

MARS-1030

**WinCE. NET Rugged Portable
Data Terminal**

User Manual

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Contents

Chapter 1	Introduction	2
1.1	About this Manual	2
1.2	User and Product Safety	3
1.3	Declaration of conformity	5
1.4	Product Labeling	7
1.5	System Specifications	9
1.6	Environment Standard	11
1.7	Warranty and after service	12
1.8	Technical Support and Assistance	12
1.9	Document Feedback	12
Chapter 2	Getting Started	14
2.1	Check the package	14
2.2	General View of the PDT	15
2.2.1	PDT front side view	15
2.2.2	PDT back side view	15
2.3	Charging the Battery Pack	17
2.3.1	Installing the battery pack	17
2.3.2	Charging the battery pack with a Power Adapter	21
2.3.3	Charging the battery pack with a Single Dock	22
2.4	Handling the PDT	24
2.4.1	Starting the PDT	24
2.4.2	Power on/off	25
2.4.3	Calibration of the touch Screen	25
2.4.4	Adjusting the brightness	26
2.4.5	To mute the Sound	26
2.4.6	Using the Stylus	26
2.4.7	Using the Keypad	27
2.4.8	Using Earphones and a Microphone	41
2.5	Navigating the Display	42
2.5.1	Setting Time and Date	42
2.5.2	Entering the Data	43
2.5.3	The Command Bar	43
2.5.4	The Taskbar	44
2.5.5	The Soft Keypad	44
2.5.6	Setting Up a Wireless LAN	45
2.5.7	Scanning Barcode	47
2.5.8	Help	48
2.6	Power Management	49
2.6.1	Suspend Mode	49
2.6.2	Resuming	50
2.7	Resetting the PDT	51
2.7.1	Software (Warm) Reset	51
2.7.2	Cold Reset	51

Chapter	3	Setting.....	54
	3.1	Introduction	54
	3.2	Control Panel.....	54
		3.2.1 Barcode Setting	55
		3.2.2 Symbologies List	64
		3.2.3 Bluetooth Device Properties	83
		3.2.4 Certificates	87
		3.2.5 Control Center	89
		3.2.6 Date/Time	94
		3.2.7 Dialing Properties	94
		3.2.8 Display Properties	96
		3.2.9 Input Panel	98
		3.2.10 Internet Options	99
		3.2.11 Keyboard	101
		3.2.12 Network and Dial-up Connections	102
		3.2.13 Owner	107
		3.2.14 Password	108
		3.2.15 PC Connection	109
		3.2.16 Power	110
		3.2.17 Regional Settings	112
		3.2.18 Remove Programs	113
		3.2.19 Storage Manager	114
		3.2.20 Stylus	115
		3.2.21 System	117
		3.2.22 Volume & Sounds Properties	119
	3.3	Taskbar and Start Menu	120
Chapter	4	Communication	122
	4.1	Installing & Setting Up Microsoft ActiveSync	122
		4.1.1 Installing Microsoft ActiveSync on the Host PC	122
		4.1.2 Connecting PDT to Host PC	122
	4.2	Using ActiveSync.....	123
		4.2.1 Setting up a Partnership	123
		4.2.2 ActiveSync File Synchronization	124
	4.3	Networking.....	124
Chapter	5	Software Applications.....	126
	5.1	Introduction	126
	5.2	Software Applications.....	126
		5.2.1 Calculator	126
		5.2.2 Inbox	126
		5.2.3 Internet Explorer	136
		5.2.4 Media Player	140
		5.2.5 Messenger	140
		5.2.6 Microsoft WordPad	141
		5.2.7 Remote connection	147
		5.2.8 Windows Explorer	148

5.3	DiskOnChip	150
5.3.1	Saving to flash	150
5.3.2	DiskOnChip location	150
5.3.3	DiskOnChip size	151
Appendix A	Barcode Setting.....	154
A.1	Setup Tab.....	154
A.1.1	Symbology setup	156
A.1.2	Decoder setup	157
A.1.3	Options	159
A.2	Update Tab	160
A.3	Symbologies List.....	162
A.3.1	Aztec	162
A.3.2	Codabar	163
A.3.3	Code 11	164
A.3.4	Code 128	165
A.3.5	Code 39	166
A.3.6	Code 49	168
A.3.7	Code 93	169
A.3.8	Composite Codes	170
A.3.9	Data Matrix	171
A.3.10	EAN-8	172
A.3.11	EAN-13	173
A.3.12	Interleaved 2 of 5	174
A.3.13	MaxiCode	175
A.3.14	MicroPDF417	176
A.3.15	OCR-A, OCR-B, US Currency	177
A.3.16	PDF417	189
A.3.17	Postnet	190
A.3.18	QR Code	191
A.3.19	Reduced Space Symbology	192
A.3.20	UPC-A	193
A.3.21	UPC-E	194
A.3.22	UPC-E1	195
A.3.23	ISBT	196
A.3.24	British Post	197
A.3.25	Canadian Post	198
A.3.26	Australian Post	199
A.3.27	IATA 2 of 5	200
A.3.28	Codablock F	201
A.3.29	Japanese Post	202
A.3.30	Planet Code	203
A.3.31	KIX (Netherlands) Post	204
A.3.32	MSI	205
A.3.33	TCIF Linked Code 39	206
A.3.34	Matrix 2 of 5	207

A.3.35 Korean Post 208

Introduction

This chapter presents general information about the PDT.

Chapter 1 Introduction

Congratulations on purchasing the MARS-1030 Portable Data Terminal (PDT), a Microsoft Windows® CE .Net rugged PDT. Its special combination of features makes it perfect for using in a wide range of applications. These features are:

- Intel® XScale™ PXA255 400 MHz 32 bits RISC Processor
- Windows® CE .NET 4.2 Operating System
- 64/128/256 MB SDRAM & 64/128 MB Flash ROM
- Open Architecture: User Accessible SD/CF/PCMCIA Slot
- 240 x 320, 3.5" Color TFT Display with Touch Panel
- 1 Numeric Keyboards with LED backlight
- 802.11b Radio Support (Bluetooth Optional)
- Integrated 1D or 2D Barcode Scanner

1.1 About this Manual

The following chapters contained in this manual are:

- | | |
|-------------|--|
| Chapter 1: | Introduction—Presents general information about the PDT. |
| Chapter 2: | Getting started—Describes the basic use of the PDT. |
| Chapter 3: | Setting—Provides basic instructions for customizing the PDT by adjusting settings. |
| Chapter 4: | Communication—Describes how to use the communication features of the PDT. |
| Chapter 5: | Software Application—Software implement procedures. |
| Appendix A: | Barcode Setting—Provides instructions for customizing the barcode engine. |

1.2 User and Product Safety

- Do not stare into the laser beam directly or shine it into eyes.
- Never use strong pressure onto the screen or subject it to severe impact, as the LCD panel could become cracked and possibly cause personal injury. If the LCD panel is broken, never touch the liquid inside, for such contact would irritate the skin.
- Although the MARS-1030 PDT has passed IP54 standard tests for water and dust resistance, avoid prolonged exposure to rain or other concentrated moisture. For these conditions exceed the IP54 standard, and could result in water or other contaminants entering the PDT.
- Use only the approved AC Adapter with the PDT. Use of an unapproved AC Adapter could result in electrical problems, or even cause a fire or electrical shock to the user.
- Be sure that only authorized suppliers are allowed to disassemble and reassemble the device. If the device or parts has been damaged due to wrong handling, the product and parts warranty shall be void.
- Always make backup copies of all important data. This is easily one by using a cable or Single Cradle (sold as an option) to transfer data to the computer. The manufacturer is not liable for any data damage or loss caused by deletion or corruption of data when using this device or caused by a drained battery.
- Lithium-ion battery packs might get hot, explode, ignite and/or cause serious injury abused. Please follow the safety warnings listed as below:
 - Do not place the battery pack in fire or heat the battery.
 - Do not install the battery pack backwards so the polarity is reversed.
 - Do not connect the positive and negative terminals of the battery pack together with any electrically conductive object.
 - Do not carry or store battery pack together with metal objects.
 - Do not pierce the battery pack with nails, strike the battery pack with a hammer, step on the battery pack or otherwise subject it to strong impacts or shocks.
 - Do not solder directly onto the battery pack.
 - Do not expose battery pack to liquid, or allow the battery contacts to get wet.

- Do not disassemble or modify the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite.
- Do not discharge the battery pack using any device except for the specified device. When it is used in devices other than the specified devices, the battery pack can be damaged or its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to become hot, explode or ignite and cause serious injury.
- In the event the battery pack leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

Caution!



There is a danger of a new battery exploding if it is incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Achtung!

1.3 Declaration of conformity

FCC Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Caution: Advantech declares that MARS-1030 ID:M82-MARS-1030 is limited in CH1~CH11 for 2.4GHz by specified firmware controlled in U.S.A.

The FCC ID of MARS-1030 is **M82-MARS-1030**

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

IMPORTANT FOR LASER PRODUCTS

1. Class II Laser Product
2. Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
3. “Laser Radiation—Do not stare into beam”
4. Do not allow young children to use the product without adult supervision.
5. Do not replace/repair the LED/Laser. These are not user replaceable.
6. Do not shine the LED/Laser on a reflective surface.

1.4 Product Labeling

The PDT has several labels as shown in Figure 1-1 and 1-2.

Figure 1.1: Product Labeling (Front side view)

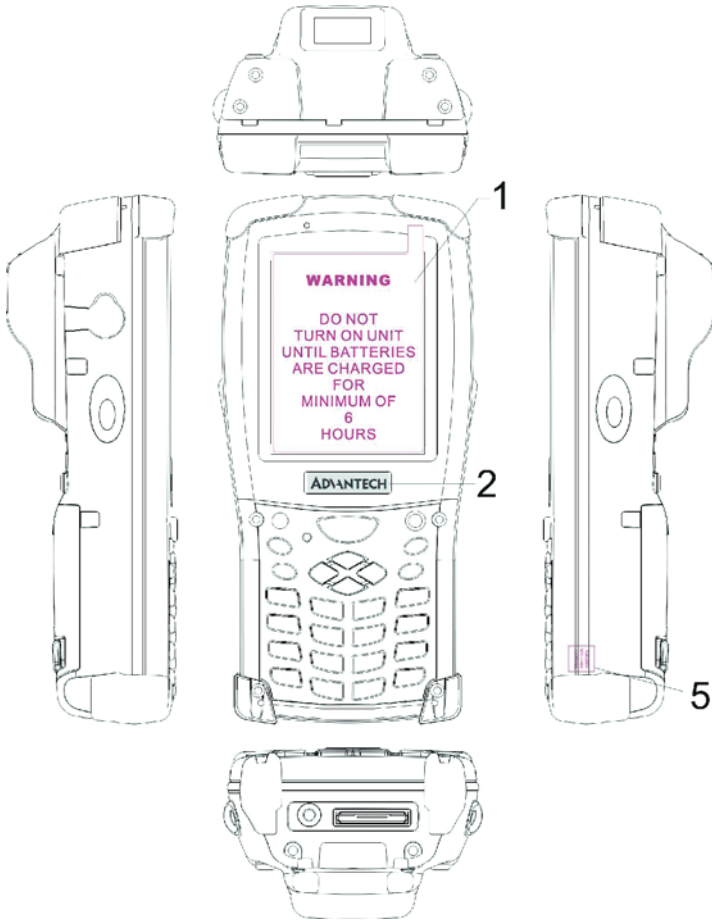
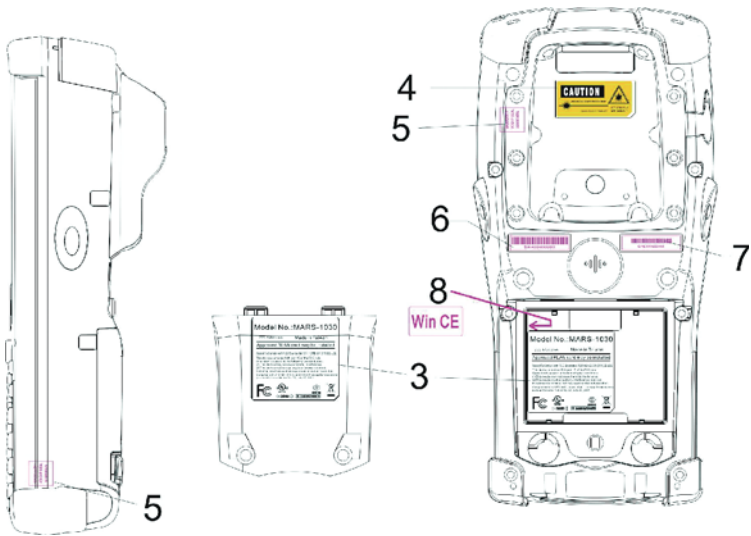


Figure 1.2: Product Labeling (Back side view)



1.5 System Specifications

The MARS-1030 PDT detailed specifications follow. Unless otherwise noted, all the specifications are subject to change without prior notification.

Table 1.1: System Specification	
MARS-1030	
Processor	- 400 MHz Intel PXA255 32 bits RISC CPU
Memory	- 64 or 128 MB Flash ROM - 64,128 or 256 MB SDRAM
Display	- 240 x 320 3.5" TFT 256K Color LCD with LED backlight
Audio	- One mono speaker - 2.5 mm DIA Stereo Earphone Jack with Microphone input
Radio Support	- Wireless LAN: 802.11b (optional) - Bluetooth: Class II (optional)
Communication Ports	- USB: Support USB v1.1 both host and client. (PDT and Cradle) - Serial: RS-232 via optional cable or Cradle.
Scan Engine (Optional)	- Opticon Laser (1D) Engine - HHP 2D Imager.
Expansion Slot	- One Compact Flash Type-II slot - One PCMCIA slot - One SD Card slot (supports SD memory only)
LED	- One Triple-Color LED for Charger Indicator and Alarm Notification - One Dual-Color LED for Scanner Indicator
Power System	- Standard Li-Ion Battery Pack, 3.7 V, 3000 mAh - Advanced Smart Battery with Gas-Gauge - Built-in Battery Charger - 2.4 V / 15 mAh rechargeable backup battery - One Battery Cover Sensor Switch - Power Adapter: 100 ~ 240 V AC, 50/60 Hz Input; 5 V DC / 2.6 A, 3 A Output

Button/Key	<ul style="list-style-type: none"> - Power button - 4-way navigation button - 4 Application Keys - 3 Scanner Enable Keys - SW Reset input button - 16 Alpha-numeric key keyboard
Dimensions and Weight	<ul style="list-style-type: none"> - Dimensions: 192.5 mm (L) x 91.3 mm / 78 mm (W) x 42.2 mm / 60.6 mm (H) - Weight: 560 g with Standard Battery Pack 500 g without Battery Pack
Color	<ul style="list-style-type: none"> - Black
Standard packing list and Optional accessories	<ul style="list-style-type: none"> - Standard Packing list: <ol style="list-style-type: none"> 1. MARS-1030 Terminal 2. Stylus 3. USB Client Cable for Terminal 4. Earphone/ Microphone Set 5. Standard AC Adapter 5 V DC / 2.6 A 6. AC Power Cord 7. Standard Battery Pack (3.7 V, 3000 mAh) 8. CF Support Guide 9. Quick Guide - Optional Accessory: <ol style="list-style-type: none"> 1. RS-232 Serial Cable for Terminal 2. USB Host Cable for Terminal 3. High-Capacity Li-Ion Battery Pack (3.7 V, 4000 mAh) 4. RFID Card Cover 5. Single Dock 6. Pistol Grip 7. 4-Slot Battery Charger 8. Car Adapter 9. Holster 10. Protect Film
Software	<ul style="list-style-type: none"> - Microsoft Windows CE.NET 4.2 Professional

1.6 Environment Standard

Table 1.2: Environment Standard

Operating Temperature	14 ~ 122° F (-10 ~ 50° C)
Storage Temperature	-4 ~ 158° F (-20 ~ 70° C)
Humidity	5 ~ 80% (non-condensing)
Drop	5 ft (1.5 m) Drop to Concrete
Water & Dust proof	IP54 Certificated
Vibration	MIL STD 810F

1.7 Warranty and after service

Should this PDT malfunction, please contact your original retailer providing information about the product name, the serial number, and the details about the problem.

1.8 Technical Support and Assistance

1. Visit the Advantech web site at **www.advantech.com/support** where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

1.9 Document Feedback

To assist us in making improvements to this manual, we would welcome comments and constructive criticism. Please send all such - in writing to: support@advantech.com

CHAPTER 2

Getting Started

This chapter describes the basic use of the PDT.

Chapter 2 Getting Started

2.1 Check the package

Open the package and check that nothing is missing or damaged.

Figure 2.1: Inside the package



1. MARS-1030 Terminal
2. Standard Battery Pack (3.7 V, 3000 mAh)
3. Earphone/Microphone Set
4. Stylus
5. USB Client Cable for Terminal
6. CF Support Guide
7. Standard AC Adapter 5 VDC / 2.6 A
8. AC Power Cord
9. Quick Guide (Not Shown)

2.2 General View of the PDT

2.2.1 PDT front side view

Figure 2.2: PDT Front side view



2.2.2 PDT back side view

Figure 2.3: PDT back side view

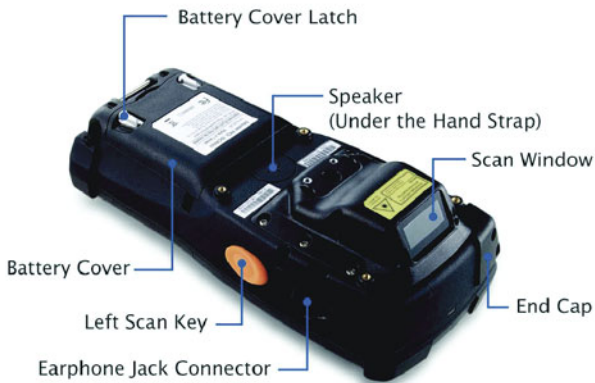


Table 2.1: Description of PDT General View

1	Scanner LED Indicator	"Red" color	Reading barcode
		"Green" color	Successful reading
2	Charge LED Indicator	"Red" color	Charging battery
		"Green" color	Battery charged full
3	LCM / Touch Panel	Do specific actions with touch panel and stylus	
4	Left Scan key Right Scan key Scan key	Start scanning the barcode by pressing any one of these three scan keys	
5	Power key	Puts the terminal into and wakes the terminal from suspend mode.	
6	F1 ~ F4 key	Four application program keys and hot keys as defined by the end user.	
7	Navigation key	Navigation keys for left, right, up and down directions	
8	Alphanumeric keys	Numeric keys, Change to Alphabetic keys after pressing Alphabetic key	
9	Alphabetic key	Toggle Alphabetic-mode for Alphanumeric keys	
10	Fn key	This key is used in combination with other keys to type special characters and perform system functions.	
11	Enter key	This key confirms data entry	
12	Earphone Jack Connector	A connector to plug a earphone	
13	USB / Serial / Synchronization port	A connector to support USB Host/Client and serial functions	
14	Scan window	A window for scanning of barcode reader	
15	Stylus	Use the stylus for selecting items and entering information.	
16	Battery Cover	Protects the battery pack and keeps the battery switch covered to keep the system in suspend mode	
17	Battery Cover Latch	To keep the Battery Cover locked	
18	Hand-strap	This strap can be sealed tighter or looser	
19	Speaker	1.5 W speaker for audio sound	
20	DC Power Jack	A connector to support AC power.	

21	End Cap	Protects the CF and SD slots from dust and water
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2.3 Charging the Battery Pack

Charge the battery pack before using the PDT by following these steps.

2.3.1 Installing the battery pack

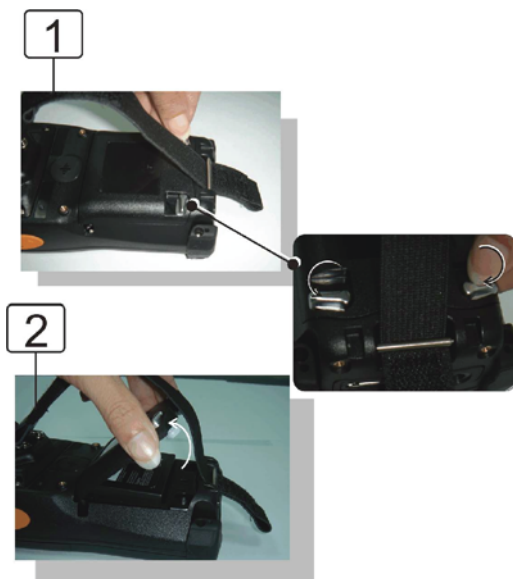
1. Detach and loosen the hand-strap.

Figure 2.4: Release the hand-strap from PDT



2. Turn the locking screws (right and left) downwards and lift the battery cover away from the PDT.

Figure 2.5: Detach the battery cover from PDT



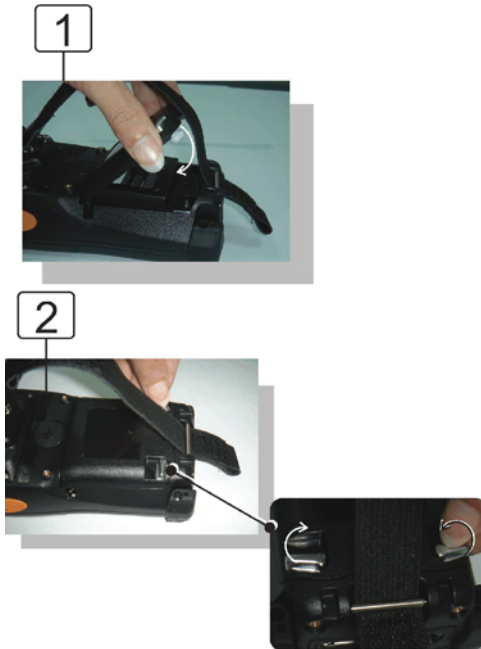
3. Insert the battery pack into the battery compartment with the label facing out, and ensure the battery snaps into place.

Figure 2.6: Insert the battery pack



4. Replace the battery cover by inserting the top first, and then press the bottom in firmly. Turn the locking screws (right and left) upwards to secure the cover to the PDT.

Figure 2.7: Replace the battery cover



5. Charge the battery pack for about 6 hours, when charging for the first time. Subsequent charges need about 4 hours.
When charging the battery pack, the charge indicator on the PDT turns **Red**. After the battery pack is fully charged, the indicator turns **Green**.

2.3.2 Charging the battery pack with a Power Adapter

1. Connect the Power cord to the Power adapter.
2. Plug in the connector of the power adapter.
3. Connect the power cord to a power source.

Figure 2.8: Charging with a power adapter



When charging the battery pack, the charge indicator on the PDT turns **Red**. After the battery pack is fully charged, the indicator turns **Green**.

2.3.3 Charging the battery pack with a Single Dock

- a) Leave the battery pack inside the PDT
 1. Connect the power cord to the power adapter.
 2. Connect the power cord to a power source.
 3. Plug in the connector of the power adapter into the Single Dock.
 4. Insert the PDT into the Single Dock.

Figure 2.9: Charging with a Single Dock



When charging the battery pack, the charge indicator on the PDT turns **Red**. After the battery pack is fully charged, the indicator turns **Green**.

CAUTION: Single Cradle Adapter supplies 5 V DC / 6.5 A. This is different from the PDT Adapter (5 V DC / 2.6 A). Please use the Single Cradle Adapter only.

- b) Place the spare battery pack into the Single Cradle's spare Battery charging slot.
 1. Connect the power cord to the power adapter.
 2. Connect the power cord to a power source.
 3. Plug the connector of the power adapter into the Single Cradle.
 4. Insert the battery pack into the Single Cradle's spare Battery slot.

When charging the battery pack, the charge indicator on the PDT turns **Red**. After the battery pack is fully charged, the indicator turns **Green**.

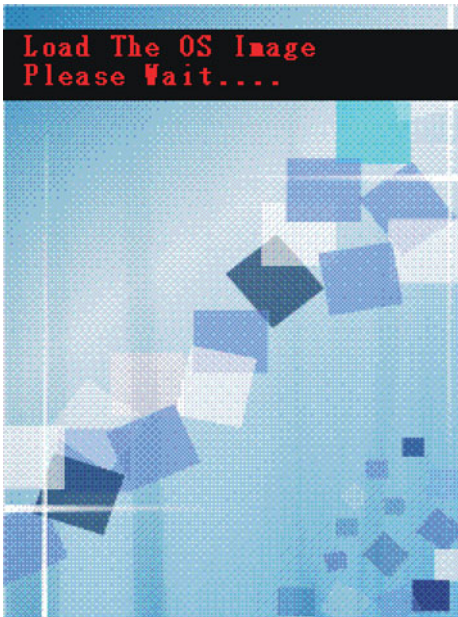
CAUTION: If the battery pack is removed from the PDT for too long, the data stored inside the SDRAM will be lost. Switch off the PDT if you want to change the main battery pack.

2.4 Handling the PDT

2.4.1 Starting the PDT

Press the power key to turn on/off the PDT. If the PDT does not power on, perform a cold boot. See “Resetting the PDT” on page 51.

CAUTION: When a battery is inserted into the PDT for the first time, upon the PDT’s first power up, the device boots and powers on automatically.



When the PDT is powered on for the first time, it initializes its system. A splash screen appears for a short period of time followed by the Win CE .NET 4.2 window.

Figure 2.10: Starting the PDT

2.4.2 Power on/off

To turn on the PDT:

Press the power key briefly (🔌). If the PDT does not power on, perform a cold reset. See “Resetting the PDT” on page 51.

As the PDT initializes its file system, it shows a splash screen for about 30 seconds followed by calibration screen. Every time you perform a cold reset, these screens will also appear.

To turn off the PDT, just press the power key again. This action does not actually turn off the PDT, it only puts the PDT into suspend mode. All running applications remain as you left them, until you press the power key again to resume operation of the PDT.

2.4.3 Calibration of the touch Screen

On the initial boot-up of the PDT, the stylus calibration screen (Labeled Align Screen) opens. Briefly press and hold the stylus on the center of each target as it moves around the screen.

If necessary, adjust the backlight on the PDT to make the screen readable.

The touchscreen can be recalibrated at any time using **Start > Settings > Control Panel > Stylus**, to open the Calibration program.

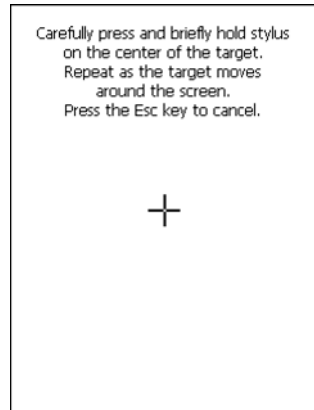




Figure 2.11: Calibration

2.4.4 Adjusting the brightness

Middle brightness is the factory default. You can adjust the brightness to meet your environment and comfort as follows.

- Press the **Fn** key and then press on the right key of Navigation key  to increase brightness.
- Press the **Fn** key and then press on the left key of Navigation key  to decrease brightness.
- The display will become dimmer automatically, if you do not perform any operation for a specific period of time. This helps to save battery power.

2.4.5 To mute the Sound

To mute the sound, press the **Fn** key first, and then press the **ESC** key to turn the sound off or on.

2.4.6 Using the Stylus

The stylus is located next to the hand-strap on the left rear side of the PDT as illustrated in “PDT back side view” on page 15. The stylus function is same as the mouse on a PC. Use the stylus to:

Navigate the display, select menu items and open applications.

Type characters on soft keyboard panel.

Select an item from a drop-down list.














CAUTION: Never use a pen, pencil, or other sharp object on the display to avoid damage of the touch screen.

2.4.7 Using the Keypad



Figure 2.12: MARS-1030 Keypad

Table 2.2: Table 2-2 Keypad List

Key	Main Function	Fn + Main Function	Alphabetic + Main Function
	None. (Reserved for Customer)		
	Main Barcode Scan Key		
	Power On/Off		
	Internet Explorer		
	Microsoft WordPad		
	Inbox		
	File Explorer		
	Right	Backlight Increase	
	Left	Backlight Decrease	
	Down	Page Down	
	Up	Page Up	
	ESC	Audio Mute	€
	Backspace	TAB (Tabulation)	Caps














	Change to letters		
Key	Main Function	Fn + Main Function	Alphabetic + Main Function
	Function change		
	1	(at)	
	2	,	
	3	(Plus Sign)	
	4	Paste	
	5	Del (Delete)	
	6	(Minus Sign)	
	7	Copy	
	8	(AND)	
	9	(Asterisk)	
	0	Space	
	. (Point)	Start Menu	
	Enter	(Backslash)	

Table 2.3: Special Key Combinations




































Key Combination	Functionality	Definition
	Warm Reset	Press “ F1 ” and “ F4 ” simultaneously.
	Cold Reset	Press “ Power ”, “ F1 ” and “ F4 ” simultaneously.

Table 2.4: Definition of Main Function
















Key	Main Function	Definition
	None.	Keep its function or by customer demand.
	Main Barcode Scan Key	The  key activates the scan function of MARS-1030.
	Power On/Off	The  key puts the terminal into and out of suspend mode.
	Internet Explorer	Application key 1. This key can be redefined.
	Microsoft WordPad	Application key 2. This key can be redefined.
	Inbox	Application key 3. This key can be redefined.
	File Explorer	Application key 4. This key can be redefined.
	Right	Move the cursor one character to the right. The cursor will move continuously if this button is pressed continuously.
	Left	Move the cursor one character to the left. The cursor will move continuously if this button is pressed continuously.
	Down	Move the cursor down one row or line. The cursor will move continuously if this button is pressed continuously.
	Up	Move the cursor up one row or line. The cursor will move continuously if this button is pressed continuously.
	ESC	This key performs a cancel action

































Key	Main Function	Definition
	Backspace	“ Backspace ” key, it moves the cursor back one space each time the key is pressed. It deletes the previous character each time it is pressed if you are typing text. The cursor will move continuously if this button is pressed continuously.
	Change to letters	<ol style="list-style-type: none"> 1. The  key enables you to toggle between the numeric and alphabetic modes. Numeric mode is when you type numbers with number keys. Alphabetic mode is when you type letters with the number keys. 2. When you press the  key, an “Alphabetic” icon appears on the taskbar to indicate alphabetic mode is enabled. The keypad stays in the alphabetic mode until you press the  key again.
	Function change	The  key is used in combination with other keys to type special characters and perform system functions.





















Key	Main Function	Definition
	1	Number key "1"
	2	Number key "2"
	3	Number key "3"
	4	Number key "4"
	5	Number key "5"
	6	Number key "6"
	7	Number key "7"
	8	Number key "8"
	9	Number key "9"
	0	Number key "0"
	.	Point key
	Enter	This key confirms data entry

2.4.7.1 Special Function and Character Access


The “Fn” key is used in combination with other keys to type special characters and perform system functions.



Table 2.5: Special Function Key Definitions		
Key Sequence	Fn + Main Function	Definition
	Backlight Increase	Increase the LED backlight brightness of display screen (Lighter) You must press the  key, then the  key to increase backlight brightness.
	Backlight Decrease	Decrease the LED backlight brightness of display screen (darker) You must press the  key, then the  key to decrease backlight brightness.
	Page Down	Move the cursor down one page. The cursor will move continuously if this button is pressed continuously. You must press the  key, then the  key to move the cursor down one page.
	Page Up	Move the cursor up one page. The cursor will move continuously if this button is pressed continuously. You must press this  key, then the  key to move the cursor up one page.
	Audio Mute	Mute or enable audio. Press the  key, then the  key to mute or enable audio.

Key Sequence	Fn + Main Function	Definition
 	TAB (Tabulation)	The "TAB" function moves the cursor to the next tab stop or the next control on a form. Press the  key first, and then press the  key.
 	@ (at)	Enter an { @, at} symbol by pressing the  key, then the  key.
 	,	Enter a {'} by pressing the  key, then the  key.
 	(Plus Sign)	Enter a plus sign by pressing the  key, then the  key
 	Paste	Paste objects by pressing the  key, and then the  key.
 	Del (Delete)	Delete the next character by pressing the  key, and then the  key.
 	(Minus Sign)	Enter a minus sign by pressing the  key, then the  key.
 	Copy	Copy objects by pressing the  key, then the  key.






Key Sequence	Fn + Main Function	Definition
 	(Amper-sand)	Enter an ampersand sign by pressing the  key, then the  key.
 	(Asterisk)	Enter an asterisk by pressing the  key first, and then the  key.
 	Space	Enter a space by pressing the  key, and then the  key.
 	Start Menu	Enter the Start Menu by pressing the  key, and then the  key.
 	(Back-slash)	Enter a backslash by pressing the  key, and then the  key.


2.4.7.2 Alphabetic plane keys

The  key enables you to toggle between the numeric and alphabetic modes. Numeric mode is when you type numbers with number keys. Alphabetic mode is when you type letters with the number keys.

When you press the  key, an “Alphabetic” icon appears on the Taskbar to indicate Alphabetic mode is enabled. The keypad stays in the alphabetic mode until you press the  key again. For example to


















type “cap1”, press    , wait 0.5 seconds, then press    .

If you want to type a lowercase “c”, press    . The  key is needed if it’s the first alphabetic character. If a letter that is on the same key as the last letter entered, wait two seconds after you pressed the last key, before you can enter the next letter.

While you are in Alphabetic mode, press the  key to enable Caps Lock.

An “A” icon appears on the Taskbar during Caps mode.

Table 2.6: Alphabetic + Numeric keys define

To enter	Press the Keys	To enter	Press the Keys
\$	 	€	  
Caps	 		
:	 	\	  
a	 	A	  

To enter	Press the Keys	To enter	Press the Keys
b	Alpha 2 ABC 2 ABC	B	Alpha BS _{Caps} 2 ABC 2 ABC
c	Alpha 2 ABC 2 ABC 2 ABC	C	Alpha BS _{Caps} 2 ABC 2 ABC 2 ABC
d	Alpha 3 DEF	D	Alpha BS _{Caps} 3 DEF
e	Alpha 3 DEF 3 DEF	E	Alpha BS _{Caps} 3 DEF 3 DEF
f	Alpha 3 DEF 3 DEF 3 DEF	F	Alpha BS _{Caps} 3 DEF 3 DEF 3 DEF
g	Alpha 4 GHI	G	Alpha BS _{Caps} 4 GHI
h	Alpha 4 GHI 4 GHI	H	Alpha BS _{Caps} 4 GHI 4 GHI
i	Alpha 4 GHI 4 GHI 4 GHI	I	Alpha BS _{Caps} 4 GHI 4 GHI 4 GHI
j	Alpha 5 JKL	J	Alpha BS _{Caps} 5 JKL
k	Alpha 5 JKL 5 JKL	K	Alpha BS _{Caps} 5 JKL 5 JKL
l	Alpha 5 JKL 5 JKL 5 JKL	L	Alpha BS _{Caps} 5 JKL 5 JKL 5 JKL
m	Alpha 6 MNO	M	Alpha BS _{Caps} 6 MNO

To enter	Press the Keys	To enter	Press the Keys
n	Alpha 6 MNO 6 MNO	N	Alpha BS _{Caps} 6 MNO 6 MNO
o	Alpha 6 MNO 6 MNO 6 MNO	O	Alpha 6 MNO 6 MNO 6 MNO
p	Alpha 7 PQRS	P	Alpha BS _{Caps} 7 PQRS
q	Alpha 7 PQRS 7 PQRS	Q	Alpha BS _{Caps} 7 PQRS 7 PQRS
r	Alpha 7 PQRS 7 PQRS 7 PQRS	R	Alpha BS _{Caps} 7 PQRS 7 PQRS 7 PQRS
s	Alpha 7 PQRS 7 PQRS 7 PQRS 7 PQRS	S	Alpha BS _{Caps} 7 PQRS 7 PQRS 7 PQRS 7 PQRS
t	Alpha 8 TUV	T	Alpha BS _{Caps} 8 TUV
u	Alpha 8 TUV 8 TUV	U	Alpha BS _{Caps} 8 TUV 8 TUV
v	Alpha 8 TUV 8 TUV 8 TUV	V	Alpha BS _{Caps} 8 TUV 8 TUV 8 TUV
w	Alpha 9 WXYZ	W	Alpha BS _{Caps} 9 WXYZ
x	Alpha 9 WXYZ 9 WXYZ	X	Alpha BS _{Caps} 9 WXYZ 9 WXYZ

To enter	Press the Keys	To enter	Press the Keys
y	Alpha 9 WXYZ 9 WXYZ 9 WXYZ	Y	Alpha BS Caps 9 WXYZ 9 WXYZ 9 WXYZ
z	Alpha 9 WXYZ 9 WXYZ 9 WXYZ 9 WXYZ	Z	Alpha BS Caps 9 WXYZ 9 WXYZ 9 WXYZ 9 WXYZ
[Alpha 0 []]	Alpha 0 [] 0 []
,	Alpha . , ' "	;	Alpha . , ' " . , ' "
=	Alpha ← = %	%	Alpha ← = % ← = %

Note:

- The **Alpha** key is not needed to key in a character if it isn't the first alphabetic character being keyed in.
- The **BS Caps** key is not needed to key in a character if it isn't the first capital alphabetic character being keyed in.

2.4.8 Using Earphones and a Microphone

Connect earphones and a microphone to PDT earphone jack connector. The PDT doesn't have a built in microphone; if you want to make voice recordings, you have to use an external microphone.



Figure 2.13: Earphones

2.5 Navigating the Display

2.5.1 Setting Time and Date

In the **Date/Time** options, you can change the year, month, date, time, time zone, or select automatically adjust for Daylight Saving Time. To set or change the date and time:

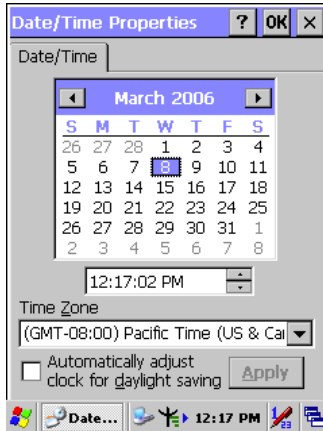


Figure 2.14: Date/Time properties

1. Select **Start > Settings > Control Panel > Date/Time**
2. To change the year, select the year or open a numeric dial. Select the up arrow to increase the value; select the down arrow to decrease the value. Or you can type a new value in the field.
3. Select the month to open a pull-down list of months or press the arrow buttons on either side of the month to increase or decrease the month.
4. To change the time, select the hour, minute, second, or AM/PM value, then select the up arrow to increase the value or select the down arrow to decrease the value, or type a new value into the field.
5. Select the correct time zone from the pull-down list.
6. To automatically adjust the clock for Daylight Saving Time, enable the checkbox at the bottom of the screen.
7. Select **Apply** to save your changes [and make additional modifications] or select **OK** to exit the **Date/Time** settings.

2.5.2 Entering the Data

To select and open programs, select **Start > Programs** from the taskbar to open a list of available programs. Or if the program has a icon on the desktop, double-tap it to open it.

There are several ways to enter data on the PDT once in an application.

- Use the keypad to enter alphanumeric characters, Refer to “Using the Keypad” on page 27.
- Use the keypad to enter alphanumeric characters, Refer to “Using the Stylus” on page 26.
- Select text in the same way you select the text on a PC. Use the stylus to highlight the desired text by dragging the stylus across the desired text; double-tapping to select one word and triple-tapping to select an entire line/paragraph. Refer to “Navigating the Display” on page 42.
- Use the soft input panel (digital keyboard) with the stylus. Refer to “The Soft Keypad” on page 44.
- Use barcode scanning to enter data. Press the trigger or “Bar Code Start” key to initiate a scan. The scanned data will enter the current application’s open file. Refer to “Scanning Barcode” on page 47 for more information on using a scanner.

For more information on factory installed applications, Refer to “Software Applications” on page 126.

2.5.3 The Command Bar

Use the **Command** bar at top of the screen to perform tasks in programs, such a opening or editing a file.

2.5.4 The Taskbar

The **Taskbar** at the bottom of the screen displays an icon for the active program, the current time, and system icons for utilities loaded in memory. The **Taskbar** includes menu names, buttons, and the keyboard icon, which opens and closes the soft input panel (SIP). The **Taskbar** allows you to select and close programs.

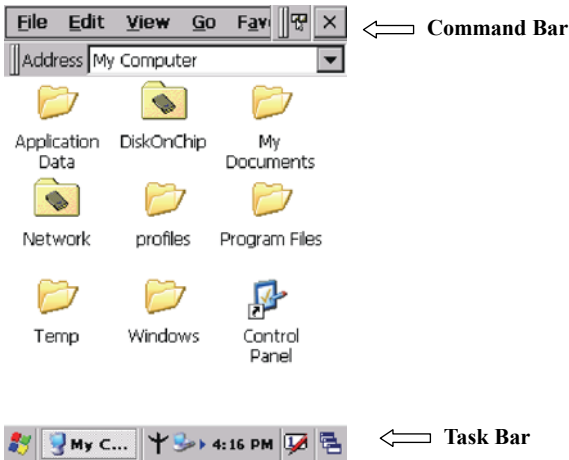


Figure 2.15: Taskbar & Command Bar

2.5.5 The Soft Keypad

In applications that accept keypad input, the soft input panel (SIP) can be used to enter data using the stylus. The SIP is a digital, QWERTY-style keyboard.

To open the SIP, tap the **keyboard** icon to open the menu and select **Hide Input Panel** to close the keyboard.

Use the stylus to select letters, numbers, or symbols from the **Soft Input Panel** for the current application.

2.5.6 Setting Up a Wireless LAN

- 1) Press “Start” > “Settings” > “Control Panel” > “WLAN Manager”.
- 2) Launch the WLAN Manager to **Enable** the WLAN device.
- 3) In the AP Browser tab, tap the Scan button to refresh the network.
- 4) Select a network, tap the Join button or double tap it for more options.
- 5) Press OK to save all your Wireless LAN settings.
- 6) Tap the “Exit” button to **Disable** the WLAN device.

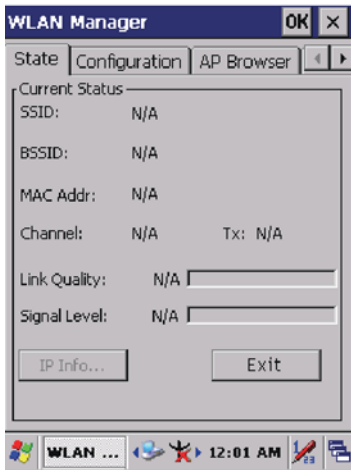


Figure 2.16: WLAN Manager

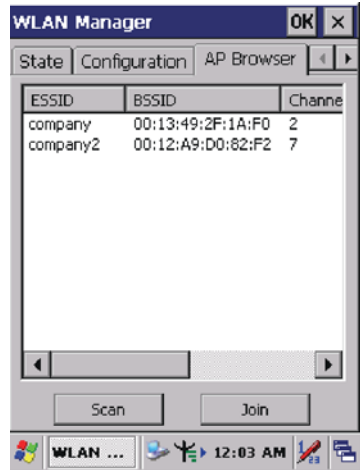







Figure 2.17: WLAN Manager

Note:

	The 802.11b WLAN is not connected to the network.
	The 802.11b WLAN has no signal.
	The 802.11b WLAN signal is low.
	The 802.11b WLAN signal is OK.
	The 802.11b WLAN signal is good.

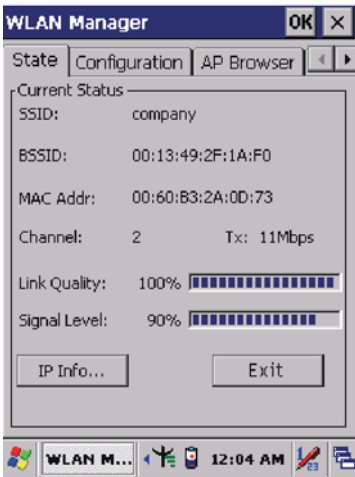


Figure 2.18: WLAN Manager

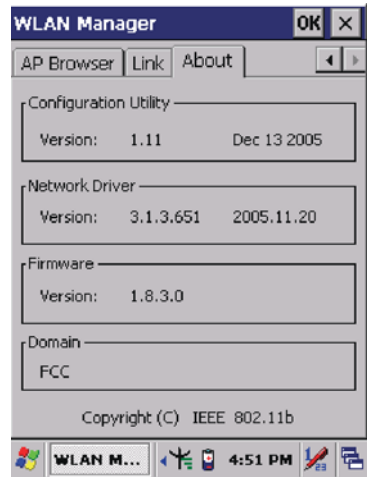


Figure 2.19: WLAN Manager

2.5.7 Scanning Barcode

To use the scanning function, complete the following steps:

1. If you have not already done so, remove the protective plastic film before using devices equipped with a laser scanner.
2. Select **Start > Settings > Control Panel > Barcode Setting**. Configure settings as described in “Barcode Setting” on page 55.
3. Start **WordPad**.
4. Aim the scanning beam at the center of bar code.
 - Position the device close to bar code when scanning
 - Position the device further away when scanning larger bar codes.
 - The scanner is disabled after you release the key or after five seconds.
5. Press the right/left/central scan key. The scanner scans as long as you hold the key or for five seconds.
6. Upon reading a bar code, the red LED indicator comes on until the trigger is release or five seconds. The green LED and the beep tone indicate a good read.



7. Barcode Scanning Position

This device can read from 40 to 300 mm.

- Position the laser scanner close to the barcode when scanning small barcodes and position it further away from the barcode when scanning large barcodes.
- The reader emits a red beam.



8. Bad Scanning Position

- Make sure that the bars enter the laser beam when scanning large barcodes.
- Scanning operations may fail if the laser beam is in the positions shown below.





Note: this product scans using laser light. Never look directly into the laser light or shine the laser light into the eyes.

2.5.8 Help

To tap “?” can get help information for each program.

2.6 Power Management

2.6.1 Suspend Mode

The PDT will go into a suspend mode when it is idle for a period of time. The idle duration can be customized using the **Power** control panel. Suspend mode works and looks just like you have turned the unit off. Press the  key to suspend the PDT, Press the  key again for the PDT to resume its Previous state.

Use the **Battery power** control panel to set the duration to switch state to Suspend mode when the system is using battery power. This will save battery power when the PDT is not in use.

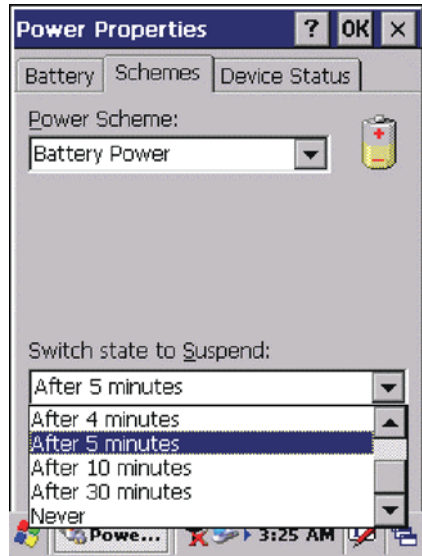
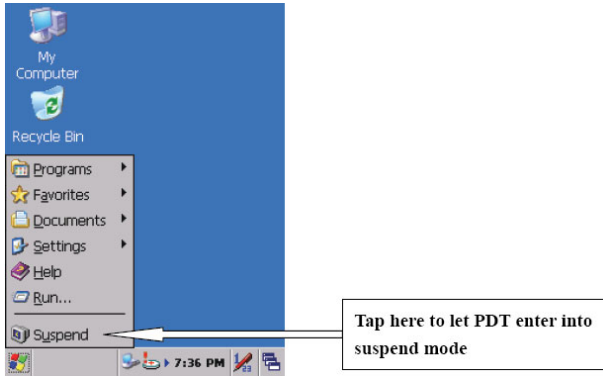


Figure 2.20: Schemes Tab

Suspending:

The following conditions will suspend:

- Press the <Power> key while the unit is on.
- The “Switch state to Suspend” time expires, which indicates that there has been no use for a specified of time.
- The battery pack is completely discharged.
- Tap Start > Suspend



2.6.2 Resuming

Use one of following methods to resume (wake up the PDT):

- Press the <Power> key to suspend or resume (wake up).
- Put the PDT into a dock.

When a battery pack completely discharges while the unit is in suspend mode, the PDT remains suspended until the battery is charged.

2.7 Resetting the PDT

2.7.1 Software (Warm) Reset

A warm reset is a transition from the on, idle, or suspend power state that closes all applications and clears the working RAM, but preserves the file system.

Reason to Warm Reset: If an application “hangs”, initiate a warm reset to terminate the application only.

Warm Reset Process: To execute a warm reset, press the “**F1**” and “**F4**” buttons simultaneously.

After Warm Reset:

- The desktop appears with the application shortcuts on the screen.
- The custom settings in the registry are persistent.

2.7.2 Cold Reset

You can use Cold Reset to initiate device if the Win CE .NET OS locks up or the Warm Reset still doesn't work.

To perform a Cold Reset, press “**Power**”, “**F1**” and “**F4**” buttons simultaneously.

Devices will initiate after Cold Reset.

CAUTION: Try warm reset before Cold Reset. All applications will be Closed and working RAM and all files will be cleared if you initiate a Cold Reset. It's better usually to back up your files to Flash ROM, Flash Card or PC.

Setting

This chapter provides basic instructions for customizing the PDT by adjusting settings.

Chapter 3 Setting

3.1 Introduction

To view the available options for the PDT's settings, tap **Start > Settings**. There are three items inside **Settings**: “**Control Panel**”, “**Network and Dial-up**” and “**Taskbar and Start**”.

3.2 Control Panel

To view the **Control Panel** and settings tapping **Start > Settings > Control Panel**.

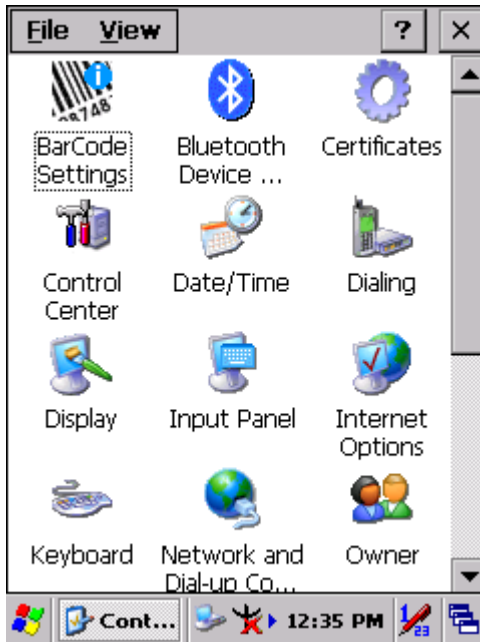


Figure 3.1: Control Panel

3.2.1 Barcode Setting

CAUTION: Please do not enter any Barcode Applications before completing barcode configuration.



There are three tabs for scanner configuration setting: “**Basic**”, “**Code Configure**” and “**Code ID**”. In addition, there is a “**Barcode Setup**” for the “Code Configure” tab.

3.2.1.1 “Basic” Tab

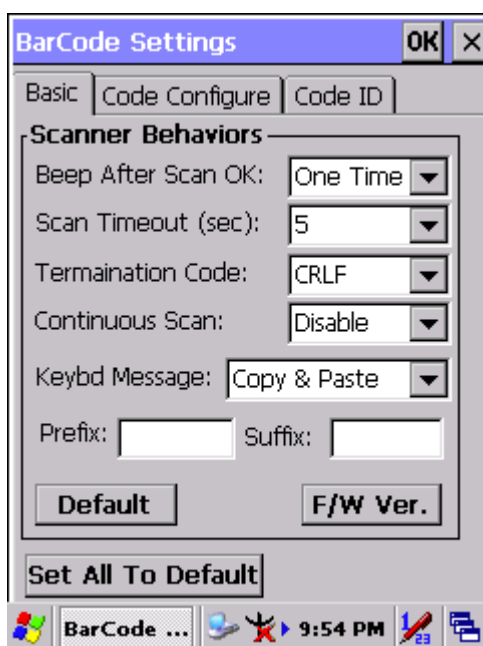


Figure 3.2: Basic Tab

Table 3.1: Basic Explanation

Field Name	Function Explanation	
Beep After Scan OK	Select the number of beep tones after a successful scan.	
	None	After scanning the barcode, do not beep.
	<u>One Time</u>	After scanning the barcode, beep once.
	Two Times	After scanning the barcode, beep twice.
Scan Timeout	Select the scanning timeout duration (in seconds) from this pull-down list. 2 ~ 20 seconds. Default: 5 seconds	
Termination Code	None	After showing barcode, do not action.
	<u>CRLF</u>	After showing the barcode, jump to the next row.
	Space	After showing the barcode, jump one unit.
	Tab	After showing the barcode, jump a section.
Continuous Scan	<u>Disable</u>	Disable this functionality.
	1 ~ 5 sec	The duration of a continuous scan.
Keybd Message	Select a method based upon the barcode scanning application you will use.	
	Type Writing	A unit follows a unit, quickly showing the barcode number.
	<u>Copy & Paste</u>	Show the barcode number once.
Prefix	Type the desired label prefix in this text box.	
Suffix	Type the desired label suffix in this text box.	
Default	Press the "Default" button to reset all settings of the "Basic" Tab to default values.	
F/W ver.	Decoder firmware version.	
Set All To Default	Press the "Set All To Default" button to reset all settings of the "Basic" tab, "Code Configure" tab, "Code ID" tab and all barcodes of "Barcode Setup" to default values.	

3.2.1.2 “Barcode” Tab

Select the barcode symbologies you plan to scan from the list. Tap to enable/disable the desired symbologies.

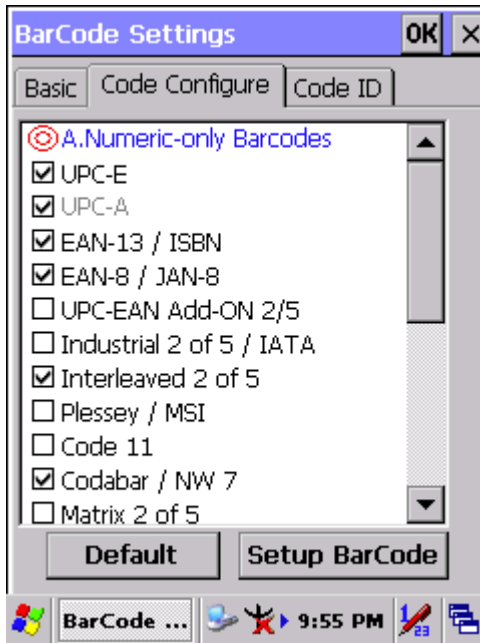


Figure 3.3: Code Configure Tab

Table 3.2: Code Configure Explanation		
Barcode Symbology		Explanation
Type A. Numeric-only Barcodes		
<input checked="" type="checkbox"/>	UPC-E	Compressed version of UPC code for use on small products.
<input checked="" type="checkbox"/>	UPC-A	Universal product code seen on almost all retail products in the USA and Canada.
<input checked="" type="checkbox"/>	EAN-13 / ISBN	EAN-13: European Article Numbering international retail product code. ISBN: Special use of the EAN-13 symbol to used internationally to mark books.

Barcode Symbology		Explanation
<input checked="" type="checkbox"/>	EAN-8 / JAN-8	Compressed version of EAN code for use on small products.
<input type="checkbox"/>	UPC-EAN Add-ON 2/5	UPC-A, UPC-E, EAN-13, and EAN-8 may all include an additional barcode to the right of the main barcode. This second barcode, which is usually not as tall as the primary barcode, is used to encode additional information for newspapers, books, and other periodicals.
<input type="checkbox"/>	Industrial 2 of 5 / IATA	Older code not in common use.
<input type="checkbox"/>	Interleaved 2 of 5	Compact numeric code, widely used in industry, air cargo and other applications.
<input checked="" type="checkbox"/>	Plessey / MSI	Plessey: Older code commonly used for retail shelf marking. MSI: Variation of the Plessey code commonly used in the USA.
<input checked="" type="checkbox"/>	Code 11	Used primarily for labeling telecommunications equipment.
<input checked="" type="checkbox"/>	Codabar / NW 7	Older code often used in library systems, sometimes in blood banks.
<input type="checkbox"/>	Matrix 2 of 5	Used in miscellaneous industrial applications, and mechanical numbering systems.
Type B. Alphanumeric Barcodes		
<input checked="" type="checkbox"/>	Code 39 / Code32	General purpose code in very wide use worldwide.
<input type="checkbox"/>	Code 93	Compact code similar to Code 39.
<input checked="" type="checkbox"/>	Code128 / UCC EAN128	Very capable code, excellent density, high reliability; in very wide use worldwide. Widely used data formatting model for Code 128
Type C. Others Barcodes		
<input type="checkbox"/>	China Post	Used by China Postal Service for automated mail sorting.
<input type="checkbox"/>	Code 4	---

Barcode Symbology		Explanation
<input type="checkbox"/>	GTIN	Global Trade Identification Number
<input type="checkbox"/>	Korea Code 3 of 5	---
<input type="checkbox"/>	RSS	Reduced Space Symbology

3.2.1.3 “Code ID” Tab

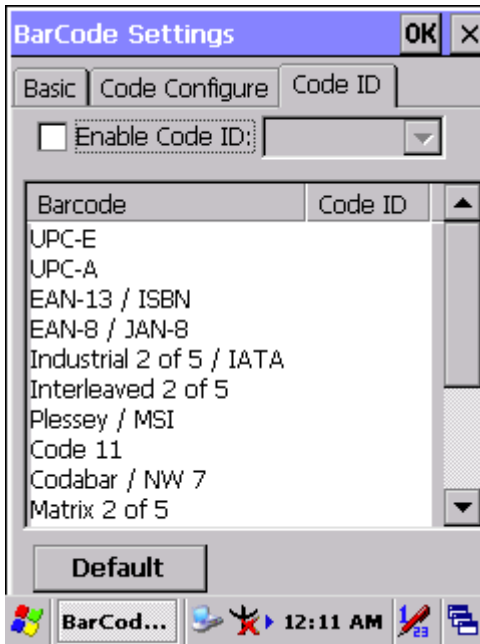


Figure 3.4: Code ID Tab

Table 3.3: Code ID Explanation		
The code ID is added to the prefix of the barcode to let users identify which kind of barcode is being scanned.		
<input type="checkbox"/> Enable Code ID		Enable this functionality.
	Set 1 ~ Set 5	Select one default value: Set 1 ~ Set 5. (See the table: “Code ID Set1 ~ Set5 Table” on page 62)
	User Define	User defined value.
	Barcode List	Set 1 ~ Set 5: default settings. User Define: select barcode to define.
Default		Press the “Default” button to reset all settings of the “Code ID” tab to default values.

Table 3.4: Code ID Set1 ~ Set5 Table

	Set 1	Set 2	Set 3	Set 4	Set 5
UPC-E	S	E	C	E	E
UPC-A	M	A	A	A	E
EAN-13 / ISBN	M	A	A	F	E
EAN-8 / JAN-8	P	B	B	F	E
Industrial 2 of 5 / IATA	C	H	H	H	S
Interleaved 2 of 5	D	I	Z	I	S
Plessey / MSI	V	V	D	P	M
Code 11	J	J	J	J	J
Codabar / NW 7	F	N	X	N	F
Matrix 2 of 5	E	G	G	G	S
Code 39 / Code 32	A	C	Y	M	A
Code 93	I	L	L	L	G
Code 128	H	K	K	K	C
Code 4	U	U	U	U	U
Korea Code 3 of 5	R	R	R	R	R
RSS	R	R	R	R	R
UCC128 / EAN128	W	W	W	W	W

3.2.1.4 Barcode Setup

- A. First select the barcode type then select a barcode setting.
- B. Press the “**Default**” button to reset all settings of this barcode to default values.
- C. Press the “**Apply**” button to apply these changes.

Please see “Symbologies List” on page 64 for more detailed information on each barcode.

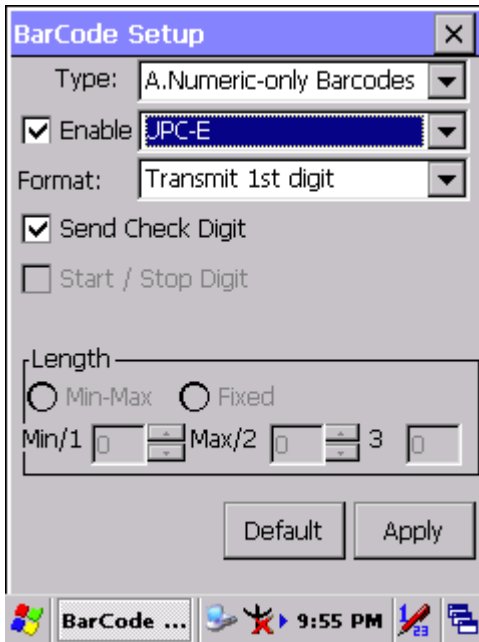


Figure 3.5: Barcode Setup

3.2.2 Symbologies List

A Type -- Numeric-only Barcodes

3.2.2.1 UPC-E

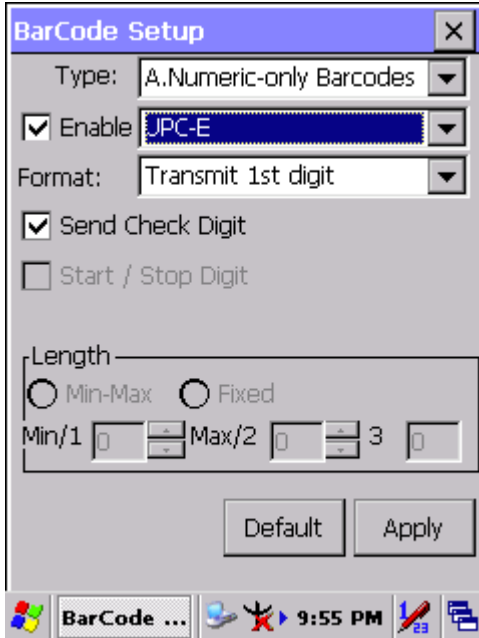


Figure 3.6: UPC-E

Table 3.5: UPC-E Explanation

Item		Explanation
Format	Ignore 1st digit	Do not transmit 1st digit of the barcode.
	Transmit 1st digit	Transmit 1st digit of the barcode.
<input checked="" type="checkbox"/>	Send Check Digit	This controls whether or not to send the check digit of the barcode.

3.2.2.2 UPC-A

If you set UPC-A, then those settings will be automatically applied to EAN-13 too.

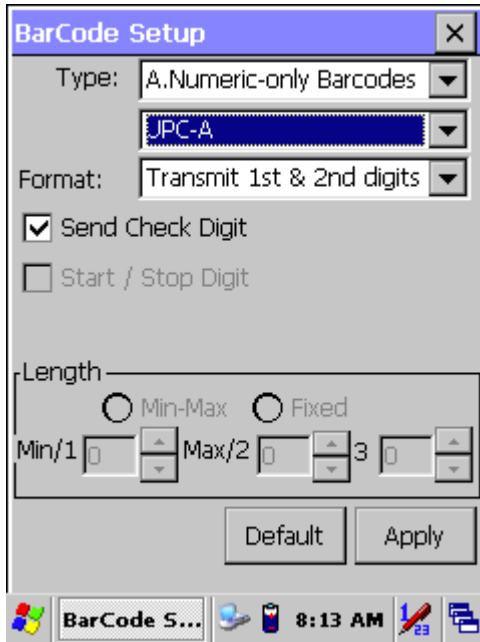


Figure 3.7: UPC-A

Table 3.6: UPC-A Explanation		
Item		Explanation
Format	Ignore 1st & 2nd digits	Do not transmit the 1st digit of the barcode.
	Transmit 1st digit	Transmit the 1st digit of the barcode.
	Transmit 2nd digit	Transmit the 2nd digit of the barcode.
	Transmit 1st & 2nd digits	Transmit the 1st and 2nd digits of the barcode.
<input checked="" type="checkbox"/> Send Check Digit		This controls whether or not to send the check digit of the barcode.

3.2.2.3 EAN-13 / ISBN

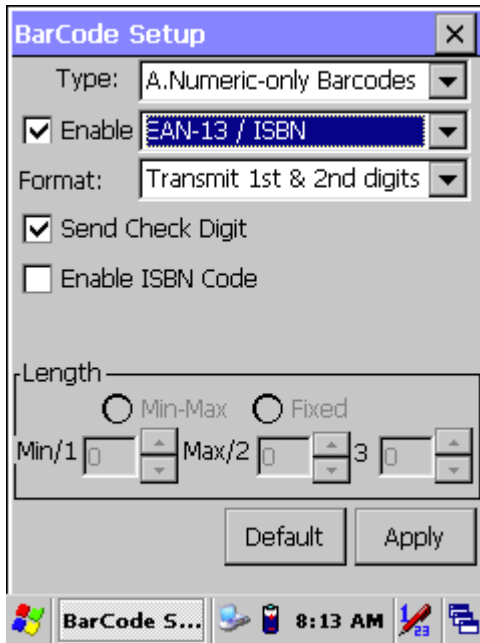


Figure 3.8: EAN-13/ISBN

Table 3.7: EAN-13 / ISBN Explanation		
Item		Explanation
Format	Ignore 1st & 2nd digits	Do not transmit the 1st digit of the barcode.
	Transmit 1st digit	Transmit the 1st digit of the barcode.
	Transmit 2nd digit	Transmit the 2nd digit of the barcode.
	Transmit 1st & 2nd digits	Transmit the 1st and 2nd digits of the barcode.
<input checked="" type="checkbox"/> Send Check Digit		This controls whether or not to send the check digit of the barcode.
<input type="checkbox"/> Enable ISBN Code		This controls whether or not to use the ISBN Code.

3.2.2.4 EAN-8/JAN-8

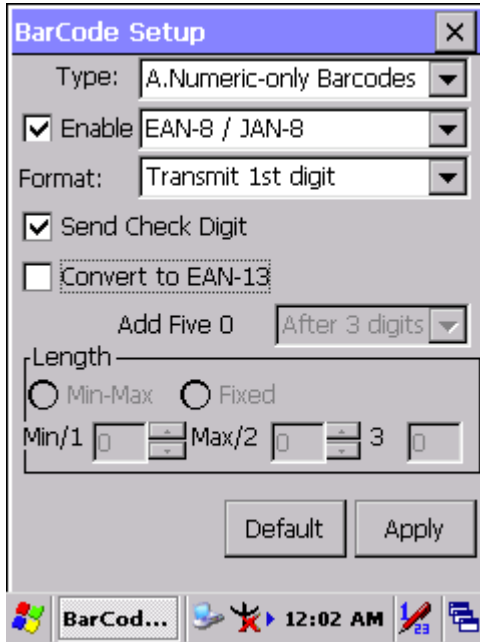


Figure 3.9: EAN-8/JAN-8

Table 3.8: EAN-8/JAN-8 Explanation

Item		Explanation
Format	Ignore 1st digit	Do not transmit 1st digit by barcode.
	Transmit 1st digit	Transmit 1st digit by barcode.
<input checked="" type="checkbox"/> Send Check Digit		Whether send check digit by barcode.
Convert to EAN-13 <input type="checkbox"/>		When this option is selected the scanner will convert UPC-E to UPC-A by transmitting five zeroes ...
Add five 0	Ahead of code	Add five zeroes at prefix of the barcode.
	After 3 digits	Add five zeroes from 4th digits.

3.2.2.5 UPC-EAN Add on 2/5

- UPC-E, UPC-A, EAN-13/ISBN and EAN-8/JAN-8 may all include an additional barcode to the right of the main barcode.
- This barcode will show primary and additional codes together.
- The UPC-EAN Add-ON 2/5 code cannot be used alone. It must operate with UPC-E, UPC-A, EAN-13/ISBN or EAN-8/JAN-8.

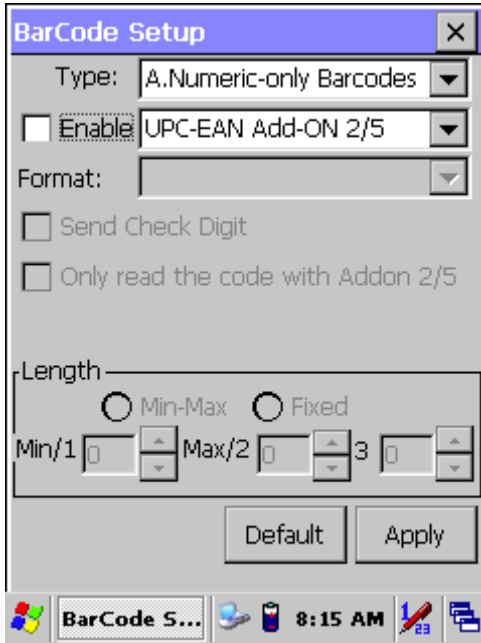


Figure 3.10: UPC-EAN Add on 2/5

UPC-EAN Add-On 2/5 Explanation

Item	Explanation
<input type="checkbox"/> Only read the code with Addon 2/5	Only reads the codes that have addenda.

3.2.2.6 Industrial 2 of 5 / IATA

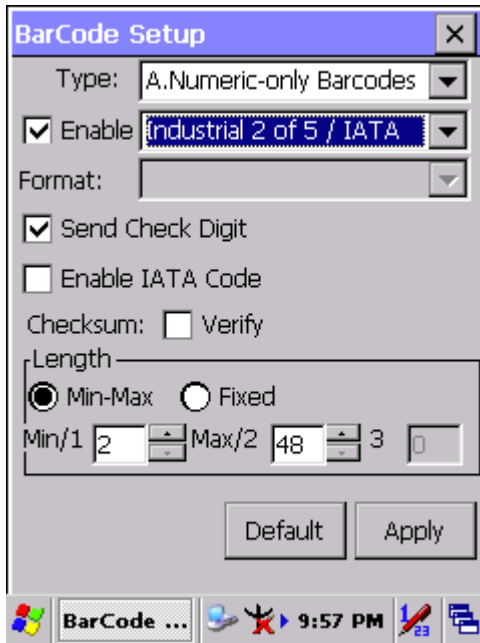


Figure 3.11: Industrial 2 of 5 / IATA

Item		Explanation
<input checked="" type="checkbox"/>	Send Check Digit	This controls whether or not to send the check digits of the barcode.
<input type="checkbox"/>	Enable IATA Code	This controls whether or not to use this IATA Code.
Checksum	<input type="checkbox"/> Verify	This controls whether to verify the checksum of the barcode.
Length	<input checked="" type="radio"/> Min-Max (Default: 2 / 48)	Min Length can be from 2 to 48
		Max Length can be from 2 to 48
	<input type="radio"/> Fixed	Length 1 can be from 2 to 48
		Length 2 can be from 2 to 48
		Length 3 can be from 2 to 48

3.2.2.7 Interleaved 2 of 5

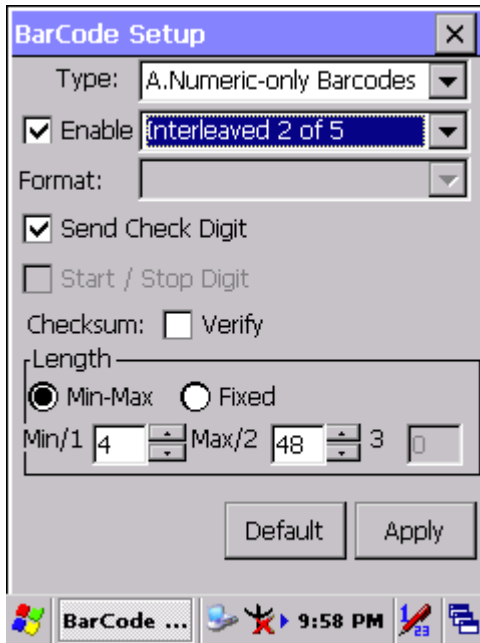


Figure 3.12: Interleaved 2 of 5

Table 3.10: Interleaved 2 of 5 Explanation		Explanation
<input checked="" type="checkbox"/> Send Check Digit		This controls whether or not to send the check digit of the bar-code.
Checksum	<input type="checkbox"/> Verify	This controls whether or not to verify the checksum of the bar-code.
Length	<input checked="" type="radio"/> Min / Max (Default: 4 / 48)	Min Length can be from 4 to 48
		Max Length can be from 4 to 48
	<input type="radio"/> Fixed	Length 1 can be from 4 to 48
		Length 2 can be from 4 to 48
		Length 3 can be from 4 to 48

3.2.2.8 Plessey / MSI

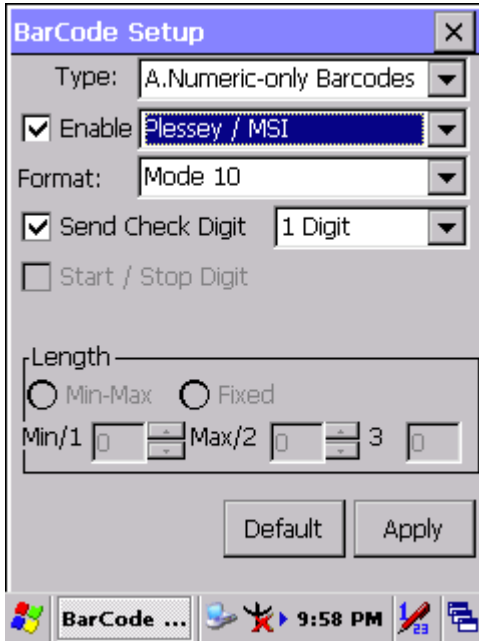


Figure 3.13: Plessey / MSI

Table 3.11: Plessey / MSI Explanation		
Item		Explanation
Format	Mode 10	Checksum mode for this barcode.
	Mode 10-10	
	Mode 11-10	
<input checked="" type="checkbox"/> Send Check Digit		This controls whether or not to send the check digit of the barcode.
	1 Digit	1 digit checksum.
	2 Digits	2 digit checksum.

3.2.2.9 Code 11

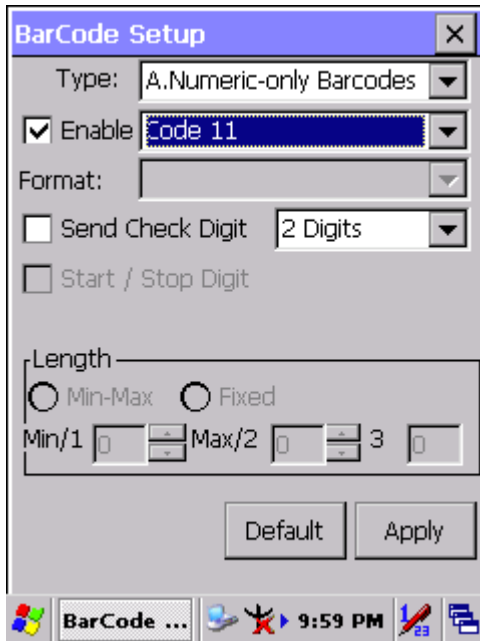


Figure 3.14: Code 11

Table 3.12: Code 11 Explanation	
Item	Explanation
<input type="checkbox"/> Send Check Digit	This controls whether or not to send the check digit of the barcode.
1 Digit	1 digit checksum.
2 Digits	2 digits checksum.

3.2.2.10 Codabar / NW7

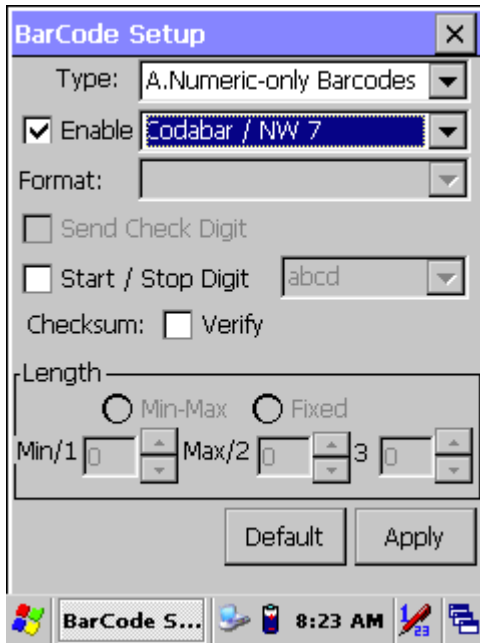


Figure 3.15: Codabar / NW7

Table 3.13: Codabar / NW7 Explanation		
Item	Explanation	
<input type="checkbox"/> Start / Stop Digit	This controls whether or not to send start and stop digits.	
	Start / Stop transmit type	
ABCD		
abcd		
TN*E		
	tn*e	
Checksum	<input type="checkbox"/> Verify	This controls whether or not to verify the checksum of the barcode.

3.2.2.11 Matrix 2 of 5

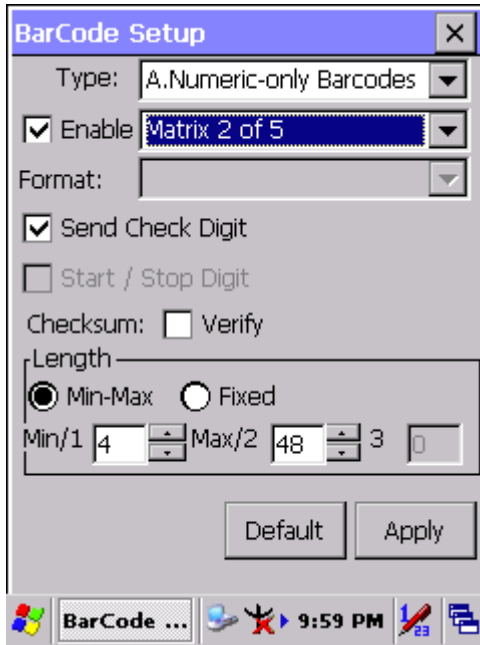


Figure 3.16: Matrix 2 of 5

Table 3.14: Matrix 2 of 5 Explanation

Item		Explanation
<input checked="" type="checkbox"/> Send Check Digit		This controls whether or not to send the check digits of the barcode.
Checksum	<input type="checkbox"/> Verify	This controls whether or not to verify the checksum of the barcode.
Length	<input checked="" type="radio"/> Min-Max (Default: 4 / 48)	Min Length can be from 4 to 48 Max Length can be from 4 to 48
	<input type="radio"/> Fixed	Length 1 can be from 4 to 48
		Length 2 can be from 4 to 48
		Length 3 can be from 4 to 48

B Type -- Alphanumeric Barcodes

3.2.2.12 Code39 / Code32

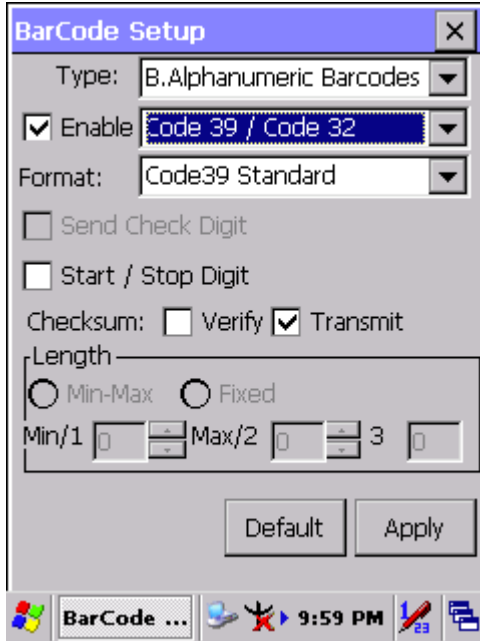


Figure 3.17: Code39 / Code32

Table 3.15: Code39 / Code32 Explanation		
Item		Explanation
Format	Code39 Standard	Enable Code 39 Standard characters
	Code39 Full ASCII	Enable Code 39 Full ASCII character
	Code32	Enable Code 32
<input type="checkbox"/> Start / Stop Digit		This controls whether or not to transmit start and stop digits.
Checksum	<input type="checkbox"/> Verify	This controls whether to verify the checksum of the barcode.
	<input checked="" type="checkbox"/> Transmit	This controls whether or not to transmit the checksum of the barcode.

3.2.2.13 Code93

Code93 has no configuration.

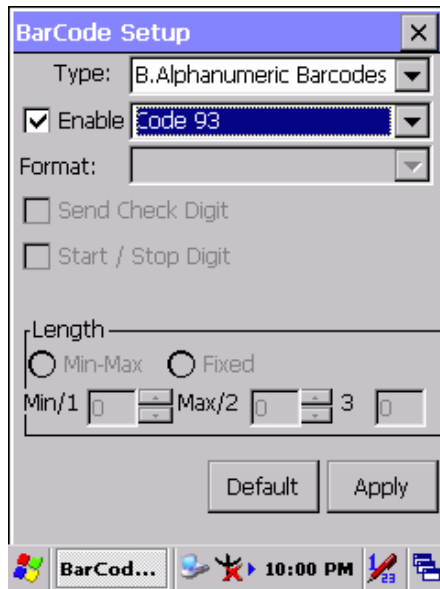


Figure 3.18: Code93

3.2.2.14 Code128 / UCC EAN128

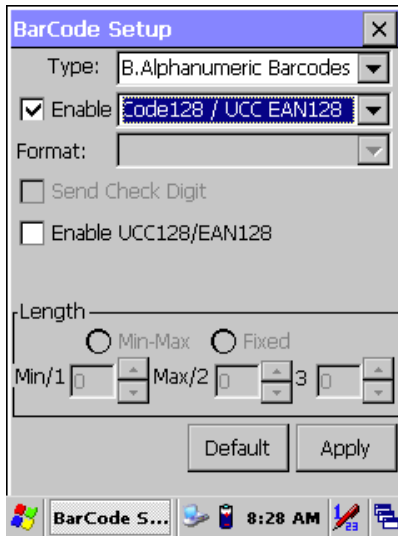


Figure 3.19: Code 128 / UCC EAN128

Code128 / UCC EAN128 Explanation

Item	Explanation
<input type="checkbox"/> Enable UCC128/EAN128	Enable UCC128/EAN128.

C Type -- Other Barcodes

3.2.2.15 China Post

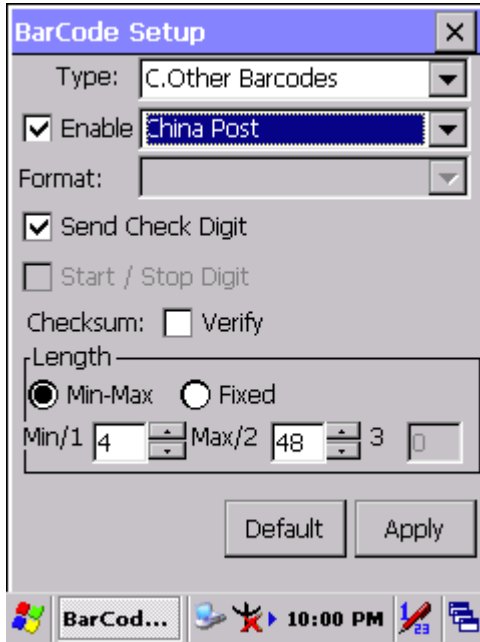


Figure 3.20: China Post

Table 3.16: China Post Explanation		
Item		Explanation
Checksum	<input type="checkbox"/> Verify	This controls whether or not to verify the checksum of the barcode.
	<input checked="" type="checkbox"/> Send Check Digit	This controls whether or not to send the check digit of the barcode.
Length	<input checked="" type="radio"/> Min-Max (Default: 4 / 48)	Min Length can be from 4 to 48
		Max Length can be from 4 to 48
	<input type="radio"/> Fixed	Length 1 can be from 4 to 48
		Length 2 can be from 4 to 48
		Length 3 can be from 4 to 48

3.2.2.16 Code4

Code4 has no configuration.

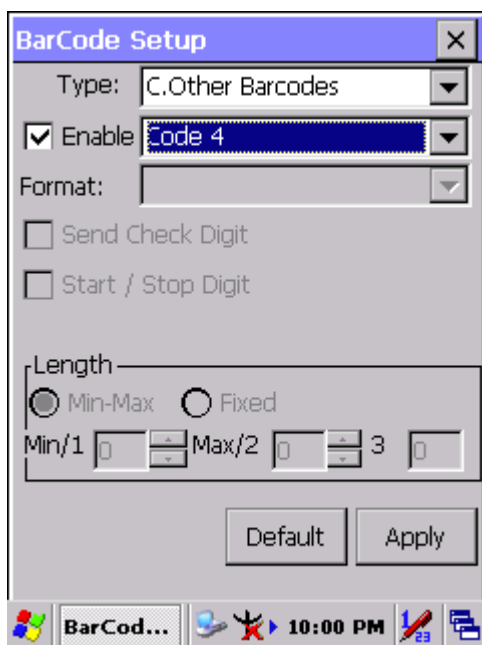


Figure 3.21: Code4

3.2.2.17 GTIN

GTIN has no configuration.

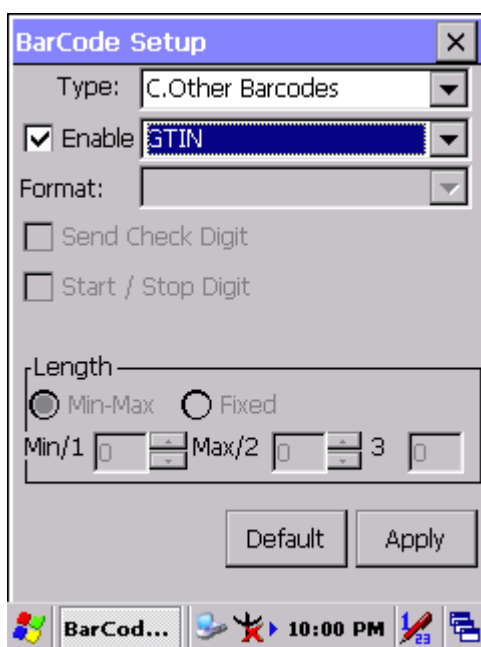


Figure 3.22: GTIN

3.2.2.18 Korea Code 3 of 5

Korea Code 3 of 5 has no configuration.

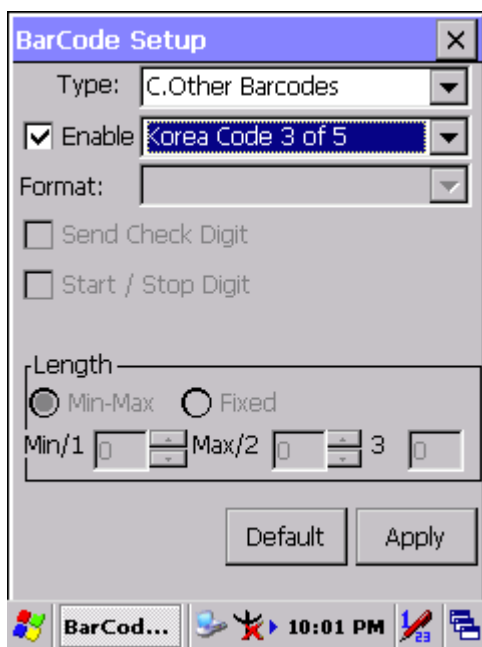


Figure 3.23: Korea Code 3 of 5

3.2.2.19 RSS

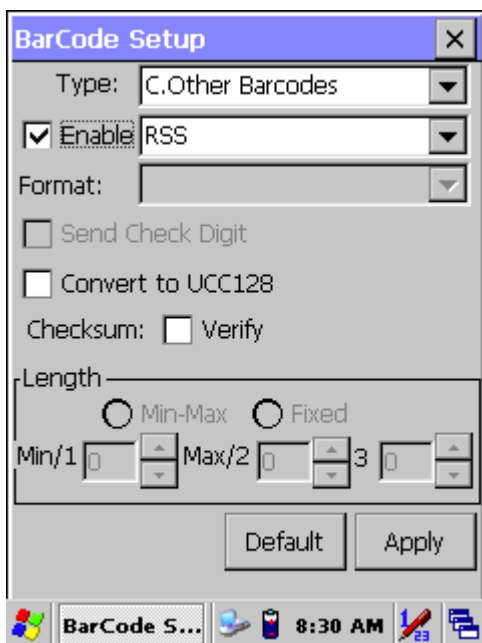




Figure 3.24: RSS

RSS Explanation

Item	Explanation
<input type="checkbox"/> Convert to UCC128	The scanner will convert RSS to UCC128.
Checksum <input type="checkbox"/> Verify	This controls whether or not to verify the checksum of the barcode.

3.2.3 Bluetooth Device Properties

Table 3.17: Bluetooth Device Properties

Icon	Item and function
	<ul style="list-style-type: none"> <li data-bbox="263 245 939 304">• “Scan Device” Tab (See “Bluetooth Manager Windows” on page 84) <li data-bbox="263 309 939 517">* Tap the Scan Device button to initiate a scan for Bluetooth hardware. The Bluetooth manager lists the Bluetooth devices that it finds, see “Bluetooth Manager Windows” on page 84. If Bluetooth hardware is not found, the <i>Bluetooth Hardware Error</i> window appears. See “Bluetooth Error Windows” on page 84. See “Bluetooth Icon” on page 86 for a description of Bluetooth icons. <li data-bbox="263 521 939 665">* Double tap the device add it to the device list. The Bluetooth Manager Authentication window appears. Tap No to connect to the device without authentication, or tap Yes to authenticate the device before connecting. (“Bluetooth Manager Windows” on page 84) <li data-bbox="263 670 939 845">* If the Yes was selected in the Bluetooth Manager Authentication window, the enter PIN windows appears. Enter a PIN between 1 and 16 characters in the <i>Enter PIN:</i> text box, and tap OK. The mobile computer sends the PIN request to the device for bonding. See “Bluetooth Enter PIN Windows” on page 85. <li data-bbox="263 850 939 989">* When prompted, the same PIN must be entered on the other device. When the PIN is entered correctly on the other device, the bonded icon,  appears in the device list. See “Bluetooth Manager Windows” on page 85.

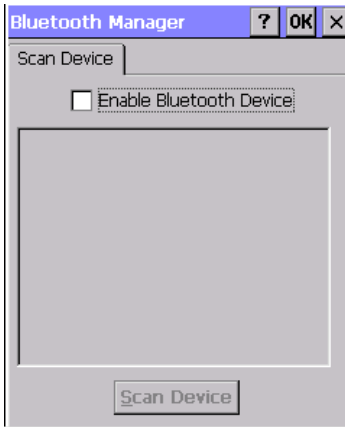


Figure 3.25: Bluetooth Manager Windows

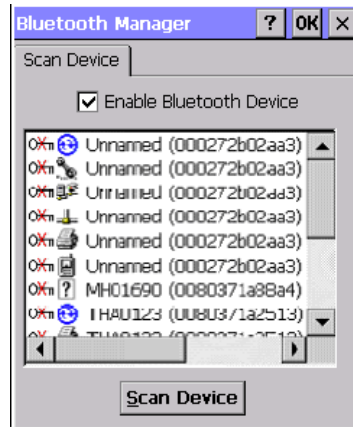


Figure 3.26: Bluetooth Manager Windows



Figure 3.27: Bluetooth Error Windows



Figure 3.28: Bluetooth Manager Windows

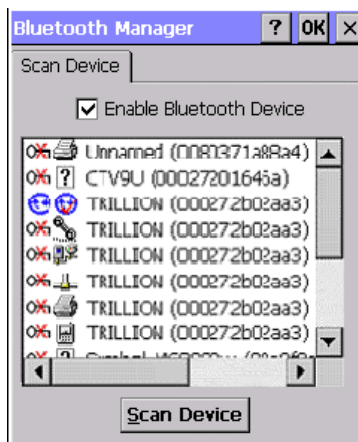












Figure 3.29: Bluetooth Enter PIN Windows *Figure 3.30: Bluetooth Manager Windows*

Note: If the device to which the mobile computer is bonding does not appear in the list, ensure it is turned on, in discovery mode, and within range (30 feet / 10 meters) of the mobile computer.


Table 3.18: Bluetooth Icon

Icon		Description
	Unknown device icon	Device is not defined
	Locked icon	Device is locked and cannot be bonded to.
	Not locked icon	Device is not locked and can be bonded to.
	Bluetooth device icon	Bluetooth device
	Bonded device icon	Bonded Bluetooth device
	Mobile device icon	Device is a mobile device
	Phone icon	Device is a phone.
	Printer icon	Device is a printer
	Network icon	Device is a network.
	Linked icon	Device is linked.

3.2.4 Certificates

Certificates are used by some applications for establishing trust and for secure communications.

Certificates are signed and issued by certificate authorities and are valid for a prescribed period of time. Windows CE manages multiple certificate stores.

Icon	Item and function
	<ul style="list-style-type: none">• “Store” Tab (Figure 3-31)* In the Stores tab, select the certificate store you wish to view or modify from the drop-down list (Figure 3-32).* The “Trusted Authorities” store lists the top-level certificates for authorities you trust. (Figure 3-33, Figure 3-34)* The “My Certificates” store contains your personal certificates, which you use to identify yourself.* Intermediate certificate authorities that help establish a chain of trust are stored in the “Other Authorities” store.
	<ul style="list-style-type: none">• “Store” Tab* To add a certificate or associated private key to the selected store, select “Import” (Figure 3-35).* To view more details of the selected certificate, such as the expanded name or expiration date, choose “View”.* To delete the selected certificate from the store, choose “Remove”.

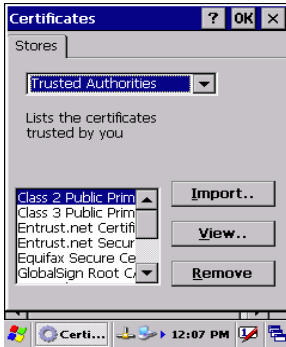


Figure 3.31: Certificates

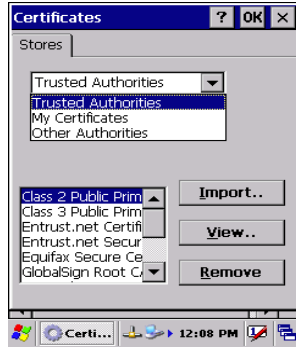


Figure 3.32: Certificates



Figure 3.33: Certificates

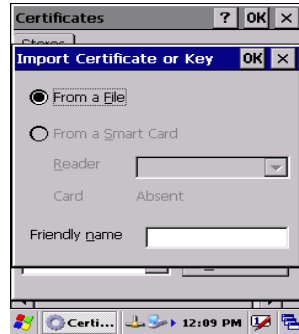


Figure 3.34: Certificates



Figure 3.35: Certificates

3.2.5 Control Center

The Control Center includes four applications, described below.

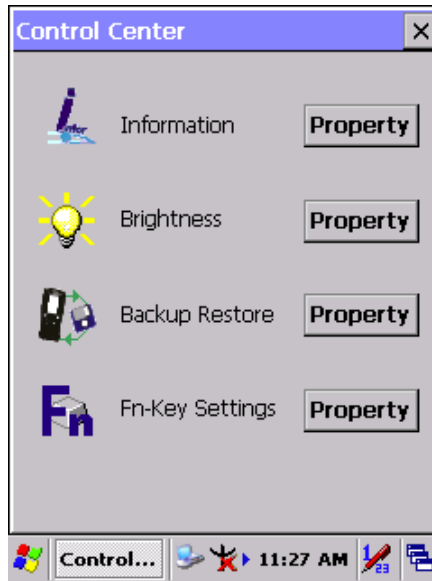











Figure 3.36: Control Center

3.2.5.1 Information

Table 3.20: Information

Icon	Item and function
	<ul style="list-style-type: none">• “Information” Tab: <p>* Provide Software version, MAC address, Bluetooth ID, Serial No. and Configuration No.</p>

3.2.5.2 Brightness

Table 3.21: Brightness		
Icon	Item and function	
	<p>LCD Brightness</p> <p>Change the LCD brightness by tapping right-arrow or left-arrow. You can also change the LCD brightness by pressing the right-direction key or left-direction key on the keypad.</p> <p>The brightness setting has seven steps: Every step has a corresponding icon.</p>	
	<p>1.  2.  3.  4.  5. </p> <p>6.  7. </p>	
	<p><input type="checkbox"/> Enable Keypad Brightness</p>	<p>Open keypad brightness or not.</p>
	<p>Backlight Timeout</p> <p>Save battery life by automatically turning off the backlight when not used.</p>	
	<p><input checked="" type="checkbox"/> Battery Power, turn off backlight after</p>	<p>The table must be disabled when its item is not marked.</p> <p>The table has 15 seconds, 30 seconds, 1 minute, <u>2 minutes</u> and 5 minutes.</p>
<p>AC Power, turn off backlight after <input type="checkbox"/></p>	<p>The table must be disabled when its item is not marked.</p> <p>The table has 15 seconds, 30 seconds, 1 minute, <u>2 minutes</u> and 5 minutes.</p>	
<p><input checked="" type="checkbox"/> Dim backlight after 20 seconds of idleness.</p>	<p>Save battery life functionally of idleness.</p>	

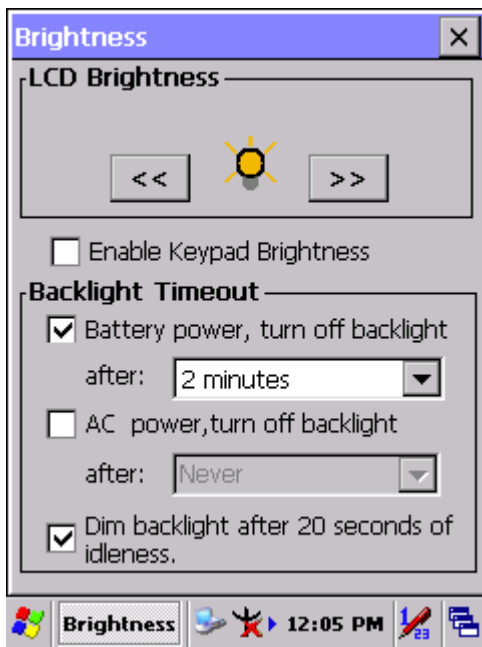



Figure 3.37: *Brightness*

3.2.5.3 Backup Restore

Table 3.22: *Backup Restore*

Icon	Item and function
	<ol style="list-style-type: none"> 1. You can backup/restore the system to/from a flash disk or inserted memory card. (A. Disk on Chip, B. CF Card, C. SD Card) (Figure 3-38) 2. This application must check the backup file on the DOC first. If you select other storage, this item will be checked again. 3. If the file exists, the date appears next to “Last backup date:”. If the file doesn’t exist, the “Restore Now” button is disabled. 4. When you press the Backup/Restore button, a warning dialog box will appear. (Figure 3-39) 5. When the system backup/restore is finished, a message dialog will appear. (A. Backup: Figure 3-40, B. Restore: Figure 3-41)

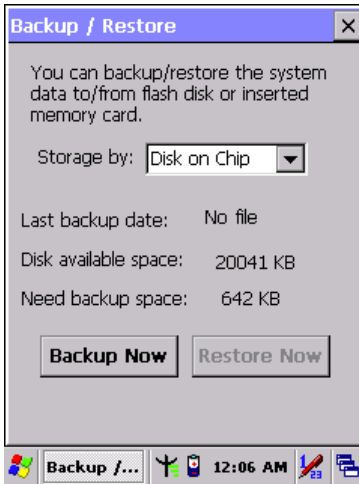


Figure 3.38: Backup Restore

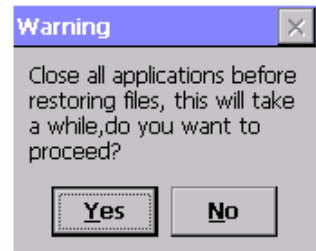
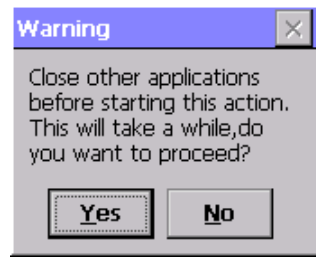


Figure 3.39: Backup & Restore Start

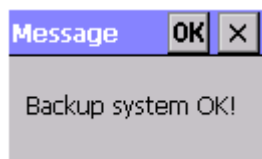


Figure 3.40: Backup OK

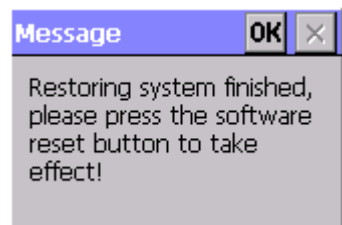



Figure 3.41: Restore OK

3.2.5.4 Fn-key Settings

Table 3.23: Fn-Key

Icon	Item and function	
	Fn-Key Setting (Figure 3-42)	
	Fn Key	The application program default settings
	F1	Internet Explorer
	F2	Microsoft WordPad
	F3	Inbox
	F4	My Computer
	To assign your favorite application program to F1, F2, F3 and F4 hot keys: * Choose F1, F2, F3 or F4 from the pull-down list. (Figure 3-43) * Tap “Browse...” inside the “Assign program” applet. * Select one application program you want from the program list, then choose “OK”. (Figure 3-43) * Tap “Default” to return to the default settings. (Figure 3-42)	

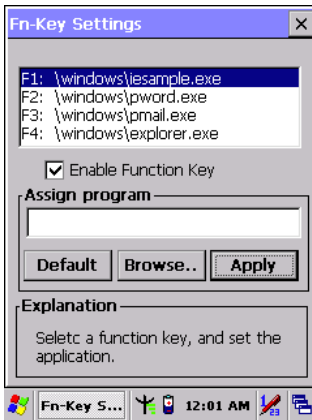



Figure 3.42: Fn-Key Settings



Figure 3.43: Fn-Key Settings


3.2.6 Date/Time

Table 3.24: Date/Time

Icon	Item and function
 Date/Time	<ul style="list-style-type: none"> • “Date/Time” Tab: (Figure 2-14)
	<ul style="list-style-type: none"> * See “Setting Time and Date” on page 42

3.2.7 Dialing Properties

Table 3.25: Dialing properties

Icon	Icon and function
 Dialing	<ul style="list-style-type: none"> • “Dialing Properties” Tab (Figure 3-44)
	<ul style="list-style-type: none"> * In the When dialing from list, select the “Location” for which you want to change settings. (Figure 3-45) * To create a new location, select “New”. Enter the name of the location, and then select “OK”. (Figure 3-46) * Enter or edit the area code and local country code as needed. * In Dial using, select “Tone dialing” or “Pulse dialing”. Most phones use tone dialing. * To automatically disable call waiting, select “Disable call waiting by dialing”, select the appropriate number sequence in the list, or enter a new sequence.

	<ul style="list-style-type: none"> • Editing dialing patterns (Figure 3-47) * Using the codes listed, edit the dialing patterns as needed. <p>Notes:</p> <ul style="list-style-type: none"> - If you need to use characters other than the ones listed here, use manual dialing. - Hyphens and spaces in dialing strings are ignored. - Some modems may not respond to the following characters, even though your device lets you add them to the dial string.
--	---

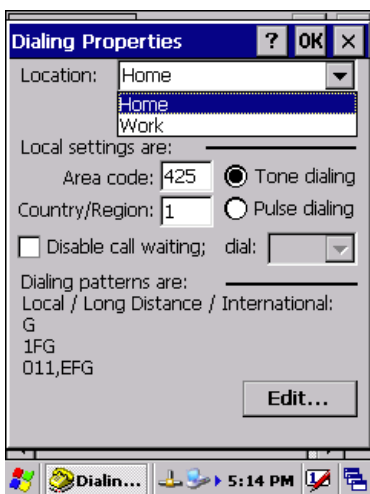


Figure 3.44: Dialing Properties



Figure 3.45: Dialing Properties

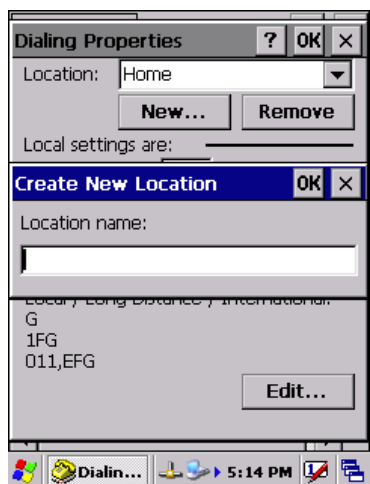


Figure 3.46: Dialing Properties

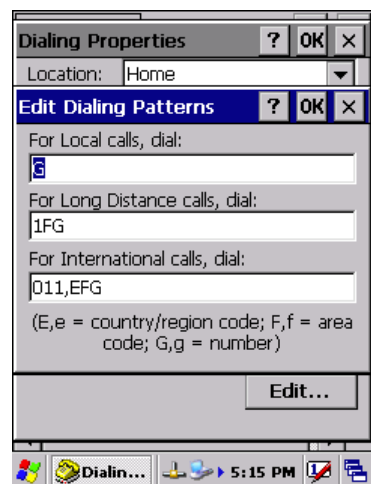



Figure 3.47: Dialing Properties

3.2.8 Display Properties

Table 3.26: Display properties

Icon	Icon and function
 <p>Display</p>	<ul style="list-style-type: none"> • “Background” Tab: (Figure 3-48) * From the “Image” list, select an image you want as the background of the desktop. (Figure 3-49) * To locate an image in another folder, select “Browse”. (Figure 3-50) * To have the image cover the entire background, select “Tile image on background” <hr/> <ul style="list-style-type: none"> • “Appearance” Tab (Figure 3-51) * Change the color scheme: (Figure 3-52) <ul style="list-style-type: none"> - From the “Scheme” list, select a scheme. - View your choice in the preview box. If you like the scheme, select “Apply”. * Create a custom color scheme: <ul style="list-style-type: none"> - From the “Item” list, select a display item. - From the “Basic colors” list, select a color, and select “OK”. - View your color selection(s) in the Preview box. - To save the scheme, select “Save”. - In the “Save this color scheme as” box, enter a name for the scheme, and select “OK”. - Select “Apply”.

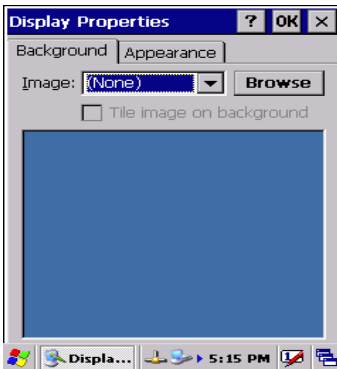


Figure 3.48: Display properties



Figure 3.49: Display properties

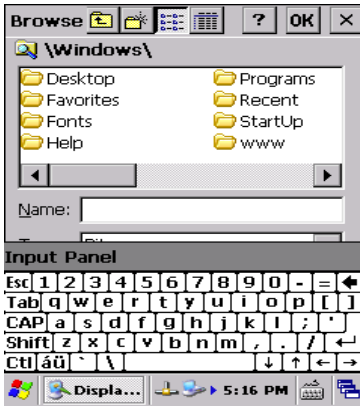


Figure 3.50: Display properties

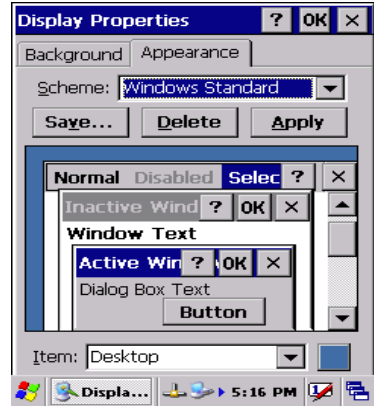


Figure 3.51: Display properties

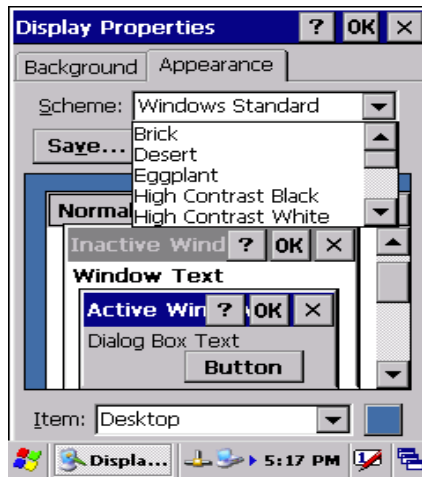



Figure 3.52: Display properties

3.2.9 Input Panel

Table 3.27: Display properties

Icon	Icon and function
 Input Panel	<ul style="list-style-type: none"> • “Input panel” Tab: (Figure 3-53)
	<ul style="list-style-type: none"> * Select the input method you want to change. * To change the Soft Keyboard Options, tap “Option” (Figure 3-54).
	<ul style="list-style-type: none"> • “Options” Tab:
	<ul style="list-style-type: none"> * Change the soft keyboard options as desired, selecting from: <ul style="list-style-type: none"> - Large or small keys - Using gestures for space, black-space shift, and enter. * To exit the soft keyboard Options, press “OK” on the control bar, or press the <Enter> key on the keypad. * To exit the Input Panel, press “OK” on the control bar, or press the <Enter> key on the keypad.

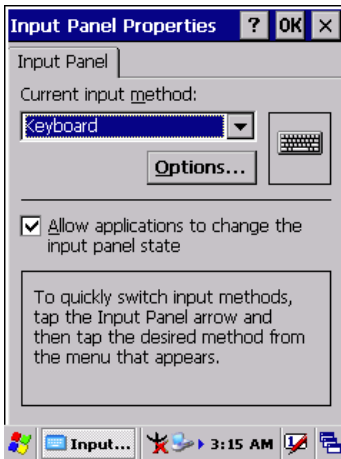


Figure 3.53: Input Panel Properties

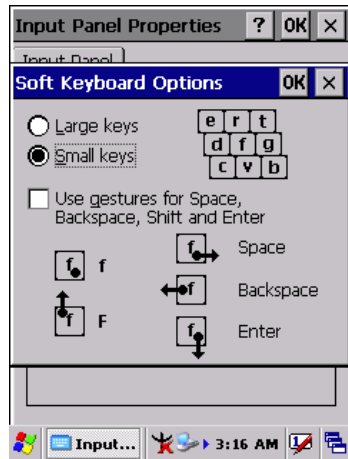


Figure 3.54: Input Panel Properties

3.2.10 Internet Options


Table 3.28: Internet Options	
Icon	Icon and function
 Internet Options	<ul style="list-style-type: none"> • “General” Tab: (Figure 3-55)
	<p>* Type in the URL of desired start page and the desired search engine. You can also change the Cache Size, clear the Cache and clear the History.</p>
	<ul style="list-style-type: none"> • “Connection” Tab: (Figure 3-56)
	<p>* Modify the network access settings as desired.</p>
	<ul style="list-style-type: none"> • “Security” Tab (Figure 3-57)
	<p>* Modify the security settings as desired. You can enable any of the following by tapping the checkbox:</p> <ul style="list-style-type: none"> - Allow cookies - Allow TLS 1.0 security - Allow SSL 2.0 security - Allow SSL 3.0 security - Warn when switching between secure and insecure areas.
	<ul style="list-style-type: none"> • “Advanced” Tab (Figure 3-58)
	<p>* Modify the security settings as desired. You can enable any of the following by tapping the checkbox:</p> <ul style="list-style-type: none"> - Display Image in pages - Play sounds in pages - Enable scripting - Display a notification about every script error - Underline links- > Never > Always > Hover



Figure 3.55: Internet Settings

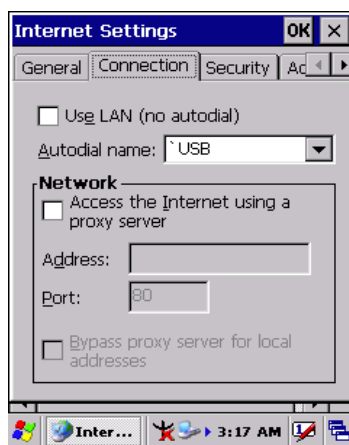


Figure 3.56: Internet Settings

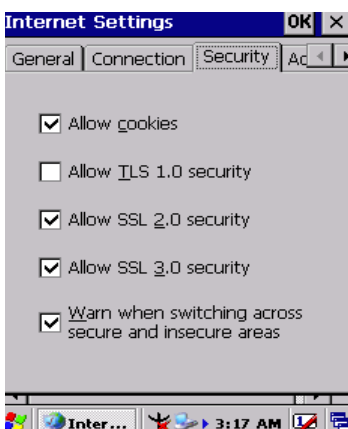


Figure 3.57: Internet Settings

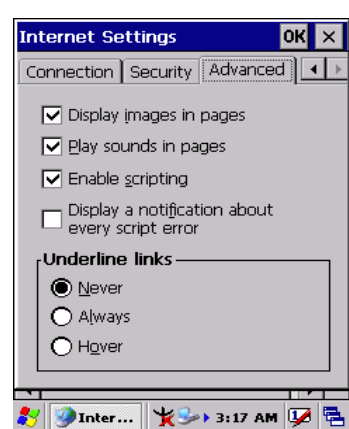



Figure 3.58: Internet Settings

3.2.11 Keyboard

Table 3.29: Keyboard

Icon	Icon and function
 Keyboard	<ul style="list-style-type: none">• “Repeat” Tab: (Figure 3-59)* To change the amount of time between depressions before repetition starts, adjust the Repeat delay slider.* To change the repeat rate, adjust the Repeat rate slider.* Test your new setting.* Tap “OK” to exit the “Keyboard” tab.

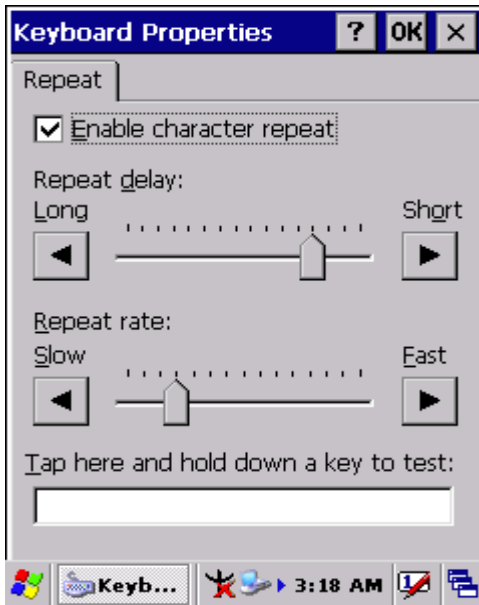




Figure 3.59: Keyboard Properties

3.2.12 Network and Dial-up Connections

Table 3.30: Network and Dial-up Connections

Icon	Icon and function
 <p>Network and Dial-up Co...</p>	<ul style="list-style-type: none"> • “Connection” Tab: <p>* To create a “Dial-up Connection”:</p> <ul style="list-style-type: none"> - Double-tap “Make New connection”. - In the “Make New Connection” dialog box, enter a name for the connection. - Select “Dial-Up Connection”. - Select the “Next” button. - Select the modem you want use. - Select “Configure” - Under “Connection Reference”, use the default settings provided. If you can’t connect using these settings, see your ISP or network administrator for specific information. If you want to always enter a phone number before connecting, select “Manual Dial”. Select “OK”. <hr/> <ul style="list-style-type: none"> - Select “TCP/IP Settings”. In the “General” tab, ensure “Use Server-assigned IP address” is selected. In the “Name Servers” tab, ensure “Use Server-assigned addresses” is selected, and select “OK”. If you are unable to connect with these default settings, see your ISP or network administrator for specific TCP/IP information. - Select the “Next” button and type the telephone number. - Select the “Finish” button. <p>The connection you just created appears as an icon in the “Network and Dial-up Connections” folder.</p> <ul style="list-style-type: none"> - Set up a Point-to-Point Protocol (PPP) account with an ISP and obtain the following information: <ul style="list-style-type: none"> > Access telephone number > User name > Password

Icon	Icon and function
 <p>Network and Dial-up Co...</p>	<p>Once you have established an account, create a new connection on your device. When creating this connection, you should be able to use all of the default TCP/IP settings provided in the Make New Connection Wizard. If you can't connect using the default settings, contact your ISP or access your ISP's Web site for specific TCP/IP information such as primary and secondary DNS addresses.</p> <p>* To modify connection settings:</p> <ul style="list-style-type: none"> - Select Start > Settings > Network and Dialup Connections - Select the icon for connection settings you want to modify. - Select File > Properties, or double- tap the appropriate icon. - Select desired options. There may be additional settings that depend on the connection. To modify, select the icon and then select Advanced Settings... from the menu.

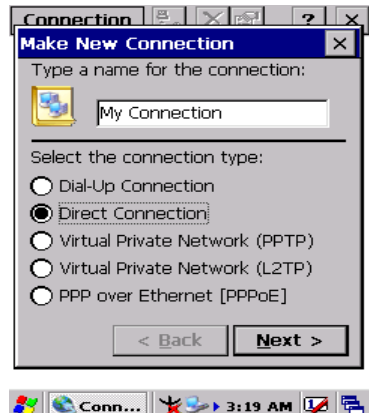
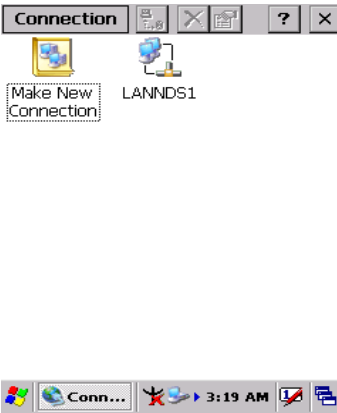


Figure 3.60: Network and Dial-up Connections

Figure 3.61: Network and Dial-up Connections

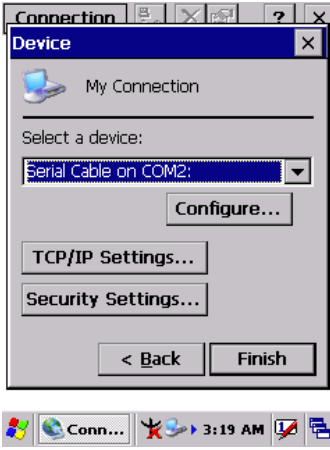


Figure 3.62: Network and Dial-up Connections

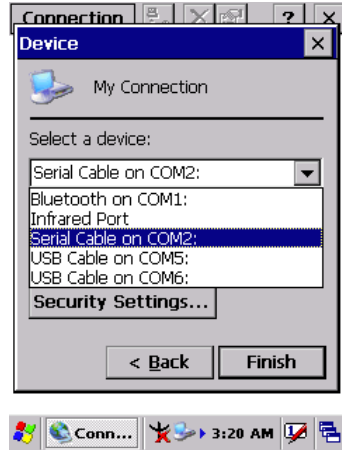


Figure 3.63: Network and Dial-up Connections

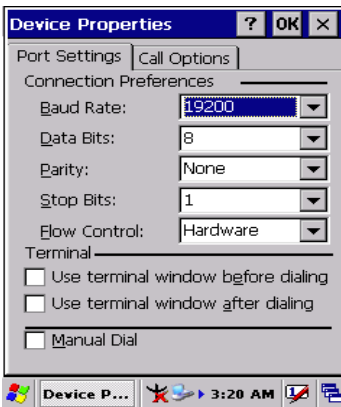


Figure 3.64: Network and Dial-up Connections

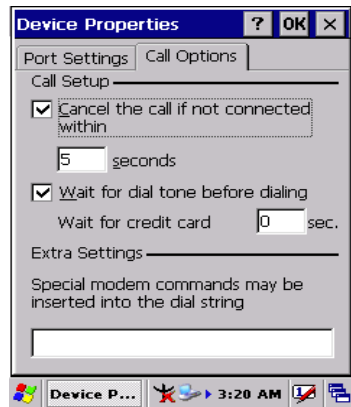


Figure 3.65: Network and Dial-up Connections

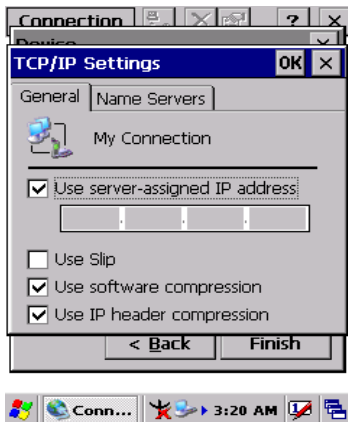


Figure 3.66: Network and Dial-up Connections

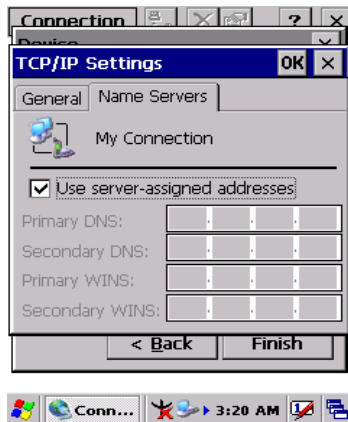


Figure 3.67: Network and Dial-up Connections

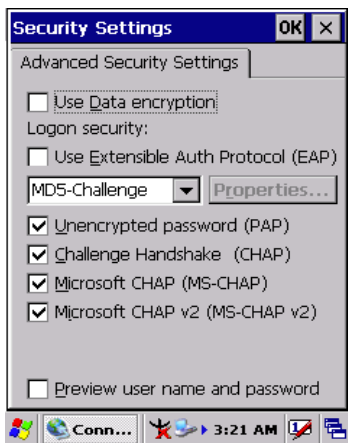


Figure 3.68: Network and Dial-up Connections



Figure 3.69: Network and Dial-up Connections

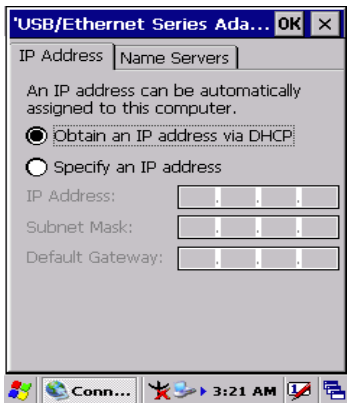


Figure 3.70: Network and Dial-up Connections

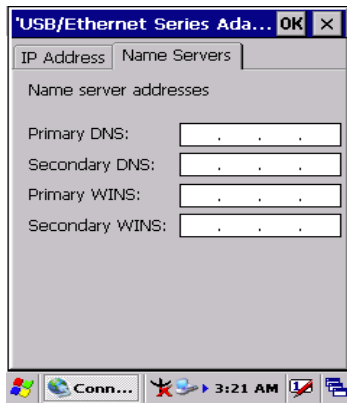


Figure 3.71: Network and Dial-up Connections

3.2.13 Owner

Table 3.31: Owner


Icon	Icon and function
 Owner	<ul style="list-style-type: none"> • “Identification” Tab: (Figure 3-74)
	<ul style="list-style-type: none"> * Fill in or edit the data as desired. * To have this information displayed when you start your device, select “Display Owner Identification” at Power On. * To set up identification for remote networks, see Setting up identification for remote networks.
	<ul style="list-style-type: none"> • “Network ID” Tab: (Figure 3-75)
	<ul style="list-style-type: none"> * Enter the user name, password, and domain name you use to log on to remote network.



Figure 3.72: Owner Properties

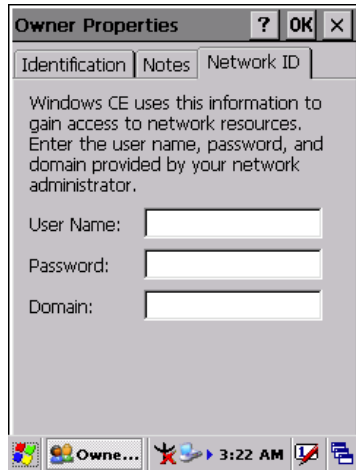


Figure 3.73: Owner Properties

3.2.14 Password

Table 3.32: Password



Icon	Icon and function
 Password	<ul style="list-style-type: none"> • “Password Setting” Tab: (Figure 3-76) * Enter the password * In the “Confirm password” box, enter the password again. * To require the password on startup, select “Enable password protection at power-on” and/or select “Enable password protection for screen saver”. * To exit the Password control panel, press “OK” from the control bar, or press the <Enter> key on the key-pad.



Figure 3.74: Password Properties

3.2.15 PC Connection

Table 3.33: PC Connection

Icon	Icon and function
 <p>PC Connection</p>	<ul style="list-style-type: none"> • “PC Connection” Tab: (Figure 3-77) * Select the first checkbox to enable direct connections to the desktop computer. (Figure 3-77) * Tap the “Change Connection...” button to modify the connection method to USB or Serial. (Figure 3-78) * To exit the “Change Connection” dialog, press “OK” on the control bar, or press the <Enter> key on the keypad. * To exit the “PC Connection” properties control panel, press “OK” on the control bar, or press the <Enter> key on the keypad.

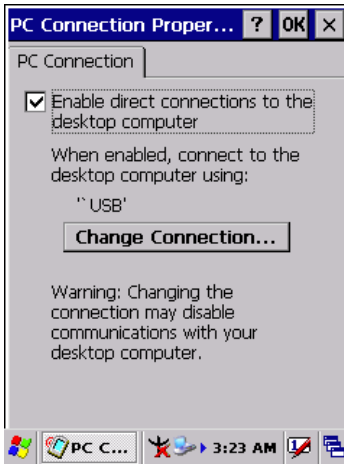


Figure 3.75: PC Connection

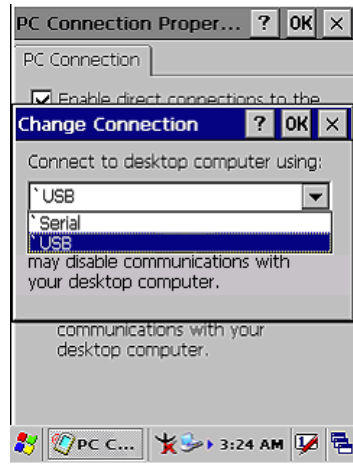






Figure 3.76: PC Connection

3.2.16 Power

Table 3.34: Power	
Icon	Icon and function
 Power	<ul style="list-style-type: none"> • “Battery” Tab: (Figure 3-79)
	<ul style="list-style-type: none"> * Provide change level indicators for the Main battery and the Backup battery. * Show the remaining power capacity of the main battery. * If a “Main Batteries Very Low” warning message shows, the MARS-1030 will shut down in 30 minutes. (Figure 3-83) * The PDT will shutdown when the main battery’s capacity is around 0%. * To exit the battery control panel, press “OK” from the command bar, or press <Enter> key on keypad.
	<ul style="list-style-type: none"> • “Schemes” Tab: (Figure 3-80)
	<ul style="list-style-type: none"> * The Scheme tab allows you to determine when to switch to suspend mode when using either Battery Power or AC Power. * Select Battery Power or AC Power as the power scheme from the pull-down list. (Figure 3-80) * Select the time to suspend mode from the pull-down list. (Figure 3-81)
	<ul style="list-style-type: none"> • “Device Status” Tab: (Figure 3-82) Show the power level of device. The power level ranges from “High(D0)” which means the device is at the highest power level to “Off(D4)” which means the device is at the lowest power level.
Note:	
	This icon on the taskbar shows that the AC adapter provides power to the PDT .
	The icon on the taskbar shows that Main Batteries provide power to the PDT.
	The icon on the taskbar shows that the AC adapter provides power to the PDT while charging the main batteries.

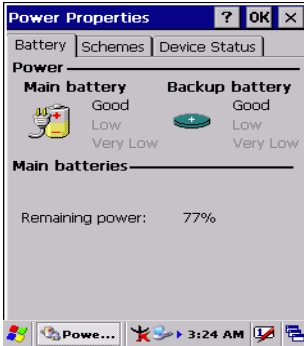


Figure 3.77: Power

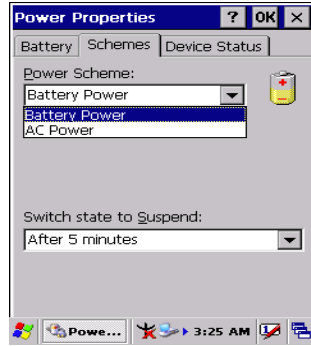


Figure 3.78: Power

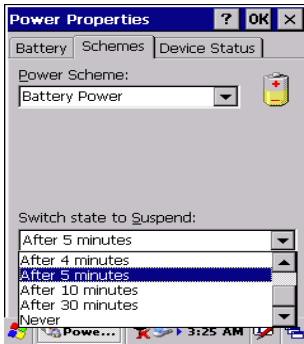


Figure 3.79: Power

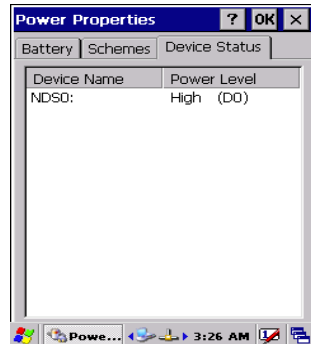


Figure 3.80: Power

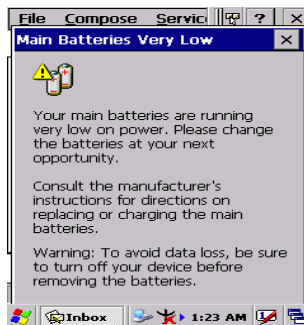



Figure 3.81: Power

3.2.17 Regional Settings

Icon	Icon and function
 Regional Settings	<ul style="list-style-type: none"> • “Region” Tab: (Figure 3-84) * Select the desired location/language. * Review the Appearance samples in the bottom half of the screen. * Select the tab at the top for any settings you wish to change. Settings to modify include Number, Currency, Time, and Date.

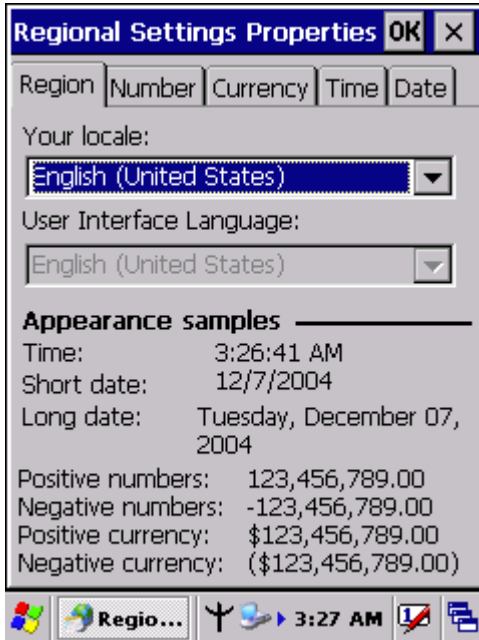




Figure 3.82: Regional Settings

3.2.18 Remove Programs

Table 3.36: Remove Programs

Icon	Icon and function
 Remove Programs	<ul style="list-style-type: none"><li data-bbox="334 245 949 277">• “Remove Programs” Tab:<li data-bbox="334 277 949 368">* Only user installed programs can be removed.<ul style="list-style-type: none"><li data-bbox="355 309 949 368">- Select the program you wish to remove from the list and press the “remove” button.

3.2.19 Storage Manager

Table 3.37: Storage Manager	
Icon	Icon and function
 Storage Manager	<ul style="list-style-type: none"> • “Storage Manager” Tab: (Figure 3-83) * To change storage properties control panel default settings: <ul style="list-style-type: none"> - Insert a Compact Flash (CF) or Secure digital (SD) storage card into the unit. - Select Start > Settings > Control Panel > Storage Properties - From the “Storage Info” pull-down list, select the desired storage device. - You can also format, dismount, and create partitions on storage devices using this control panel. - To save and exit the Storage Properties control panel, press “OK” from the control bar, or press the <Enter> key on the keypad. - Caution: Dismounting or formatting the DiskOnChip will erase all files and programs stored in flash memory.

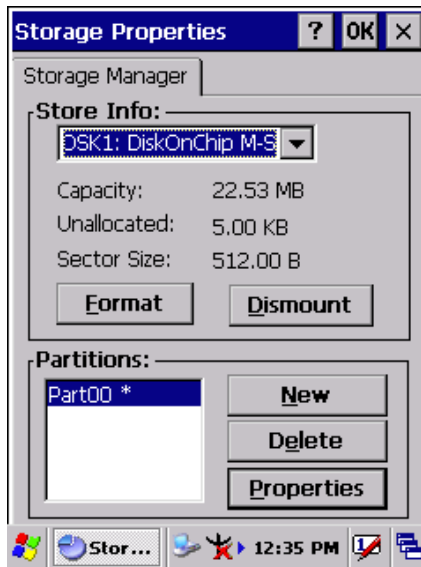



Figure 3.83: Storage Manager

3.2.20 Stylus

Table 3.38: Stylus

Icon	Icon and function
 Stylus	<ul style="list-style-type: none"> • “Double-Tap” Tab: (Figure 3-86, Figure 3-87) * Double-tap the checkerboard grip at a comfortable speed. * Double-tap clapboard to test your settings. * The function is OK if the figures are changed from Figure 3-86 to Figure 3-87. * Tap “OK” to exit the Stylus Properties dialog box.
	<ul style="list-style-type: none"> • “Calibration”: (Figure 3-88, Figure 3-89) * In the Welcome Wizard, you tapped a target with the stylus to set the amount of pressure needed for the screen to respond to your stylus taps. * Please also see 2.4.3 Calibration of the touch screen

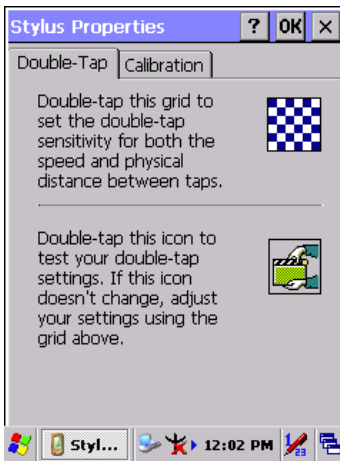


Figure 3.84: Stylus Properties

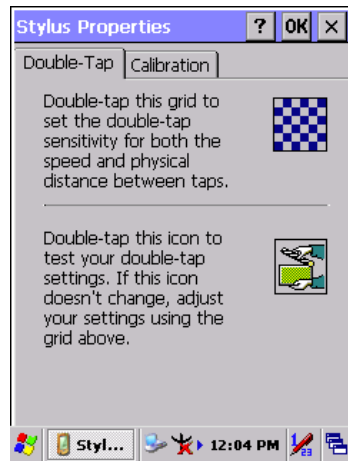


Figure 3.85: Stylus Properties



Figure 3.86: Stylus Properties

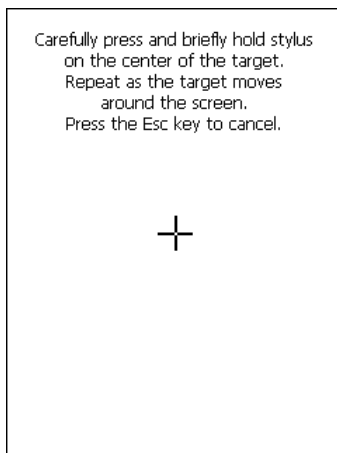


Figure 3.87: Stylus Properties

3.2.21 System

Table 3.39: System


Icon	Icon and function
 System	<ul style="list-style-type: none"> • “General” Tab: (Figure 3-90)
	<ul style="list-style-type: none"> * To show: <ul style="list-style-type: none"> - Firmware information - Information about processor type, memory size, and expansion cards
	<ul style="list-style-type: none"> • “Memory”: (Figure 3-91)
	<ul style="list-style-type: none"> * Move the slider to adjust memory allocation. Default storage memory is normally is normally set to about 8 MB with the reminder assigned to program memory. * Press the “OK” key on the Keypad.
	<p>Note: The difference between the memory occupied by the OS and the RAM size is shown in Information properties, along with the total size of storage memory and program memory</p>
	<ul style="list-style-type: none"> • “Device Name” Tab: (Figure 3-92)
<ul style="list-style-type: none"> * Your device uses this information to identify itself to other computers. * The input panel will open to for data entry. * To close the Device Name, press the “OK” button, or press the <Enter> key on the keypad. 	
<ul style="list-style-type: none"> • “Copyrights” Tab: (Figure3-93) 	
<ul style="list-style-type: none"> * Refer to this tab for specific copyright data. As a user, you are responsible for reading this statement. 	



Figure 3.88: System Properties

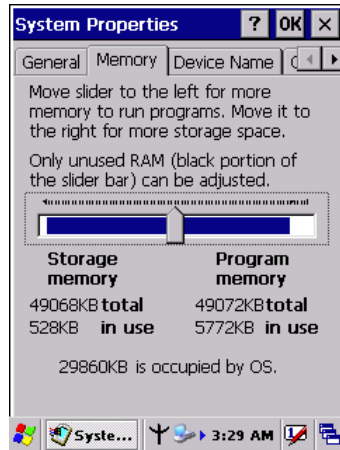


Figure 3.89: System Properties

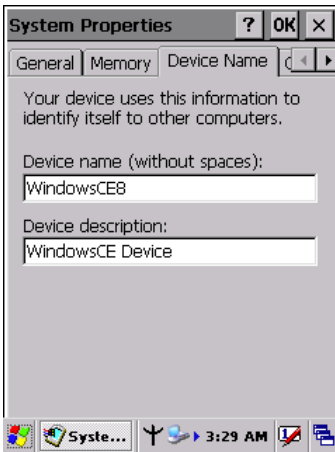


Figure 3.90: System Properties

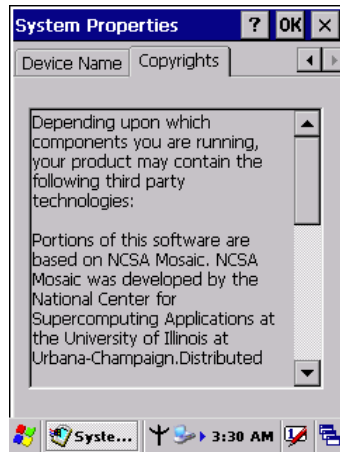


Figure 3.91: System Properties

3.2.22 Volume & Sounds Properties


Table 3.40: Volume & Sound	
Icon	Icon and function
 Volume & Sounds	<ul style="list-style-type: none"> • “Volume” Tab: (Figure 3-94) <p>* The factory default volume level is the four. You can adjust the volume to your environment and comfort.</p> <ul style="list-style-type: none"> - Set the volume by adjusting the slider from Soft to Loud, or press the right or left edge of the navigation keys.
	<ul style="list-style-type: none"> • “Sounds” Tab: (Figure3-95) <p>* Enable the desired sounds for key clicks, screen taps, notifications, and applications.</p>



Figure 3.92: Volume & Sound

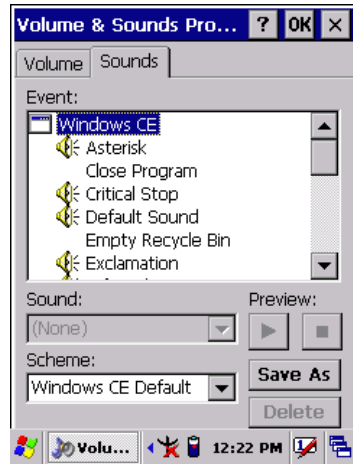


Figure 3.93: Volume & Sound

3.3 Taskbar and Start Menu

Table 3.41: Taskbar and Start Menu

Icon	Icon and function
Taskbar and Start Menu	• “General” Tab:
	* In this tab, You can change the position of the Taskbar and Start Menu <ul style="list-style-type: none">- Is always on top or not- Auto hide or not- Show Clock or not
	• “Advanced” Tab:
	* Tap the “Clear” button to remove the contents of the Documents Menu. * Enable “Expand Control Panel” to list all icons of the Control Panel from top to bottom.

Communication

This chapter describes how to use the communication features of the PDT.

Chapter 4 Communication

4.1 Installing & Setting Up Microsoft ActiveSync

4.1.1 Installing Microsoft ActiveSync on the Host PC

Microsoft ActiveSync is a file transfer tool to synchronize the files on a PC with the files on your PDT.

To install Microsoft ActiveSync, complete the following steps on the PC:

1. Go to the Microsoft Windows CE.NET website and download the latest current version of ActiveSync:
<http://www.microsoft.com/mobile/pockeypc/downloads/>.
2. Install the latest version of Microsoft ActiveSync on the host PC.
3. Open ActiveSync.
4. Select **File > Communication Settings** from ActiveSync's menu bar.
5. Go to “**Using ActiveSync**” on page 4-1 to continue using ActiveSync.

4.1.2 Connecting PDT to Host PC

1. You can use either the USB/Serial (RS232) port of Single Dock or a USB/Serial (RS232) cable to connect the PDT to the Host PC.
 - To use the dock, you must first insert the PDT into the slot, making sure that the unit is firmly seated the dock.
 - To use the cable, connect the USB/Serial cable to the PDT.
2. Connect the USB/Serial dock or cable to the Host PC's serial port or USB port.
3. Connect the dock or PDT to the power adapter and power source.

4.2 Using ActiveSync

Use ActiveSync to transfer and synchronize files between the PDT and the Host PC.

4.2.1 Setting up a Partnership

During the Microsoft ActiveSync installation, you were prompted to create a partnership with your mobile device. When you set up a partnership, you select synchronization and file conversation settings, which are contained in a file on your desktop computer. This file enables your desktop computer to recognize your device. Only devices that have a partnership with a desktop computer can synchronize information between the two computers.

For more information on partnerships, please refer to your Microsoft ActiveSync documentation or help file.

Transferring Files:

To transfer files, complete the following steps on the host PC:

- Select **Start** > **Programs** > **Communication** > **(Serial, or USB) ActiveSync**.
- Double-click on the selected **ActiveSync** icon
- After you have established a connection with PDT, tap the “**Explore**” button at the top of the **ActiveSync** window (or select **Explore** from the File menu).
- Navigate to the target directory on your PDT and copy the desired file by using the **Copy/paste** method or dragging and dropping the desired file(s) into the folder.



Figure 4.1: Communication

4.2.2 ActiveSync File Synchronization

ActiveSync files synchronization requires an ActiveSync partnership between the PDT and the Host PC. Refer to “Setting up a Partnership”, above:

- Select the files in the synchronization configuration for the PDT partnership.
- Select **Tools > Options** from the ActiveSync command bar to configure the synchronization options.
- Place the file to be synchronized in the **Synchronization** folder created you’re **My Documents** directory. Defaults to the desktop. During the ActiveSync connection, all files in the **Synchronization** folder will be synchronized to the **\My Documents** directory on the PDT.

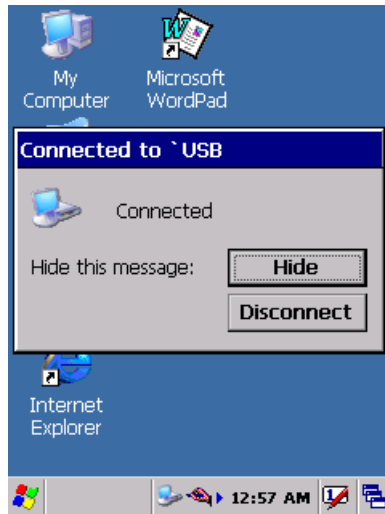


Figure 4.2: Connected

4.3 Networking

Please see the **3.2.14 Owner, Table 3-33 Owner** on page 3-45 for **setting up the network ID**. And see the **2.5.6 Setting Up Wireless LAN RF** to setup the 802.11b Wireless LAN for RF connecting.

Software Applications

This chapter describes software implementation procedures.

Chapter 5 Software Applications

5.1 Introduction

The PDT includes Calculator and Inbox applications.

You can start any program by tapping the Start Menu.

5.2 Software Applications

5.2.1 Calculator

This can process basic numeric calculations with “+”, “-”, “*” and “/”.

* **Procedure:**

- Tap a number
- Tap an operator “+”, “-”, “*” or “/”
- Then, tap another number
- Tap another operator or number if needed
- Tap “=” to get the result

* **Button Function:**

- “MC” – Clear memory
- “MS” – Store the displayed number in the memory
- “MR” – Read the last number that was stored
- “M+” – Add the stored number to the displayed number
- “Backspace” – Same as the “backspace” key
- “CE” – Clear current number. Same as the “Delete” key
- “C” – Clear the current calculation. Same as the “ESC” key

5.2.2 Inbox

Use **Inbox** to send and receive e-mail messages in the following ways:

- * Synchronize e-mail messages with Microsoft Exchange or Outlook on the Host Computer.
- * Send and receive e-mail messages by connecting directly to an e-mail server through an Internet server provider (ISP) or a network.

To setup “**Inbox**”:

- * Select Start> Programs> Inbox.

- * Select Service> Options from the command bar. Drag the dialog to show the right edge so that you can configure e-mail.
- * Select “Add...” (Note 1)
- * In the “Service Type” list, select POP3 Mail or IMAP4 Mail. (POP3 is the most common mail protocol for ISPs). Enter a unique name for the e-mail service in the “Service name” field. This name cannot be changed later.
- * Select “OK”.
- * The Mail Service Setup wizard appears after you add a service. If you are adjusting the settings of an existing service, select Service> Options, select the service you want to modify, and then select-Properties. In the Service Definition dialog box, complete the following entries as needed:
 - **Connection:** Select the name of the connection you created to connect to the mail server. If you are receiving e-mail through a network (Ethernet) connection, select **Network Connection**. If you want Inbox to use your current connection, select (**none**). If you have not created a connection, select **Create new connection**. Double-tap the “**Make new Connection**” icon, and follow the instructions in the wizard. When finished, select Inbox on the Taskbar and continue setting up the Inbox.
 - **POP3 Host** (POP3 only): Enter the name of the mail server you use to receive and send messages.
 - **Server** (IMPA4 only): Enter the name of the mail server you use to receive and send messages.
 - **User ID:** Enter the user name or mailbox ID assigned to you.
 - **Password:** Enter the password you use to access this mail account. If you do not want to be prompted to enter the password each time you connect, select “**Save password**”.
 - **Domain (Windows NT):** Enter your Windows NT domain name. This name is required only when connecting to networks, such as a corporate network, that use Windows NT domain security. This is not required for most ISP accounts. If you have trouble connecting, try clearing this box.
 - **SMTP Host:** If your mail service uses a separate server for SMTP, enter the name in the box. If you’re setting up a POP3 Mail service with an ISP, the ISP must use an SMTP mail gateway.
 - **Return Address:** By default, the return address is set to *username@POP3host* or *username@Servername*. This

depends on the service you are using. If this is not your e-mail address, enter the correct address in the box.

* **Set general preferences:**

If you are adjusting the setting of an existing service, select **Services> Options**, select the service you are using, select **Properties**, and then select **Next**. In the **General Preferences** dialog box, choose any of the following settings, all of which are optional:

- **Disconnect service after actions are performed:** Select to automatically disconnect from the server upon completion of all pending actions. This option minimizes connection time and cost.
- **Check for new messages every:** Select how often (in minutes) you want the device to check for new mail. If this option is turned off, you must check for new mail manually by selecting **Services> Send/Receive Mail**.
- **Display a message box when new mail arrives (POP3 only):** Select this to be informed that new mail has arrived.
- **Display a message box when new mail arrives (IMAP4 only):** Select this to be informed that new mail has arrived.
- **Send using MIME format (POP3 only):** Select this to send messages with extended characters.
- **Only display messages from last 3 days:** Select how many messages per day you want downloaded.

* **Set inbox preferences**

If you are adjusting the settings of an existing service, select **Services> Options**, select the service you are using, select **Properties**, and then select **New** twice. In the **Inbox Preferences** dialog box, choose any of the following options:

- **Get message headers only:** Select to save storage space and time by downloading only headers. You can download a full copy of the message later by selecting the message and then **Services> Get Full Copy**.
- **Include <number> lines:** Select to set the message length (approximate number of lines) that you want to download.
- **Get Full Copy of messages:** Select to receive a full copy of all messages. In addition to the message body, any options you select in **When getting full copy** will be downloaded. Selecting this option increases the amount of time needed to download messages.

- **Only synchronize folder hierarchy under Inbox** (IMAP4 only): Select to reduce download time by preventing the complete download of the folder list every time you connect.
 - **Get meeting requests** (POP3 only): Select to download and store copies of meeting requests when getting full copies of messages. This setting applies whether you have chosen to download full copies of messages by default, or you selectively download full copies of messages by opening the message and selecting **Services> Get Full Copy**. Limitations apply.
 - **Get file attachments** (POP3 only): Select to download and save message attachments when getting full copies of messages. This option may use significant RAM and network bandwidth. This setting applies whether you download full copies of messages by default, or selectively download full copies of messages by selecting **Services> Get Full Copy**.
 - **Get file attachments and meeting requests** (IMAP4 only): Select to download and store meeting requests and message attachments when getting full copies of messages. This setting applies whether you download full copies of messages by default, or selectively download full copies of messages by selecting **Services> Get Full Copy**. Limitations apply.
 - **Only if small than** (IMAP4 only): Select this to restrict the size of the attachments you download. Set this to 10 KB if you want to receive meeting requests only.
- * **Include the original message in a reply:**
- Select **Services> Options> Compose** tab.
 - Under **Reply**, select **Include Body**. This setting will place a copy of the original message beneath your response text.
 - To indent the original message, select **Indent**.
 - To add leading characters (such as >) to the original message lines, select **Add leading character**, and enter the character you want.
- * **Save copies of sent messages:**
- By default, sent messages are not saved on your device. To enable messages to be saved automatically:
- Select **Services> Options> Compose** tab.
 - Select **Keep copy of sent mail in Sent folder**.
- * **Set the action to follow deleting, moving, or responding to a message:**

- Select the **Services> Options> Read** tab.
- Select the desired options.

* **Delete a message:**

Select the message and then select **File> Delete**. Messages are moved to the Deleted (local) folder and deleted according to the option you have selected in the **Services> Options> Delete** tab:

- **On connect/disconnect:** Deletes messages when you connect or disconnect from your mail service or exit the Inbox.
- **Immediately:** Deletes messages as soon as you select **File> Delete**.
- **Manual:** Deletes messages when you select **File> Empty Deleted (local)**

Note: If you are working offline, messages are deleted from the device the next time you connect.

* **Empty the Deleted (local) folder:**

- **Select File> Empty Deleted (local)** to permanently delete messages in the Deleted (local) folder.
- To check or adjust the current settings for deleting messages, select the **Services> Options> Delete** tab.

* **Move or copy a message:**

- Select the message
- Select **File> Move To** or **File> Copy To**.
- Select the destination folder. If you are working offline, the message will be moved or copied from the server the next time you connect.

Caution: When you move a message that you have received through POP3 or synchronization to a folder you created on your device, the copy of the message on the server is deleted. This prevents duplicate copies of messages. Although the complete message is moved, message attachments will be deleted if you have not selected the option to download attachments. Once the message is moved, you will be able to access the message only from your device.

* **Folder-**

• **Create a folder:**

- Select **File> Folder> New Folder**
- Type a name for the folder.

- **Delete a folder:**
 - Select the folder you want to delete
 - Select **File> Delete**
- **Designate a folder as offline:**

Only IMAP4 folders can be designated as offline. All IMAP4 default folders, such as Inbox, are automatically designated as offline. Messages in offline folders can be viewed when you are disconnected from your mail server. If a folder is not designated as offline, you will be able to read and respond to messages in that folder only when connected to the server.

 - To designate a folder as offline, select the folder and then select **Service > Offline Folder**.
- **Rename a folder:**
 - Select the folder you want to rename.
 - Select **File> Folder> Rename Folder**.
 - Type the new name for the folder.

Notes:

- Default folders, such as Inbox, can't be renamed.
- Folders you create for IMAP4 mail servers can't be renamed.
- **Synchronize folders while connected:**

When you synchronize folders, the contents of your device folders and mail server folders are compared and updated. New mail messages are downloaded, and messages in your device Outbox folder are sent. The synchronization behavior depends on how you connect to your mail server.

 - When you connect to a POP3 server, the Inbox and Outbox folders on your device are synchronized with the corresponding folders on the mail server. To synchronize after the initial connection, select **Services> Send/Receive Mail**.
 - When you connect to an IMAP4 server, all folders, including the Inbox and Outbox, that are marked as offline are synchronized. To synchronize all folders after the initial connection, select **Services> Synchronize Folders**. To synchronize just the selected folder and the Outbox folder, select **Services> Send/Receive Mail**.
- * **Compose and send a message:**
 - In list view, select **Compose> New Message**
 - Enter the address of one or more recipients, separating them with a semicolon. If the recipient is listed in the Address Book,

enter a few letters of the recipient's name and select **Compose> Check Name**. If there is only one match, the e-mail address is inserted. If there is more than one match, select the correct address from the **Choose E-mail Recipients** dialog box. If there is no match then add a new e-mail address through **Choose E-mail Recipients**.

- To attach a file, select **File> attachments> Add Attachment**.
- Select **File> Send**. If you are working offline, the message is moved to the Outbox folder and will be sent the next time you connect.

Tip: To see more header information, select the triangle in the lower-right corner of the header area. Select the triangle again to collapse the header area.

* **Save a message:**

- Select **File> Save** to save the message you are composing or editing.
The message is not sent and is saved in the inbox folder of the active service.

* **Reply to or forward a message:**

- Open the message, and then select **Compose> Reply to Sender, Reply to All, or Forward**.
- Enter your response.
- Select **File> Send**.

Tips:

- Selections in the Options dialog box determine whether the original text is included.
- To see more header information, select the inverted triangle in the lower-right corner of the header area. Select the triangle again to collapse the header area.

* **Check Inbox status:**

- In list view, select **Compose> Status**. You can view details such as the number of messages to be sent, deleted, and copied, and the number of attachments to be downloaded.

* **Download message from the server:**

- When you download messages, you need to create two connections: a remote connection and a mail server connection. The remote connection connects you and your ISP or network. The

mail server connection enables messages to be downloaded from your mail server to the Inbox on your device. When you select **Services> Connect to Inbox**, the Inbox starts a remote connection using the connection you specified when setting up the current mail service. If you are already connected through a remote connection other than the one you specified in the service, you will be asked if you want to use the current connection. If you choose not to, you will need to disconnect from the current connection before you can check for new messages.

- Select the **Services** menu and make sure that the service you want to use is selected (the selected service has a bullet next to it).
- Select **Services> Connect**. The messages on your device and mail server are synchronized: new messages are downloaded to the device Inbox folder, messages in the device Outbox folder are sent, and messages that have been deleted on the server are removed from the device Inbox. Double-tap a message list to open it.
- If you read a message and decide that you need a full copy, select **File> Get Full Copy** while in the message window or **Services> Get Full Copy** while in list view. This will also download message attachments and meeting requests if you have those options selected in the **Inbox Preferences** dialog box. You can also choose to download full copies of messages by default.
- When finished, select **Services> Connect** to disconnect. You also need to disconnect your dial-up connection by double-tapping the icon in the status bar and selecting **Disconnect**.

Notes:

- Receiving entire messages consumes memory.
- The size column in the Inbox list view displays the local size and server size of a message. Even when a message has been downloaded fully, these numbers may differ because the size of a message can vary between the server and the device.
- When using IMAP4 to get Outlook data, you will see the contents of your Journal folder. File editing transactions and documents (such as Task items, e-mail message, and Word documents) attached using drag and drop will appear as shortcuts on the device. A copy of the document will not be moved to your device, and the shortcut on the device cannot be used. To access the documents

associated with a journal entry on the device, attach the document to the entry rather than dragging and dropping it. Also, be sure to set your IMAP4 service to receive full copies of messages, attachments, and meeting requests. For more information on using the Journal, see the Help for the desktop version of Outlook.

* **Working with Message Attachments:**

- If you receive messages through a remote mail server, in Inbox on the device, select the **Get file attachments and meeting requests** (IMAP4) or **Get meeting requests** (POP3) setting in the **Inbox Preferences** dialog box. For more information, see **Set Inbox preferences**.

Notes:

- Embedded images and OLE objects cannot be received as attachments.
- Embedded messages can be viewed as an attachment when using IMAP4 to receive e-mail. However, this feature does not work if TNEF is enabled so that you can receive meeting requests.

* **Check attachments status:**

- An attachment sent with an e-mail message, whether it has been downloaded or not, will appear as an icon at the bottom of the message in its own window. If you don't see this pane, select **File> Attachments> Show Attachments**. If TNEF is turned on so you can receive meeting requests, you will not see attachments until they are fully downloaded.
- To mark an attachment for downloading in a POP3 or IMAP4 service, double-click it. The attachment will be downloaded the next time you connect. You can also set Inbox to download attachments automatically when you get a full copy of a message. For more information, see **Receive attachments**.

* **Open an attachment:**

- With the message open, double-tap the attachment's icon at the bottom of the message. If you don't see this pane, select **File> Attachments> Show Attachments**.

* **Store an attachment:**

- Select **Service> Options> Storage** tab.
- Select to store attachments in internal RAM or on a storage card.
- If you use more than one storage card, select it from the list.

Note: Once you make the above selection, all attachments will be moved to the selected card.

* **Delete an attachment:**

- To delete an attachment from a message you are sending, select the attachment, and then select **Edit> Clear** or press the **DEL** key on the keypad.
- To delete an attachment you have received, delete the message.

* **Attach a file to a message:**

- With the message open, select **File> Attachments> Add Attachment**.
- Select the file you want to attach.

Note:

OLE objects cannot be attached to Inbox messages.

Note 1: To add a mail service, select “**Add**”, To remove a mail service, select the service from the **Installed service** box and select “**Remove**”.

To view a mail service’s properties, select the service from the **Installed service** box and then select **Properties**.

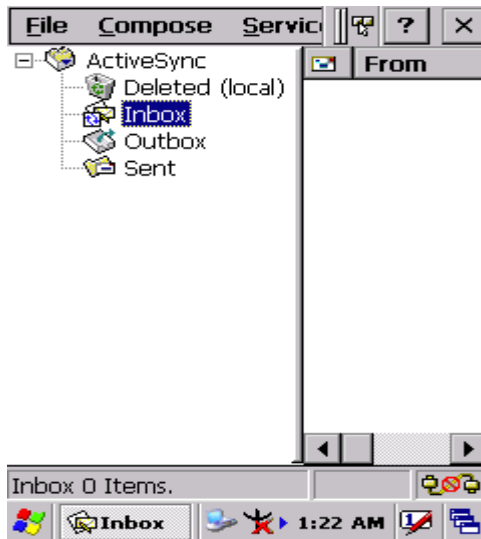


Figure 5.1: Inbox

5.2.3 Internet Explorer

With the Internet Explorer, it is possible to view the Web or intranet Web pages. A modem or WLAN is required to connect to an Internet server provider (ISP) or network.

5.2.3.1 Connect to the Internet

To view Web pages, set up a remote connection to your ISP or network.

5.2.3.2 Start Internet Explorer

- * Open Internet Explorer by selecting **Start > Programs > Internet Explorer**.
- * To setup the default home page, navigate to the web page that is desired for use as the default web page.
- * Select **View > Internet Options** from the command bar.
- * Enter the desired URL in the **Start page** field.
- * Press the **OK** button.



Figure 5.2: Internet Explorer

5.2.3.3 Navigation control

Internet Explorer uses sliding menus for navigation control. Tap and drag the sliding menus to the left or right to reveal hidden menu items and toolbars.

To view a larger screen space in the Internet Explorer, hide the **Status** bar and the **View** menu. From the top menu bar, select **View > Hide Toolbars**.

Once hidden, it is necessary to “cold reset” these features to access them again. (Refer to “2.7.2 Cold Reset” for more information.)

5.2.3.4 Set up a proxy server

Proxy servers are often used when connecting to the Internet through a local network for added security.

- * Select **View > Internet Options > Connection** Tab.
- * Select **Access the Internet using a proxy server**.
- * Enter the proxy server address and port. For more information, see your administrator.
- * To bypass the proxy server of a local address, such as corporate intranet pages, select **Bypass proxy for local address**.

5.2.3.5 Enable cookies

A cookie file contains information about identity and preferences so that a website can tailor information. The website automatically sends the file to the receiving device.

- * Select **View > Internet Options > Security** Tab.
- * Select **Allow cookies**.

5.2.3.6 Search for an internet site

- * Select **View > Go > Search** to search the web.

5.2.3.7 Go to an internet address

- * Select **Address Bar**, if necessary to display the Address bar
- * Enter the address.
- * Press “**ENTER**” key.

5.2.3.8 View previously visited sites

- * Tap the **Arrow** button at the right site of the Address Bar.
- * Select the desired **Web Address** to view.

5.2.3.9 Add and view favorites

- * Go to the desired page.
- * Select **Favorites > Add To Favorites**.
- * If necessary, locate the appropriate folder.
- * Confirm or change the name and save the site address.

- * To view favorite Web sites, select **Favorites** and highlight the Web page to view. IE automatically navigates to the website.

Note:

To organize the favorites list, select **Favorites > Organize Favorites**.

5.2.3.10 Browse Web pages

- * To view a page previously visited, select **View > Back**.
- * To move forward again to the next page (provided it was viewed previously,) select **View > Forward**.
- * To return to the Home page, select **View > Go > Home**.

5.2.3.11 Refresh current page

- * Select **View > Refresh**.

5.2.3.12 Stop loading a page

- * Select **View > Stop**.

5.2.3.13 View current page

- * Select **View > Internet Options**.
- * To view the protocol, page type, size, and address, select the **General** tab.
- * To view the security information about the page, select the **Security** tab.

5.2.3.14 View HTML source code

- * While viewing the page, select **File > Save As** and save the file as a .txt file.
- * Open the file in a word processing program, such as **WordPad**.

5.2.3.15 Change home and search page settings

- * Select and open the page to use as the home or search page.
- * Select **View > Go > Home** or **Search**.

5.2.3.16 Save a copy of current page

It is possible to save web pages and view them later when disconnected from the Internet or Intranet, without using cached memory.

- * Select **File > Save As**
- * Specify a folder location and give the file a name.

5.2.3.17 Copy a web page to a document

- * Select all or part of the web page to be copied.
- * Select **Edit > Copy**.
- * Go to the text or html document to place the information, and select the location in the text.
- * Select **Edit > Paste**.

5.2.3.18 Select security options

- * Select **View > Internet Options > Security** tab.
- * Select the necessary security protocols.

5.2.3.19 Change the font size

- * Select **View > Text Size** and select the desired size.

5.2.4 Media Player

The PDT comes with Media Player for Windows CE.NET installed.

- * Open Media Player by selecting **Start > Programs > Media Player** from the desktop.
- * Select **File > Open** to open a new media file.
- * Please refer to www.microsoft.com for additional information and help with your Microsoft Windows Media Player.



Figure 5.3: Media Player

5.2.5 Messenger

- * The Windows CE Messenger client application in Windows CE.NET allows real-time communication using text-based messaging, VOIP, and more.
- * See who's online, and when colleagues are online. Notify a pre-defined list of watchers about any pertinent information.
- * Talk with a colleague anywhere in the world using a microphone and speakers. Windows Messenger supports high-quality voice calling on a Windows CE device.
- * Communicate using Session Initiation Protocol (SIP) or Hotmail contacts Windows Messenger supports. Communication with colleagues using a SIP based communications service. Talk to Hotmail contacts using .NET Messenger.

5.2.6 Microsoft WordPad

Create and edit documents and templates in WordPad, using buttons and menu commands that are similar to those in the desktop version of Microsoft Word. It is possible to work with files in Normal or Outline views.

WordPad documents are usually saved as **.pwd** files, but it is possible to save documents in other file formats, like **.rtf** or **.doc**.

5.2.6.1 Selecting and editing text

* Select text

To select	Do this
Any amount of text	Drag the stylus over the text.
A word	Double-tap the word.
A single paragraph	Triple-tap within the paragraph.
An entire document	Select Edit > Select All
An picture	Tap the picture

* **Find text**

- To search for text in one part of a document, select that part. Otherwise, the whole document is searched.
- Select Edit > Find
- Enter the text you want to find. For a paragraph, enter **^p**. For a tab stop, enter **^t**.
- Select the search options you want.
- To continue searching, select **Edit > Find > Next**.

* **Replace text**

- To replace text in one part of a document, select that part. Otherwise, the whole document is searched.
- Select **Edit > Replace**.
- Enter the text to replace and the text to substitute. For a paragraph, enter **^p**. For a tab stop, enter **^t**.
- Select the replacement options.
- Select **Find Next**.
- On the **Find/Replace** toolbar, select the appropriate button.

- * **Move, copy, or delete text**
 - Select the text you want to move, copy, or delete.
 - To move or delete text, select the **Cut** button. To copy text, select the **Copy** button.
 - To paste the information, move the insertion point to the desired location, then press the cursor over a **Paste** button.

Notes:

- To undo an action, select **Edit > Undo**.
- To restore the action, select **Edit > Redo**.

5.2.6.2 Formatting text

- * Creating bulleted and numbered lists.
 - Select the **Bullets** or **Numbering** button.
 - Type the first item.
 - Press **ENTER**, type the next item, and repeat as needed.
 - Select the button again to end list formatting.

Note: To change the number style for the selected list, select **Format > Paragraph**, In the **Format** list, select the style you want.

- * **Set the default font**
 - Select **Format > Font**.
 - Select the font from the list of available fonts.
 - Select **Set As Default**
 - To confirm that changes will be applied to subsequent documents, select **Yes**.

Note: To apply the default font and stylus to selected text, select **Apply Default**.

- * **Select a different font**
 - Select the text you want to change. To select all text, select **Edit > Select All**.
 - From the **Font** list, select the desired font.
 - From the **Font Size** list, select a size.

Note: To see more formatting options, select **Format > Font**.

- * **Change font formatting**
 - Select desired text.
 - Select the **Bold**, **Italic**, or **Underline** button.
 - To change the font color, select **Format > Font** and select the color from the **Color** list.
- * **Adjust the paragraph alignment**
 - Select the paragraph to align using the mouse and cursor.
 - Select the **Align Left**, **Center**, or **Align Right** button.

Note: To see more formatting options, select **Format > Paragraph**.

- * **Indent a paragraph**
 - Select the paragraph to indent.
 - Select **Format > paragraph**.
 - Adjust the indentation settings as needed.
- * **Set tabs**
 - Select **Format > Tabs**.
 - Change the tab settings as needed.

5.2.6.3 Adjusting the Display

- * **Wrap text in the window**
 - Select **View > Wrap to Window**.
- * **Display the document in full screen view**
 - Select **View > Full Screen**.
 - To exit Full Screen view, select **Restore**.
 - To move the **Restore** button, drag the bar on the left side.
- * **Display or hide scroll bars**
 - Select **View > Horizontal Scroll Bar** or **Vertical Scroll Bar**.
- * **Zoom in or out**
 - Select **View > Zoom**, and select the desired percentage.

Note: For **Custom**, enter the exact percentage and select **OK**.

5.2.6.4 Working in outline view

- * **Switch between Normal and Outline views**
 - Select **View > Normal** or **Outline**.

- * **Assign and change outline levels**
 - Select **View > Outline**.
 - Select the appropriate buttons on the toolbar.

5.2.6.5 Inserting symbols

- * Place the insertion point where you want to insert the symbol.
- * Select **Tools > Insert Symbols**.
- * Select the symbol you want, and then select **Insert**.

Tips:

If selecting a different font (or subset of a font), a different set of symbols will be displayed.

5.2.6.6 Printing a document

- * Select **File > Print**.
- * Select the desired printing options.

Tips:

- **Port** lists the available printer ports.
- If **Network** is selected from the **Port** list, enter the path to the network printer to the **Net Path** box.

5.2.6.7 Setting a password for a document

- * Select **File > password**.
- * Type and verify the password.
- * Saving the document is necessary (**File > Save**) to return the password.

5.2.6.8 Converting Documents

* **About document conversion**

If an e-mail program is installed and receives an attached Word document or template created in Word version 6.0 or later, WordPad can convert the file. To view the document, simply open the attachment in WordPad.

During conversion, some formatting attributes may be changed or lost. To avoid losing these attributes permanently, close the file after viewing it, rather saving the file on the device. If saving the file, save it with a different file name.

For more information about performing conversions on your device, study the following topics:

* **Changes caused by Word document conversion**

- **Formatting**
 - *Borders and Shading*

Borders and shading are not displayed in WordPad, but are restored if converted back to a Word document. Shading is not restored when used in a table, but simple borders are restored.
 - *Character formatting*

Bold, italic, strikethrough, superscript, subscript, and hidden text are retained and displayed. Other effects are changed or removed.
 - *Colors*

Colors are retained and mapped to the colors available on the current system.
 - *Fonts and font sizes*

Fonts not supported by your mobile device are mapped to the closest font available in WordPad.
 - *Page Formatting*

Headers, footers, footnotes, columns, pages setup information, and style sheets are removed during conversion to WordPad. WordPad supports built-in headings.
 - *Paragraph formatting*

Tabs, alignment, bullets, indentation, simple numbered lists, and paragraph spacing are retained and displayed in WordPad.

- *Pictures*
Pictures are removed during conversion.
- *Table of Contents*
Table of Contents text and some formatting are preserved. However, any text set at right-aligned tab stops may wrap to the next line.
- *Index*
Index text and some formatting are preserved.
- *Tables*
Tables appear as tab-delimited text. Cells containing wrapped text, tabs, or paragraph markers may be difficult to read. Simple tables are displayed accurately and restored when converting a WordPad file back to a WordPad document.
- *OLE Objects*
OLE Objects are removed during conversion.
- *Revisions marks, annotations, and comments*
Revision marks are visible but cannot be changed. Annotations and documents are removed during conversion.

5.2.7 Remote connection

The Remote Desktop Connection can log onto the Windows Terminal Server and then access and use all the programs installed on the server. For example, instead of running Microsoft Pocket Word, you can run the desktop version of Microsoft Word.

5.2.7.1 Connecting to terminal server

- * Select **Start > Programs > Remote Connection**, or run 'CETSC' from the command prompt.
- * In the Server box, type or select a Terminal Server, a name or TCP/IP address, or select a server in the drop-down list.
- * Select **Connect**.
- * In the **Remote Connection** window, type your user name, password, and domain, (if required), and then select **OK**.

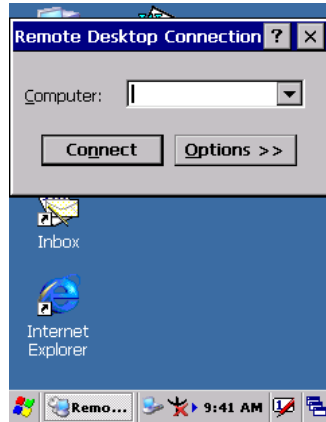


Figure 5.4: Remote Connected

5.2.7.2 Disconnecting without ending a session

- * In the **Remote Connection** window, select **Start > Shutdown**.
- * Select **Disconnect > OK**.

Note: If previously disconnected from a Terminal Server without ending the session, the Terminal Server will continue to execute any running processes; the Remote Connection can later reconnect to this same session (provided that the administrator has configured Remote Connection to reconnect later to disconnected sessions).

5.2.7.3 Disconnecting and ending a session

- * In the **Remote Connection** window, select **Start > Shutdown**.
- * Select **Log Off > OK**.

5.2.8 Windows Explorer

Windows Explorer works almost the same on a PDT as it does on the PC. See the topics below for information about the difference between Windows Explorer on each device.



Figure 5.5: Windows Explorer

5.2.8.1 Navigating in file view

- * **Go forwards and back**
 - To go back to the previous folder, select **Go > Back**.
 - To go forward again to the folder previously viewed, after having gone back, select **Go > Forward**.
- * **Use the Go menu**
 - To quickly access the My Documents folder, select **Go > My Documents**
 - To see all folders that have been accessed, select **Go > History**. Double-tap a folder to return to it.

5.2.8.2 Viewing files as icons lists

- * To view icons, select **View > Large Icons** or **Small Icons**.
- * To view a list, select **View > Details**.

5.2.8.3 Working with files and folders

- * **Create a new folder**
 - If necessary, open the folder in which the new folder is to be placed.

- Select **File > New Folder**.
- * **Add a folder to your Favorites list**
 - Open the folder
 - Select **Favorites > Add to Favorites**.
 - In the **Name** box, type the shortcut name.

Tips:

- To open a favorite file or folder, select **Favorites** and then select the folder.
- To organize your favorites, select **Favorites > Organize Favorites**.
- * **Transfer a file using infrared**
 - To send a file, select it, line up the infrared ports, and select **File > Send To > Infrared Recipient**.
 - To receive a file, line up the infrared ports, and select **File > Receive**.

5.2.8.4 Creating desktop shortcuts

- * Display the file or web page for which a shortcut is needed.
- * Select **File > Send to**.
- * Select **Desktop as Shortcut**.

5.2.8.5 Switch to internet

- * Type a URL in the address bar.

5.3 DiskOnChip

The DiskOnChip helps to save applications or data files onto a Flash Memory device.

Note: The DiskOnChip storage memory resists all reset (warm/cold reboot) conditions and software/firmware updates.

It is strongly recommended to install all applications, applets, programs and important data files onto a DiskOnChip Flash.

Caution:

If an application or a data file is only installed or saved in the RAM, a hard reset will result in the loss of that application or data file.

5.3.1 Saving to flash

To save an application or data to the Flash Memory, from the current application, select **File > Save As >** navigate to the **DiskOnChip** location and save it.

5.3.2 DiskOnChip location

To access the contents of files in the DiskOnChip storage:

- * Double-tap the **My Computer** icon on the desktop.
- * Double-tap the **DiskOnChip** icon to view **DiskOnChip**.



Figure 5.6: DiskOnChip

5.3.3 DiskOnChip size

The size of the DiskOnChip will vary, depending on the size of system firmware.

- * Inside the **DiskOnChip** directory, tap **File > Properties**.
- * The **DiskOnChip Properties** dialog:

The number listed after **Free** is the amount of memory bytes currently available on the device for the DiskOnChip system.



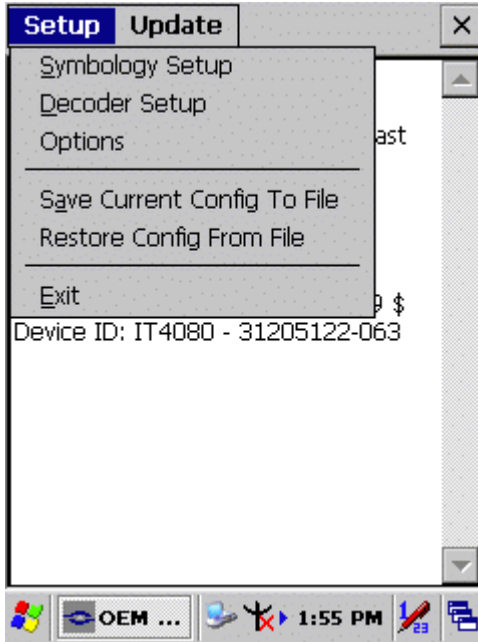
Figure 5.7: DiskOnChip Size

Barcode Setting

This appendix provides instructions for customizing the barcode engine.

Appendix A Barcode Setting

A.1 Setup Tab



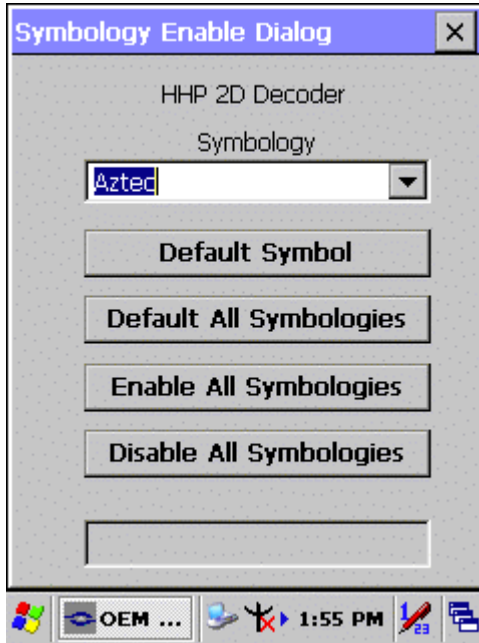
Functions:

Item	Explanation
Symbology Setup	Selecting the Symbology Setup menu item causes the symbology setup dialog to be displayed. This dialog consists of a symbology drop down list, plus four buttons and a message box.
Decoder Setup	Selecting the decode menu item displays the decode options dialog box.
Options	Selecting the Options Menu item displays the Setup dialog box

Item	Explanation
Save Current Config to File	The application has the capacity to save the Config file. The Config file that is saved when this item is selected is correlated to the Config that is currently active. A dialog is presented and requests selection of a name for the file to save. The default file extension matches the current active Config. Saving a Config file this way is independent from the Config Format option of the Imager menu. In this case, the Config file is saved as it appears on the screen instead of how it was received.
Restore Config From File	This selection restores the Config from any file. The restored Config file is full size, uncompressed, and unprocessed.
Exit	Selecting Exit shuts down the Application Program.

A.1.1 Symbology setup

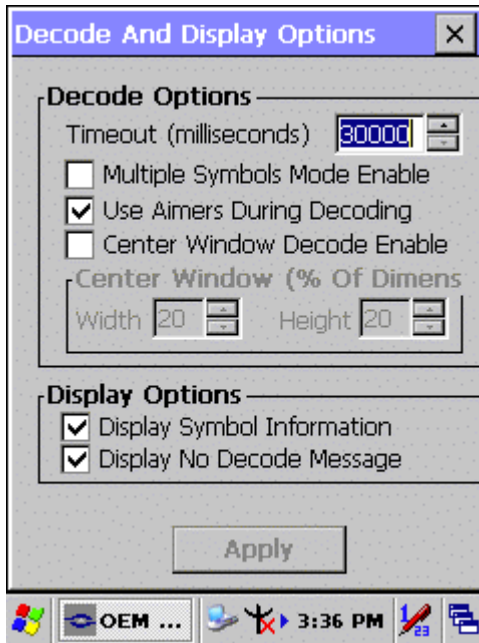
Selecting the Symbology Setup menu item display the symbology setup dialog. This dialog consists of a symbology drop down list, plus four buttons and a message box.



Functions:

Item	Explanation
Default Symbol	Defaults the current symbology shown in the drop down list to the internal default.
Default All Symbologies	Defaults all symbology options for all symbologies to the internal defaults.
Enable All Symbologies	Enables all symbologies, but does not change other symbol options.
Disable All Symbologies	Disables all symbologies without affecting other symbol options.

A.1.2 Decoder setup

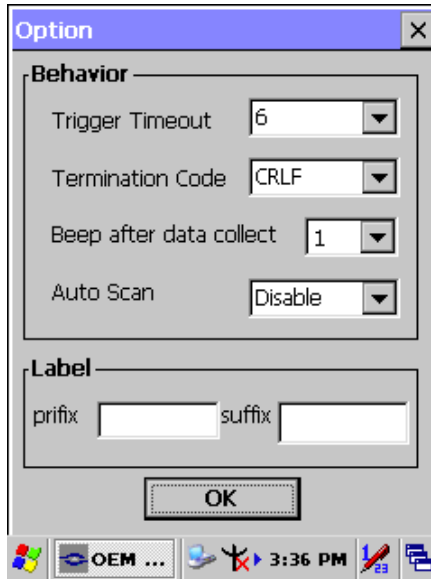


Functions:

Item	Explanation
No Read Timeout	Maximum time (in milliseconds) that the imager attempts to decode before declaring a “No Decode” condition. If attempting to decode using the trigger key, the imager quits decode attempts even if the trigger key remains depressed. A new decode using the trigger can only begin after the trigger is released. The timeout also applies to the decode operation of the imaging technology. The Timeout range is 0, meaning no timeout, (i.e., infinite) to 300,000.
Multiple Symbols Mode	Enables/Disables multiple symbols decoding. Normally the imager stops attempting to decode when a bar code symbol is decoded. In multiple symbols mode, the imager does not stop until the trigger is released or a “No Decode” timeout occurs. The same bar code will not be read again until the current decoding stops.

Item	Explanation
Aimers During Capture	Enables/Disables aimers during decoding.
Center Window Decode Enable	A decoded symbol is returned only if it intersects a rectangle specified by the center window.
Center Window	Center Window indicates the percent-age of width and height of the center decode rectangle, relative to the entire image. The limits are 0-100%. The default is 20x20 (128x96 pixels).
Display Symbol Information	The Display Symbol Information option enables / disables display of decoded symbol information, which includes the AIM ID, SymID (Code ID), and symbol modifier.
Display No Decode Message	Enables / disables display “No Decode” message if no bar code symbol is decoded by either a timeout or trigger release.

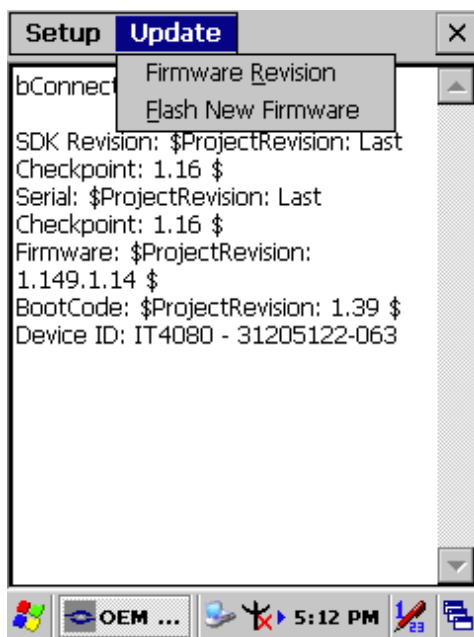
A.1.3 Options



Functions:

Item	Explanation	
Trigger Timeout	Select the scanning timeout duration (in seconds) from the pull-down list. <3 ~ 10 sec, <u>Default: 6</u> >	
Termination Code	None	After showing barcode, no action.
	<u>CRLF</u>	After showing the barcode, jump to next row.
	Space	After showing the barcode, jump one unit.
	Tab	After showing the barcode, jump a section.
Beep after data collect	Select a beep tone after data is collected.	
Auto Scan	<u>Disable</u>	Disable this function.
	1 ~ 5 sec	Alternate number of seconds for Continuous Scan.
Label	Prefix	Type the desired label prefix in this text box.
	Suffix	Type the desired label suffix in this text box.

A.2 Update Tab

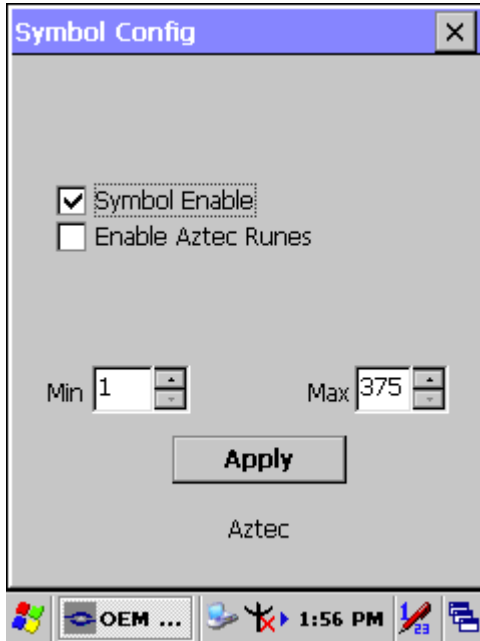


Functions:

Item	Explanation
Firmware Revision	When this item is selected, the imager is queried for the current firmware version information. The version information is then displayed in the text window.
Flash New Firmware	<p>This item allows new engine firmware to be installed into the imager. When Flash New Firmware is selected, a prompt to select the firmware file appears. The file, which must have the extension “.bin”, must reside on the PDT. The firmware file can be copied to the PDT using Microsoft Explorer as long as the PDT is linked to the PC via Microsoft's Active Sync. The default search location is the My Documents folder. Once a file is selected, the file is transferred to the engine. The engine then writes the new firmware into flash memory and re-initializes. The flashing of the firmware and subsequent restart takes approximately 30 seconds. The application insures that the unit does not enter suspend mode during that time.</p> <p>Note: It is very important that the device remains awake during this time. Failure to do so can cause the scan engine to become unusable.</p>

A.3 Symbologies List

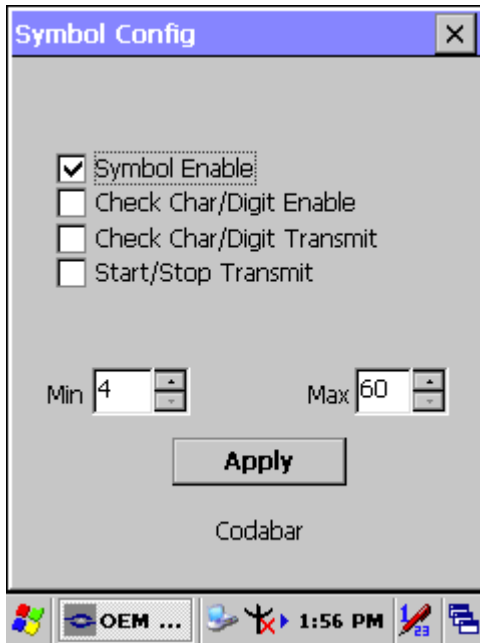
A.3.1 Aztec



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
<input type="checkbox"/> Enable Aztec Runes	Enable if you are scanning Aztec Runes, the smallest type of Aztec Code symbols, which have the capacity to encode a very short license plate message.
Message Length	The minimum and maximum length ranges for the barcodes are 1 - 3750.

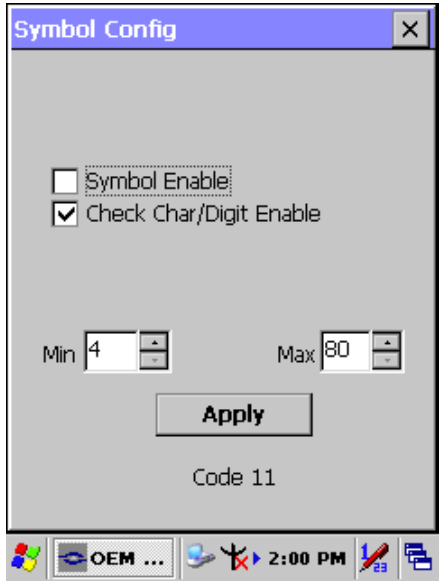
A.3.2 Codabar



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
<input type="checkbox"/> Check Char/Digit Enable	The scanner can read barcode data with a check digit. If this item is not checked, the bar code is read as though no check digit was present.
<input type="checkbox"/> Check Char/Digit Transmit	The scanner will only read Codabar bar codes printed with a check digit, and will transmit this character at the end of the scanned data. This setting is only valid if check char/digit is enabled.
<input type="checkbox"/> Start/Stop Transmit	Start/Stop characters identify the leading and trailing ends of the barcode.
Message Length	The minimum and maximum length ranges for the barcode are 2 - 60.

A.3.3 Code 11



Functions:

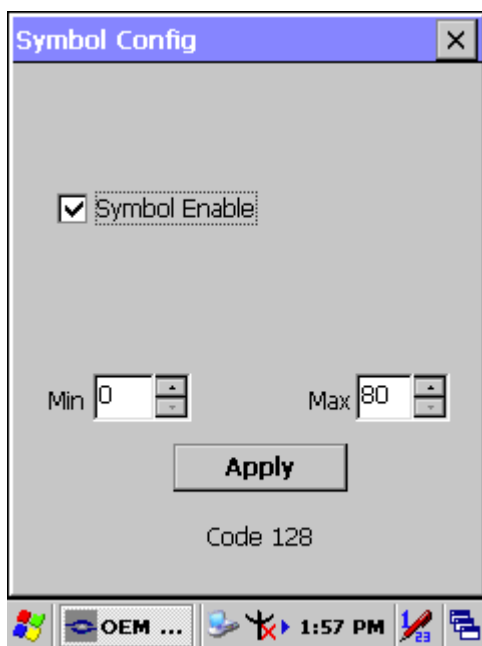
Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Check Char/Digit Enable <input checked="" type="checkbox"/>	This option sets whether 1 or 2 check digits are required with Code 11 type barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 80.

Check Digits Required

Default = Two Check Digits.



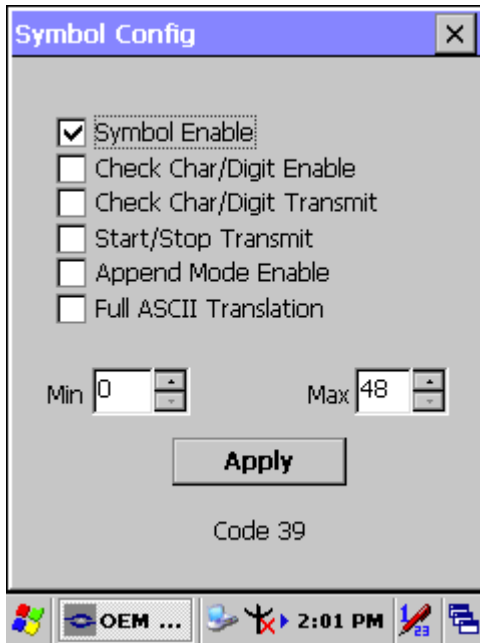
A.3.4 Code 128



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 0 - 80.

A.3.5 Code 39

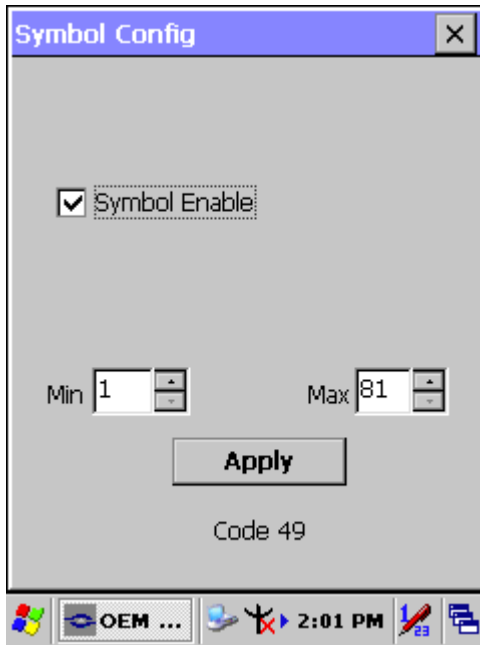


Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
<input type="checkbox"/> Check Char/Digit Enable	The scanner reads barcode data with a check digit. If not checked, the barcode will be read as though no check digit was present.
<input type="checkbox"/> Check Char/Digit Transmit	The scanner will only read Code 39 type barcodes printed with a check digit, and will transmit this character at the end of the scanned data. This setting is only valid if check char/digit is enabled.
<input type="checkbox"/> Start/Stop Transmit	Start/Stop characters identify the leading and trailing ends of the barcode.

Item	Explanation
<input type="checkbox"/> Append Mode Enable	<p>If this box is checked, the scanner can append the data from several Code 39 barcodes together before transmitting them to the host computer. When this function is enabled, the scanner stores those Code 39 barcodes that start with a space (excluding the start and stop symbols), and doesn't immediately transmit the data. The scanner stores the data in the order in which the barcode are read, deleting the first space from each. The scanner transmits the appended data when it reads a Code 39 barcode that starts with a character other than a space, or when it reads a barcode that is not Code 39.</p>
<input type="checkbox"/> Full ASCII Translation	<p>If Full ASCII Code 39 decoding is turned on, certain character pairs within the barcode symbol will be interpreted as a single character.</p>
Message Length	<p>The minimum and maximum length ranges for the barcode are 0 - 48.</p>

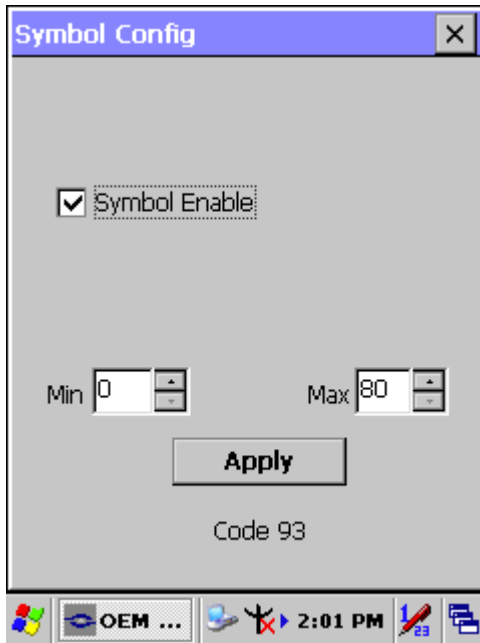
A.3.6 Code 49



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 81.

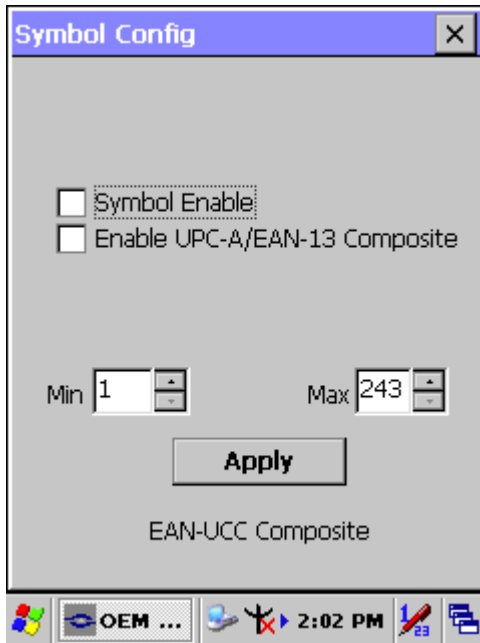
A.3.7 Code 93



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 0 - 80.

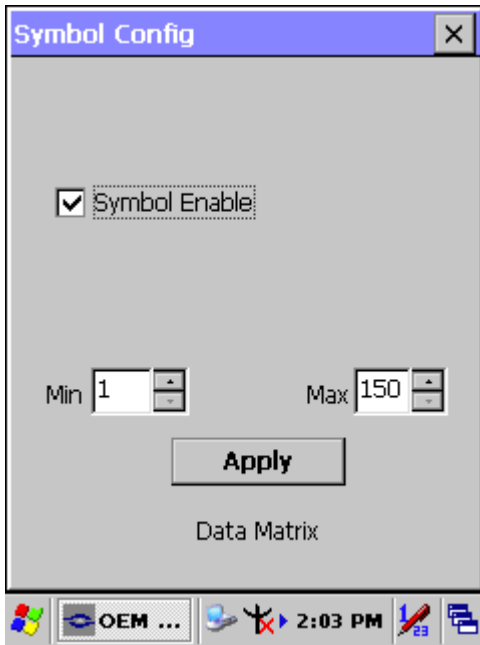
A.3.8 Composite Codes



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Enable <input type="checkbox"/> UPC-A/ EAN-13 Composite	Enable to scan UPC-A/EAN-13 Composite codes.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 2435.

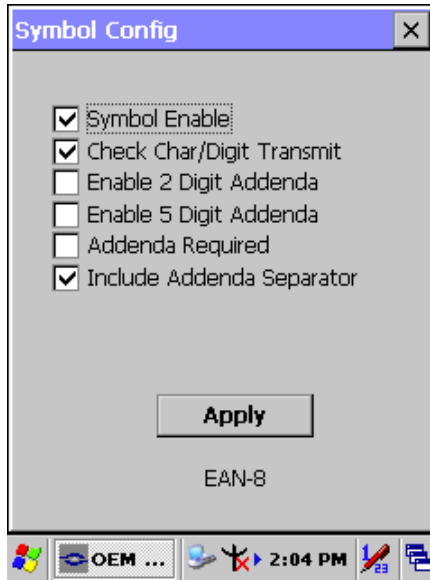
A.3.9 Data Matrix



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 1500.

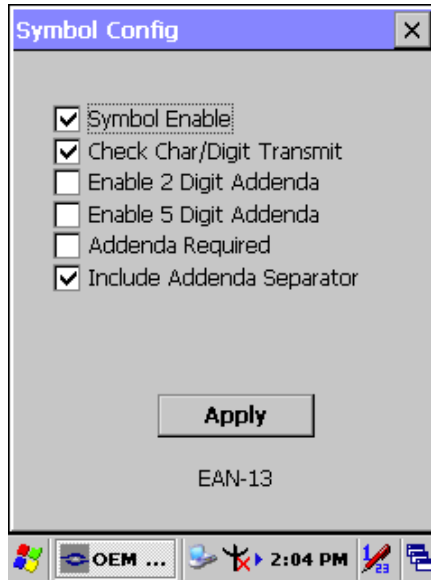
A.3.10 EAN-8



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Check Char/Digit Transmit <input checked="" type="checkbox"/>	Output the check digit at the end of the scanned data.
<input type="checkbox"/> Enable 2 Digit Addenda	Option allows decoding and outputting of a 2 digit addendum at the end of all scanned EAN-8 data.
<input type="checkbox"/> Enable 5 Digit Addenda	Option allows decoding and outputting of a 5 digits addendum at the end of all scanned EAN-8 data.
<input type="checkbox"/> Addenda Required	Only reads EAN-8 barcodes that have addenda.
<input checked="" type="checkbox"/> Include Addenda Separator	When this feature is selected, the data is output with a space between the data from the main barcode and the data from the addenda. When turned off, there is no space.

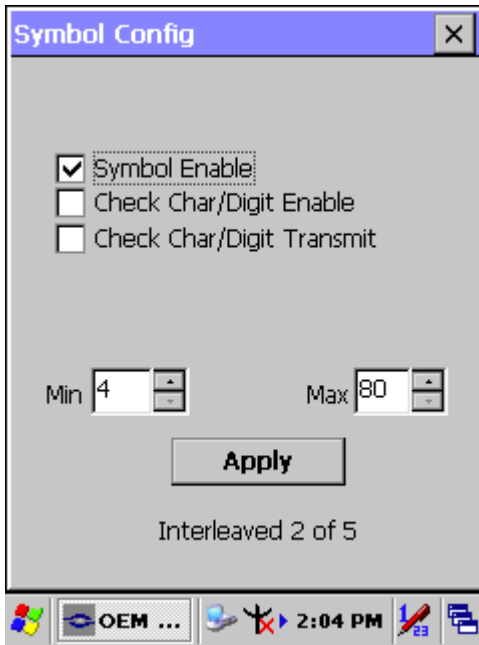
A.3.11 EAN-13



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode
Check Char/Digit Transmit <input checked="" type="checkbox"/>	The output of the check digit at the end of the scanned data.
<input type="checkbox"/> Enable 2 Digit Addenda	Option allows decoding and outputting of a 2 digits addendum on the end of all scanned EAN-13 data.
<input type="checkbox"/> Enable 5 Digit Addenda	Option allows decoding and outputting of a 5 digits addendum on the end of all scanned EAN-13 data.
<input type="checkbox"/> Addenda Required	Only reads EAN-13 barcodes that have addenda.
<input checked="" type="checkbox"/> Include Addenda Separator	When this feature is selected, the data is output with a space between the data from the main barcode and the data from the addenda. When turned off, there is no space.

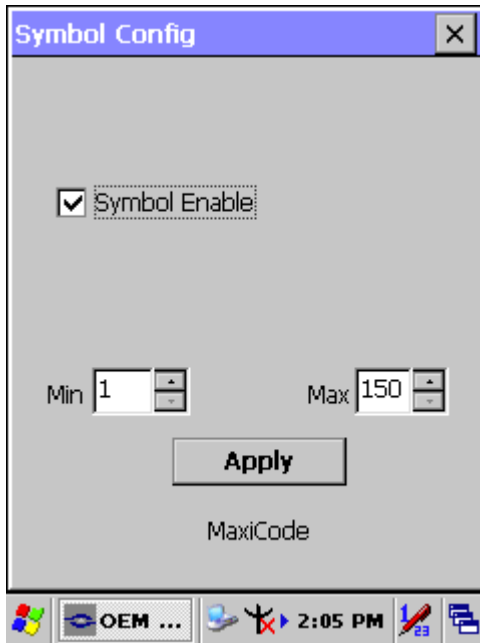
A.3.12 Interleaved 2 of 5



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
<input type="checkbox"/> Check Char/Digit Enable	The scanner reads barcode data with a check digit. If not checked, the barcode will be read as though no check digit was present.
<input type="checkbox"/> Check Char/Digit Transmit	The scanner will only read Interleaved 2 of 5 barcodes printed with a check digit, and will transmit this character at the end of the scanned data. This setting is only valid if check char/digit is enabled.
Message Length	The minimum and maximum length ranges for the barcode are 2 - 80.

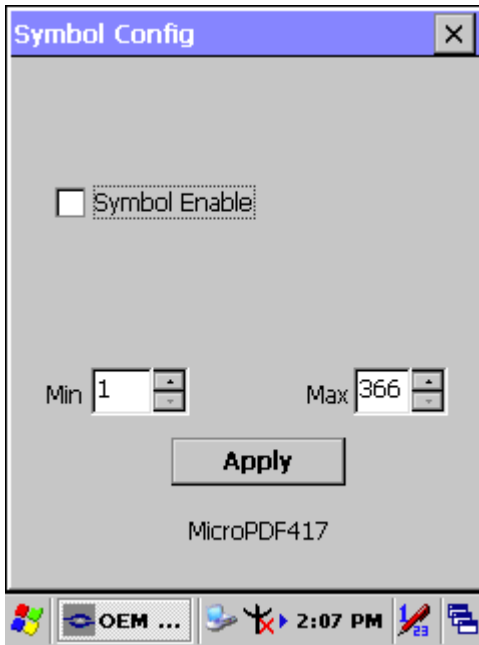
A.3.13 MaxiCode



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode
Message Length	The minimum and maximum length ranges for the barcode are 1 - 150.

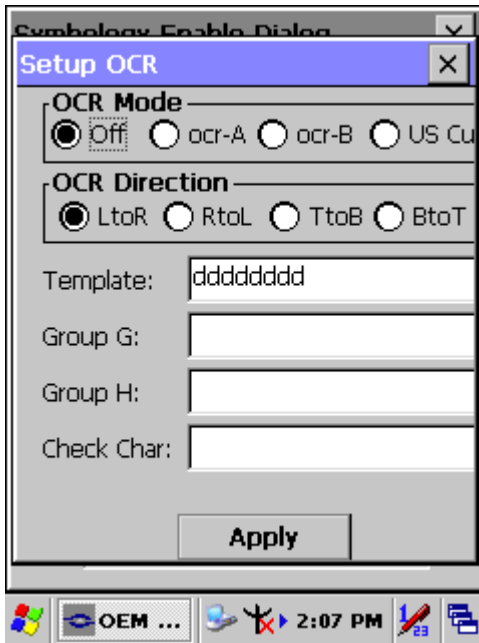
A.3.14 MicroPDF417



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 366.

A.3.15 OCR-A, OCR-B, US Currency



The imager is able to read machine readable fonts used in optical character recognition (OCR). The imager can read from 6 to 60 point OCR type-face.

OCR Mode

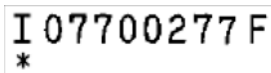
- OCR-A

```
0123456789ABCDEFGHIJKLMN0PQRSTUVWXYZ  
( ) < > / \ + - * $
```

- OCR-B

```
0123456789 ABCDEFGHIJKLMN0PQRSTUVWXYZ  
( ) < > ^ + - * $
```

- U.S. Currency Serial Number (Money)



- MICR E-13B



- SEMI Font



Either select an OCR default, or create a custom template for the type of OCR format intended to read. (See “OCR Templates” to create a custom “template” or character string that defines the length and content of OCR strings to be read with the imager.)

Note: Setting the template and check character options are essential for OCR reading.

OCR Off turns off all OCR capability in the scanner, so the scanner will be able to scan linear, stacked, matrix, and composite bar codes, but not OCR fonts. In addition, any OCR templates previously created are erased. The 8 digit default templates are reinstated for any future use of the OCR-A, OCR-B, or U.S. Currency fonts.

If OCR-A, OCR-B, or U.S. Currency are selected, it is possible to scan characters in that font. The default setting allows scanning of any 8 digit combination. If creating an OCR template, character combinations that fit the template can be scanned. (see Creating an OCR Template).

OCR Direction

The **OCR Direction** setting helps to prevent misreading of character strings that could be interpreted differently in unique orientations if the orientation of the characters being read is specific in relation to the position of the imager; for example, “80086996” can read as “80086996” or “96698008.” The default is Left-to-Right, (*LtoR*).

A.3.15.1 OCR Templates

A custom “template,” or character string defines the length and content of OCR strings that will be read with the imager. Several choices are available when creating a custom template for the application. Create a template for a single format, string together several formats, or you can create a template for a user-defined variable. These choices are described in more detail below.

A.3.15.2 Creating an OCR Template

A single template programs the imager to read any combination of characters in the specified order. Refer to examples according to the Template Characters table below.

Template Characters

a	Represents any alphanumeric character (digit or letter)
c	Represents a check character position
d	Represents any digit
e	Represents any available OCR character
g	Represents character from user-defined variable “g”
h	Represents character from user-defined variable “h”
l	Represents any uppercase letter
t	Marks the start of a new template
r	Multi row indicator
All other characters represent themselves. Spaces can be used. Note: In MICR E13 B templates, TOAD characters (capital letters T, O, A, and D), represent Transit, On Us, Amount, and Dash.	

Note: OCR templates default to eight digits, no check character.

A.3.15.3 To Add an OCR Template

There are four main steps required for creating an OCR template. Below them follows detailed descriptions and examples of specific situations that require precise programming of the coding strings.

1. Turn on the OCR font to be read.
2. Begin building the template.
Scan the **Enter OCR Template** symbol.
3. Scan the characters for the string.
4. Exit OCR Template Editor
Scan **Save OCR Template** to save your entries. **Discard OCR Template** exits without saving any OCR Template changes.

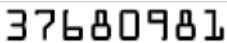
A.3.15.4 Scanning Characters

Use the Template Characters chart to determine what characters are needed to create the required format. Use the [OCR Programming Chart](#) (after the Sample Codes in the back of this manual) to scan the characters for the template.

Example: It is required to read any combination of *eight* digits. The template should be:

dddddddd

To create this template, first enable the OCR-A font. Scan the **Enter OCR Template** symbol, and then scan the *d* from the [OCR Programming Chart](#) in the back of this manual eight times. Scan **Save OCR Template**. This would let you read any string of eight digits, for example:



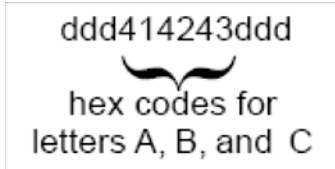
37680981

A.3.15.5 Character Match Sequences

On the [ASCII Conversion Chart \(Code Page 1252\)](#), page A-4, find the Hex value that represents the character(s) to match. Use the [Programming Chart](#) (inside the back cover) to scan the numbers that represent these characters.

Example: It is required to read *three digits, three specific characters* like “ABC” and then *three more digits*.

The template would be:



To create this template, enable the OCR-A font. Scan the **Enter OCR Template** symbol. Scan the **d** from the [OCR Programming Chart](#) three times. Then scan **414243** from the inside back cover (the hex characters for “A,” “B,” and “C”), and scan the **d** three more times. Scan **Save OCR Template**.

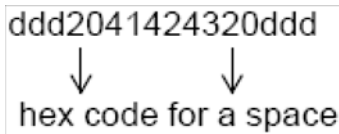
This would read any string of *three digits*, then “ABC,” then any string of *three digits*, for example:



A.3.15.6 Adding Spaces

You may also need to put spaces in your template.

Example: You need to read *three digits*, space, *three specific characters*, like “ABC,” a *space*, and *three more digits*. The template would be:



To create this template, enable the OCR-A font. Scan the **Enter OCR Template** symbol. Scan the **d** from the [OCR Programming Chart](#) three times, and then scan **2041424320** from the [Programming Chart](#) (the hex characters for “space,” “A,” “B,” “C,” “space”). Scan the **d** three more times, and then scan **Save OCR Template**. This program will read any string of *three digits*, space, “ABC,” space, and then any string of *three digits*. For example:



Note: If using Quick * View to program, use the space bar to designate a space and not the hex value of 20.

A.3.15.7 Stringing Together Multiple Formats (Creating “Or” Statements)

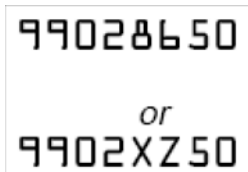
To program the imager to accept and recognize many OCR formats, it is necessary to string together each format beginning with a “t.” This unit commands the imager to read optical characters that match any one of the formats in the template.

Example: To read any combination of *eight digits*, **or** a combination of *four digits, two uppercase letters, and two digits*.

The template would be:

dddddddddttdddlldd

To create this template, enable the OCR-A font. Scan the **Enter OCR Template** symbol. Scan the **d** from the [OCR Programming Chart](#) *eight* times, then scan the **t** to create the “or” statement. Then scan the characters for the second template. Scan **d** four times, scan **l** two times, then scan **d** two more times. Scan **Save OCR Template**. This would let you read either type of format, for example:



It is possible to string together as many templates as are required.

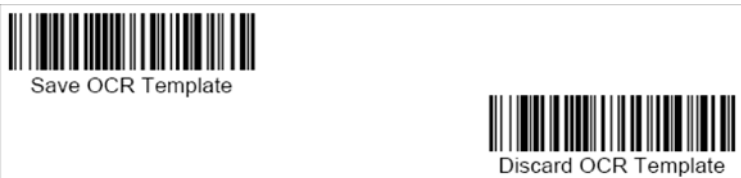
A.3.15.8 OCR Template Codes

Note: Reading more than three rows of OCR is not recommended. Contact the factory if you have an application that requires reading four or more rows of OCR.



† One or more two-digit numbers and **Save** are required after reading this programming symbol. (Refer to the [Programming Chart](#) on the inside the back cover of this manual.)

Exit Selections



ASCII Conversion Chart (Code Page 1252)

Dec.	Hex	Char	Dec.	Hex	Char	Dec.	Hex	Char	Dec.	Hex	Char
128	80	€	160	A0		192	C0	À	224	E0	à
129	81	□	161	A1	ı	193	C1	Á	225	E1	á
130	82	,	162	A2	ø	194	C2	Â	226	E2	â
131	83	f	163	A3	£	195	C3	Ã	227	E3	ã
132	84	"	164	A4	▯	196	C4	Ä	228	E4	ä
133	85	...	165	A5	¥	197	C5	Å	229	E5	å
134	86	†	166	A6	ı	198	C6	Æ	230	E6	æ
135	87	‡	167	A7	§	199	C7	Ç	231	E7	ç
136	88	ˆ	168	A8	ˆ	200	C8	È	232	E8	è
137	89	%	169	A9	©	201	C9	É	233	E9	é
138	8A	Š	170	AA	¸	202	CA	Ê	234	EA	ê
139	8B	‹	171	AB	«	203	CB	Ë	235	EB	ë
140	8C	Œ	172	AC	¬	204	CC	Ì	236	EC	ì
141	8D	□	173	AD	-	205	CD	Í	237	ED	í
142	8E	Ž	174	AE	®	206	CE	Î	238	EE	î
143	8F	□	175	AF	¯	207	CF	Ï	239	EF	ï
144	90	□	176	B0	°	208	D0	Ð	240	F0	ð
145	91	´	177	B1	±	209	D1	Ñ	241	F1	ñ
146	92	˘	178	B2	²	210	D2	Ò	242	F2	ò
147	93	“	179	B3	³	211	D3	Ó	243	F3	ó
148	94	”	180	B4	´	212	D4	Ô	244	F4	ô
149	95	•	181	B5	µ	213	D5	Õ	245	F5	õ
150	96	–	182	B6	¶	214	D6	Ö	246	F6	ö
151	97	—	183	B7	·	215	D7	×	247	F7	×
152	98	˚	184	B8	¸	216	D8	Ø	248	F8	ø
153	99	™	185	B9	¹	217	D9	Ù	249	F9	ù
154	9A	š	186	BA	º	218	DA	Ú	250	FA	ú
155	9B	›	187	BB	»	219	DB	Û	251	FB	û
156	9C	œ	188	BC	¼	220	DC	Ü	252	FC	ü
157	9D	□	189	BD	½	221	DD	Ý	253	FD	ý
158	9E	ž	190	BE	¾	222	DE	Þ	254	FE	þ
159	9F	ÿ	191	BF	¿	223	DF	ß	255	FF	ÿ

ASCII Conversion Chart (Code Page 1252)

Dec.	Hex	Char	Dec.	Hex	Char	Dec.	Hex	Char	Dec.	Hex	Char
128	80	€	160	A0		192	C0	À	224	E0	à
129	81	□	161	A1	ı	193	C1	Á	225	E1	á
130	82	,	162	A2	ç	194	C2	Â	226	E2	â
131	83	f	163	A3	£	195	C3	Ã	227	E3	ã
132	84	"	164	A4	α	196	C4	Ä	228	E4	ä
133	85	...	165	A5	¥	197	C5	Å	229	E5	å
134	86	†	166	A6	ı	198	C6	Æ	230	E6	æ
135	87	‡	167	A7	§	199	C7	Ç	231	E7	ç
136	88	ˆ	168	A8	˜	200	C8	È	232	E8	è
137	89	‰	169	A9	©	201	C9	É	233	E9	é
138	8A	Š	170	AA	¸	202	CA	Ê	234	EA	ê
139	8B	‹	171	AB	«	203	CB	Ë	235	EB	ë
140	8C	Œ	172	AC	¬	204	CC	Ì	236	EC	ì
141	8D	□	173	AD	-	205	CD	Í	237	ED	í
142	8E	Ž	174	AE	®	206	CE	Î	238	EE	î
143	8F	□	175	AF	¯	207	CF	Ï	239	EF	ï
144	90	□	176	B0	°	208	D0	Ð	240	F0	ð
145	91	´	177	B1	±	209	D1	Ñ	241	F1	ñ
146	92	˘	178	B2	²	210	D2	Ò	242	F2	ò
147	93	“	179	B3	³	211	D3	Ó	243	F3	ó
148	94	”	180	B4	´	212	D4	Ô	244	F4	ô
149	95	•	181	B5	µ	213	D5	Õ	245	F5	õ
150	96	–	182	B6	¶	214	D6	Ö	246	F6	ö
151	97	—	183	B7	·	215	D7	×	247	F7	×
152	98	˘	184	B8	¸	216	D8	Ø	248	F8	ø
153	99	™	185	B9	¹	217	D9	Ù	249	F9	ù
154	9A	š	186	BA	º	218	DA	Ú	250	FA	ú
155	9B	›	187	BB	»	219	DB	Û	251	FB	û
156	9C	œ	188	BC	¼	220	DC	Ü	252	FC	ü
157	9D	□	189	BD	½	221	DD	Ý	253	FD	ý
158	9E	ž	190	BE	¾	222	DE	Þ	254	FE	þ
159	9F	ÿ	191	BF	¿	223	DF	ß	255	FF	ÿ

OCR Programming Chart

 a	 c
 d	 e
 g	 h
 l	 r
 t	 Save
 Discard	

Programming Chart



A



B



C



D



E



F



0



1



2



3



4



5



6



7



8



9

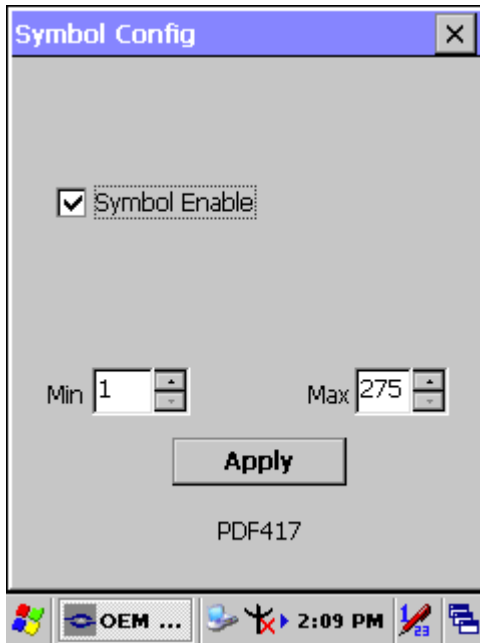


Save



Discard

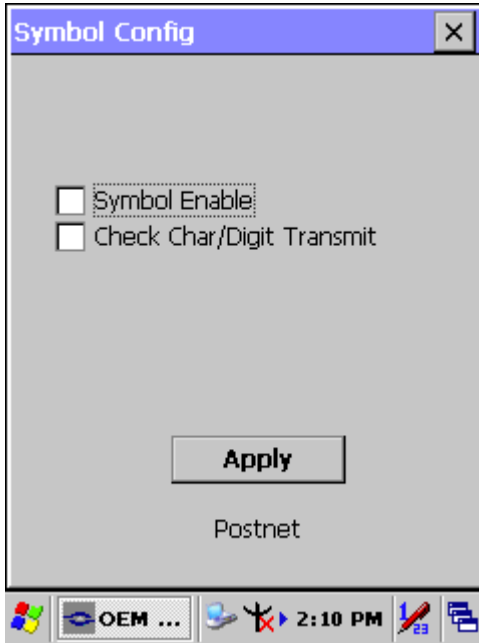
A.3.16 PDF417



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 2750.

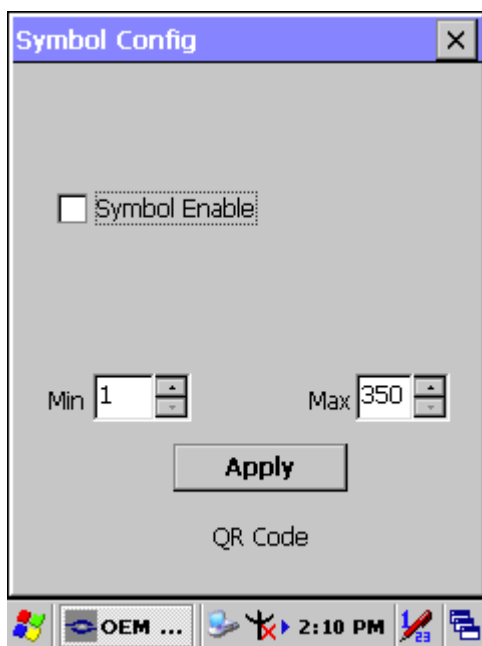
A.3.17 Postnet



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
<input type="checkbox"/> Check Char/Digit Transmit	The scanner can only read US Postnet bar codes printed with a check character, and will transmit this character at the end of the scanned data.

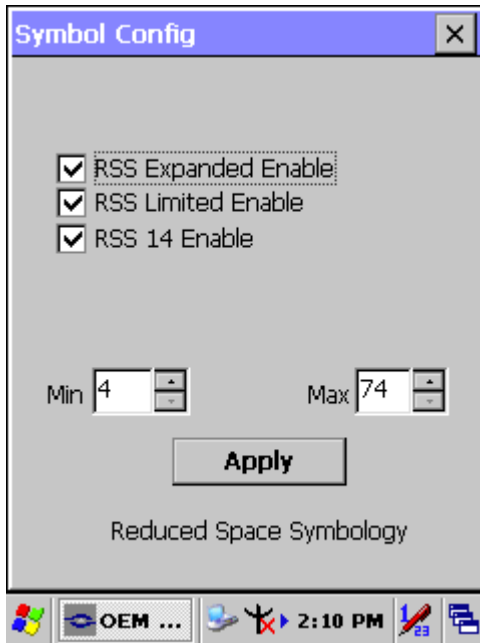
A.3.18 QR Code



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 3500.

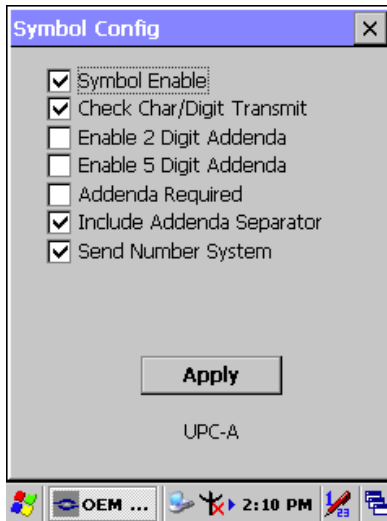
A.3.19 Reduced Space Symbology



Functions:

Item	Explanation
<input checked="" type="checkbox"/> RSS Expanded Enable	Enable RSS Expanded code.
<input checked="" type="checkbox"/> RSS Limited Enable	Enable RSS Limited code.
<input checked="" type="checkbox"/> RSS 14 Enable	Enable RSS 14 code.
Message Length	The minimum and maximum length ranges for the barcode are 4 - 74.

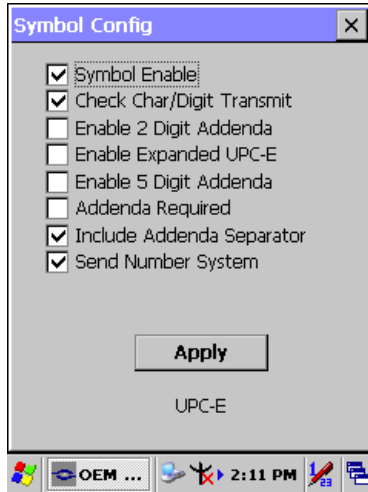
A.3.20 UPC-A



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Check Char/Digit Transmit <input checked="" type="checkbox"/>	The output of the check digit at the end of the scanned data.
<input type="checkbox"/> Enable 2 Digit Addenda	Option allows decoding and outputting of a 2 digit addendum at the end of all scanned UPC-A data.
<input type="checkbox"/> Enable 5 Digit Addenda	Option allows decoding and outputting of a 5 digit addendum at the end of all scanned UPC-A data.
<input type="checkbox"/> Addenda Required	Only reads UPC-A barcodes that have addenda.
<input checked="" type="checkbox"/> Include Addenda Separator	When this feature is selected, the data is output with a space between the data from the main barcode and the data from the addenda. When turned off, there is no space.
<input checked="" type="checkbox"/> Send Number System	Transmits the numeric system digit of a UPC symbol.

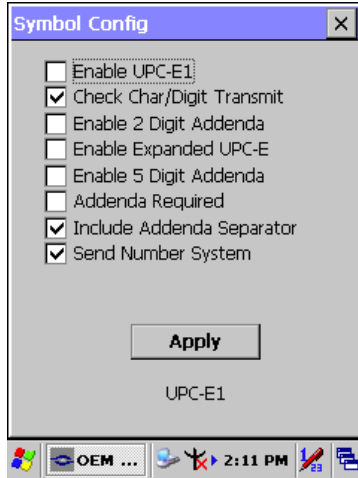
A.3.21 UPC-E



Functions:

Item	Explanation
<input checked="" type="checkbox"/> Symbol Enable	Enable this barcode.
Check Char/Digit Transmit <input checked="" type="checkbox"/>	The output of the check digit at the end of the scanned data.
<input type="checkbox"/> Enable 2 Digit Addenda	Option allows decoding and outputting of a 2 digit addendum at the end of all scanned UPC-E data.
<input type="checkbox"/> Enable Expanded UPC-E	Enable UPC-E Expanded code.
<input type="checkbox"/> Enable 5 Digit Addenda	Option allows decoding and outputting of a 5 digit addendum at the end of all scanned UPC-E data.
<input type="checkbox"/> Addenda Required	Only reads UPC-E barcodes that have addenda.
<input checked="" type="checkbox"/> Include Addenda Separator	When this feature is selected, the data is output with a space between the data from the main barcode and the data from the addenda. When turned off, there is no space.
<input checked="" type="checkbox"/> Send Number System	Transmits the numeric system digit of a UPC-E symbol.

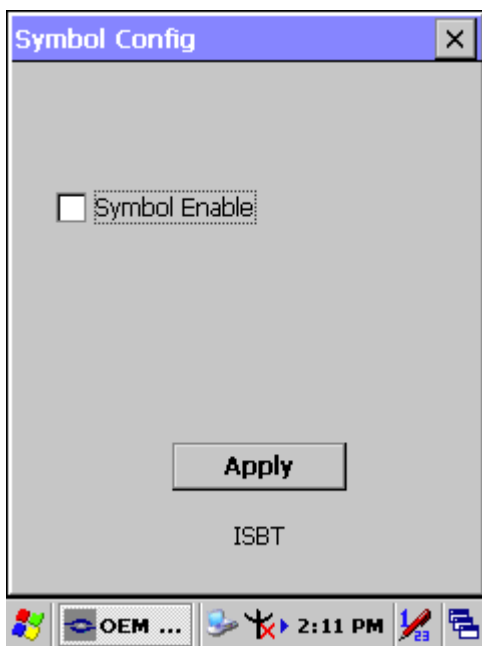
A.3.22 UPC-E1



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Check Char/Digit Transmit <input checked="" type="checkbox"/>	The output of the check digit at the end of the scanned data.
<input type="checkbox"/> Enable 2 Digit Addenda	Option allows decoding and outputting of a 2 digit addendum at the end of all scanned UPC-E1 data.
<input type="checkbox"/> Enable Expanded UPC-E	Enable UPC-E Expanded code.
<input type="checkbox"/> Enable 5 Digit Addenda	Option allows decoding and outputting of a 5 digit addendum at the end of all scanned UPC-E1 data.
<input type="checkbox"/> Addenda Required	Only reads UPC-E1 barcodes that have addenda.
<input checked="" type="checkbox"/> Include Addenda Separator	When this feature is selected, the data is output with a space between the data from the main barcode and the data from the addenda. When turned off, there is no space.
<input checked="" type="checkbox"/> Send Number System	Transmits the numeric system digit of a UPC-E1 symbol.

A.3.23 ISBT



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.

A.3.24 British Post



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.

A.3.25 Canadian Post



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.

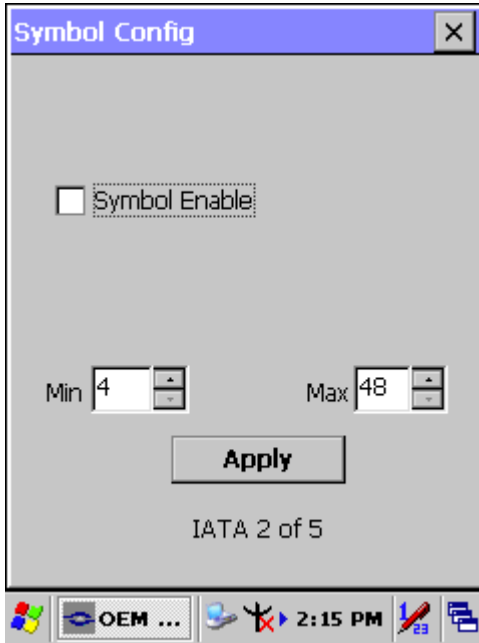
A.3.26 Australian Post



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Send Bar <input type="checkbox"/> Width Data	Australian Post is a 4-state symbology that was designed with a non-defined user area. The user can define how that area field is interpreted. Most systems have dedicated decoders that will not decode a symbology that is not already defined. If you select Send Bar Width Data, the bar levels will be outputted (0 - 3 for the four states) so that the receiving device can decode appropriately.

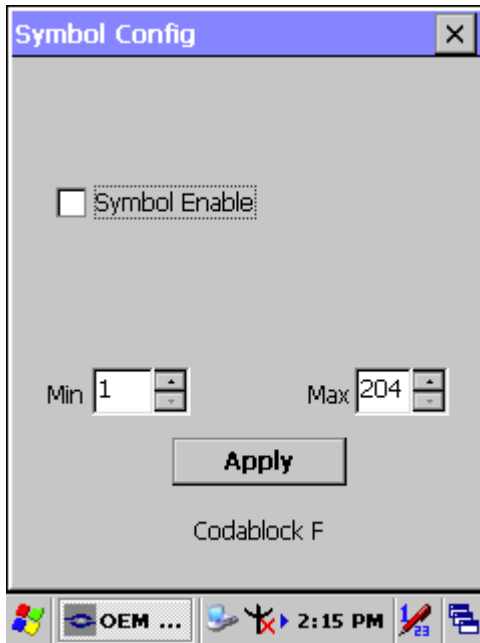
A.3.27 IATA 2 of 5



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 48.

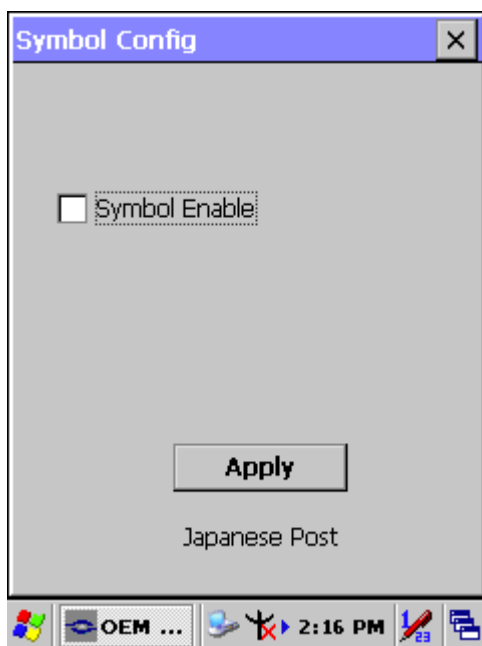
A.3.28 Codablock F



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 2048.

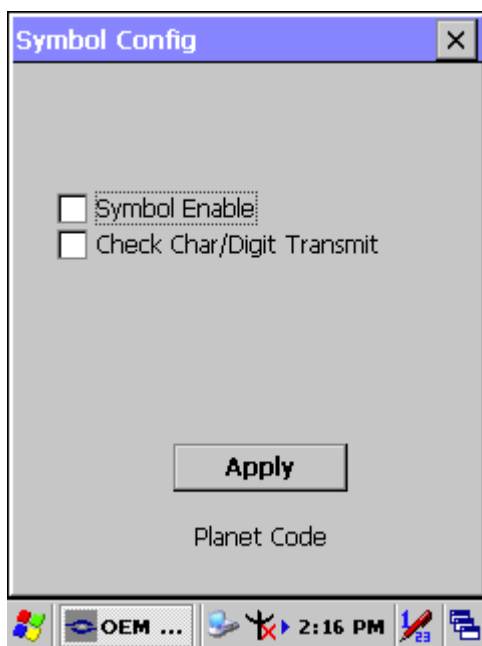
A.3.29 Japanese Post



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.

A.3.30 Planet Code



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Check Char/Digit Transmit <input type="checkbox"/>	The scanner only reads Planet barcodes printed with a check character, and transmits this character at the end of the scanned data.

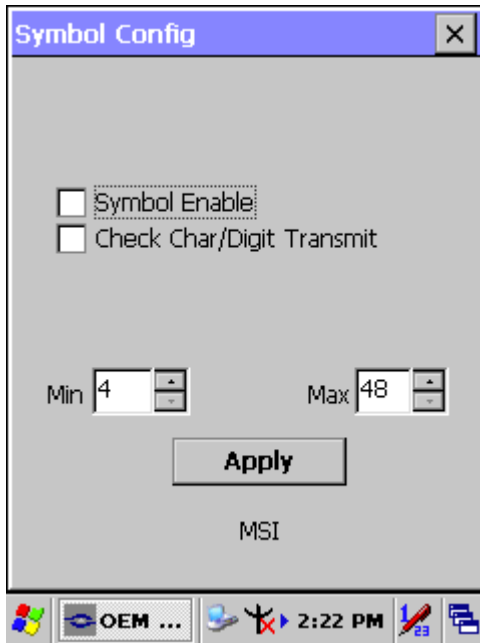
A.3.31 KIX (Netherlands) Post



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.

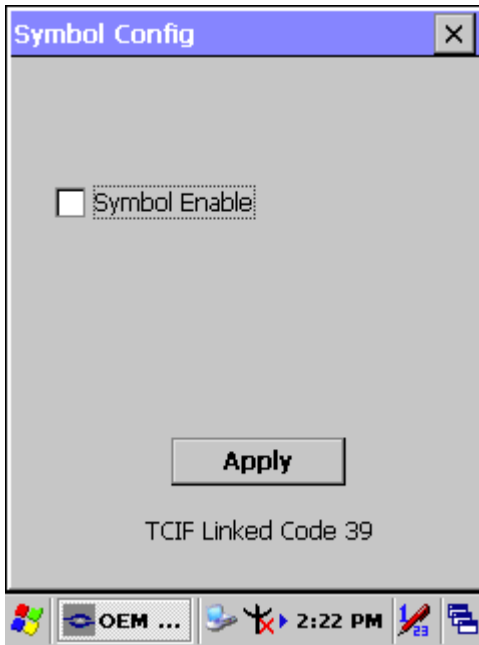
A.3.32 MSI



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Check Char/Digit Transmit <input type="checkbox"/>	The scanner only reads MSI barcodes printed with a check character, and transmits this character at the end of the scanned data.
Message Length	The minimum and maximum length ranges for the barcode are 4 - 48.

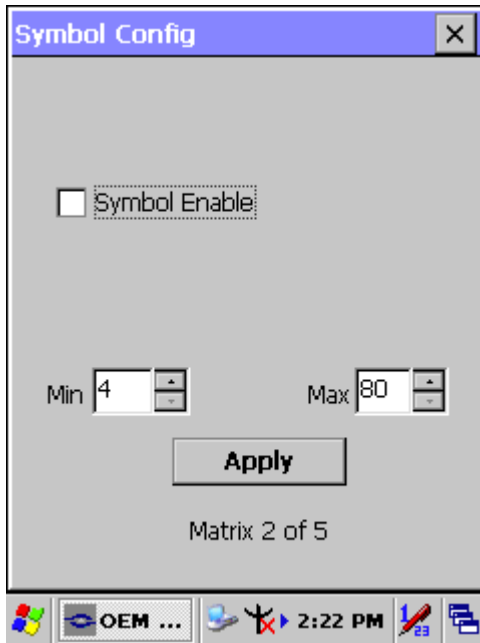
A.3.33 TCIF Linked Code 39



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.

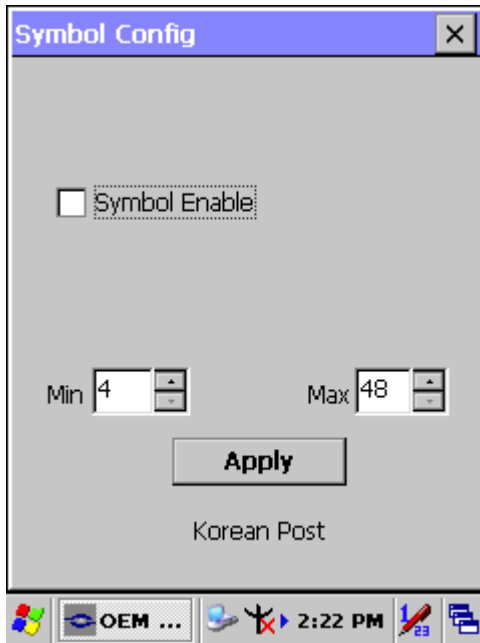
A.3.34 Matrix 2 of 5



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 1 - 80.

A.3.35 Korean Post



Functions:

Item	Explanation
Symbol Enable <input type="checkbox"/>	Enable this barcode.
Message Length	The minimum and maximum length ranges for the barcode are 2 - 80.