbps
Data Rates	802.11b	1,2,5.5,11 Mbps
	802.11a/g	6,9,12,18,24,36,48,54 Mbps
	802.11n	6.5,13,19.5,26,39,52,58.5,65 Mbps
EVM	802.11b	32% max
	802.11g	-26 dB max
	802.11a	-26 dB max
	802.11n (2.4 GHz)	-29 dB max
	802.11n (5 GHz	-29 dB max
Bluetooth Coexist-ence		TI Wilink6 proprietary WiFi-BT co-existent scheme.

7.2.2 Murata *Bluetooth* Radio

Parameter	Specifications
Form Factor	Embedded surface mount module, 11.4 x 9.4 mm * This is a combo module containing both Wi-Fi 802.11a/b/g/n and *Bluetooth* V2.1+EDR radio
Antenna Port	U.FL jack (shared with Wi-Fi 802.11b/g/n radio)
Antenna Type	PIFA antenna. Covers 2400-2484 MHz @ <2.0:1 VSWR
Antenna Gain	3.73 dBi
Transmit Power	6.5 dBm typical
Frequency Range	2.400-2.4835 GHz

Preliminary Draft

Parameter	Specifications
Channel	79
RX Sensitivity	-90 dBm typical, -70 dBm max
Data Rates	-90 dBm typical, -70 dBm max
802.11 Coexistence	TI Wilink6 proprietary WiFi-BT co-existent scheme.

7.2.3 Sierra Wireless MC5728V

Features	Specifications
Physical	• Small PCI-Express Mini Card standards-based form factor. Adheres to Rev 1.2 of the PCI Express Mini Card Specification • Two U.FL RF connector jacks
Electrical	The MC5728V Mini Card is self-shielded; no additional shielding is required.
Environmental	Temperature operating range: • IS-98D compliance: -30 to +60° C • Reduced RF performance: +60 to +75° C
RF	• Dual-band support for both the 800 MHz cellular and 1.9 GHz PCS bands • Receive diversity support for the 800 MHz cellular and 1.9 GHz PCS bands • Adheres to CDMA authentication as specified in CDMA 1X • Support for IS-95A/B and CDMA 1X Release 0/A • Support for IS-856 1xEV-DO Revision A *Support for gpsOne™ and stand-alone GPS*
Application Interface	• USB supporting multiple logical channels over the USB MUX protocol • USB selective suspend supported for maximum power savings • Wakeup Enable-the modem can be set to wake the host device upon ring, restoration of radio coverage, and/or receipt of SMS • AT command interface

Preliminary Draft

Features	Specifications
Voice	The MC5728V Mini Card has internal IS-127 and IS-733 vocoders and supports: • Call origination • Silent retry call origination protocol • Echo cancellation • E911 • Incoming call notification
Packet Mode	• IS-2000 data rates up to 1531 kbps, simultaneous forward and reverse channel • IS-856 (1xEV-DO Rev. A) data rates up to 3.1 Mbps forward channel and 1.8 Mbps reverse channel
IS-95 circuit-switched	• V.34 data rates to 14.4 kbps • Quick Net Connect (QNC) support
Short Message Service (SMS)	• Send and receive • Notification of new messages

Preliminary Draft

7.2.4 Cinterion PH8 GSM/GPRS/EDGE Radio

Feature	Specifications
General	
Frequency bands	GSM/GPRS/EDGE: Quad band, 850/900/1800/1900MHz UMTS/HSPA+: Five band, 800/850/AWS/1900/2100MHz
GSM class	Small MS
Output power (according to Release 99)	Class 4 (+33dBm ±2dB) for EGSM850 Class 4 (+33dBm ±2dB) for EGSM900 Class 1 (+30dBm ±2dB) for GSM1800 Class 1 (+30dBm ±2dB) for GSM1900 Class E2 (+27dBm ± 3dB) for GSM 850 8-PSK Class E2 (+27dBm ± 3dB) for GSM 900 8-PSK Class E2 (+26dBm +3 /-4dB) for GSM 1800 8-PSK Class E2 (+26dBm +3 /-4dB) for GSM 1900 8-PSK Class 3 (+24dBm +1/-3dB) for UMTS 2100, WCDMA FDD Bd I Class 3 (+24dBm +1/-3dB) for UMTS 1900,WCDMA FDD Bd II Class 3 (+24dBm +1/-3dB) for UMTS AWS, WCDMA FDD Bd IV Class 3 (+24dBm +1/-3dB) for UMTS 850, WCDMA FDD Bd V Class 3 (+24dBm +1/-3dB) for UMTS 800, WCDMA FDD Bd VI
Operating Temperature (board temperature)	Normal operation: -30°C to +85°C Restricted operation: -40°C to +95°C
Physical	Dimensions: 33.9mm x 50mm x 3.1mm Weight: approx. 9.5g
RoHS	All hardware components fully compliant with EU RoHS Directive
HSPA features	
3GPP Release 6, 7	DL 14.4Mbps, UL 5.7Mbps UE CAT. [1-6], 11, 12 supported Compressed mode (CM) supported according to 3GPP TS25.212
UMTS features	
3GPP Release 4	PS data rate - 384 kbps DL / 384 kbps UL CS data rate - 64 kbps DL / 64 kbps UL
GSM/GPRS/EGPRS features	

Preliminary Draft

Feature	Specifications
Data transfer	GPRS: • Multislot Class 12 • Full PBCCH support • Mobile Station Class B • Coding Scheme 1 - 4 EGPRS: • Multislot Class 12 • EDGE E2 power class for 8 PSK • Downlink coding schemes - CS 1-4, MCS 1-9 • Uplink coding schemes - CS 1-4, MCS 1-9 • SRB loopback and test mode B • 8-bit, 11-bit RACH • PBCCH support • 1 phase/2 phase access procedures • Link adaptation and IR • NACC, extended UL TBF • Mobile Station Class B CSD: • V.110, RLP, non-transparent • 14.4kbps • USSD
SMS	Point-to-point MT and MO Cell broadcast
GPS features	
Protocol	NMEA
Modes	Standalone GPS, Assisted GPS (control plane AGPS, E911 / user plane AGPS, gpsOneXTRA™)
General	Power saving modes GPS tracking in parallel to 2G/3G diversity operation
Software	
AT commands	Hayes, 3GPP TS 27.007 and 27.005, and proprietary Cinterion Wireless Modules commands
SIM application toolkit	SAT Release 99

Preliminary Draft

Feature	Specifications
Audio	Audio speech codecs GSM: AMR, EFR, FR, HR 3GPP: AMR Speakerphone operation, echo cancellation, noise suppression
Firmware update	Generic update from host application over ASC0 or USB
Interfaces	
Module interface	80-pin board-to-board connector
Antenna	50Ohms. Main GSM/UMTS antenna, UMTS diversity antenna, GPS antenna (active/passive)
USB	USB 2.0 High Speed (480Mbit/s) device interface
Serial interface	ASC0: • 8-wire modem interface with status and control lines, unbalanced, asynchronous • Adjustable baud rates from 9,600bps up to 921,600bps • Supports RTS0/CTS0 hardware flow control • Multiplex ability according to GSM 07.10 Multiplexer Protocol
UICC interface	Supported chip cards: UICC/SIM/USIM 3V, 1.8V
Special features	
Phonebook	SIM and phone
Antenna	SAIC (Single Antenna Interference Cancellation) / DARP (Down-link Advanced Receiver Performance) RX diversity type 3i

7.3 Lithium-Ion 3600 mAh Battery Specifications

Description	Specification
Model Number	RV3010
Part Number	TBD (North America) TBD (World)
Chemistry	Lithium-Ion (Li-Ion)

Preliminary Draft

Description	Specification
Battery Voltage	2.7 V ~ 4.2 V (minimum ~ maximum)
	3.7 V (nominal)
Capacity	3600 mAh/13.32Whr (typical)
	3450 mAh/12.76 Whr (minimum)
Charge Current	1.72 A (typical)
Charge Voltage	4.2V +/- 0.05
Charge Method	constant-current/constant-voltage (CC/CV)
Discharge Current	1.72 A (typical)
	2.8 A (maximum)
Internal Resistance	125 mΩ (typical)
Storage Temperature	-20°C to +60°C (-4°F to +140°F)
Charge temperature	0°C to +45°C (32°F to +113°F) (typical)
Discharge Temperature	-20°C to +60°C (-4°F to +140°F) (typical)
Charge Taper Current	48 ~ 120 mA
Charge Time	3 hrs. (typical)
Pre-condition Charge Current	3 00 ~ 360 mA
Pre-condition Charge Termination Voltage	3 V
Cycle Life	300 charge/discharge cycles with no degradation below 80% of nominal capacity based on 0.5 C charge / 0.5 C discharge rates (to 3.0 V) @ 23° C.

Preliminary Draft

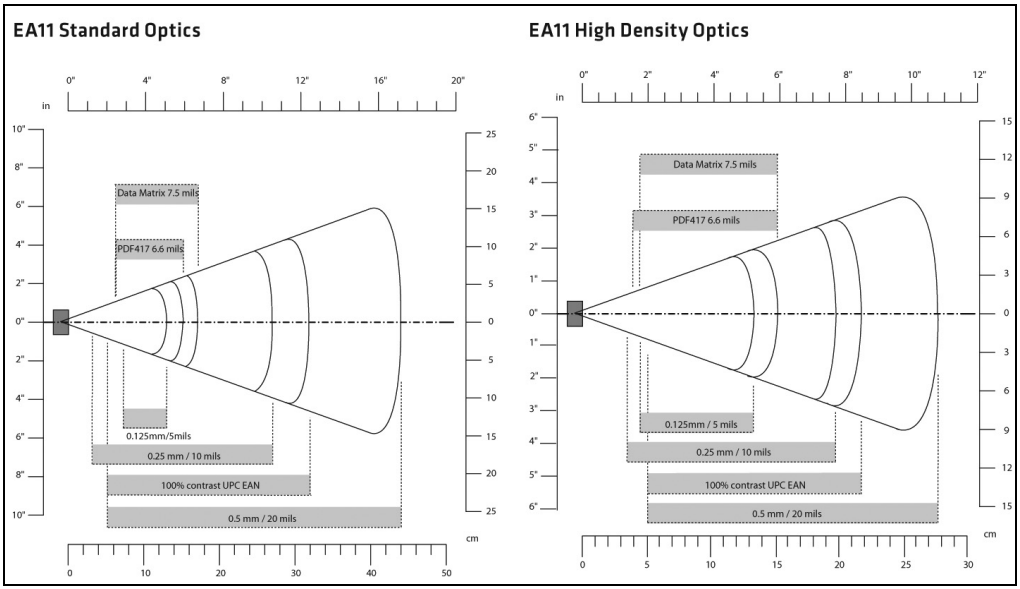
7.4 Internal Imager

This section lists specifications for the EA11 Decoded 2D imager.

7.4.1 EA11 Decoded 2D Imager

Parameter	Specification
Scan Rate	2D mode: 56 images/s auto adaptive
Linear Emulation Mode	200 scans/s auto adaptive
Scan Angle	38.9° (horizontal), 25.4° (vertical)
Optical Resolution	752 (H) x 480 (V) pixels, 256 gray levels
Print Contrast	down to 25%
Versions	Standard range and high density
Symbologies - 1D	EAN/UPC, GS1 Databar (limited expanded & omni-directional), RSS, Code 39, Code 128, UCC/EAN 128, ISBN, ISBT, Interleaved/Matrix/ Industrial and Standard 2 of 5, Codabar, Code 93/93i, Code 11, MSI, Plessey, Telepen, postal codes (Australian Post, BPO, Canada Post, Dutch Post, Japan Post, PostNet, Sweden Post)
Symbologies - 2D	Data Matrix, PDF417, Micro PDF 417, Codablock Maxicode, QR, Aztec GS1 composite codes
Voltage (optics)	3.3V -5% / +10% (typical values)
Operating Current	170mA - 310mA (lighting condition dependent)
Power Saving Mode	2mA
Ambient Light	Works in any lighting conditions, from 0 to 100,000 lux
Regulatory Approvals	UL, VDE certified, RoHS compliant

7.4.1.1 EA11 Typical Reading Distances



Preliminary Draft

APPENDIX A

WIRELESS WIDE AREA NETWORK (WWAN)

A.1 Wireless WAN

Psion Teklogix offers the MC75i GSM/GPRS/EDGE radio – an EP10 hand-held equipped with a GSM/GPRS radio has wide area networking capabilities. With this radio and a SIM card, you can wirelessly transfer data, and you use the EP10 voice option to place phone calls.

A.1.1 Taskbar Icons

Wireless WAN icons in the taskbar indicate the status of your wide area network connection. Note that these icons are only visible when a GSM/GPRS radio is installed in the computer, and the interface is enabled.

Once the modem detects that a packet data service is available, a letter is added to the signal strength icon indicating the kind of packet data service. Keep in mind that the signal strength icon is displayed without a letter if packet data service is not available, or if it is available but not yet initialized.

- G - GSM/GPRS
- E - GSM/EDGE
- U - UMTS
- H - UMTS/HSDPA
- X - CDMA/1xRTT
- i - iDEN
- W - WiDEN

User interaction is required (e.g. the user is required to enter a PIN).

A non-recoverable (fatal) error has occurred.

The modem status is unknown or the modem is not connected to any network (the signal strength is 0%).

The modem has found a network, and the signal strength is between 1% and 20%.

Preliminary Draft

The modem has found a network, and the signal strength is between 21% and 40%.

The modem has found a network, and the signal strength is between 41% and 60%.

The modem has found a network, and the signal strength is between 61% and 80%.

The modem has found a network, and the signal strength is between 81% and 100%.

A GPRS packet data connection is active, the signal strength is between 41% and 60% and GSM/GPRS packet service is available.

The signal strength icon is replaced by a connection indicator icon when a packet data connection is started.

A GPRS packet data connection is active.

In addition to the signal strength or connection indicator a second icon may be shown.

A new SMS (Short Message Service) message has arrived.

The dialer icon is displayed when the Voice option is available (SIM card and GPRS radio are installed). When you have an active call, this icon flashes yellow and then green.

A.1.2 Establishing a Connection

To display the main *Wireless WAN dialog* box:

- Double-tap on the **Wireless WAN** icon in the taskbar.

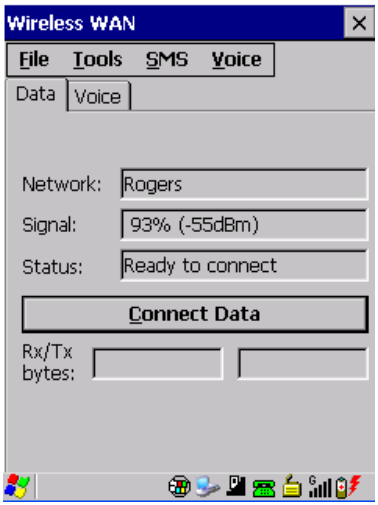
If the icon is not visible in the taskbar, the radio interface has been shut down or the modem has been removed:

- In the *Control Panel*, choose the **Wireless WAN** icon.

The main *Wireless WAN* dialog box is displayed.

Preliminary Draft

Figure A.1 Establishing a Connection



Note: If you are prompted to enter a PIN, refer to "Entering a PIN Number" on page A-4 for details.

When "*Ready to connect*" is displayed in the *Status* field, the *Connect Data* button is enabled.

- Tap on the **Connect Data** button.

The progress of the connection is tracked in the *Status* field.

- PPP link to modem active.
- Authenticating user.
- User authenticated.
- Connected.

Note: Keep in mind that these states may be displayed fairly quickly if the progress of the connection is rapid.

When the connection state reaches *PPP link to modem active*, the taskbar icon changes to indicate an active connection. The *Connect Data* button changes to *Disconnect*.

A.1.2.1 Disconnecting From a Network

To disconnect from the network:

- Tap the stylus on the **Disconnect** button, and then on **OK**.

Preliminary Draft

When the computer's network connection is severed, the *Status* field displays "*Ready to connect*".

The signal strength is displayed in the main Wireless WAN screen, even while a connection is active. The *Rx bytes* and *Tx bytes* fields estimate the amount of data transmitted and received, respectively.

A.1.2.2 Shutting Down the Wireless WAN User Interface

While it is not usual to shut down the GSM/GPRS user interface, you can accomplish this by tapping on the **File** menu and choosing the **Exit** command at the bottom of the main *Wireless WAN* dialog box.

Note: Once you've shut down the user interface, you can only enable the radio by opening the Control Panel and tapping on the Wireless WAN icon to display the Wireless WAN dialog box.

A.1.3 Advanced Information

In most cases, when a GSM/GPRS radio and SIM are installed in your computer, setup is automatic. Follow the steps outlined under the heading "Establishing a Connection" on page A-2 to make a connection. The information in this section is for advanced setup purposes.

A.1.3.1 Entering a PIN Number

If a PIN is required, a PIN entry dialog box is displayed.

- Type your PIN, and press [ENTER].

Note: If you exceed the number of allowable attempts, a PUK entry window is brought to the foreground. You'll need to enter a new PIN number.

Once the correct PIN or PUK is entered or if none was required, the modem is instructed to perform a GSM network registration followed by a GPRS attach. The main *Wireless WAN* dialog box reflects the progress of the initialization.

- Searching for modem.
- Initializing modem.
- SIM is ready.
- Searching for network.
- Registered on network.
- Searching for GPRS.

Preliminary Draft

- Ready to connect.

If the modem loses the connection to the GSM network, the following states are repeated: *Searching for network*, *Registered on network*, *Searching for packet data*, and *Ready to connect*.

A.1.3.2 Error States

The following temporary error states (i.e., these states may disappear without interaction) may be displayed:

- Emergency calls only.

  The modem has found a network but is not allowed to register (e.g. no roaming agreement between networks). The modem keeps searching for another network.
- No network found.

  A network is not currently available. The modem continues searching for a network.
- Packet data not available.

  The current network does not support a packet data service.
- Packet data not allowed.

  The modem is not allowed to use the packet data service on the current network (e.g. no GPRS roaming agreement between network; a roaming agreement for voice may still be in place). It is also possible that you do not have a subscription for GPRS at all.

The remaining error states are permanent:

- SIM is missing.

  The SIM card is missing. After the SIM has been inserted a warm boot may be required.
- SIM failure.

  The SIM card is permanently disabled (e.g. because the wrong PUK has been entered too many times). A new SIM is needed.
- Modem failure.

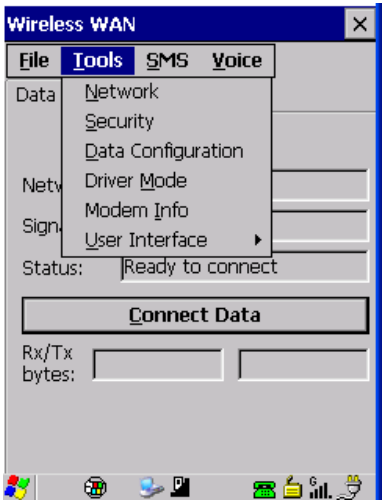
  The modem did not respond to commands as expected. If a warm boot does not clear this condition, the modem may need to be replaced.
- NDIS error.

  An internal software error has occurred. If a warm boot does not clear this condition, Psion Teklogix technical support may need to investigate further.

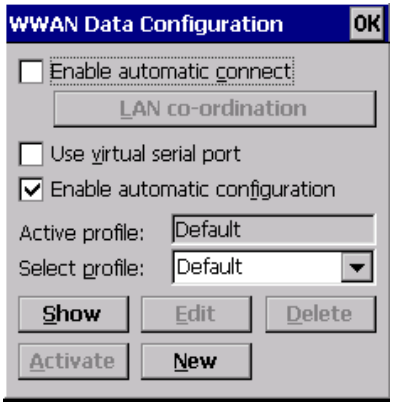
Preliminary Draft

A.1.4 Tools Menu

The Tools menu in the main *Wireless WAN* dialog box offers some additional, advanced setup features.



A.1.4.1 Data Configuration



Enable Automatic Connect

If the *Enable automatic connect* checkbox is checked (unchecked by default), the Wireless WAN user interface will attempt to establish a GPRS connection whenever GPRS is available (e.g. after resume from suspend without further user interaction).

Preliminary Draft

To activate the automatic connection mode:

- Tap on the **OK** button.

While automatic connection mode is enabled, the *Connect Data* button in the main *Wireless LAN* dialog box changes to *Disable Auto*. To close the currently active connection (if any) and disable the automatic connection mode:

- Tap on **Disable Auto.**

Important: ***Automatic connection mode should not be used if applications other than the Wireless WAN user interface (e.g. Connection Manager) are expected to open and close connections.***

If the automatic connection mode is enabled and another application closes the GPRS connection, the WWAN user interface will immediately try to re-establish the connection.

Use Virtual Serial Port

If *Use virtual serial port* is enabled, packet data connections are established through the virtual serial port of the WWAN driver rather than through the WWAN driver directly. This checkbox should *only* be checked if certain third-party VPN (Virtual Private Network) clients are used that do not work correctly otherwise. The default setting is **disabled** (unchecked).

Note: The connection setup takes longer through the virtual serial port.

Enable Automatic Configuration

In most cases, *the data connection is configured automatically and no user interaction is required*. This is true even if multiple SIM cards from different operators are used with the same device. The connection parameters are adjusted automatically when a new SIM card is detected (this may require a warm boot). The connection parameters are retrieved from a database.

Manual configuration should be necessary only if:

- One or more parameters in the database are incorrect or a new operator is not yet in the database. (The database should be corrected for subsequent software releases.)
- An operator has assigned individual GPRS user names and passwords.
- A very large site has their own APN. Such connections always have to be configured manually.

Preliminary Draft

- A customer has subscribed for a static IP address. By definition this must be configured manually.

Profiles

In the following section, all the parameters that need to be configured for a connection (such as APN, user name, password, DNS server addresses etc.) are referred to as a 'profile'. Every profile is identified by an arbitrary, unique name. The profile named *Default* is special in that it is always present and can neither be edited nor deleted. The *Default* profile uses parameters from a built-in database. The home network (the network that issued the SIM) is used for the database look-up. While there can be many configured profiles, only one profile can be active at any time.

If connection profiles are configured manually, the *Enable automatic configuration* checkbox should normally be unchecked.

In one particular use case, manually configured profiles may be combined with automatic configuration. If multiple SIM cards are used with the same device, each SIM card being from a different operator and some or all of them requiring a manually set up profile, automatic configuration may be used to automatically pick the correct manually configured profile for each SIM card. For this to work, each profile must be configured while the corresponding SIM card is inserted in the device and initialized (i.e. the status is at least *SIM is ready*).

The *Select profile:* drop-down list in the data configuration profile selects to which profile a subsequent action applies. A profile named *Default* is always present and contains the current parameters from the database. The following actions are available:

Show

The parameters for the selected profile are displayed when you tap the stylus on this button. For the *Default* profile, the publicly known password is shown – otherwise, the password is hidden.

Edit

The parameters of the selected profile can be edited when you choose the *Edit* button. Keep in mind that you cannot edit the Default profile.

Delete

The selected profile is deleted. You cannot delete the *Default* profile.

Activate

When this button is chosen, the selected profile becomes the active profile. Activation is possible only if the *Enable automatic configuration:* checkbox is unchecked.

Preliminary Draft

New

Tapping on the *New* button allows you to create a new profile.

Figure A.2 Creating a New Profile

The name of the newly created profile must be different from all existing profiles. Also, the name cannot be *Default*. When the *New Data Profile* dialog box is opened, a proposal for a unique name is filled in the corresponding entry field. If a manually configured profile has a secret password and unauthorized access to the device is a concern even after the SIM PIN has been entered, the password should not be entered in the *New Data Profile* dialog box and the *Prompt user for password* checkbox should be checked instead. In this case, you will be prompted for the password each time a connection is initiated (the *Connect Data* button in the main *Wireless WAN* dialog box is selected). If *Force PAP authentication* (Password Authentication Protocol) is enabled, a simple authentication protocol is used to authenticate a user to a remote access server or Internet Service Provider.

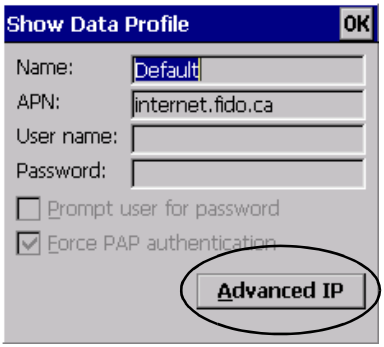
Reset

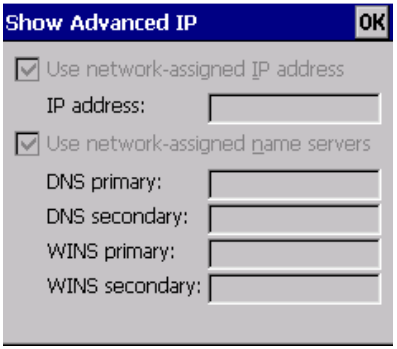
The *Reset* button in the *New Profile* and *Edit Profile* dialog boxes resets all entry fields to the values they had when the dialog box was opened.

Preliminary Draft

Advanced IP

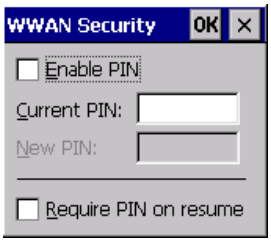
Figure A.3 Assigning IP Information





The *Advanced IP* button in the *Show Profile* and *Edit Profile* dialog boxes opens another dialog box that allows you to configure a static IP address as well providing DNS and WINS fields so that you can specify DNS and WINS resolvers.

A.1.4.2 Security Configuration



The *Security Configuration* dialog box is accessed through the *Tools* menu. The *Security Configuration* dialog box allows you to enable, disable and change the PIN. You will need the current PIN to make any of these changes. The PIN must be enabled in order to be changed. (If the PIN is disabled, the *New PIN* entry field is greyed out.)

Note: Keep in mind that some network operators do not allow the SIM PIN to be disabled. A new PIN must consist of 4 to 8 numeric digits.

The *Require PIN on resume* checkbox is independent of the aforementioned settings. By default, this checkbox is unchecked. While this option remains unchecked, any PIN entered on startup or through the *Security Configuration* dialog box and submitted successfully to the modem is stored in memory for as long as the device is not rebooted. This stored PIN is then

Preliminary Draft

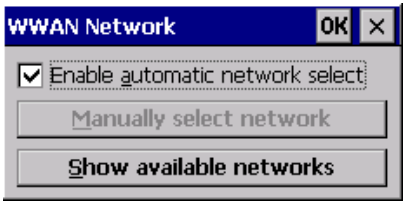
used without further user interaction whenever the modem requires a PIN (such as resume after suspend or modem removal). The stored PIN is also automatically entered in the *Current PIN* text box whenever the *Security Configuration* dialog box is called up.

If unauthorized access to the device is a concern, the *Require PIN on resume* checkbox should be checked. In this case, the PIN is not stored; whenever a PIN is required, you will be prompted to enter an appropriate value.

A.1.4.3 Network Configuration

In the main Wireless WAN window:

- Tap on the **Tools** menu, and choose **Network**.



By default the GSM radio modem automatically chooses from the available and allowed networks (allowed networks are the home network and all other networks with which the home network has a roaming agreement). You may find there are some situations in which you want to override this default behaviour. For example, you may want to disable roaming if you find yourself in a border area where the home network is not available but a foreign roaming partner is available. Abroad, you may find that an available network does not have GPRS roaming agreements. In this case, you'll need to manually select the network which you know to support GPRS roaming.

Automatic network selection is enabled or disabled by checking or unchecking *Enable automatic network select* in the *Network* dialog box. When automatic network selection is disabled, you must select a network manually.

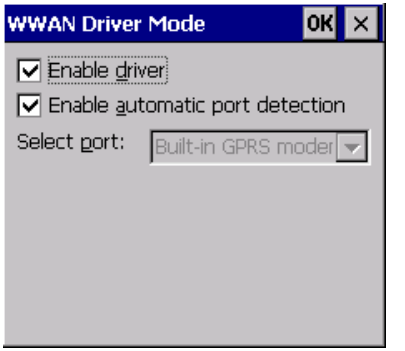
Available networks can also be viewed without changing any settings. Scanning for available networks is a lengthy operation – a progress bar is shown while the scan is active. For every network that is found, the network name, country, status and numeric network identifier (MCC/MNC, Mobile Country Code followed by the Mobile Network Code) is displayed.

Preliminary Draft

Note: Your home network operator will need to let you know which other networks have roaming agreements. Even when a network is listed with an 'Available' status, it does not necessarily follow that it can be used or that the roaming agreement covers GPRS.

A status of 'Forbidden' indicates that the network cannot be used. If you choose a network that is not covered by a roaming agreement, the status in the main WWAN dialog box changes to 'Emergency calls only', 'No network found', 'GPRS not available' or 'GPRS not allowed'.

A.1.4.4 Driver Mode Configuration



By default, the Wireless WAN driver is enabled (the *Enable driver* checkbox is checked). The driver must be disabled in order to use the modem for anything other than GPRS (e.g. dial-up data, fax, or in order to manually submit AT commands to the modem for development, testing, approvals, etc.). If the *Enable driver* checkbox is not checked, the driver is shut down as soon as the *OK* button in the *Driver Mode* dialog box is chosen.

If, on the other hand, the Wireless WAN driver is not running and the *Enable driver* checkbox is checked, the Wireless WAN driver is started as soon the *Driver Mode* dialog box is closed using the *OK* button.

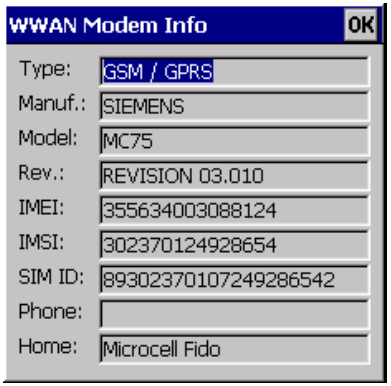
Note: When the driver is not running, no network status or signal strength can be displayed.

Since all currently supported GSM modems are automatically detected, the *Enable automatic port detection* checkbox should always be checked. If this checkbox is not checked, a serial port can be selected manually. This experimental feature allows the driver to be used with an internal GSM modem that was not recognized by the automatic detection or an external GSM modem connected to a serial port of the computer through USB or through

Preliminary Draft

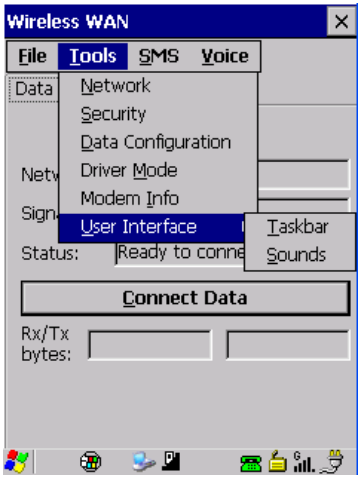
Bluetooth. An external modem connected to a serial port must support 115.2kbit/s, 8bit, no parity and hardware flow control.

A.1.4.5 Modem Information



The fields in this dialog box cannot be edited, they only display information about the computer's modem. If the network operator has not programmed a user's phone number into his SIM, the *Phone:* field remains empty. If the main menu shows an error status, at least partial modem information may be available.

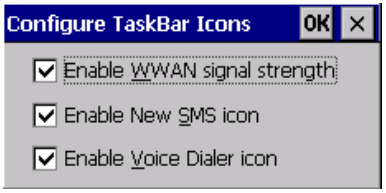
A.1.4.6 User Interface



Preliminary Draft

Taskbar

Choosing *Taskbar* displays a dialog box in which you can determine which Wireless WAN icons will be displayed in the taskbar.



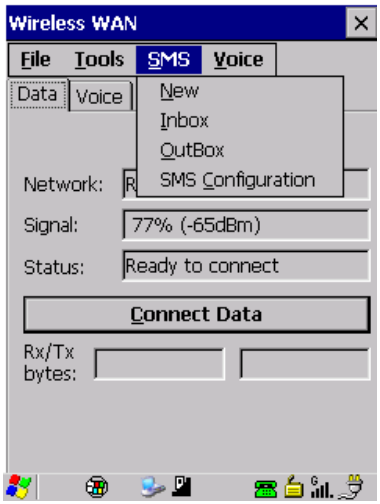
Sounds

Tapping on the *Sounds* option displays a dialog box in which you can customize which sounds your EP10 will emit and when these sounds will be played.

Preliminary Draft

A.1.5 SMS Menu

SMS (Short Message Service) functions are accessed through the SMS menu. For modems that support a SIM card, the SIM initialization typically takes longer than the network initialization, resulting in a noticeable delay before the SMS functions become available.



A.1.5.1 New

Tapping on the *New* button opens a dialog for sending a new SMS message. The recipient's phone number (to be entered in the *To:* field) can consist of the digits 0 through 9, as well as the * and # characters, optionally preceded by one + character, indicating an international number (i.e. the country code follows immediately after the + character).

By checking the *Store message in Outbox* field a new message can be stored in the Outbox before being sent. If no storage space is available, or the modem does not support the storage of outgoing messages, then this checkbox is disabled.

A.1.5.2 Inbox

Tapping on the *Inbox* button opens the list of received messages. Reading 50 messages, for example, from the SIM can take about 30 seconds. By default the list of messages is sorted with the most recently received message first. The list can be sorted by any other column by clicking on the corresponding column heading. Clicking the same column heading twice reverses the sort order. Pressing any letter or digit moves the highlight to the next message whose address begins with that letter or number.

Preliminary Draft

Note: The date and time formats can be changed through the Region and Language menu in Control Panel. For a new date or time format to take effect the Inbox has to be closed and re-opened.

The *Open* button opens the selected message in a new window such that the entire message can be read including the original formatting (line breaks are replaced by spaces in the Inbox message list). Pressing the **Reply** button opens the new message dialog as described above, except the destination phone number is filled in already.

A.1.5.3 Outbox

Tapping on the *Outbox* button opens the list of sent messages. Otherwise the *Outbox* behaves exactly as the Inbox described above. The date and time when a message was sent is not available for GSM modems.

A.1.5.4 SMS Configuration

Tapping on the *SMS Configuration* button opens the SMS configuration dialog. The SMS Centre address follows the same rules as the recipient's phone number in the New message dialog. The message validity period parameter is sent to the SMS Centre with each message sent subsequently and instructs the SMS Centre on how long it should attempt to deliver the message to the recipient (the SMS Centre may impose an upper limit on the validity period regardless of the setting).

Note: Only certain discrete validity period values can be sent and thus the validity period is rounded to the nearest allowed value. The next time the SMS configuration dialog is opened the rounded value is shown.

The user interface tries to keep the SMS storage location available for a new incoming message if the Delete oldest message when full checkbox is checked. In this case, when a new message arrives and the SMS storage becomes full, the oldest received message is deleted. If any string is entered as the Message Suppression Prefix, then messages beginning with that string will not be shown in either the Inbox or Outbox. In this way messages intended for another application running on the same device can be hidden from the user, as long as those messages begin with the string configured here.

A.1.6 Voice

The *Voice* tab is described in detail under “Voice – Using the Phone Dialer” on page 31.

Preliminary Draft

A.2 Power Mode

The power mode of the modem is controlled through the *Power* menu in the *Control Panel* (not through the Wireless WAN user interface).

For *CF Card modems*, the settings are found under the *Devices* tab. If the checkbox for a modem is unchecked, no power is applied to the modem and no driver is loaded (neither the serial port driver nor the Wireless WAN driver). If the checkbox is checked, power is applied to the modem and the drivers are loaded when the computer is turned on. Power is removed from the modem when the computer enters suspend mode.

Preliminary Draft

Preliminary Draft

APPENDIX B

PORT PINOUTS

B.1 Dock Port Pinout

Pin #	Pin Name	Signal	Direction Relative To DPA	Comment
1	GND	DGND	-	
2	VDD_EXT_PWR	VDD_EXT_PWR	Input	These 3 pins are connected together.
3	VDD_EXT_PWR			
4	VDD_EXT_PWR			
5	BATT_OUT	VDD_BATT_OUT	Output	
6	AUDIO_P		Output	Audio positive.
7	AUDIO_N		Output	Audio negative.
8	VDD_USBOTG		Bi-directional	USB Power (+5.5V). As output, supplies external devices when EP10 is in USB Host mode. As input, charges battery when EP10 is in USB Client mode.
9	DOCK_ID		Input	Dock ID.
10	USB_OTG_DN		Bi-directional	
11	USB_OTG_DP		Bi-directional	

Preliminary Draft

Pin #	Pin Name	Signal	Direction Relative To DPA	Comment
12	USB_OTG_ID		Input	
13	GND	DGND	-	
14	TXDATA		Output	RS-232 data transmit. Max bit rate 115 kbits/sec.
15	RXDATA		Input	RS-232 data receive. Max bit rate 115 kbits/sec.
16	GND	DGND	-	

B.2 Battery Contact Pinout

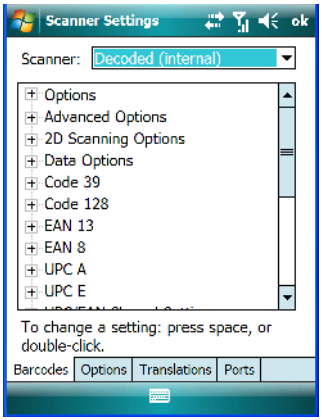
PIN #	Signal Name	Function
1	Pack +	Battery positive
2	Pack +	Battery positive
3	DQ	Serial data I/O
4	Det	Connect to Pack – through 0 Ω
5	-	No Connection
6	Pack -	Battery negative
7	Pack -	Battery negative

Preliminary Draft

APPENDIX C

BAR CODES SETTINGS

C.1 Scanner Menu



The drop down menu to the right of the *Scanner* option allows you to choose from the imager for your unit.

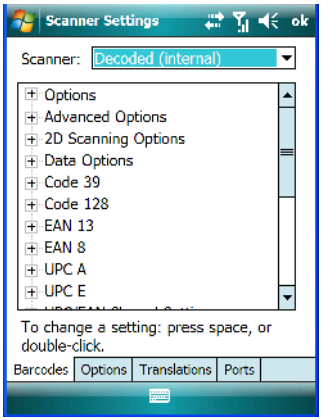
The symbologies listed change to reflect the scanner you choose and the bar codes it supports.

Important: To improve the decode speed and performance, enable only those codes that are required by the application.

Keep in mind that some bar code types are only available when an internal imaging scanner is installed. All internal scanners can be configured using the *Barcode* dialog boxes.

Preliminary Draft

C.2 Decoded (Internal) Scanner



C.2.1 Options – Decoded (Internal) Scanner

Dot Time (msec)

The value selected for “Dot Time (msec)” determines (in milliseconds) how long the targeting dot remains on before the scanner switches to a normal scan sweep. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value of 0 msec, 200 msec or 400 msec. A value of 0 (zero) disables the target dot.

Aim Duration

This parameter determines the total time the aiming pattern appears before the scanner laser begins sweeping. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value from 0 to 30 (0 to 3 sec.). A value of 0 (zero) disables the aiming dot.

Laser On Time

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between 5 and 99, each number representing 0.1.

Preliminary Draft

C.2.2 Advanced Options – Decoded (Internal)

Continuous Scan Mode

Setting this parameter to 'on' keeps the laser on and continuously decoding as long as the scanner button is pressed and held down.

Minimum Cancel Time

The value assigned to this parameter determines the time delay before the scanner is turned off, once the scanner trigger or button is released. This gives the scanner a minimum amount of time to complete its current decode before the scan is cancelled when the user quickly triggers on/off.

Power Mode

This parameter is a power-saving option. Tapping on it displays a screen listing two power mode options: *Continuous Power* and *Low Power*.

In *Continuous Power* mode, the scanner is always on, waiting for a trigger pull or a serial communication.

In *Low Power* mode, the scanner is in a standby state, drawing minimal power until a trigger pull or serial communication wakes it. Keep in mind that while this option is more suitable for battery powered applications, there will be a slight delay while the scanner powers up to scan a bar code.

Low Power Timeout

To extend laser life, you can select the length of time the scanner remains active following a successful decode. The scanner wakes from low power mode when a bar code is scanned – a successful decode restores normal blinking.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a value of 30 sec, 1 min, 2 min or 3 min.

Note: This parameter is only used if the Trigger Mode has been set to Continuous On and the EP10 is mounted in a fixed position; otherwise, 'Low Power Timeout' is not used.

Parameter Scanning

Setting this parameter to on enables decoding of parameter bar codes.

Preliminary Draft

Linear Security Level

This parameter allows you to select the security level appropriate for your bar code quality. There are four levels of decode security for linear code types (e.g., Code 39, Interleaved 2 of 5). Higher security levels should be selected for decreasing levels of bar code quality. As security levels increase, the scanner's decode speed decreases.

Double-tapping on this parameter displays a dialog box in which you can enter a value from 1 to 4.

"Linear security level 1" specifies that the following code types must be successfully read twice before being decoded:

Code Type	Length
Codabar	All
MSI Plessey	4 or less
D 5 of 5	8 or less
I 2 of 5	8 or less

"Linear security level 2" specifies that all types of codes must be successfully read twice before being decoded.

"Linear security level 3" specifies that code types other than the following must be successfully read twice before being decoded. The following codes must be read three times:

Code Type	Length
MSI Plessey	4 or less
D 2 of 5	8 or less
I 2 of 5	8 or less

"Linear security level 4" requires that all code types be successfully read three times before being decoded.

Bi-Direction Redundancy

Note: This parameter is only valid if a "Linear Security Level" is enabled.

Preliminary Draft

When this parameter is enabled, a bar code must be successfully scanned in both directions (forward and reverse) before being decoded.

Scan Angle

This option allows you to choose from two scan angles: *Normal Angle* or *Alternate Angle*. Choosing *Normal Angle* allows the normal operation for scanning long range and short range. Choosing *Alternate Angle* widens the beam to allow scanning of long bar codes at short range but at the cost of long range scanning.

C.2.3 Decoded (Internal) 2D Scanning Options

Scanning Mode

When you double-tap on this parameter, a dialog box is displayed in which you can choose one of the following scanning modes: Smart Raster, Always Raster, Programmable Raster, Slab Pattern, Cyclone Pattern or Semi-Omni Pattern.

Raster Height And Raster Expand Rate

These parameter determine the laser pattern's height and rate of expansion.

Note: These parameters are only used when either Programmable Raster or Always Raster is assigned to the "2D Scanning Mode" parameter. "2D Raster Height" and "2D Raster Expand Rate" are intended for very specific applications and are usually not required for normal scanning purposes.

Double-tapping on this parameter displays a dialog box in which you can enter a value from 1 to 15.

C.2.4 Data Options — Decoded (Internal) Scanner

Transmit Code ID Char

A code ID character identifies the scanned bar code type. In addition to any single character prefix already selected, the code ID character is inserted between the prefix and the decoded symbol.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a transmit code: None, AIM or Symbol.

Preliminary Draft

Scan Data Format

This parameter allows you to change the scan data transmission format. Double-tapping on "Scan Data Format" displays the following options from which you can choose a data format: data (as-is), data [S1], data [S2], data [S1][S2], [P] data, [P] data [S1], [P] data [S2] and [P] data [S1][S2].

Prefix [P], Suffix [S1] And Suffix [S2]

A prefix and/or one or two suffixes may be appended to scan data for use in data editing.

When you double-tap on these parameters, a dialog box is displayed in which you can enter a value from 0 to 255.

Delete Char Set ECIs

Setting this parameter to *on* enables the scanner to delete any escape sequences representing Character Set ECIs – Extended Channel Interpretations (also known as GLIs) from its buffer before transmission.

When this parameter is enabled, the scanner transmits data from PDF417 and MicroPDF417 bar codes containing Character Set ECIs, even when the ECI Protocol is disabled.

ECI Decoder

Setting this parameter to *on* enables the scanner to interpret any Extended Channel Interpretations (ECIs) supported by the scanner. This parameter has no effect on symbols that were not encoded using ECIs.

If this parameter is set to *off* and a symbol that was encoded using an ECI escape is scanned, the scanner transmits the ECI escape followed by the uninterpreted data.

C.2.5 Code 39

Enabled

Setting this parameter to on enables "Code 39".

Enable Trioptic Code 39

Note: "Trioptic Code 39" and "Full ASCII" should not be enabled simultaneously. The scanner does not automatically discriminate between these two symbologies.

Trioptic Code 39 symbols always contain six characters. Setting this parameter to *on* allows this type of symbology to be recognized.

Preliminary Draft

Convert To Code 32

Note: "Code 39" must be enabled in order for this parameter to function.

Setting this parameter to *on* allows the scanner to convert the bar code from "Code 39" to "Code 32".

Code 32 Prefix

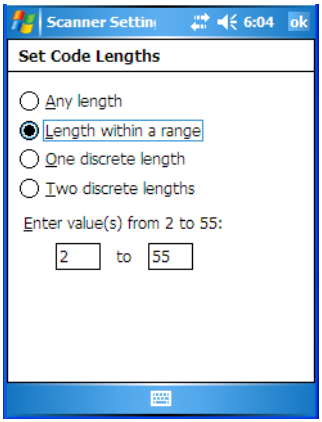
Note: "Convert to Code 32" must be enabled in order for this parameter to function.

When this parameter is enabled, the prefix character "A" is added to all "Code 32" bar codes.

Set Length L1 And Set Length L2

Lengths for "Code 39" can be set for *Any length, Length within a range, One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be decoded by your scanner.



Choosing *One discrete length* allows you to decode only those codes containing a selected length. Choosing *Two discrete lengths* allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 1 to 55.

Preliminary Draft

Check Digit Verification

When this parameter is enabled (set to *on*), the integrity of a "Code 39" symbol is checked to ensure that it complies with specified algorithms.

Note: Only those "Code 39" symbols that include a Mod 43 check digit are decoded when this parameter is enabled.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must to enabled.

Full ASCII

If this parameter is enabled, the characters +, %, and / are used as escape characters. The combination of an escape character and the next character is converted to an equivalent ASCII character.

Decode Performance

If this parameter is enabled, one of three decode levels can be chosen in the "Decode Performance Level" parameter.

Decode Perf. Level

This parameter provides three levels of decode performance or "aggressiveness" for Code 39 symbols. Increasing the performance level reduces the amount of required bar code orientation – this is useful when scanning very long and/or truncated bar codes. Keep in mind that increased levels reduce decode security.

When you double-tap on this parameter, a dialog box is displayed in which you can enter a decode performance level of between 1 and 3.

Length Restriction

The parameters in this sub-menu allow you to define the length of the bar codes that will be decoded using either the *Field Size* parameter or the *Minimum Size* and *Maximum Size* parameters (see below). The order of operation to either match the *Field Size* or determine if the length falls between the *Minimum Size* and *Maximum Size* is as follows:

- Strip the leading and trailing characters.
- Add the prefix and suffix characters.
- Count the number of characters remaining to either match the field size or determine if the length falls between the minimum and maximum size.

Preliminary Draft

Field Size

When a value is assigned for this parameter, only bar codes that match the field size exactly can be transmitted. If a value is assigned to this parameter, a *Minimum Size* and *Maximum Size* value is not required.

Minimum Size And Maximum Size

When a value is assigned to these parameters, only bar code lengths that fall between the minimum and maximum value can be decoded. If values are assigned to these parameters, a *Field Size* value is not required.

Add/Remove Data

Prefix Char

This character, if non-zero, is added before a successfully decoded bar code. Press the key you want to insert in the dialog box attached to this parameter. The ASCII/Unicode key value of the keypress is displayed.

Suffix Char

This character, if non-zero, is added after a successfully decoded bar code. Press the key you want to insert in the dialog box attached to this parameter. The ASCII/Unicode key value of the keypress is displayed.

Strip Leading

This parameter determines the number of characters that will be removed from the beginning of the bar code before the prefix character is added.

Note: For Code 39 bar codes, the "AIAG Strip" is performed ***before*** *the "Strip Leading".*

Strip Trailing

The value entered in this parameter determines the number of characters that will be removed from the end of the bar code before the suffix character is added.

C.2.6 Code 128

Enabled

Set this parameter to *on* to enable "Code 128".

Enable GS1-128/GS1 US

Previously UPC/EAN and UCC, these types of bar codes include group separators and start codes.

Preliminary Draft

Enable ISBT 128

To successfully scan this variation, “Enable ISBT 128” must be set to *on*.

Decode Performance

If this parameter is set to on, one of three decode levels assigned to the “Decode Performance Level” parameter can be selected.

Decode Perf. Level

This parameter provides three levels of decode performance or “aggressiveness” for Code 128 symbols. Increasing the performance level reduces the amount of required bar code orientation – this is useful when scanning very long and/or truncated bar codes. Keep in mind that increased levels reduce decode security.

When you double-tap on this parameter, a dialog box is displayed in which you can enter a decode performance level of between 1 and 3.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.7 EAN 13

Enabled

Set this parameter to *on* to enable “EAN 13”.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.8 EAN 8

Enabled

Set this parameter to *on* to enable “EAN 8”.

EAN-8 Zero Extend

When this parameter is enabled, five leading zeros are added to decoded EAN-8 symbols, making them compatible in format to EAN-13 symbols. Disabling this parameter returns EAN-8 symbols to their normal format.

Preliminary Draft

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.9 UPC A

Enabled

Set this parameter to *on* to enable “UPC A”.

UPC-A Check Digit

If you enable this parameter, the check digit is included with the decoded bar code data.

UPC-A Preamble

When you double-tap on this parameter, a dialog box is displayed where you can choose one of three options for lead-in characters for UPC-A symbols transmitted to the host device: *System Char* – system character transmitted with the data, *Country code and System Char* – both the country code (“0” for USA) and system character are transmitted with the or *None* – no preamble is transmitted. The lead-in characters are considered part of the symbol.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.10 UPC E

Enabled UPC-E

Set this parameter to *on* to allow “UPC E” bar code scans.

Enabled UPC-E1

Set this parameter to on to allow “UPC-E1” (zero suppressed) bar code scans.

UPC-E And UPC-E1 Check Digit

If you enable one or both of these parameters, a check digit is included with the decoded bar code data.

UPC-E And UPC-E1 Preamble

When you double-tap on one of these parameters, a dialog box is displayed where you can choose one of three options for lead-in characters for UPC-E and UPC-E1 symbols transmitted to the host device: *System Char* – system character transmitted with the data, *Country code and System Char* – both the country code (“0” for USA) and system character are

Preliminary Draft

transmitted with the data or *None* – no preamble is transmitted. The lead-in characters are considered part of the symbol.

Conv. UPC-E To UPC-A

This parameter converts UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

Conv. UPC-E1 To UPC-A

This parameter converts UPC-E1 (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.11 UPC/EAN Shared Settings

The parameters you set here are a shared across all available UPC and EAN bar codes.

Enable Bookland EAN

Setting this parameter to on allows your scanner to recognize “Bookland EAN” bar codes.

Supplementals

“Supplementals” are additionally appended characters (2 or 5).

Double-tapping this parameter displays a list of options. If *Ignore* is chosen, UPC/EAN is decoded and the supplemental characters are ignored. If *Decode* is chosen, UPC/EAN symbols are decoded with supplementals. *Autodiscriminate* works in conjunction with the “Supp. Redundancy” parameter.

Supp. Redundancy

With *Autodiscriminate* selected in the “Supplementals” parameter, “Supp. Redundancy” adjusts the number of times a symbol without supplementals is decoded before transmission.

When you double-tap on this parameter, a dialog box is displayed in which you can enter a value between 2 and 20. A value of 5 or above is recommended when Autodiscriminate is selected and you are decoding a mix of UPC/EAN symbols with and without supplementals.

Preliminary Draft

Security Level

This parameter controls the tolerance for decoding edge-to-edge UPC/EAN bar codes. Double-tapping on this parameter displays a dialog box in which you can choose a level from 0 to 3. Lower values have a lower tolerance for misreads, but they also increase the time it takes to decode the bar code.

Linear Decode

"Linear Decode" applies to code types containing two adjacent blocks (e.g., UPC-A, EAN-8, EAN-13). When enabled (set to on), a bar code is transmitted only when both the left and right blocks are successfully decoded within one laser scan. This option should be enabled when bar codes are in proximity to each other.

2D UPC Half Block Stitching

Setting this parameter to on enables "UPC Half Block Stitching" for the SE 3223 omnidirectional engine only.

C.2.12 Code 93

Enabled

Set this parameter to *on* to enable "Code 93" or *off* to disable it.

Set Length L1 And Set Length L2

Lengths for "Code 93" can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those codes containing a selected length. Choosing *Two discrete lengths* allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 4 to 55.

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

Preliminary Draft

C.2.13 Codabar

Enabled

Set this parameter to on to enable “Codabar” or off to disable it.

Set Length L1 And Set Length L2

Lengths for “Codabar” can be set for Any length, Length within a range, One discrete length or Two discrete lengths. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled Set Code Lengths where you can define the code length that will be recognized by your scanner.

Choosing One discrete length allows you to decode only those codes containing a selected length. Choosing Two discrete lengths allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 5 to 55.

CLSI Editing

When enabled, this parameter strips the start and stop characters
and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar symbol.

Note: Symbol length does not include start and stop characters.

NOTIS Editing

When enabled, this parameter strips the start and stop characters from decoded Codabar symbol.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.14 MSI Plessey

Enabled

Set this parameter to *on* to enable “MSI Plessey”.

Preliminary Draft

Set Length L1 And Set Length L2

Lengths for "MSI Plessey" can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those codes containing a selected length. Choosing *Two discrete lengths* allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 6 to 55.

Check Digits

Double-tapping on this parameter displays a dialog box in which you can choose One or Two check digit(s).

If this parameter is set to *One*, it is assumed that the last digit is a check digit. If "Check Digits" is set to *Two*, it is assumed that the last two digits are check digits.

Note: If Two check digits is selected, an MSI Plessey "Check Digit Algorithm: must also be selected. See below for details.

Transmit Check Digit

If this parameter is enabled, the check digit is included with the bar code data.

Check Digit Algorithm

When the *Two MSI Plessey* check digits option is selected, an additional verification is required to ensure integrity. Double-tapping on this parameter displays a dialog box n which you can choose the algorithm to be used: MOD 10/MOD 11 or MOD 10/MOD 10.

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

Preliminary Draft

C.2.15 Interleaved 2 of 5

Enabled

Set this parameter to *on* to enable “Interleaved 2 of 5”.

Set Length L1 And Set Length L2

Lengths for “Interleaved 2 of 5” can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those codes containing a selected length. Choosing *Two discrete lengths* allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 4 to 14.

Check Digit Verification

When enabled, this parameter checks the integrity of an I 2 of 5 symbol to ensure it complies with a specified algorithm – either USS (Uniform Symbology Specification) or OPCC (Optical Product Code Council).

Transmit Check Digit

If this parameter is enabled, the check digit is included with the bar code data.

Convert To EAN 13

If this parameter is enabled, the I 2 of 5 bar code is converted to EAN 13.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.16 Discrete 2 of 5

Enabled

Set this parameter to *on* to enable “Discrete 2 of 5”.

Preliminary Draft

Set Length L1 And Set Length L2

Lengths for "Discrete 2 of 5" can be set for *Any length*, *Length within a range*, *One discrete length* or *Two discrete lengths*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on this parameter displays a dialog box labelled *Set Code Lengths* where you can define the code length that will be recognized by your scanner.

Choosing *One discrete length* allows you to decode only those codes containing a selected length. Choosing *Two discrete lengths* allows you to decode only those codes containing two selected lengths. *Length within a range* allows you to decode a code type within a specified range from 1 to 12.

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.2.17 RSS Code

Enable

Setting this parameter to *on* enables "2D RSS Code" scanning capability.

Enable RSS-14 (Reduced Space Symbology)

RSS-14 code can be either purely linear or split in half with one half stacked on top of the other half. Stacking the code reduces the bar code length, and providing the nominal height of the code is maintained, it can be omni-directionally scanned.

Enable RSS Limited

"RSS-Limited" is restricted, in that it can only encode 14 digit GTINs (global trade item number) that begin with either a *0* or a *1*. It is not stackable and is not designed to be read omni-directionally.

Enable RSS Expanded

"RSS Expanded" uses the same application identifiers as UCC/EAN-128 codes but it can be split into sections and stacked several rows high, reducing the length of the symbol, while increasing the capacity of data that can be stored. "RSS Expanded" code can be omni-directionally scanned.

Preliminary Draft

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.2.18 Composite

Important: To successfully read this type of bar code, the two types of symbologies included in a composite bar code must be enabled. In addition, “Center Bar Code Only” must be disabled.

A composite symbol includes multi-row 2D components making it compatible with linear and area CCD scanners along with linear and rastering laser scanners.

The options available for this parameter represent multi-level components of a composite symbol.

Enable CC-C And Enable CC-AB

To activate these components, set these parameters to *on*.

Enable TLC-39

This composite component integrates MicroPDF417 with the linear code. Setting this parameter to *on* enables this parameter.

C.2.19 PDF-417

Enable

Setting this parameter to *on* enables PDF-417 two dimensional (2D) coding.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

Preliminary Draft

C.2.20 Micro PDF-417

Enable

Setting this parameter to on enables “Micro PDF-417” bar code scanning. Micro PDF-417 is a multi-row symbology that is useful for applications requiring greater area efficiency but lower data capacity than PDF-417.

Code 128 Emulation

When this parameter is enabled, the scanner transmits data from certain Micro PDF-417 symbols as if it was encoded in Code 128 symbols.

If Code 128 Emulation is enabled, the following Micro PDF-417 symbols are transmitted with one of the following prefixes:

]C1 - if the first codeword is 903-907, 912, 914, 915

]C2 - if the first codeword is 908 or 909

]C0 - if the first codeword is 910 or 911

If Code 128 Emulation is set to off, the Micro PDF-417 symbols are transmitted with one of the following prefixes:

]L3 - if the first codeword is 903-907, 912, 914, 915

]L4 - if the first codeword is 908 or 909

]L5 - if the first codeword is 910 or 911

Length Restriction

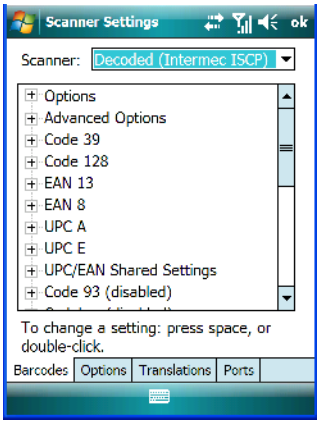
Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

Preliminary Draft

C.3 Decoded



- Tap on the **Scanner** drop down menu, and choose **Decoded (Intermec ISCP).**

C.3.1 Options – Decoded Scanner

Laser On Time

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between 1 and 10 seconds.

C.3.2 Advanced Options – Decoded Scanner

Continuous Scan Mode

Setting this parameter to ‘on’ keeps the laser on and continuously decoding as long as the scanner button is pressed and held down.

Minimum Cancel Time

The value assigned to this parameter determines the time delay before the scanner is turned off, once the scanner trigger or button is released. This gives the scanner a minimum amount of time to complete its current decode before the scan is cancelled when the user quickly triggers on/off.

Preliminary Draft

Low Power Timeout

To extend laser life, you can select the length of time the scanner remains active following a successful decode. The scanner wakes from low power mode when a bar code is scanned – a successful decode restores normal blinking.

When you double-tap on this parameter, a dialog box is displayed in which you can choose a value of 30 sec, 1 min, 2 min or 3 min.

Note: This parameter is only used if the Trigger Mode has been set to Continuous On and the EP10 is mounted in a fixed position; otherwise, 'Low Power Timeout' is not used.

Parameter Scanning

Setting this parameter to Enabled allows decoding of parameter bar codes.

Same Read Validate

The data is only transmitted after repeated reads give the same result. The value assigned at this parameter determines the number of reads required, from 0 to 10 times.

Same Read Timeout

Prevents the same bar code from being read more than once. The value assigned determines after what time period the scanner will timeout, from 0 to 2550 msec.

Diff Read Timeout

Prevents unwanted reading of other bar codes on the same label. The value assigned determines after what time period the scanner will timeout, from 0 to 2550 msec.

Add AIM ID Prefix

The *AIM ID* (Association for Automatic Identification and Mobility) is an international bar code identifier. When this parameter is enabled, the *AIM ID* is inserted at the beginning of the decoded bar code.

C.3.3 Code 39

Enable

Setting this parameter to *on* enables "Code 39".

Preliminary Draft

Full ASCII

If this parameter is enabled, the characters +, %, and / are used as escape characters. The combination of an escape character and the next character is converted to an equivalent ASCII character.

Reading Range

Determines the reading distance from which a bar code can be successfully scanned. The default setting, Extended, allows for increased reading distance.

Start/Stop Transmit

Setting this parameter to *on* enables the transmission of start and stop characters, which are usually not transmitted. Code 39 can start and end with either a * or a $ character (see also next parameter, “Accepted Start Char”).

Accepted Start Char

This parameter allows the user the option of using one of the two start/stop characters or both ($ char, * char, $ and * char).

Check Digit Verification

Uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted. The available options are: Disabled, MOD 43 Check, French CIP, or Italian CIP.

Note: French CIP (French pharmaceutical) is only used with bar codes containing 7 characters.

Italian CIP (Italian pharmaceutical) is also known as Code 32. It is transmitted as a standard Code 39 if checksum is not validated.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Preliminary Draft

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.4 Code 128

Enable

Setting this parameter to *on* enables “Code 128”.

GS1-128

“GS1-128” is the GS1 implementation of the Code 128 barcode specification. The former correct name was UCC/EAN-128.

GS1-128 Identifier

“GS1-128 Identifier” allows the AIM ID "]C1" for EAN 128 to be transmitted or removed. By default, this identifier is transmitted if EAN 128 is enabled.

GTIN Compliant

GTIN (global trade item number) processing transmits EAN 128 as the 14-character EAN/UCC GTIN. To use GTIN processing, you must activate the EAN 128 symbology.

Important: When EAN 128 and GTIN processing are both activated, it is not possible to read normal EAN 128 Codes.

FNC1 Conversion

“FNC1 Conversion” allows the embedded FNC1 character to be converted to another character for applications that cannot use the default <GS> Group Separator or hex (1d).

Double-tapping on this option displays a dialog box listing the allowable range – 0 to 255.

Enable ISBT 128

To successfully scan this type of bar code (International Society of Blood Transfusion), this option must be set to *on*. If you enable this type of bar code, Code 128/EAN 128 is deactivated to avoid any confusion.

ISBT Concat Transmit

The codes are not concatenated by default. You need to choose one of the options provided for this parameter to send concatenated code. Choosing Only Concatenated Codes transmits only concatenated codes – single codes will not be transmitted. Choosing Concatenated or

Preliminary Draft

Single transmits single codes or concatenated codes. If only one code of a pair is read, that code will be transmitted as a single code. If both codes in a pair are detected, they will be concatenated provided that ISBT Concat Any Pair (see below) is enabled.

ISBT Concat Any Pair

Enabling this parameter causes all code pairs that can be, to be concatenated even if they do not comply with Section 4.1 of the "ISBT 128 Bar Code Symbology and Application Specification for Labeling of Whole Blood and Blood Components" (June 2000, Version 1.2.1).

Reading Range

Determines the reading distance from which a bar code can be successfully scanned. The default setting Extended, allows for increased reading distance.

Check Digit Verification

The available options for this parameter are Disabled or French CIP. This parameter uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

Note: French CIP (French pharmaceutical) is only used with bar codes containing 7 characters.

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.3.5 EAN 13

Enabled

Set this parameter to *on* to enable "EAN 13".

ISBN Conversion

When this parameter (International Standard Book Number) is enabled, the first 3 characters ('978') are ignored and the checksum (0.9, 'X') is calculated on the remaining characters.

Preliminary Draft

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.6 EAN 8

Enabled

Set this parameter to *on* to enable “EAN 8”.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Convert To EAN 13

If this parameter is enabled, an EAN 8 bar code is converted to EAN 13.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.7 UPCA

Enabled

Set this parameter to *on* to enable “UPC A” bar code scanning recognition.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Transmit Number System

If this parameter is enabled, the number system digit is transmitted with the decoded bar code data.

Convert To EAN 13

If this parameter is enabled, a UPC A bar code is converted to EAN 13.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

Preliminary Draft

C.3.8 UPC E

Enabled

Set this parameter to *on* to enable “UPC E”.

Enable UPC-E1

Set this parameter to *on* to allow “UPC-E1” (zero suppressed) bar code scans.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Transmit Number System

If this parameter is enabled, the number system digit is transmitted with the decoded bar code data.

Convert To UPC-A

This parameter converts UPC E (zero suppressed) decoded data to UPC A format before transmission. After conversion, data follows UPC A format and is affected by UPC A programming selections (e.g. Check Digit).

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.9 UPC/EAN Shared

The setting assigned to the “Addendum” parameter associated with this option is shared across all UPC and EAN bar codes.

Addendum

An addendum is a separate bar code, supplementary to the main bar code. This parameter provides two options: *Not Required but Transmitted if Read* or *Required and Transmitted*.

- Double-tap on **Addendum** to display a dialog box listing your options.
- Highlight an item, and tap on **OK**.

When “Addendum” is set to *Not Required but Transmitted if Read*, the scanner searches for an addendum and if one exists, appends it to the main bar code. When the parameter is set to *Required and Transmitted*, the scanner does not accept the main bar code without an addendum.

Preliminary Draft

Addendum Add-on 2 And Addendum Add-on 5

Enabling these parameters sets the length of the addendum bar code to either 2 or 5 characters.

Addendum Security

If you tap on "Addendum Security", a dialog box is displayed in which you can define the security level of add-on 2 or add-on 5 with a value from 0 to 100. As security levels increase, the scanner decode speed decreases.

GTIN Compliant

GTIN (global trade item number) processing transmits EAN 128 as the 14-character EAN/UCC GTIN. To use GTIN processing, you must activate the EAN 128 symbology.

Important: When EAN 128 and GTIN processing are both activated, it is not possible to read normal EAN 128 Codes.

Reading Range

This parameter determines the reading distance from which a bar code can be successfully scanned. The default setting, *Extended*, allows for increased reading distance.

C.3.10 Code 93

Enabled

Set this parameter to *on* to enable "Code 93".

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

Preliminary Draft

C.3.11 Codabar

Enabled

Set this parameter to *on* to enable “Codabar”.

Start/Stop Transmit

Codabar can use the following sets of characters as start and stop characters:

a, b, c, d

A, B, C, D

a, b, c, d, /, t, n, *, e

DC1, DC2, DC3, DC4

Thus, when a set is chosen, the first and last digits of a Codabar message must be one of those characters and the body of the message should not contain these characters. Setting this parameter to Not Transmitted strips the start and stop characters from this bar code.

CLSI Library System

When enabled, spaces are inserted after characters 1, 5, 10 in the 14-character label (used in the USA by libraries using the CLSI system).

Check Digit Verification

When enabled, this parameter checks the integrity of a symbol to ensure it complies with a specified algorithm – either *USS* (Uniform Symbology Specification) or *OPCC* (Optical Product Code Council).

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Set Length L1, Set Length L2, And Set Length L3

Lengths for “Codabar” can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on these parameters displays dialog boxes where you can define the code length that will be recognized by your scanner.

Length Mode

You can choose to set L1 as Minimum Length or L1,L2,L3 as Fixed Length.

Preliminary Draft

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.12 MSI Plessey

Enabled

Set this parameter to *on* to enable “MSI”.

Enable Plessy

Set this parameter to *on* to enable “Plessy”.

Check Digit Verification

The available options for this parameter are *MOD 10 Check* and *Double MOD 10 Check*. This parameter uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Plessy Transmit Check Digit

If the check digit is to be transmitted with the Plessy data, this parameter must be enabled.

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Plessy Minimum Length

Minimum lengths for the Plessy bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

Preliminary Draft

C.3.13 Code 11

Enabled

Set this parameter to *on* to enable “Code 11”.

Check Digit Verification

The available options for this parameter are *MOD 10 Check* and *Double MOD 10 Check*.This parameter uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.14 Interleaved 2 of 5

Enabled

Set this parameter to *on* to enable “Interleaved 2 of 5”.

Reading Range

This parameter determines the reading distance from which a bar code can be successfully scanned. The default setting, Extended, allows for increased reading distance.

Check Digit Verification

The available options for this parameter are *Disabled, MOD 10 Check* and *French CIP*. “Check Digit Verification” uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

Preliminary Draft

Note: French CIP (French pharmaceutical) is only used with bar codes containing 7 characters.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Set Length L1, Set Length L2, And Set Length L3

Lengths for "Interleaved 2 of 5" can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on these parameters displays dialog boxes where you can define the code length that will be recognized by your scanner.

Length Mode

You can chose to set L1 as Minimum Length or L1,L2,L3 as Fixed Length.

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.3.15 Matrix 2 of 5

Enabled

Set this parameter to *on* to enable "Matrix 2 of 5".

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page 9 for details.

Preliminary Draft

C.3.16 Discrete 2 of 5

Enabled

Set this parameter to *on* to enable “Discrete 2 of 5”.

Standard 2 of 5 Format

This parameter allows you to choose a standard format – either *Identic on (6 start/stop bars) or Computer Identics (4 start/stop bars)*.

Check Digit Verification

The available options for this parameter are *Disabled* and *MOD 10 Check*. “Check Digit Verification” uses the specified algorithm of the option you've chosen to ensure the integrity of the symbol data before transmitting. If the data does not contain that algorithm, the data is not transmitted.

Transmit Check Digit

If the check digit is to be transmitted with the data, this parameter must be enabled.

Set Length L1, Set Length L2, And Set Length L3

Lengths for “Discrete 2 of 5” can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Double-tapping on these parameters displays dialog boxes where you can define the code length that will be recognized by your scanner.

Length Mode

You can chose to set *L1 as Minimum Length or L1,L2,L3 as Fixed Length*.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.17 Telepen

Enabled

Set this parameter to *on* to enable “Telepen”.

Preliminary Draft

Format

This parameter allows you to set the bar code character format to either *ASCII or Numeric*.

Minimum Length

Minimum lengths for the bar code can be set from *0 to 255*. The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s).

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.3.18 RSS Code (Reduced Space Symbology)

Enable

Setting this parameter to *on* enables "RSS Code" scanning capability.

Enable RSS-14

RSS-14 code can be either purely linear or split in half with one half stacked on top of the other half. Stacking the code reduces the bar code length, and providing the nominal height of the code is maintained, it can be omni-directionally scanned.

Enable RSS Limited

"RSS-Limited" is restricted, in that it can only encode 14 digit GTINs (global trade item number) that begin with either a 0 or a 1. It is not stackable and is not designed to be read omni-directionally.

Enable RSS Expanded

"RSS Expanded" uses the same application identifiers as UCC/EAN-128 codes but they can be split into sections and stacked several rows high, reducing the length of the symbol, while increasing the capacity of data that can be stored. "RSS Expanded" code can be omni-directionally scanned.

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Preliminary Draft

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.19 Composite

Important: To successfully read this type of bar code, the two types of symbologies included in a composite bar code must be enabled. In addition, “Center Bar Code Only” must be disabled.

A composite symbol includes multi-row 2D components making it compatible with linear and area CCD scanners along with linear and rastering laser scanners.

The options available for this parameter represent multi-level components of a composite symbol.

Enable CC-C And Enable CC-AB

To activate these components, set these parameters to *on*.

Linear Transmission Only

When ‘Linear Transmission Only’ is enabled, only the linear code portion of the composite bar code is transmitted when scanned.

UPC-EAN Composite Message

This option allows you to choose how UPC-EAN shared bar codes are transmitted: *Always Linked*, *Never Linked* or *Auto-discriminate*.

C.3.20 TLC-39

Enable

This composite component integrates MicroPDF417 with the linear Code 39 symbol. Setting this parameter to *on* enables this parameter.

Linear Transmission Only

When “Linear Transmission Only” is enabled, only the linear portion of the composite bar code is transmitted when scanned.

Preliminary Draft

Security Level

This parameter is used to differentiate between TLC-39 and standard Code 39. Tapping on "Security Level" displays a dialog box in which you can assign a value from 0 to 100. The higher the value assigned, the lower the decode rate.

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.3.21 PDF-417

Enabled

Set this parameter to *on* to enable "PDF-417".

Length Restriction

Refer to "Length Restriction" on page C-8 for details.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.3.22 Micro PDF-417

Enabled

Set this parameter to *on* to enable "Micro PDF-417".

Code 128 Emulation

When this parameter is enabled, the scanner transmits data from certain Micro PDF-417 symbols as if it was encoded in Code 128 symbols.

If Code 128 Emulation is enabled, the following Micro PDF-417 symbols are transmitted with one of the following prefixes:

]C1 - if the first codeword is 903-907, 912, 914, 915

]C2 - if the first codeword is 908 or 909

]C0 - if the first codeword is 910 or 911

If Code 128 Emulation is set to off, the Micro PDF-417 symbols are transmitted with one of the following prefixes:

Preliminary Draft

]L3 - if the first codeword is 903-907, 912, 914, 915

]L4 - if the first codeword is 908 or 909

]L5 - if the first codeword is 910 or 911

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.3.23 Codablock

Enable Codablock A

Set this parameter to *on* to enable “Codablock type A”.

Enable Codablock F

Set this parameter to *on* to enable “Codablock type F”.

Length Restriction

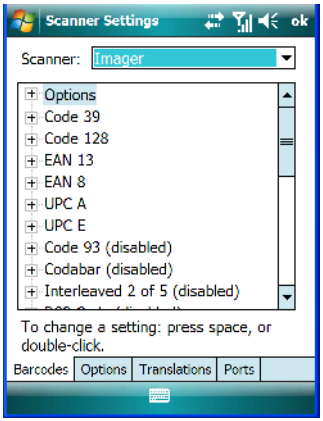
Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

Preliminary Draft

C.4 Imager



- Tap on the **Scanner** drop down menu, and choose **Imager**.

C.4.1 Options – Imager

Center Barcode Only

Note: This parameter must be disabled when reading Composite bar codes.

When more than one bar code is visible in a single snap shot, this parameter allows you to specify that only the centre image within the imager framing marker be read. When this parameter is set to *on*, the target dot is pointed at the centre image and only that image is returned.

Max Number Barcodes

This parameter specifies the maximum number of bar codes the imager will attempt to decode in an image. A maximum of 6 bar codes can be decoded at one time.

Barcodes Must Decode

This parameter specifies the minimum number of bar codes that the imager must decode in order to report success.

Note: This number must be less than the number of bar codes assigned to "Max Number Barcodes". The driver validates and reassigns the value if necessary.

Preliminary Draft

C.4.2 Code 39 Settings

Enabled

Set this parameter to *on* to enable “Code 39”.

Full ASCII

If this parameter is enabled, the characters +, %, and / are used as escape characters. The combination of an escape character and the next character is converted to an equivalent ASCII character.

Check Digit Verification

When this parameter is enabled (set to *on*), the integrity of a “Code 39” symbol is checked to ensure that it complies with specified algorithms.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.3 Code 128 Settings

Enabled

Set this parameter to *on* to enable “Code 128”.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.4 EAN 13

Enabled

Set this parameter to *on* to enable “EAN 13”.

Preliminary Draft

Addendum

An addendum is a separate bar code, supplementary to the main bar code. This parameter provides three options: Disabled, Optional and Required. Depending on the value chosen for this parameter, an addendum is recognized or ignored.

- Double-tap on **Addendum** to display a dialog box listing your options.
- Highlight an item, and tap on **OK**.

When "Addendum" is set to *Disabled*, the scanner does not recognize an addendum. If this parameter is set to *Optional*, the scanner searches for an addendum and if one exists, appends it to the main bar code. When the parameter is set to *Required*, the scanner does not accept the main bar code without an addendum.

Note: Setting "Addendum" to 'Optional' reduces performance. It should only be chosen if at least some of the bar codes being read have addendums.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.4.5 EAN 8

Enabled

Set this parameter to *on* to enable "EAN 8".

Addendum

Refer to "Addendum" on page C-26.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

C.4.6 UPC A

Enabled

Set this parameter to *on* to enable "UPC A".

Addendum

Refer to "Addendum" on page C-26.

Add/Remove Data

Refer to "Add/Remove Data" on page C-9 for details.

Preliminary Draft

C.4.7 UPC E

Enabled

Set this parameter to *on* to enable “UPC E”.

Addendum

Refer to “Addendum” on page C-26.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.8 Code 93

Enabled

Set this parameter to *on* to enable “Code 93”.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.9 Codabar

Enabled

Set this parameter to *on* to enable “Codabar”.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.10 Interleaved 2 of 5

Enabled

Set this parameter to *on* to enable “Interleaved 2 of 5”.

Preliminary Draft

Check Digit Verification

When enabled, this parameter checks the integrity of an I 2 of 5 symbol to ensure it complies with a specified algorithm – either USS (Uniform Symbology Specification) or OPCC (Optical Product Code Council).

Include Check

If this parameter is enabled, the check digit is transmitted along with the I 2 of 5 symbol.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.11 RSS Code (Reduced Space Symbology)

Enable

Setting this parameter to *on* enables “RSS Code” scanning capability.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.12 Composite

Important: To successfully read this type of bar code, the two types of symbologies included in a composite bar code must be enabled.

Enabled

Set this parameter to *on* to enable “Composite” bar codes.

C.4.13 PDF-417

Enable

Setting this parameter to on enables PDF-417 two dimensional (2D) coding.

Preliminary Draft

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.14 Micro PDF-417

Enable

Setting this parameter to *on* enables “Micro PDF-417” bar code scanning. Micro PDF-417 is a multi-row symbology that is useful for applications requiring greater area efficiency but lower data capacity than PDF-417.

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.15 2D Data Matrix

Enable

Set this parameter to *on* to enable “Data Matrix”.

Inverse Video Mode

Enabling this parameter allows the imager to read inverse bar codes – white symbols presented on a black background.

Rectangular

Enabling this parameter allows the imager to recognize rectangular (as opposed to square) symbols.

Small Physical Size

Set to *on* by default, this parameter is used to detect small sized or small featured 2D data matrix symbologies. Turning this option *off* may decrease response time only if there is a great deal of “clutter” (i.e., pictures) in the image. However because these images are normally clean (the labels contain only text and bar codes along with a significant amount of white space), response time is usually *not* improved by turning this parameter off.

Preliminary Draft

Length Restriction

Refer to “Length Restriction” on page C-8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page C-9 for details.

C.4.16 2D QR Code

Enabled

Set this parameter to *on* to enable “2D QR Code”.

Field Size

Refer to “Field Size” on page C-9 for details.

C.4.17 2D Maxicode

Enabled

Set this parameter to *on* to read “2D Maxicode” images.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.18 2D Aztec

Enabled

Set this parameter to *on* to read “Aztec” symbologies.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

Preliminary Draft

C.4.19 Postal: PlaNET

Enabled

Set this parameter to *on* to enable “Postal: PlaNET”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.20 Postal: PostNET

Enabled

Set this parameter to *on* to enable “Postal: PostNET”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.21 Postal: Australian

Enabled

Set this parameter to *on* to enable “Postal: Australian”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.22 Postal: Japanese

Enabled

Set this parameter to *on* to enable “Postal: Japanese”.

Preliminary Draft

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.23 Postal: Korean

Enabled

Set this parameter to *on* to enable “Postal: Korean”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.24 Postal: Royal

Enabled

Set this parameter to *on* to enable “Postal: Royal”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

C.4.25 Postal: Kix

Enabled

Set this parameter to *on* to enable “Postal: Kix”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

Preliminary Draft

C.4.26 Postal: Canadian

Enabled

Set this parameter to *on* to enable “Postal: Canadian”.

Length Restriction

Refer to “Length Restriction” on page 8 for details.

Add/Remove Data

Refer to “Add/Remove Data” on page 9 for details.

Preliminary Draft

APPENDIX D

TEKLOGIX IMAGERS APPLET

The *Teklogix Imagers* applet is used to create, modify, delete and activate imager settings. The principle uses of the applet are to decode bar codes and to capture images. A *Demonstration Application* is provided to demonstrates how the imager works. Refer to “PTSI Imager Demo” on page 69 for details.

D.1 Required Applets

In order to configure imaging, the *Manage Triggers* and *Teklogix Scanners* applets must be present in the *Settings>System* tab along with the *Teklogix Imagers* applet.

D.2 Presets

There are two methods that can be used to configure an imager using the *Teklogix Imagers* applet:

- Use a predefined preset.
- Create a custom preset based on a predefined preset.

Important: ***It is strongly recommended that a predefined preset is used whenever possible. Each predefined preset contains a coherent group of settings that are known to work together in the intended environment. In almost all situations, at least one of the predefined presets results in a satisfactory outcome.***

A *preset* is a group of exposure and image correction settings. Each preset configures the imager for a specific purpose such as bar code decoding or image capture.

Presets also allow easier and faster configuration of the imager after power-on or resume from suspend.

The predefined presets are generic and satisfy most user requirements. A custom preset can be created for a specific user application, such as: include only specified bar codes, read only a specified number of bar codes or for reading unusual media.

Preliminary Draft

Every preset belongs to a preset type. The following preset types are available:

- Imaging for photo capture.
- Imaging for bar code decoding.
- Symbology selection.

At any time, only one preset of each type can be designated as the user-selected *active* preset.

D.2.1 Predefined Presets

Predefined presets are built into the imaging software and cannot be changed. The predefined presets allow you to use the imager to perform specified tasks without having to understand and set numerous variables. In almost all cases these predefined presets are sufficient.

D.2.2 Bar Code Predefined Presets

These presets encompass the majority of the most popular bar codes and their subtypes. The *bar code decoding symbology* predefined presets define which bar codes can be decoded. The *bar code decoding camera* predefined presets determine how the bar code images are captured

D.2.2.1 Bar Code Decoding Symbology Predefined Presets

The following presets select groups of similar bar codes for decoding.

Note: It is recommended that the default preset be used whenever possible.

Factory Default

This preset enables the decoding of frequently used bar codes.

My Default

This preset is synchronized with the *Teklogix Scanners* applet and contains all the symbologies selected using the *Teklogix Scanner* applet. For details on this synchronization see, “Configuring Symbologies in the Teklogix Imagers Applet” on page D-17.

All

This preset enables the decoding of all bar codes that the imager can decode. For a description of these symbologies see “Imager” on page C-37.

Preliminary Draft

Linear

This preset enables the decoding of all the 1D symbologies that the imager can decode. See "Imager" on page C-37 for a description of these symbologies.

Linear and PDF417

This preset enables the decoding of all the 1D and PDF symbologies that the imager can decode. See "Imager" on page C-37 for a description of these symbologies.

Matrix

This preset enables the decoding of all 2 D symbologies that the imager can decode. See "Imager" on page C-37 for a description of these symbologies.

Postal

This preset enables the decoding of all the postal symbologies that the imager can decode. See "Imager" on page C-37 for a description of these symbologies.

D.2.3 Bar Code Decoding Camera Predefined Presets

The following presets enable successful bar code image capture in almost all conditions.

Note: It is recommended that the default preset be used whenever possible.

Default

This preset works in a wide range of conditions. It is optimized for a normal office lighting (about 300 Lux).

Low light

This preset is designed for very dark conditions such as inside a warehouse where the lights are kept low, or inside an unlit truck. This preset increases either the exposure time or the gain.

Low power

This preset minimizes the use of the flash so as to conserve the battery power on the EP10.

Glossy surface

This preset minimizes the use of the flash so as to reduce reflection. This preset is used to read bar codes that are behind glass, or inside the plastic window of an envelope.

Preliminary Draft

D.2.4 Image Capture Predefined Presets

The following presets enable successful image capture in almost all conditions.

Note: It is recommended that the default preset be used whenever possible.

Default

This preset works in a wide range of conditions. It is optimized for a normal office lighting (about 300 Lux).

Motion

This preset uses a shorter exposure time so as to freeze motion.

Low light near

This preset is designed for dark conditions, it uses a longer exposure time and includes the flash.

D.3 Using The Teklogix Imagers Applet

D.3.1 Configuring The Image Capture Presets

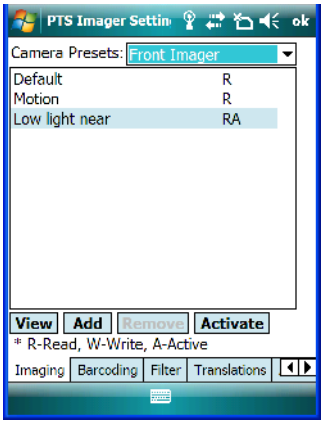
To configure the image capture presets, open the dialog box as follows:

- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and if it's not already selected, tap on the **Imaging** tab.

Preliminary Draft

The following screen is displayed:

Figure D.4 Imaging Tab



This window lists all the presets, both predefined and custom. Presets are identified as follows:

- Predefined presets are marked as *read-only*.
- Custom presets are marked as *read and write*.
- One preset – either predefined or custom – is marked as *active*.

D.3.2 Selecting A Camera

If your EP10 has more than one built-in camera, one camera must be selected for configuration. To select a camera:

- Tap on the **Camera Presets** dropdown menu to view the camera options.
- Choose a **camera** – either *Front Imager*, the imager located at the top of the unit, or *Bottom Colour Camera*, the camera located at back of the EP10.

Important: Currently, only the 'Front Imager' can be used to read bar codes. The 'Bottom Colour Camera' is limited to taking photos.

D.3.3 Setting The Active Preset

An active preset has an *A* to the right; in Figure D.4 on page D-5, the active preset is *Low light near*. To set an active preset:

- Highlight the preset, and tap on the **Activate** button.

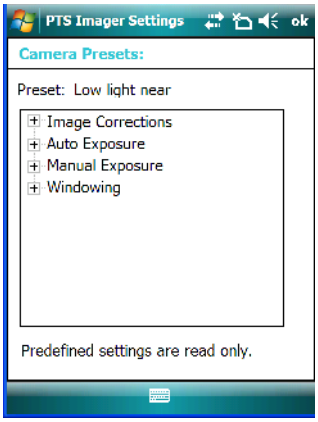
Preliminary Draft

D.3.4 Viewing A Preset

To view the parameter settings in a preset:

- Highlight a preset, and tap on the **View** button.

The associated preset window is displayed.



- Tap on the + sign to expand the lists so that you can view the parameter settings.

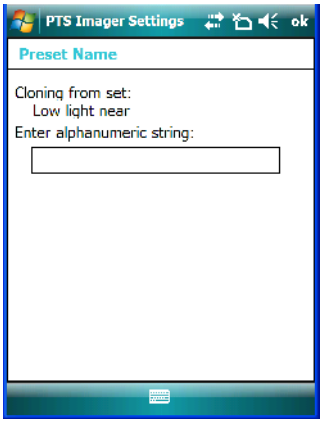
D.3.5 Creating A Custom Preset

A new custom preset is created by modifying a preset – either a predefined preset or an existing custom preset. To create a custom preset:

- Highlight a preset, and tap on the **Add** button.

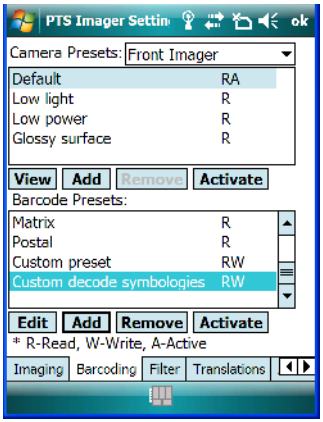
Preliminary Draft

In this example, the *Low light near* preset was chosen. A screen like the sample below is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.

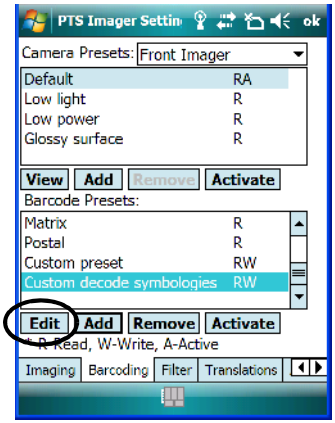


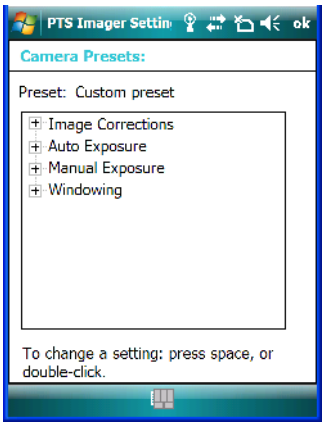
D.3.6 Modifying A Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

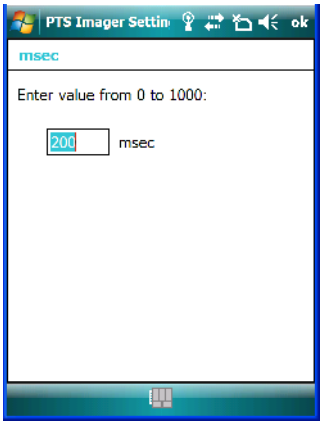
Preliminary Draft

- Highlight the custom preset, and tap on the Edit button.





- Tap on the + symbols to expand the lists so that you can view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
  - Highlight the parameter, and then press the [SPACE] key or double-click the parameter.
  - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



  - Type a value in the field provided.
- For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:

Preliminary Draft

- Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. Either method toggles between the two available values.

- When you've completed your edits, tap on **OK**.

The parameter list is displayed; the new value for the changed parameter is shown.

- Tap on **OK** to exit to the preset list and save the changes.

D.3.7 Removing A Custom Preset

- Highlight the custom preset you want to delete, and tap on the **Remove** button.

A window is displayed warning you that you are about to remove a preset.

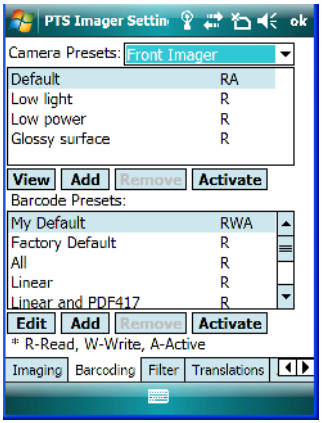
- Tap on **Yes** to remove the preset or **No** to cancel the operation.

D.4 Configuring The Bar Code Decoding Camera Presets

To configure the bar code decoding camera presets:

- Tap on **Start>Settings>System** tab.
- Tap on the **Barcoding** tab.

Figure D.5 Bar Code Presets



This window lists all the presets, both predefined and the custom. Presets are identified as follows:

- Predefined presets are marked as read-only. For a description, review "Predefined Presets" on page D-2.
- Custom presets are marked as read and write.
- One preset – either predefined or custom – is marked as active.

Preliminary Draft

Note: The top portion of the window displays the bar code decoding camera presets.

The top port of the window displays the bar code decoding camera presets.

D.4.1 Selecting A Camera

If your EP10 has more than one built-in camera, one camera must be selected for configuration. To select a camera:

- Tap on the **Camera Presets** dropdown menu to view the camera options.
- Choose a **camera** – either *Front Imager*, the imager located at the top of the unit, or *Bottom Colour Camera*, the camera located at back of the EP10.

Important: Currently, only the 'Front Imager' can be used to read bar codes. The 'Bottom Colour Camera' is limited to taking photos.

D.4.2 Setting The Active Preset

An active preset has an *A* to the right; in Figure D.5 on page page D-9, the active preset is *Defaults*. To set an active preset:

- Highlight the preset, and tap on the **Activate** button.

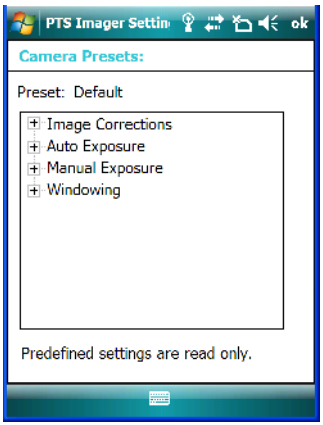
D.4.3 Viewing A Preset

To view the parameter settings in a preset:

- Highlight a preset, and tap on the **View** button.

Preliminary Draft

The associated preset window is displayed.



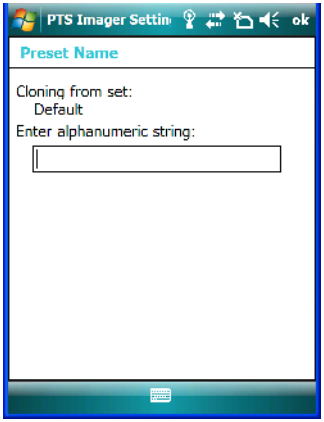
- Tap on the + sign to expand one of the lists so that you can view the parameter settings.

D.4.4 Creating A Custom Preset

A new custom preset is created by modifying a preset – either a predefined preset or an existing custom preset. To create a custom preset:

- Highlight a preset, and tap on the **Add** button.

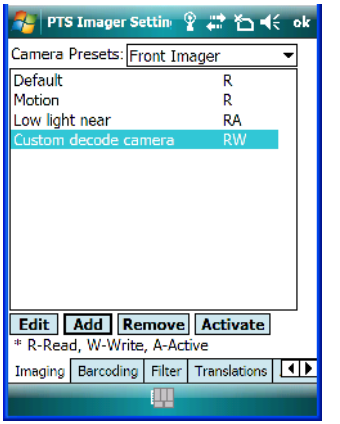
A screen like the sample following is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

Preliminary Draft

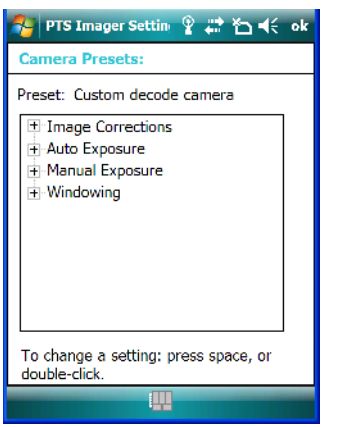
The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.



D.4.5 Modifying A Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

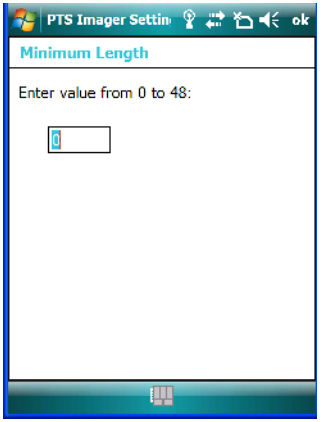
- Highlight the custom preset, and tap on the Edit button.



- Tap on the + symbols to expand the lists and view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:

Preliminary Draft

- Highlight the parameter, and then press the [SPACE] key or double-click the parameter.
- An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.

- For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
  - Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. Either method toggles between the two available values.
- When you've completed your edits, tap on **OK**.

The parameter list is displayed; the new value for the changed parameter is shown.

- Tap on **OK** to exit to the preset list and save the changes.

D.4.6 Removing A Custom Preset

- Highlight the custom preset you want to delete, and tap on the **Remove** button.

A window is displayed warning you that you are about to remove a preset.

- Tap on **Yes** to remove the preset or **No** to cancel the operation.

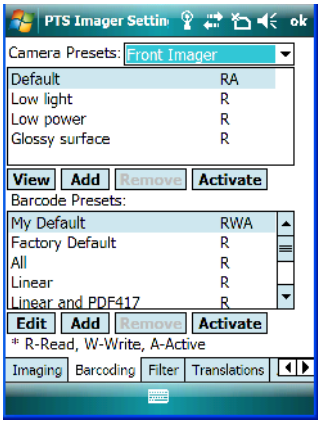
D.4.7 Configuring The Bar Code Decoding Symbologies

To configure the bar code decoding camera presets:

- Tap on **Start>Settings>System** tab.
- Tap on the **Barcoding** tab.

Preliminary Draft

Figure D.6 Viewing Bar Code Decoding Symbologies



D.4.8 Setting The Active Preset

An active preset has an *A* to the right; in Figure D.5 on page page D-9, the active preset is *Defaults*. To set an active preset:

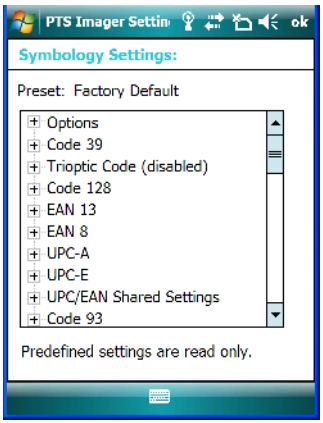
- Highlight the preset, and tap on the **Activate** button.

D.4.9 Viewing A Preset

To view the parameter settings in a preset:

- Highlight a preset, and tap on the **View** button.

The associated preset window is displayed.



Preliminary Draft

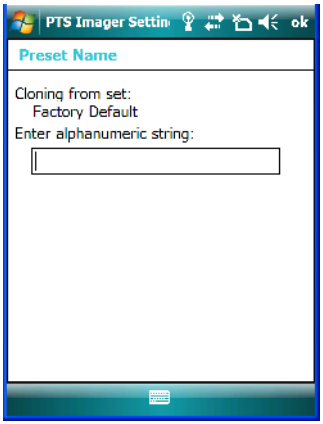
- Tap on the + sign to expand one of the lists so that you can view the parameter settings.

D.4.10 Creating A Custom Preset

A new custom preset is created by modifying a preset – either a predefined preset or an existing custom preset. To create a custom preset:

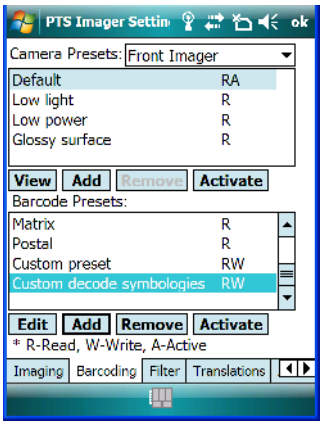
- Highlight a preset, and tap on the **Add** button.

A screen like the sample following is displayed.



- Type the **name** of the new preset in the dialog box.
- Tap on **OK** to save your changes.

The preset list is displayed; the new custom preset appears at the end of the list. It is marked as read and write.

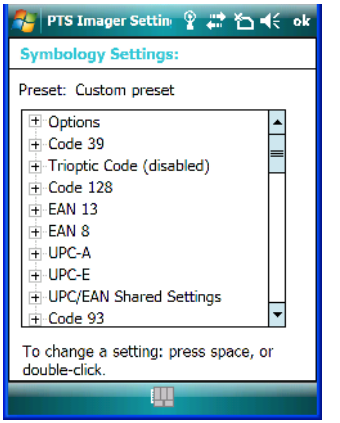


Preliminary Draft

D.4.11 Modifying A Custom Preset

The parameter values in a custom preset can be modified. It is recommended that very few changes be made to a custom preset. To ensure that it will work reliably, it should be as close as possible to the original predefined preset. To change a parameter value:

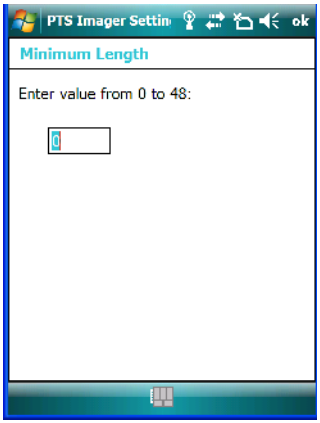
- Highlight the custom preset, and tap on the Edit button.



- Tap on the + symbols to expand the lists and view the parameter settings.
- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
  - Highlight the parameter, and then press the [SPACE] key or double-click the parameter.

Preliminary Draft

- An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



- Type a value in the field provided.

- For a parameter that toggles between two values such as *on* or *off* and *enabled* or *disabled*:
  - Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. Either method toggles between the two available values.
- When you've completed your edits, tap on **OK**.

The parameter list is displayed; the new value for the changed parameter is shown.

- Tap on **OK** to exit to the preset list and save the changes.

D.4.12 Removing A Custom Preset

- Highlight the custom preset you want to delete, and tap on the **Remove** button.

A window is displayed warning you that you are about to remove a preset.

- Tap on **Yes** to remove the preset or **No** to cancel the operation.

D.4.13 Configuring Symbologies in the Teklogix Imagers Applet

All changes made in the *Symbologies Presets* in the *Imagers Applet* are also made in the *Scanners Applet*. The Scanner Applet will reflect the settings of whichever Symbologies Preset is made active in the Imager Applet.

Preliminary Draft

Configuring Symbologies In The Teklogix Scanners Applet

When a symbology is enabled or configured using the Teklogix Scanners applet, the changes are also made in the **My Default** preset. **My Default** automatically becomes the active bar code symbology preset.

None of the other bar code decoding predefined presets is changed.

Configuring Symbologies In The My Default Preset

When My Default is the active preset

In this case, the changes to the symbology configuration are also made in the Teklogix Scanners applet.

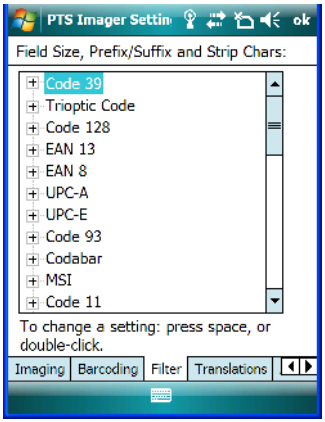
When My Default is not the active preset

In this case, the changes to the symbology configuration are not made in the Teklogix Scanners applet.

D.4.14 Filter Tab - Manipulating Bar Code Data

To configure rules for manipulating bar code data:

- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and then tap on the **Filter** tab.



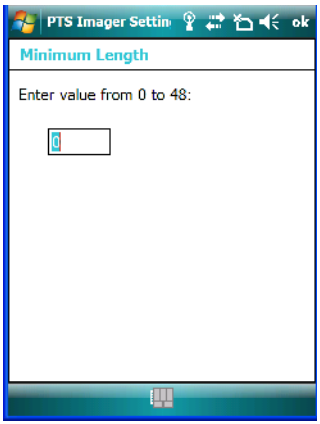
D.4.14.1 Modifying A Bar Code Setting

The rules for manipulating data from selected bar code symbologies can be modified. To change the settings for a symbology:

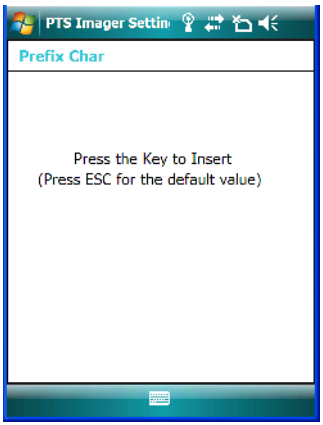
- Tap on the + symbols to expand the lists and view the parameter settings.

Preliminary Draft

- Scroll through the parameter list until you reach the parameter that you want to change.
- For a parameter that can take a *range* of values:
  - Highlight the parameter, and then press the [SPACE] key or double-click the parameter.
  - An associated dialog box containing the valid range of values for the parameter and the current setting like the sample screen following is displayed.



  - Type a value in the field provided.
- For a parameter that takes a single character:
  - Highlight the parameter and then press the [SPACE] key, or double-click on the parameter. The following screen is displayed:



- When you've completed your edits, tap on **OK**.

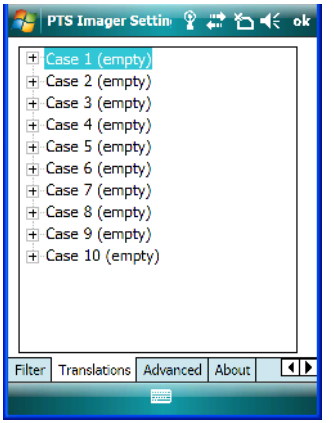
Preliminary Draft

D.4.15 Translation Tab - Configuring Rules

Translation rules enable the automatic processing of bar code data. Up to 10 cases can be defined, each consisting of up to 10 sequential rules.

Note: Changes made to the translations configuration using the Teklogix Scanner Control Panel program are synchronized with changes made here. Changes made in either place affect both translation tables.

- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and then tap on the **Translation** tab.



For instructions on adding, editing, and removing translation rules, refer to the “Translations Tab” on page 154.

D.4.16 Advanced Tab

D.4.16.1 File Locations For Captured Images

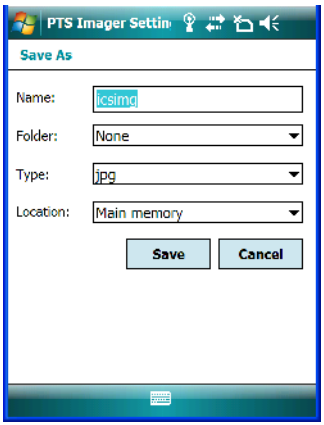
To configure the location for saved images, open the dialog box as follows:

- Tap on **Start>Settings>System** tab.
- Tap on the **Teklogix Imagers** icon, and then tap on the **Advanced** tab.

To define the location where imager files will be stored:

Preliminary Draft

- Tap on the **File Location** button.



- Type the file **Name**, choose the **Folder** and file **Type**.
- Choose the **Location** in which your files will be saved.
- When you have completed all the changes, tap on the **Save** button.

D.4.16.2 Configuring Triggers

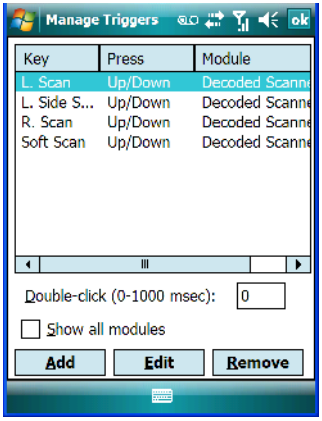
Viewing The Trigger Configuration

The trigger on the EP10 hand-held is configured using the *Manage Triggers* applet. The *Teklogix Imagers* applet provides a shortcut to the *Manage Triggers* applet.

- In the *Advanced* tab, tap on the **Trigger Control** button.

Preliminary Draft

- To view all the triggers and the hardware devices that are configured to use them, tap in the checkbox next to **Show all modules**.



Adding, Editing And Removing Triggers

For instruction about adding, editing and removing triggers, refer to “Manage Triggers” on page 133.

D.5 Teklogix Scanners Applet

The bar code symbologies that are to be read by the imager can be enabled using the *Teklogix Scanners* applet. Tapping on **Start>Settings>System** tab followed by the **Teklogix Scanners** icon displays this applet. Refer to “Imager” on page C-37 for a list of symbologies.

Warning: Changes made to the symbology configuration using the Teklogix Scanner applet are synchronized only with the My Defaults bar code symbology preset. For details, refer to “Configuring Symbologies in the Teklogix Imagers Applet” on page D-17.

Preliminary Draft

INDEX

Numbers

2DAztec *D-43*
2D Data Matrix *D-42*
2D imager scanner *249*
2D Maxicode *D-43*
2D QR Code *D-43*
2D Raster Expand Rate *D-5*
2D UPC Half Block Stitching *D-13*
802.11a/b/g/n radio specifications *259*
802.11ab/g/n radio *259*

A

About, *Bluetooth* *180*
About Device icon *120*
About icon (software version) *119*
AC adaptor
  safety instructions *223*
Accepted Start Char *D-22*
accessories
  carrying case *222*
  desktop docking station *225*
  Ethernet cable *231*
  hand strap *219*
  quad docking station *230*
  RV1005 powered vehicle cradle *242*
  vehicle cradle *238*
Active Connections, *Bluetooth* *179*
ActiveSync *59*
  setting up *59*
AC wall adaptor (PS1050 - G1) *237*
Addendum *D-26, D-39, D-40*
Addendum Add-on 2 *D-27*
Addendum Add-on 5 *D-27*
Addendum Security *D-27*
Add Remove Data (bar code scanning) *D-9*
  Prefix *D-9*
  Strip Leading *D-9*
  Suffix Char *D-9*
AGPS (Assisted Global Positioning System) *131*
Aim Duration *D-2*
aiming dot, duration of *D-2*
alarm, setting *34*
alarms, setting *124*
aligning touchscreen *20*
All
  Predefined preset *C-2*
appending to bar codes
  characters *152*
App Launch icon *95*
ASCII
  Full Ascii *D-22*
audio indicators
  beep conditions *22*
  volume adjustment *22*
Aztec, 2D *D-43*

B

backlight
  Battery Power tab *120*
  External Power tab *121*
  intensity *19*
  Intensity tab *121*
backup profile, creating (Total Recall) *161*
backup profile, restoring (Total Recall) *164*
Bad Scan Beep *153*
Bar code
  Decoding symbology predefined presets *C-2*
bar code
  appending to *152*
  Decoded *D-2*
  displaying type of bar code *153*
  Imager *D-37*
  Options tab *152*
  symbologies
    Codabar *D-14, D-28, D-40*

Preliminary Draft

Code 11 *D-30*
Code 128 *D-9, D-38*
Code 39 *D-38*
Code 93 *D-13, D-27, D-40*
Discrete 2 of 5 *D-16, D-32*
EAN 13 *D-10, D-24, D-38*
EAN 8 *D-10, D-25, D-39*
Interleaved 2 of 5 *D-16, D-30, D-40*
Matrix 2 of 5 *D-31*
MSI Plessey *D-14, D-29*
UPC A *D-11, D-25, D-39*
UPC E *D-11, D-26, D-40*
Translation tab *154*
bar code reader
applications *267*
integrated scanner, operation of *249*
internal or integrated *267*
Barcodes Must Decode *D-37*
batteries
a description of *222*
Battery Details tab *140*
battery hotkey *34*
Battery info. tab *139*
battery power, managing *138*
Battery Power tab *120*
battery settings *139*
charging *13*
failure to power up *13*
installing *12*
pinouts *B-2*
removing *12*
run time *23*
storing *23*
swap time *13*
yellow LED, battery failure *13*
battery
ST3006 6-slot battery charger *??–236*
battery charger
safety instructions *223*
battery power, managing *138*
battery specifications *265*
Baud *158*
Baud Rate (modem setup) *183*
beeper
beep conditions *22*
volume adjustment *22*
Bi-Direction Redundancy *D-4*
Block Recognizer *54*
Bluetooth *24*
pairing devices *25*
Bluetooth devices, pairing *175*
Bluetooth radio
ISM band *172*
Bluetooth setup
peripherals *250*
Bluetooth setup *172*
About Tab *180*
Active Connections *179*
COM port *177*
GPRS setup *180*
Mode tab *176*
Bluetooth specs *260*
Built-In Devices tab *141*
Built-in Devices tab *141*
Buttons icon *98*
One Shot tab *99*
Sequence tab *99*
Up Down Control tab *98*

C

calculator *60*
calendar *40*
categories, using *42*
creating & editing entries *40*
deleting appointments *43*
reminders, creating *41*
calibrating touchscreen *20*
Call Options (modem setup) *184*
camera, *See digital camera*
camera, using *75*
Card Slots *(see Built-in Devices)* *141*
Card Slot tab *141*
case, carrying *222*
CDMA/1xRTT *197–208*
Center Bar Code Only (Imager) *D-37*
certificates *122*
charger
safety instructions *223*
chargers *223*
AC wall adaptor (PS1050 - G1) *237*
installation *224*
RV4000 desktop docking station *225*
troubleshooting (LED) *229*
RV4004 operator controls *231, 233*
RV4004 quad docking station *230*
troubleshooting *233*
check digit *D-15*

Preliminary Draft

Check Digit, One *D-15*
Check Digits (MSI Plessey) *D-15*
Check Digit Verification *D-8, D-22, D-24, D-29, D-30, D-32*
Check Digit Verification (Codabar) *D-28*
Check Digit Verification (Code 39) *D-38*
Check Digit Verification (I 2 of 5) *D-16, D-41*
cleaning EP10 *26*
Click Data (scanner double-click) *152*
Click Time (scanner double-click) *152*
clock, setting *34, 124*
CLSI Editing *D-14*
CLSI Library System *D-28*
Codabar *D-14, D-28, D-40*
Codabar *D-14*
Codablock *D-36*
Code 11 *D-30*
Code 128 *D-38*
Code 128 *D-9, D-23*
Code 128 Emulation *D-19, D-35*
Code 32, Convert To *D-7*
Code 32 Prefix *D-7*
Code 39 *D-6, D-21*
Code 93 *D-13, D-27, D-40*
Code 93 *D-13*
Code Page
  Default Local ASCII *154*
  ISO-8859-1 Latin 1) *154*
code page (Data Handling) *154*
communication
  ActiveSync *59*
  EP10 to PC *228*
  Ethernet connection (quad docking station) *231*
COM port, *Bluetooth* *177*
Composite *D-18, D-34, D-41*
connecting to a server with *81*
connection, cancelling (modem) *184*
Connection Properties (serial modem) *182*
Connections *169*
  editing settings *193*
  Internet *184*
  managing *193*
  modem setup *185*
  network, selecting *194*
  network cards, setting up *190*
  Proxy Server setup *195*
  VPN, setting up *192*
connections
  managing *192*
Connections (Internet) *184*
connectivity hotkey *33*
connectivity hotkeys (navigation bar) *170*
Continuous Scan Mode *D-3, D-20*
Control Panel
  Predefined presets *C-2*
Conv. UPC-E1 To UPC-A *D-12*
Conv. UPC-E To UPC-A *D-12*
Convert To Code 32 *D-7*
Convert To EAN 13 *D-16, D-25*
Convert To UPC -A *D-26*
Copyright information, operating system *119*
credit card, wait for (modem setup) *184*
Custom preset *C-1*

D

Data Bits *158*
Data Bits (modem setup) *183*
data entry modes
  handwriting *68*
  typing *68*
Data Handling (code page) *154*
Data Matrix, 2D *D-42*
date, setting *34*
Decoded *D-2*
Decoded (internal) scanner parameters *D-2*
Decoded Intermec (ISCP) parameters *D-20*
decoded scanner *D-2*
Decode Performance *D-8, D-10*
Decode Performance Level *D-8, D-10*
Decoding symbology
  Predefined symbology *C-2*
Default
  Predefined preset *C-2, C-3, C-4*
Default identifier
  Preset group *C-2*
Default Local ASCII (Code Page) *154*
Delete Char Set ECIs *D-6*
Demo Scanner *60*
desktop docking station (RV4000) *225*
desktop screen (Today's Screen) *31*
Device ID tab *119*

Preliminary Draft

Dial-String Commands (modem setup) *184*
Dial Tone, wait for (modem setup) *184*
Diff Read Timeout *D-21*
digit
check digit *D-15*
digital camera
description *251*
digital camera specifications *257*
Discrete 2 of 5 *D-16, D-32*
Discrete 2 of 5 *D-16*
display
backlight, adjusting *19*
docking port *B-1*
docking station
RV4000, desktop
operator controls *226*
RV4004, quad
operator controls *230, 231, 233*
uploading data using *24*
docking stations *223*
desktop docking station *225*
installation at site *224*
quad docking station *230*
Dot Time *D-2*
double-click
appending characters to a decoded bar code *152*
scanner trigger *152*
Double-Click, Manage Triggers menu *134*
DSSS, 802.11a/b/g/n radio *259*

E

EA11 2D Imager specifications *267*
EAN 13 *D-10, D-24, D-38*
EAN 8 *D-10, D-25, D-39*
EAN-8 Zero Extend *D-10*
ECI Decoder *D-6*
e-mail notification *37*
Enable Bookland (UPC-EAN) *D-12*
Enable CC-AB *D-18, D-34*
Enable CC-C *D-18, D-34*
Enable Plessy *D-29*
Enable RSS-14 *D-17, D-33*
Enable RSS Expanded *D-17, D-33*
Enable RSS Limited *D-17, D-33*
Enable TLC-39 *D-18*
EP10
specifications *255*
Error Handler (Psion Teklogix) *147*
Error Reporting *126*
Ethernet, connecting with docking station *231*
Ethernet card *See* Network Card *190*
Excel Mobile *60*
External Power tab *121*

F

features, EP10 hand-held *4*
Field Size *D-9*
file, renaming *45*
File Explorer *44, 69*
copy *45*
copying a file *45*
deleting file *46*
folders, creating *45*
renaming file *45*
files & folders, managing *44*
find (search) *82*
flight mode (disabling the WLAN connection) *189*
FNC1 Conversion *D-23*
folder, copying *45*
folder, creating *45*
folder, deleting *46*
folder, renaming *45*
Full Ascii *D-22*
Full ASCII (decoded scanner) *D-8*
Full ASCII (Imager) *D-38*
Function keys *19*

G

Games *59*
gang charger *??–236*
Glossy surface
Predefined preset *C-3*
Good Scan Beep *153*
GPRS (*bluetooth*) *180*
GPS (external) *127*
GPS Settings (built-in profiles) *128*
Group, preset *C-1*
GS1-128 *D-23*
GS1-128 GS1 US *D-9*
GS1-128 Identifier *D-23*

Preliminary Draft

GSM/GPRS *197–208, B-1–B-17*
GSM/GPRS/EDGE radio specifications *263*
GTIN Compliant *D-23, D-27*

H

hand strap *219*
hand strap (RV6021), attaching *219*
hardware, description of *120*
headsets, pairing (*Bluetooth*) *25, 175*
Help *51*
hotkeys (navigation bar) *170*

I

Identifier
  Default preset group *C-2*
Imager *D-37*
imager (2D) scanner
  scanning
    2D *249*
imager options *249*
Imager Settings *149*
Include Check (I 2 of 5) *D-41*
indicators
  LED functions *21*
  scanner message *250*
  softkey bar *47*
inking settings *110*
Input Methods *107*
  Block Recognizer *54, 108*
  Input Method tab *108*
  Keyboard Options *109*
  Letter Recognizer *55, 109*
  soft keyboard *52*
  Transcriber *53*
  Transcriber options *110*
input modes
  handwriting *68*
  typing *68*
integrated scanner option *249*
Intensity tab (backlight) *121*
interface, user *255*
Interleaved 2 of 5 *D-16, D-30, D-40*
Internet connection *184*
Internet Explorer *82*
  browsing web sites *83*
Internet Sharing *70*
Inverse Video Mode *D-42*
ISBN Conversion *D-24*
ISBT 128 *D-10, D-23*
ISBT Concat Any Pair *D-24*
ISBT Concat Transmit *D-23*
ISM band, *Bluetooth* radio *172*
ISO-8859-1 Latin 1 (code page) *154*

K

keyboard
  one shot mode *99*
  options *109*
  Scancode remapping *103*
  sequence *99*
  Unicode Mapping *102*
keyboard, soft (onscreen) *52*
keyboard keys *15, 17*
  DEL key, accessing (BKSP) *18*
  Macro keys *19, 101*
  modifier keys, locking & unlocking *17*
  modifiers *16*
  one shot mode *99*
  punctuation, accessing *17*
  Scancode Remapping *103*
  sequence (Buttons) *99*
  shift-state indicator icon *16, 17, 48*
  Unicode Mapping *102*

L

L1, Set Length *D-7*
L2, Set Length *D-7*
landscape orientation *21*
Laser On Time *D-2, D-20*
LED
  desktop docking station (RV4000) *226*
  functions *21*
  RV4000 desktop dock *226*
  troubleshooting (desktop dock RV4000) *229*
  troubleshooting quad dock RV4004 *233*
Length Mode *D-28, D-31, D-32*
Length Restriction (bar code scanning) *D-8*
  Field Size *D-9*

Preliminary Draft

Maximum Size *D-9*
Minimum Size *D-9*
Letter Recognizer *55*
Letter Recognizer options (Input Methods tab) *109*
Linear
Predefined preset *C-3*
Linear and PDF
Predefined preset *C-3*
Linear Decode *D-13*
Linear Security Level *D-4*
Linear Transmission only (Decoded Composite) *D-34*
Linear Transmission only (TLC-39) *D-34*
Lock Sequence *106*
Low light
Predefined preset *C-3*
Low light near
Predefined preset *C-4*
Low power
Predefined preset *C-3*
Low Power Timeout *D-3, D-21*

M

Macro keys *19*
deleting a macro *102*
executing a macro *102*
Macros menu, accessing *101*
recording and saving *101*
maintenance (of EP10) *26*
mapping
Scancode *103*
Unicode *102*
Matrix
Predefined preset *C-3*
Matrix 2 of 5 *D-31*
Maximum Size *D-9*
Max Number Barcodes *D-37*
Memory
Storage Card tab *138*
menus
pop-up *46*
using *46*
messages
Scan Indicator *153*
scanner warning message *153*
Scan Result *153*
Messaging *84*
folders *84*
Outlook e-mail, synchronizing *84*
Micro PDF-417 *D-19, D-35, D-42*
microSD, inserting *25*
Minimum Cancel Time *D-3, D-20*
Minimum Length *D-22, D-24, D-27, D-29, D-30, D-31, D-33*
Minimum Size *D-9*
Mode, *Bluetooth* *176*
modem setup *185*
Baud Rate *183*
Call Options *184*
Cancel If Not Connected *184*
Data Bits *183*
Dial-String Commands *184*
Parity *183*
Port Settings *183*
Server Settings *188*
Stop Bits *183*
TCP_IP Settings *188*
Wait For Credit Card *184*
Wait For Dial Tone *184*
modem using VPN clients *B-7*
modifier keys *16*
locking & unlocking *16*
One Shot Mode *99*
shift-state indicator icon *16, 48*
Motion
Predefined preset *C-4*
MSI Plessey *D-14, D-29*

N

name, assigning to hand-held *119*
navigation bar *32*
Battery hotkey *34*
connectivity hotkey *33*
Start button *32*
volume control *33*
navigation bar hotkeys *170*
network, selecting *194*
network card
settings, changing *192*
setting up *190*
New menu, customizing *43*
Note
creating *71*
recording a message (audio) *74*

Preliminary Draft

renaming *74*
synchronizing *75*
text, converting handwriting into *72*
Notes *71*
Notification, setting *117*
NOTIS Editing *D-14*

O

One Check Digit *D-15*
One Shot Mode *99*
One Shot tab (modifier keys) *99*
onscreen (soft) keyboard *52*
Options tab (bar codes) *152*
orientation, screen *21*
Outlook e-mail, synchronizing (Messaging) *84*
Owner Information *115*
ownership information, defining *36*

P

pairing *Bluetooth* devices *175*
Parameter Scanning *D-3, D-21, D-22, D-23, D-24, D-27, D-29, D-30, D-31, D-33*
Parity *159*
Parity (modem setup) *183*
PC, connecting EP10 to *228*
PDF-417 *D-18, D-35, D-41*
PDF and linear
Predefined preset *C-3*
PH8 GSM/GPRS/EDGE radio
specifications *263*
Pictures
deleting *78*
editing *78*
opening *77*
slide show, creating *78*
Pictures and Videos *75*
pinouts *B-1, C-1*
Plessy Transmit Check Digit *D-29*
Pocket Excel
workbook components *61*
Pocket Word *67*
port pinouts *B-1, C-1*
portrait orientation *21*
Port Replicator Port A (COM5) *158*
Baud *158*
Data Bits *158*
Parity *159*
Stop Bits *159*
Trigger On Sequence *159*
ports
docking port *B-1*
internal scanner *267*
Port Settings (modem setup) *183*
Postal
Predefined preset *C-3*
Postal
Kix *D-45*
PlaNET *D-44*
PostNET *D-44*
Royal *D-45*
Power *138*
Advanced battery settings *139*
Battery Details tab *140*
Battery tab *139*
Built-In Devices *141*
Built-in Devices tab *141*
Card Slot tab *141*
On Battery Power *139*
On External Power *139*
power management specifications *257*
Power Mode Decoded (Internal) Scanner *D-3*
Predefined preset *C-1*
All *C-2*
Default *C-2, C-3, C-4*
Glossy surface *C-3*
Linear *C-3*
Linear and PDF *C-3*
Low light *C-3*
Low light near *C-4*
Low power *C-3*
Matrix *C-3*
Motion *C-4*
Postal *C-3*
Predefined presets *C-2*
Prefix ***D-6***, *D-9*
Preset
Custom *C-1*
Group *C-1*
Group default identifier *C-2*
Predefined *C-1, C-2*
Preset group

Preliminary Draft

Default identifier *C-2*
profile, creating backup *161*
profile, restoring backup *164*
Programs *49, 59*
minimizing *49*
opening *49*
properties, EP10 *120*
protective case *222*
proxy server, setting up *195*

Q

quad docking station (RV4004) *230*

R

radio
802.11a/b/g /n Direct Sequence SS *259*
802.11ab/g/n radio specifications *259*
Bluetooth specs *260*
Cinterion PH8 GSM/GPRS/EDGE radio specifications *263*
radio specifications *259*
Raster Expand Rate (2D) *D-5*
Raster Height (2D) *D-5*
Reading Range *D-22, D-24, D-27, D-30*
Rectangular (2D Data Matrix) *D-42*
Regional Settings *143*
remapping
Scancode *103*
Unicode *102*
Remote Desktop Mobile *80*
Remove Programs *144*
RSS Code *D-17, D-33, D-41*
RV1005 powered vehicle cradle *242*
RV4000 desktop docking station
cleaning *228*
RV4004 quad docking station *230*
cleaning *232*
Ethernet *231*
troubleshooting *233*

S

safety instructions
AC adaptor *223*
battery charger *223*
scanner *249*
safety warning, scanner *249*
Same Read Timeout *D-21*
Same Read Validate *D-21*
Scan Angle *D-5*
Scancode remapping *103*
Scan Data Format *D-6*
Scan Indicator *153*
Scan Log File *153*
scanner
bar code applications *267*
EA11 2D Imager specifications *267*
integrated *267*
safety warnings *249*
specifications, internal *267*
two dimensional (2D) imager scanner *249*
scanner options *249*
scanning
2D Maxicode *D-43*
2D QR Code *D-43*
2D UPC Half Block Stitching *D-13*
Aim Duration *D-2*
aiming (target) dot duration *D-2*
appending characters *152*
Bad Scan Beep *153*
bar code settings *150*
check digit *D-15*
Check Digits (MSI Plessey) *D-15*
Check Digit Verification *D-8*
Check Digit Verification (Code 39) *D-38*
Check Digit Verification (I 2 of 5) *D-16, D-41*
Click Data (appending data) *152*
Click Time *152*
CLSI Editing *D-14*
Codabar *D-14*
Code 128 *D-9, D-23*
Code 128 Emulation *D-19*
Code 32 Prefix *D-7*
Code 39 *D-6, D-21*
Code 93 *D-13*
Composite *D-18, D-34*
Conv. UPC-E1 To UPC-A *D-12*
Conv. UPC-E To UPC-A *D-12*
Convert To Code 32 *D-7*
Convert To EAN 13 *D-16*
Data Handling (code page) *154*
Decoded (internal) *D-2*

Preliminary Draft

Decoded Intermec (ISCP) *D-20*
Decode Perf. Level *D-8, D-10*
Decode Performance *D-8, D-10*
Delete Char Set ECIs *D-6*
Discrete 2 of 5 *D-16*
Dot Time *D-2*
double-click *152*
EAN-8 Zero Extend *D-10*
ECI Decoder *D-6*
Enable Bookland *D-12*
Enable CC-AB *D-18, D-34*
Enable CC-C *D-18, D-34*
Enable RSS-14 *D-17*
Enable RSS Expanded *D-17*
Enable RSS Limited *D-17*
Enable TLC-39 *D-18*
Full ASCII *D-8*
Good Scan Beep *153*
Imager *D-37*
Laser On Time *D-2, D-20*
Linear Decode *D-13*
Linear Transmission only (Decoded Composite) *D-34*
Linear Transmission only (TLC-39) *D-34*
Micro PDF-417 *D-19*
NOTIS Editing *D-14*
Options tab *152*
PDF-417 *D-18*
Postal
PlaNET *D-44*
PostNET *D-44*
Royal *D-45*
Prefix ***D-6***
RSS Code *D-17*
safety instructions *249*
Scan Data Format *D-6*
Scan Indicator *153*
Scan Log File *153*
Scan Result *153*
Scan Result Time *153*
Security Level *D-13*
Security Level (TLC-39) *D-35*
Set Length L1 *D-7*
Set Length L2 *D-7*
Suffix ***D-6***
Supp. Redundancy *D-12*
Supplementals *D-12*
target (aiming) dot duration *D-2*
TLC-39 *D-34*
Translations tab *154*
Transmit Check Digit *D-8*
Transmit Check Digit (I 2 of 5) *D-16*
Transmit Check Digit (MSI Plessey) *D-15*
Transmit Code 1D Char *D-5*
Trioptic Code 39, Enable *D-6*
UPC-A Check Digit *D-11*
UPC-A Preamble *D-11*
UPC-E1 Check Digit *D-11*
UPC-E1 Preamble *D-11*
UPC-EAN *D-12*
UPC-EAN Shared Settings *D-26*
UPC-E Check Digit *D-11*
UPC-E Preamble *D-11*
Scanning Mode (2D) *D-5*
Scan Result *153*
Scan Result Time *153*
screen
navigating *31*
stylus *31*
touch pen *31*
scrolling, adjusting speed (Up_Down tab) *98*
Search (find) *82*
Security Level *D-13*
Security Level (TLC-39) *D-35*
Sequence (Buttons) *99*
Sequence tab (Buttons) *99*
serial modem setup *See* Connection Properties *182*
Server Settings (modem setup) *188*
Set Length L1 *D-7*
Set Length L2 *D-7*
Settings *50, 95*
App Launch *95*
Buttons *98*
Personal Tab *95*
App Launch icon *95*
Buttons icon *98*
One Shot tab *99*
Sequence tab *99*
Up_Down tab *98*
task manager, working with *50*
shift-state indicator, accessing *48*
shift-state indicator (softkey bar) *48*
shift-state indicator icon *17*
SIM card, inserting *25*
Sled *See* vehicle cradle. *238*

Preliminary Draft

softkey (softkey bar) *47*
softkey bar
shift-state indicator *48*
softkey *47*
soft keyboard icon *48*
softkeys *47*
soft keyboard (onscreen) *52*
soft keyboard icon (softkey bar) *48*
softkeys (softkey bar) *47*
Soft Scan Timeout *153*
software specifications *256*
Sound, setting events *117*
Sound settings *116*
specifications
802.11b/g *259*
bar code application *257*
digital camera *257*
for EP10 hand-held *255*
physical dimensions *255*
power management *257*
scanner, internal *267*
software platform *256*
user interface *255*
wireless communication *256*
Start/Stop Transmit *D-22, D-28*
Start button *32*
Start Menu *43*
customising *43*
Stop *183*
Stop Bits *159*
Stop Bits (modem setup) *183*
Storage Card tab *138*
Strip Leading *D-9*
Strip Trailing *D-9*
stylus (touch pen), using *31*
stylus tether, attaching *220*
stylus tether (CH6020), attaching *221*
Suffix ***D-6***
Suffix Char *D-9*
Supp. Redundancy (Code 128) *D-12*
Supplementals (UPC-EAN) *D-12*
Surface
Glossy *C-3*
swap time (for battery) *13*

T

target dot, duration of *D-2*
task
completed (marking as) *39*
creating *37, 38*
deleting *39*
editing *38*
notification *37*
sorting *39*
Task Manager *145*
task manager *50*
TCP_IP Settings (modem setup) *188*
Teklogix Error Handling Service *147*
Teklogix Imagers Settings *149*
Telepen *D-32*
Terminal Services Client *81*
session, disconnecting (without ending) *81*
session, ending *81*
tether for stylus *220*
tether for stylus (CH6020) *221*
Text
Block Recognizer *54*
entering *52*
Letter Recognizer *55*
soft keyboard entry *52*
transcriber, using *53*
title bar (navigation bar) *32*
TLC-39 *D-34*
Today's Screen (desktop screen) *31*
appearance of *118*
Items (to appear in screen) *118*
Total Recall *160*
backup profile, creating *161*
backup profile, restoring *164*
touch pen, using *31*
touchscreen
calibrating *20*
stylus, using *31*
touch pen, using *31*
touchscreen, aligning (calibrating) *20*
Transcriber
Inking *110*
quick settings *110*
Transcriber, using *53*
Transcriber (Input Methods tab) *110*
Translations parameters (bar codes) *154*
Transmit Check Digit *D-22, D-25, D-26, D-28, D-29, D-30, D-31, D-32*
Transmit Check Digit (I 2 of 5) *D-16*

Preliminary Draft

Transmit Check Digit (MSI Plessey) *D-15*
Transmit Code 1D Char *D-5*
Transmit Number System *D-25, D-26*
trigger mappings *134*
Trigger On Sequence *159*
Trigger Press Type, Manage Triggers menu *136*
Trioptic Code 39, Enable *D-6*
troubleshooting
RV40004 *233*
RV4000 LED *229*
TweakIT *164*
warnings *153*
Windows Mobile 6.5, navigating in *31*
wireless communication specifications *256*
Wireless WAN *197–208, B-1–B-17*
Use Virtual Serial Port *B-7*
Voice *B-16*
WLAN connections, disabling *189*
Word Completion tab *112*
Word Mobile
data entry modes *68*
Word *See* Pocket Word *67*

U

Unicode Mapping *102*
Up_Down tab (scrolling adjustments) *98*
UPC A *D-11, D-25, D-39*
UPC-A Check Digit *D-11*
UPC-A Preamble *D-11*
UPC E *D-11, D-26, D-40*
UPC-E1 Check Digit *D-11*
UPC-E1 Preamble *D-11*
UPC-EAN *D-12*
UPC-EAN Shared Settings *D-26*
UPC-E Check Digit *D-11*
UPC-E Preamble *D-11*
UPC Half Block Stitching, 2D *D-13*
Use Virtual Serial Port *B-7*

V

vehicle cradle
powered, installing cables *245*
powered 10-55 VDC *238*
powered 12 VDC *238*
RV1005 powered *242*
unpowered *238*
Version tab *119*
video recorder, using *79*
Videos and Pictures *75*
volume control *33*
VPN connection, setting up *192*

W

wall adaptor, AC (PS1050 - G1) *237*

Preliminary Draft