# OPTICON

**Rugged Portable Data Terminal**

# PHL 8000 series

The PHL 8100 and PHL 8200 Portable Data Terminals
are rugged devices compatible with Microsoft
Windows® CE .Net technology.

# User Manual

All information subject to change without notice.

## Document History

| | |
|---|---|
| **Model Number:** | PHL 8100 / PHL 8200 |
| **Edition:** | 1 |
| **Date:** | 2008/2009 |

## Copyright 2008 Opticon. All rights reserved.

## Limited Warranty and Disclaimers

### PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLING OR USING THE PRODUCT.

### Serial Number

A serial number appears on all Opticon products. This official registration number is directly related to the device purchased. Do not remove the serial number from your Opticon device. Removing the serial number voids the warranty.

### Warranty

Unless otherwise agreed in a written contract, all Opticon products are warranted against defects in materials and workmanship for two years after purchase. Opticon will repair or, at its option, replace products that are defective in materials or workmanship with proper use during the warranty period. Opticon is not liable for damages caused by modifications made by a customer. In such cases, standard repair charges will apply. If a product is returned under warranty and no defect is found, standard repair charges will apply. Opticon assumes no liability for any direct, indirect, consequential or incidental damages arising out of use or inability to use both the hardware and software, even if Opticon has been informed about the possibility of such damages.

### Packaging

The packing materials are recyclable. We recommend that you save all packing material to use should you need to transport your scanner or send it for service. Damage caused by improper packaging during shipment is not covered by the warranty.

### Trademarks

Trademarks used are the property of their respective owners.

Opticon Inc. and Opticon Sensors Europe B.V. are wholly owned subsidiaries of OPTOELECTRONICS Co., Ltd., 12-17, Tsukagoshi 4-chome, Warabi-shi, Saitama, Japan 335-0002. TEL +81-(0) 48-446-1183; FAX +81-(0) 48-446-1184

## SUPPORT

| USA | Europe |
|---|---|
| Phone: 800-636-0090 | |
| Email: support@opticonusa.com | Email: support@opticon.com |
| Web: www.opticonusa.com | Web: www.opticon.com |

# Contents

# Table of Figures

# Table of Tables

# 1. Introduction

Congratulations on purchasing the PHL 8100/PHL 8200 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 include:

- Intel® XScale™ PXA270 520 MHz 32 bits RISC processor
- Windows® CE .NET 5.0 operating system
- 128 MB SDRAM & 128 MB Flash ROM
- Open architecture: User-accessible SD slot
- 240 x 320, 3.5" color TFT display with touch panel
- Numeric keypad or alphanumeric keypad with LED backlight
- 802.11 b/g radio support (Bluetooth optional)
- Optional built-in GPRS module
- Integrated 1D barcode scanner

## 1.1. About this Manual

This manual contains the following chapters:

| Chapter 1: | Introduction | General information about the PDT |
|---|---|---|
| Chapter 2: | Getting started | Basic use of the PDT |
| Chapter 3: | Setting | Basic instructions for customizing the PDT |
| Chapter 4: | Communication | Communicating with the PDT |
| Chapter 5: | Software Applications | Installed applications on the PDT |
| Appendix A. | Phone Tools (GPRS) | Instructions for the Phone Tools Utility |

## 1.2. Safety

- Do not stare into the laser or LED beam directly or shine it into eyes.

- Never use strong pressure on 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 because the liquid irritates the skin.

- Although the PDT meets the IP54 standard for water and dust resistance, avoid prolonged exposure to rain or other concentrated moisture. These conditions exceed the IP54 standard and could result in water or other contaminants entering the PDT.

- Use only the original approved AC adapter. Use of an unapproved AC adapter could result in electrical problems, fire, or electrical shock. Opticon shall not be held responsible for any damages caused by using an AC adapter not provided by Opticon.

- Do not disassemble the PDT. Servicing should be done by a qualified supplier only. If the PDT or accessories are damaged due to wrong handling or unauthorized repair, the warranty is void. The warranty is also void if the warranty seals are broken.

- Make regular back-ups of all important data.

- Under no circumstance will the supplier be liable for any direct, indirect, consequential or incidental damages resulting from the use or inability to use the hardware and software and/or any data loss, even if the supplier has been informed of the possibility of such damages.

## 1.3. Battery Safety

Lithium-ion battery packs may get hot, explode, ignite, and/or cause serious injury if used inappropriately. Please note the following safety warnings:

- Do not throw the battery pack in a fire. Do not expose the battery to high temperatures.

- Do not connect a positive battery pack to a negative battery pack using any metal object (like wire).

- Do not carry or store the battery pack with metal objects.

- Do not pierce the battery pack with nails or drills, strike the battery pack with a hammer, step on the battery pack or otherwise expose it to strong impacts, shocks, or excessive force.

- Do not solder 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 measures, which, if damaged, may cause the battery pack to generate heat, explode, or ignite.

- Do not discharge the battery pack using any device other than the specified device. When it is used in devices other than the specified device, the battery pack may be

damaged or its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to overheat, explode, or ignite and cause serious injury.

• In the event that 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.

## 1.4. CE Statement

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC.

$C\epsilon 0560 \,\textcircled{!}$
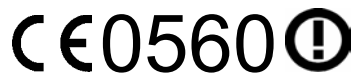
*Table 1-1. Standards*

| Standard | Description |
|---|---|
| EN 60950-1: 2006 | Safety of Information Technology Equipment |
| EN50360: (2001-07) | Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz–3 GHz) |
| EN50361: (2001-07) | Basic standard for the measurement of specific absorption rate related to human exposure to electromagnetic fields from mobile phones (300 MHz–3 GHz) |
| EN50371: (2002-03) | Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz–00 GHz)—General public |
| EN 300 328 V1.7.1: (2006-10) | Electromagnetic compatibility and Radio Spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive |
| EN 301 511 V9.0.2: (2003-03) | Global System for Mobile communications (GSM); Harmonized standard for mobile stations in the GSM 900 and DCS 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC) |
| EN 301 489-1 V1.6.1: (2005-09) | Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements |
| EN 301 489- | Electromagnetic compatibility and Radio spectrum Matters |

| Standard | Description |
|----------|-------------|
| 17 V1.2.1 (2002-08) | (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment |
| EN 301 489-7 V1.2.1: (2002-08) | ElectroMagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment ad services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS). |

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy, where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454–2483.5 MHz. For detailed information, the end-user should contact the national spectrum authority in France.

## 1.5. Federal Communication Commission (FCC) Statement

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. Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

**Important note: Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow the operating instructions as documented in this manual.

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

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

### 1.5.1. LED and Laser Safety Information

- Class II LED/laser product

- Do not stare at the LED/laser or shine into eyes

- Do not allow young children to use the product without adult supervision

- Do not replace/repair the LED/laser; these are not user replaceable

- Do not shine the LED/laser on a reflective surface

## 1.6. Recycling & Disposal

Do not dispose of this product in household trash. For proper end-of-life treatment consult the Environmental Care section of www.opticon.com.

## 1.7. Regulatory Information

For CE, FCC, RoHS, and other Document of Conformities information, consult the Regulatory section of www.opticon.com.

## 1.8. Product Labeling

The PDT has several labels, as shown below.



*Figure 1-1: PHL 8100 product labels*

*Table 1-2. PHL 8100 product labels*

| Label nr. | Description |
|-----------|-------------|
| 1 | LCD panel protection film |
| 2 | Logo |
| 3 | Warranty seal PDT |
| 4 | Laser radiation warning label |
| 5 | System and regulatory label |
| 6 | Serial / configuration number |
| 7 | Windows CE label |

*Figure 1-2: PHL 8200 labels*

*Table 1-3. PHL 8200 product labels*

| Label nr. | Description |
|-----------|-------------|
| 1 | LCD panel protection film |
| 2 | Logo |
| 3 | Warranty seal PDT |
| 4 | Laser radiation warning label |
| 5 | System and regulatory label |
| 6 | Serial / configuration number |
| 7 | Windows CE label |

## 1.9. System Specifications

The PHL 8100 / PHL 8200 detailed specifications follow. All specifications are subject to change without prior notification.

*Table 1-4. System specifications*

| Item | Description |
|---|---|
| Processor | Intel PXA270 520 MHz<br>32-bit RISC CPU |
| Memory | 128MB Flash ROM<br>128MB SDRAM |
| Display | 240 x 320 3.5" TFT 256K color LCD with LED backlight |
| Audio | One mono speaker for system voice (on lower case)<br>One 2.5 mm Ø stereo earphone jack with mono mike input<br>One internal MIC<br>One receiver<br>(Optional for GPRS model.) |
| Expansion Slot | One SD/MMC slot (only support SD memory) |
| LED | One Dual-Color LED for charger indicator<br>One Dual-Color LED for scanner indicator |
| Radio Support | Wireless LAN: 802.11b/g<br>Bluetooth: Class II<br>IrDA: 1.2<br>GPRS/EDGE: (optional) |
| Scan Engine | 1D Laser barcode reader |
| Communication Ports | USB: Support USB v1.1 both host and client. (PDT and cradle)<br>Serial: RS232 via optional cable or cradle. |
| Power System | -Standard Li-Ion Battery Pack, 3.7V, 2200mAh<br>Advanced Smart Battery with Gas-Gauge<br>Built-in Battery Charger<br>4.2V/70mAh rechargeable backup battery<br>One Battery Cover Sensor Switch<br>Power Adapter: 100~240V AC, 50/60Hz Input; 5VDC/2.6A Output |
| Keypad / Buttons | **PHL 8100:** One power button<br>Three barcode scanner buttons<br>Two navigation buttons<br>Four application buttons<br>One 18-key numeric keypad |

| Item | Description |
|---|---|
| | One reserved button<br>**PHL 8200:** One power button<br>One reset button<br>Three barcode scanner buttons<br>Two navigation buttons<br>Four application buttons<br>One 33-key alpha-numeric keypad<br>One reserved button |
| Dimensions and Weight | Dimensions: L: 155 mm, W: 82 mm, H: 31~33 mm<br>Weight: 400g with standard battery pack |
| Color | Black |
| Peripherals and Accessories | **Optional**: RS-232C serial cable for PDT or USB Host Cable for Terminal<br>High-Capacity Li-Ion Battery Pack (3.7 V, 4000 mAh)<br>Single dock<br>Car adapter<br>RS-232C cable |
| Software | Microsoft Windows CE 5.0 Professional |

## 1.10. Environmental Specifications

| | |
|---|---|
| **Operating Temperature** | 14° F–122° F( -10° C–50° C) |
| **Storage Temperature** | -4° F–158° F (-20° C–60° C) |
| **Humidity** | 5%–95% (non-condensing) |
| **Drop** | 5ft (1.5m) drop onto concrete |
| **Water & Dust proof** | IP54 certified |
| **Vibration** | MIL STD 810F |

## 1.11. Warranty and Service

Should this Terminal require service, please contact your local reseller. In case of technical questions, send an email to **support@opticon.com** and provide information about the product name, the serial number (see chapter 1.8 "Product labeling") and provide a detailed problem description.
.

## 2.  Getting Started

Open the package and confirm that all required parts are present and undamaged.



*Figure 2-3: PHL 8100 package contents*

*Table 2-5. PHL 8100 package contents*

| Label nr. | Description |
|---|---|
| 1. | PHL 8100 Terminal |
| 2. | Standard battery pack (3.7 V, 2200 mAh) |
| 3. | USB client cable for terminal |
| 4. | AC power cord |
| 5. | Standard AC adapter 5 VDC/2.6 A output |
| 6. | Earphone/ microphone set |
| 7. | Quick guide (not shown in the picture) |

*Figure 2-4: PHL 8200 package contents*

*Table 2-6. PHL 8200 package contents*

| Label nr. | Description |
|---|---|
| 1. | PHL 8200 Terminal |
| 2. | Standard battery pack (3.7 V, 2200 mAh) |
| 3. | USB client cable for terminal |
| 4. | AC power cord |
| 5. | Standard AC adapter 5 VDC/2.6 A output |
| 6. | Earphone/ microphone set |
| 7. | Quick guide (not shown in the picture) |

## 2.1. Product Overview

### 2.1.1. PHL 8100



**Figure 2-5: PHL 8100 overview**

*Table 2-7. PHL 8100 overview*

| | Label | Description |
|---|---|---|
| 1 | Scanner LED Indicator | Red color: Reading barcode<br>Green color: Successful reading |
| 2 | Charge LED Indicator | Red color: Charging battery<br>Green color: Battery fully charged |
| 3 | LCM / Touch Panel | Do specific action through touch panel by stylus |
| 4 | Left Scan key<br>Right Scan key<br>Scan key | Start scanning the barcode by pressing any one of these three scan keys |
| 5 | Power key | Puts the PDT into power mode and wakes the PDT from suspend mode. |
| 6 | F1–F4 key | The four application keys, hot keys of application program defined by end user. |
| 7 | Navigation key | Navigation keys for left, right, up and down directions |
| 8 | Alpha-numeric keys | Numeric keys; these change to alpha keys after pressing the alpha key. |
| 9 | Alpha key | Toggle alpha-mode for alpha-numeric keys |
| 10 | Fn key | Used in combination with other keys to type special characters and perform system functions. |
| 11 | Enter 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 | Barcode reader window |
| 15 | Stylus | Use the stylus for selecting items and entering information. |
| 16 | Battery cover | Protects the battery pack and maintains the IP rating of the PDT. |
| 17 | Battery cover latch | Keeps battery cover locked |
| 18 | Hand strap | Can be adjusted tighter or looser |
| 19 | Speaker | 1 W speaker for audio sound |
| 20 | DC power jack | A connector to support AC power. |
| 21 | IrDA | A window to support IrDA functions |

### 2.1.2. PHL 8200





*Figure 2-6: PHL 8200 overview*

*Table 2-8. PHL 8200 overview*

|  | Label | Description |
|---|---|---|
| 1 | Scanner LED Indicator | Red color: Reading barcode<br>Green color: Successful reading |
| 2 | Charge LED Indicator | Red color: Charging battery<br>Green color: Battery fully charged |
| 3 | LCM / Touch Panel | Do specific action through touch panel by stylus |
| 4 | Left Scan key<br>Right Scan key<br>Scan key | Start scanning the barcode by pressing any one of these three scan keys |
| 5 | Power key | Puts the PDT into power mode and wakes the PDT from suspend mode. |
| 6 | F1–F4 key | The four application keys, hot keys of application program defined by end user. |
| 7 | Navigation key | Navigation keys for left, right, up and down directions |
| 8 | Alpha keys | Alpha keys |
| 9 | Numeric keys | Numeric keys |
| 10 | Fn key | Used in combination with other keys to type special characters and perform system functions. |
| 11 | Enter 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 | Barcode reader window |
| 15 | Stylus | Use the stylus for selecting items and entering information. |
| 16 | Battery cover | Protects the battery pack and maintains the IP rating of the PDT. |
| 17 | Battery cover latch | Keeps battery cover locked |
| 18 | Hand strap | Can be adjusted tighter or looser |
| 19 | Speaker | 1 W speaker for audio sound |
| 20 | DC power jack | A connector to support AC power. |
| 21 | IrDA | A window to support IrDA functions |

## 2.2. Charging the Battery Pack

Before using the PDT, charge the battery pack.

Charge time: The initial charge cycle for the battery pack is approximately 6 hours. Subsequent charging cycles are approximately 4 hours.

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

> **CAUTION:** Once you have charged the battery pack and backup battery and started using the PDT, do not leave the battery pack out of the PDT for too long, or any unsaved data will be lost. Power the PDT off if you want to change the main battery pack.

### 2.2.1. Installing the Battery Pack

#### a) Release the hand strap



*Figure 2-7: Release the hand strap*

**b) Detach the battery cover**

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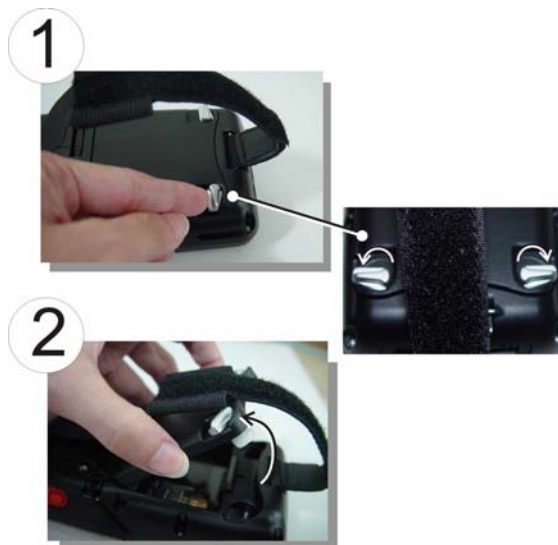


*Figure 2-8: Detach the battery cover*

**c) Insert the battery pack**

Insert the battery pack into the battery compartment with the label facing out. Ensure that the battery snaps into place.



*Figure 2-9: Insert the battery pack.*

### d) Replace the battery cover

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.
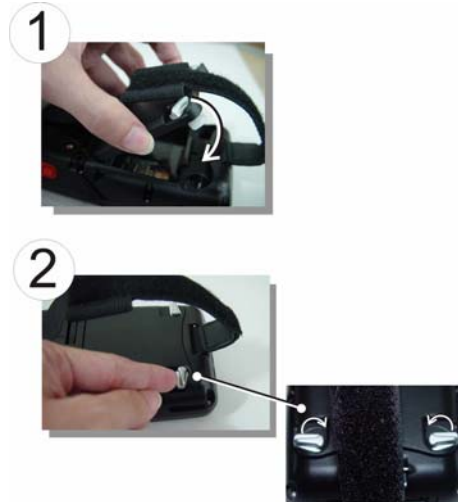


*Figure 2-10: Replace the battery cover.*

## 2.2.2. Charging the Battery Pack Using the 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 2-11: Charging using the power adapter*

### 2.2.3. Charging the Battery Pack with 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 with Single Dock.
4. Insert the PDT into the Single Dock.



*Figure 2-12: Charging with Single Dock*

**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 in the connector of the power adapter with single cradle.
4. Insert the battery pack into the single cradle's spare battery slot.

## 2.3. Handling the PDT

This section offers the basic procedures for using the PDT.

### 2.3.1. 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 section 2.6 *Resetting the PDT.*

---

**CAUTION:** The PDT boots and powers on automatically when a battery is fully inserted in the PDT and the device is powered on for the first time.

---
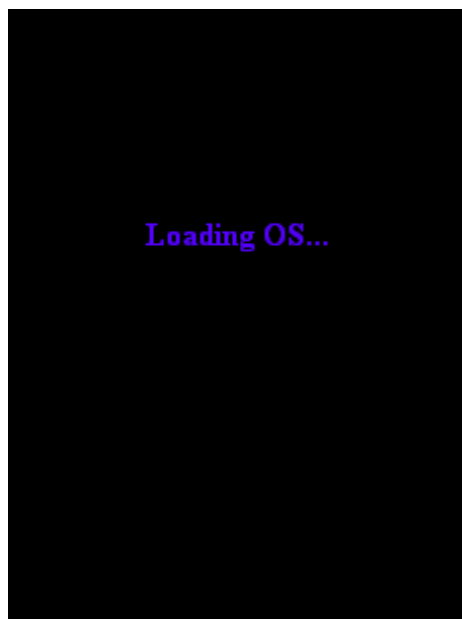


When the PDT is powered on for the first time, it initializes its system. A splash screen appears for a short period of time, followed by the desktop screen.

*Figure 2-13: Power-on splash screen*

### 2.3.2. Power On/Power Off

a) **Turning the PDT On**

Press the **Power** key  briefly. If the PDT does not power on, perform a cold reset. See section 2.6 *Resetting the PDT.*

As the PDT initializes its file system, its splash screen displays for about 30 seconds. Every time you perform a cold reset, this screen 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.

b) **Calibrating the Touch Screen**

If the touch screen functions poorly, or its operation does not match what it should be, please recalibrate the screen by using the stylus to tap **Start > Settings > Control Panel > Stylus** and open the **Calibration** tab to recalibrate.
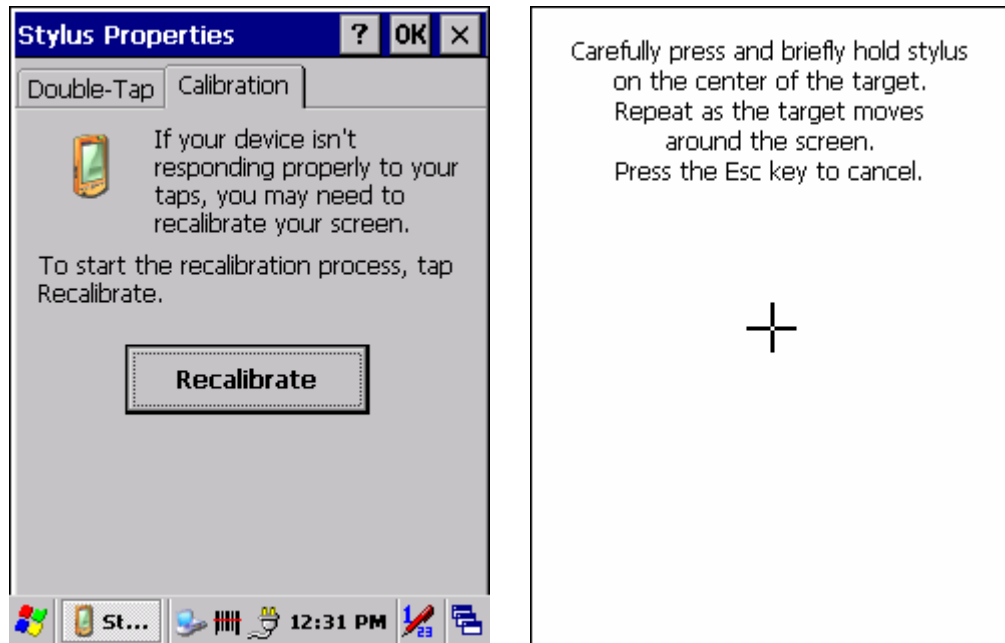


*Figure 2-14: Calibration*

### 2.3.3. Sound

a) **Muting Sound on the PHL 8100**

To mute the sound, press the **Function** [Fn] key first, and then press the **Caps** [Caps] key to turn the sound off and on.

b) **Adjusting Sound on the PHL 8200**

The factory default for the sound is in middle level. You can adjust the sound to meet your environment and comfort.

1) Decrease volume: Press the **Function** [Fn] key and then press the **Escape** [Esc] key.

2) Increase volume: Press the **Function** [Fn] key and then press the **Tab** [Tab] key.

### 2.3.4. Using the Stylus

The stylus is located next to the hand strap on the left rear of the PDT. The stylus functions the same as the mouse on a PC. Use the stylus to:

1) Navigate the display, select menu items, and open optional applications.

2) Tap the characters on the soft keyboard panel.

3) Hold the stylus on the screen and drag it across the screen to select multiple items.

CAUTION: Never use a pen, pencil, or other sharp object on the display; such items can damage the touch screen.

### 2.3.5. Using the PHL 8100 Keypad



*Figure 2-15: PHL 8100 keypad*

*Table 2-9. The PHL 8100 keypad*

| Key | Main Function | Fn + Main Function | Alpha + Main Function |
|---|---|---|---|
| | Scan button | | |
| | Power On/Off | | |
| F1 | Internet Explorer | | |
| F2 | Microsoft WordPad | | |
| F3 | Control center | | |
| F4 | File Explorer | | |
| | Up | Left | |
| | Down | Right | |
| Tab | TAB (Tabulation) | ESC | |
| Caps | Caps | Audio mute | |

| Key | Main Function | Fn + Main Function | Alpha + Main Function |
|---|---|---|---|
| Fn | Function change | | |
| Alpha | Change to letters | | |
| BS | Backspace | | |
| 1 :\ | 1 | @ (at) | : ＼ |
| 2 ABC | 2 | ' (Quotation Marks) | A B C |
| 3 DEF | 3 | ＋ (Plus Sign) | D E F |
| 4 GHI | 4 | Paste | G H I |
| 5 JKL | 5 | Del (Delete) | J K L |
| 6 MNO | 6 | － (Minus Sign) | M N O |
| 7 PQRS | 7 | Copy | P Q R S |
| 8 TUV | 8 | ＆ (AND) | T U V |
| 9 WXYZ | 9 | X (Multiplication) | W X Y Z |
| 0 〔 〕 | 0 | Space | 〔 〕 |
| ＊ | ＊ (Asterisk) | Start Menu | . (Point) , ; |
| # | # | ／ (Division) | ＝ % |
| Enter | Enter | | |
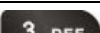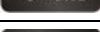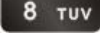
*Table 2-10. Special Assembler Key*

| Assembler Key | Function | Definition |
|---|---|---|
| | Warm reset | Press the **Reset** button on the back of the device. (Refer to Figure 2-5 for the location of the Reset button.) |
| | Cold reset | Press the **Power** and **Reset** buttons simultaneously |

31

### 2.3.6. Using the PHL 8200 Keypad



**Figure 2-16: PHL 8200 keypad**

*Table 2-11. Keypad List*

| Key | Main Function | Fn + Main Function |
|---|---|---|
|  | Scan button | |
|  | Power On/Off | |
|  | Internet Explorer | F5 - Barcode Settings |
|  | Microsoft WordPad | F6 - Media Player |
|  | Inbox | F7 - Backup Restore |
|  | File Explorer | F8 - Inbox |
|  | Up | Left |
|  | Down | Right |
|  | Esc | |
|  | Tab | |
|  | Backspace | Del |
|  | Caps | Start Menu |
|  | Enter | |
|  | Function change | |
|  | Space | |
|  | A | ~ |
|  | B | $ |
|  | C | + |

32

| Key | Main Function | Fn + Main Function |
|---|---|---|
| D | D | 1 |
| E | E | 2 |
| F | F | 3 |
| G | G | ! |
| H | H | % |
| I | I | － (Minus Sign) |
| J | J | 4 |
| K | K | 5 |
| L | L | 6 |
| M | M | Copy |
| N | N | @ |
| O | O | \ |
| P | P | ＊ |
| Q | Q | 7 |
| R | R | 8 |
| S | S | 9 |
| T | T | Paste |
| U | U | # |
| V | V | & |
| W | W | / |
| X | X | . (Point) |
| Y | Y | 0 |
| Z | Z | = |

*Table 2-12. Special Assembler Key*

| Assembler Key | Function | Definition |
|---|---|---|
| | Warm reset | Press the **Reset** button on the back of the device. (Refer to Figure 2-6 for the location of the Reset button.) |
| | Cold reset | Press the **Power** and **Reset** buttons |

| Assembler Key | Function | Definition |
|---|---|---|
| | | simultaneously |

### 2.3.7. Using the Earpiece Microphone

Connect the earpiece microphone to the PDT earphone jack connector. The PDT does not have a built-in microphone; to make recordings, you must use the included earpiece microphone.



*Figure 2-17: Earpiece microphone*

## 2.4. Navigating the Display

### 2.4.1. Setting Time and Date

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

1. Select **Start > Settings > Control Panel > Date/Time**
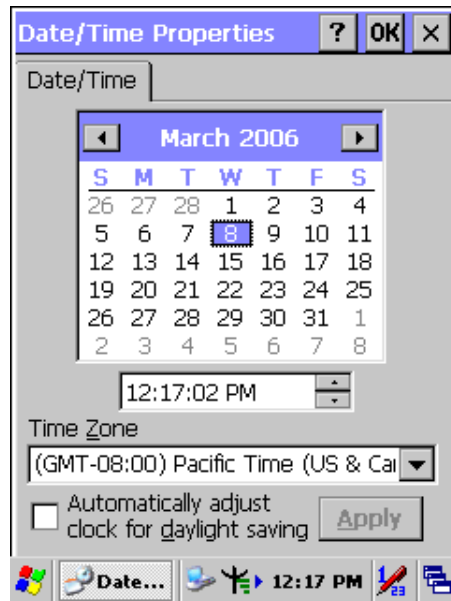


*Figure 2-18: Date/Time properties*

2. To change the year, select the year. Tap the up arrow to increase the value; tap the down arrow to decrease the value. You can also type a new value in the field.

3. Select the month to open a pull-down list of months or tap the arrow buttons to either side of the month to increase or decrease the month.

4. To change the time, select the hour, minute, seconds, or AM/PM and tap the up arrow to increase the value; tap the down arrow to decrease the value. You can also type a new value in the field.

5. Select your correct time zone from the pull-down list.

6. To automatically adjust the clock for Daylight Saving Time, select the checkbox at the bottom of the screen.

7. Tap **Apply** to save your changes (and make additional modifications) or tap **OK** to exit the **Date/Time** settings.

### 2.4.2. Entering Data

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

There are several ways to enter data on the PDT within an application:

- Use the keypad to enter alpha-numeric characters. Refer to *2.3.5 Using the PHL 8100 Keypad* or *2.3.6 Using the PHL 8200 Keypad*.

- Use the stylus on the touch screen.

- 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.

- Use the soft input panel (digital keyboard) with the stylus. Refer to *2.4.5 The Soft Keypad* for more information.

- Use barcode scanning to enter data. Press the trigger or the **Barcode Scan** key to initiate a scan. The scanned data will enter the current application's open file. Refer to *2.4.7 Reading Barcodes* for more information on using a scanner.

For more information on factory installed applications, refer to *Chapter 4, Software Programs*.

### 2.4.3. The Command Bar

Use the **Command** bar at top of the screen to perform tasks in programs, such as opening a file, or editing a file. Refer to *Figure 2-19: The Command bar and Task bar* to view the **Command** bar.

### 2.4.4. The Task Bar

The **Task** bar at the bottom of the screen displays icons for the active program, the current time, and system icons for utilities loaded in memory. The **Task** bar includes menu names, buttons, and the keyboard icon, which opens and closes the soft input panel (SIP). The **Task** bar allows you to select and close programs. Refer to *Figure 2-19: The Command bar and Task bar* to view the **Task** bar.
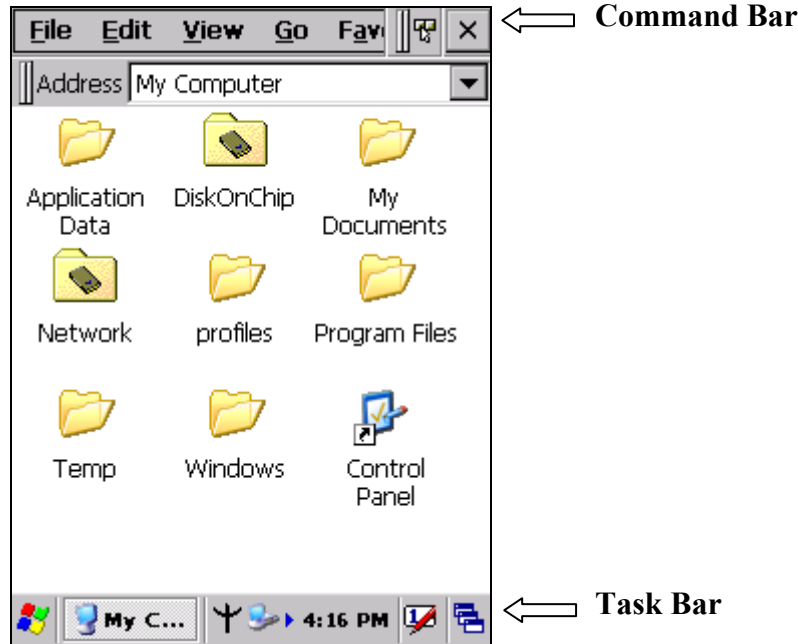


*Figure 2-19: The Command bar and Task bar*

### 2.4.5. 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.

### 2.4.6. Setting Up Wireless LAN RF

The Summit Client Utility (SCU) is an application designed for end users and administrators of mobile devices that use a Summit radio module. Using SCU, an end user can:

- Disable the radio (turn it off) and enable the radio (turn it on)

- View the contents of configuration profiles, or profiles, each of which houses the RF, security, and other settings for the radio

- Select the profile to be used to connect to a WLAN

- View global settings, which apply to every profile

- View status information on the radio, the access point (AP) or WLAN router to which it is connected, and the RF connection or link between the two

- To troubleshoot a connection or performance issue, view in-depth diagnostic information on the connection and the radio, and perform various troubleshooting and diagnostic tests

After logging on to the utility as an administrator, a user can perform these additional tasks:

- Create, rename, edit, and delete profiles

- Alter global settings, which apply to every profile

SCU provides a graphical user interface (GUI) for access to all of its functions. Access to these functions also is available through an application programming interface (API), which an application programmer can use to enable another utility to manage the radio.

To initialize SCU:

- From the **Start** menu, select **Programs**.

- Select the directory called **Summit**.

- Inside the **Summit** directory are two items: a directory for the storage of security certificates and an **SCU** icon. To run **SCU**, double-click the **SCU** icon.

**SCU** has five tabs: Main, Profile, Status, Diags, and Global. Each tab is described in more detail in this section.

**Main Tab**
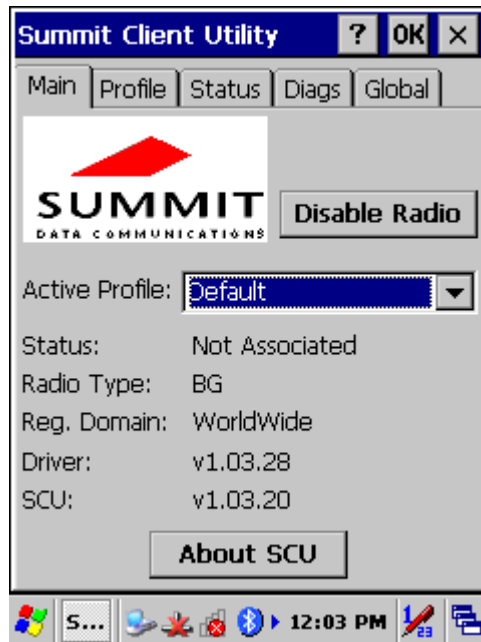


*Figure 2-20: Main tab*

- **Enable/Disable Radio**: When the radio is enabled, selecting this button disables it; when the radio is disabled, selecting this button enables it.

- **Active Profile**: You can view the name of the active profile and, using the selection list, select a different profile. If you select **ThirdPartyConfig** then, after the device goes through a power cycle, WZC is used for configuration of the radio.

- **Status**: Indicates the radio's status.

- **Radio Type**: Indicates the type of radio in the device. "BG" means a Summit radio that supports 802.11b and 802.11g.

- **Regulatory Domain**: Indicates the regulatory domain or domains for which the radio is configured. "Worldwide" means that the radio can be used in any domain. The domain cannot be configured by an administrator or user.

- **Driver**: Indicates the version of the device driver that is running on the device.

- **SCU**: Indicates the version of SCU that is running on the device.

- **About SCU**: When tapped, supplies information on SCU that on a Windows application normally would appear under **Help > About**.

**Profile Tab**

Profile settings are radio and security settings that are stored in the registry as part of a configuration profile. When a profile is selected as the active profile on the Main tab, the settings for that profile become active. An administrator can define up to 20 profiles, edit them, and delete them on the Profile tab in SCU. **Profile changes made on the tab are saved to the profile only when the Commit button is pressed.**

Unless it is modified, the Default profile does not specify an SSID, EAP type, or method of encryption. If the Default profile is the active profile, then the radio will associate only to an access point that broadcasts its SSID and requires no EAP type and no encryption.
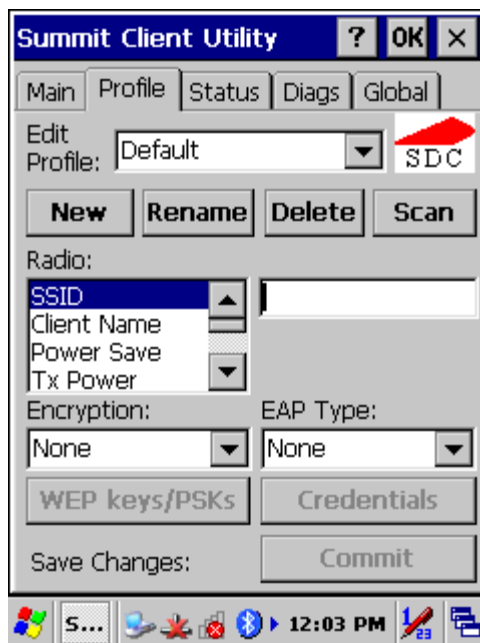


*Figure 2-21: Profile tab*

- **Edit Profile**: This is used to select the profile to be viewed or, if you are an administrator, edited.

- **Actions**: Four actions are available, with the first three available only to an administrator:

- - **New**: Create a new profile with default settings and give it a unique name (and then change settings using other selections on the tab).

- - **Rename**: Give the profile a new name, one that is not assigned to another profile.

- - **Delete**: Delete the profile, provided that it is not the active profile.

- - **Scan**: Open a window that lists access points that are broadcasting their SSIDs. Each time you tap the Refresh button, you view an uPDTted list of APs, with each row showing an AP's SSID, its received signal strength indication (RSSI), and whether or not data encryption is in use (true or

40

false). You can sort the list by clicking on the column headers. If you are authorized as an administrator, select an SSID in the list, and tap **Commit**, you return to the Profile tab to create a profile for that SSID.

- **Radio**: Radio attributes in the list box can be selected individually. When an attribute is selected, the current setting or an appropriate selection box with the current setting highlighted appears on the right.

- **Security**: Values for the two primary security attributes, EAP type and encryption type, are displayed in separate dropdown lists, with the current values highlighted. When you as an administrator select an EAP type, the **Credentials** button appears; when you tap it, a dialog box appears that enables you to define authentication credentials for that EAP type. When you as an administrator select an encryption type that requires the definition of WEP keys or a pre-shared key, the **PSKs/WEP Keys** button appears; when you tap it, a dialog box appears that enables you to define WEP keys or a PSK.

- **Commit**: To ensure that changes to profile settings made on the tab are saved in the profile, you must tap the **Commit** button.

To cause a Summit radio to connect to a typical business WLAN, you must select a profile that specifies the SSID, EAP type, and encryption type supported by the WLAN:

- **SSID**: This is the name or identification of the WLAN.

- **EAP type**: This is the protocol used to authenticate the device and its user if the WLAN uses the Enterprise version of Wi-Fi Protected Access (WPA) and WPA2. SCU supports five EAP types: PEAP with EAP-MSCHAP (PEAP-MSCHAP), PEAP with EAP-GTC (PEAP-GTC), EAP-TLS, LEAP, and EAP-FAST.

- **Encryption**: This specifies the type of key used to encrypt and decrypt transmitted data and how that key is specified or derived. Encryption options include:

    - WPA2 or WPA with dynamic keys (derived from the EAP authentication process)

    - WPA2 or WPA with pre-shared keys

    - Static WEP keys

Consult the Summit Client Utility User's Guide for details on all profile settings, including security settings.

**Status Tab**

The Status tab provides status information on the radio.

- **Active profile**

- **Radio's status**: Down (not recognized), Disabled, Not Associated, Associated, or [EAP type] Authenticated

- **Client info**: Name, IP address, and MAC address

- **AP info**: Name, IP address, MAC address, beacon period, and DTIM interval

- **Connection info**: Channel, data rate, transmit power, signal strength, and signal quality
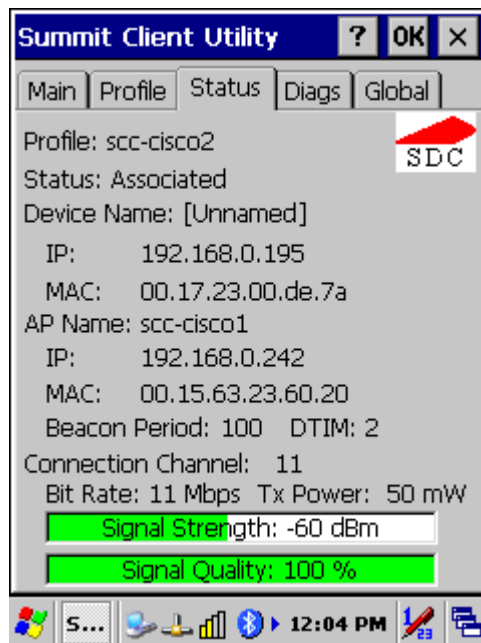


*Figure 2-22: Status tab*

**Diags Tab**
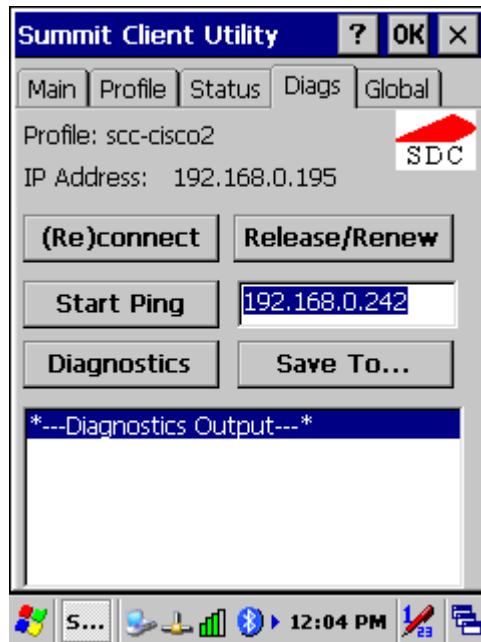


*Figure 2-23: Diags tab*

- **(Re)connect**: Disable and enable the radio, apply or reapply the current profile, and attempt to associate and authenticate to the wireless LAN, logging all activity in the output area at the bottom.

- **Release/Renew**: Obtain a new IP address through DHCP release/renew, and log all activity in the output area at the bottom.

- **Start Ping**: Start a continuous ping to the address in the edit box next to it. Once the button is clicked, its name and function will change to Stop Ping. Moving to an **SCU** window other than Status or Diags also will stop the ping. Pings will continue until you tap the **Stop Ping** button, move to an **SCU** window other than Diags or Status, exit **SCU**, or remove the radio.

- **Diagnostics**: Attempt to (re)connect to an AP, and provide a more thorough dump of data than is obtained with (Re)connect. The dump will include radio state, profile settings, global settings, and a BSSID list of APs in the area.

- **Save To...**: Save the diagnostics output to a file.

**Global Tab**
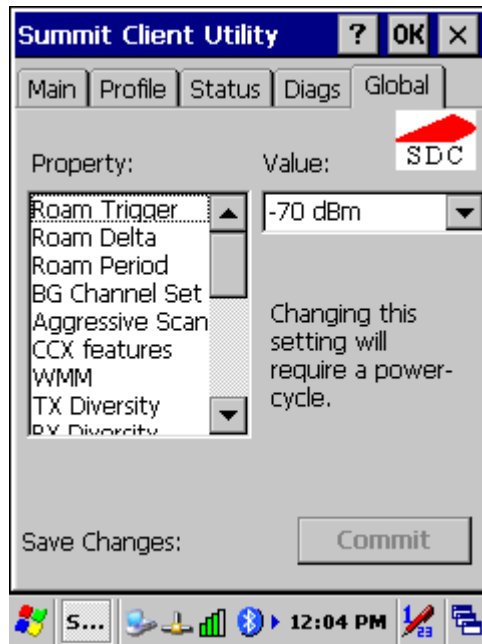


*Figure 2-24: Global tab*

Global settings include:

- Radio and security settings that apply to all profiles

- Settings that apply to **SCU** itself

An administrator can define and change most global settings on the Global Settings Tab in SCU.

The default setting for each global setting ensures reliable operation in most environments. Consult the user's guide for details on all global settings.

### 2.4.7. Reading Barcodes

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 1D laser barcode reader.

2. Run the **WordPad** software program.

3. Press one of the three barcode reader trigger buttons.

4. Aim the scanning beam at the center of the barcode.

*Figure 2-25: Aiming the scanning beam*

- Good scanning position. The reading range is from 50 to 650mm distance.
    - ✦ Decrease the scanning distance to the barcode when scanning small barcodes.
    - ✦ Increase the scanning distance from the barcode when scanning large barcodes.
    - ✦ The scanning area is visible by a red laser beam.
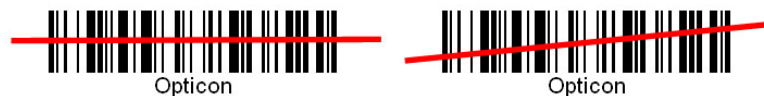
*Figure 2-26: Good scanning position*

- Bad scanning position.
    - ✦ Make sure that the laser beam sweeps across whole barcode.
    - ✦ Scanning operations may fail if the laser beam is positioned as below.

*Figure 2-27: Bad scanning position*

5. Upon reading a barcode, the red LED indicator turns on until the trigger is released, or after five seconds. The green LED and the beep tone indicates a good read.

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

### 2.4.8. Help

Tapping the question mark (**?**) will retrieve help information for each program.

## 2.5.  Power Management

### 2.5.1.  Suspend Mode

The PDT will go into a suspended mode when it is idle for a period of time. The idle duration can be customized using the **Power** control panel (refer to *Figure 2-28: Schemes tab*).

Suspend mode works and looks just like you have turned the unit off. Press the **Power** key ⏻ to suspend the PDT; press the **Power** 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 system using battery power. This will save battery power when PDT is not in use.
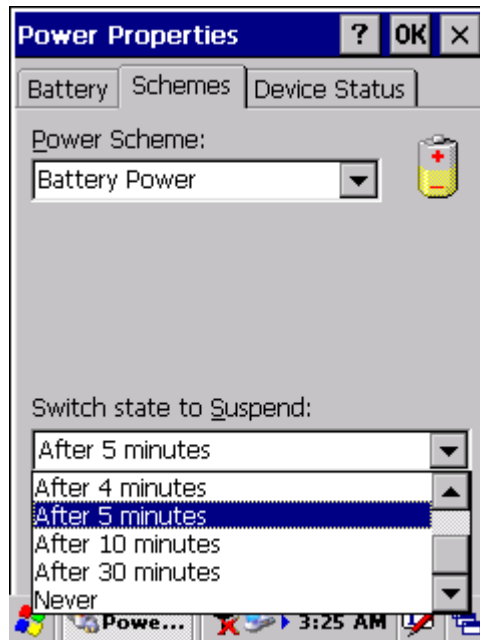


*Figure 2-28: Schemes tab*

**Suspending:**

The following conditions will suspend:

- Press the **<Power>** key while the unit is on.

- The duration timer of item **Switch state to Suspend** expires, which indicates that there has been no use for a specified of time.

- The battery pack is completely discharged.

### 2.5.2. 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 discharged battery condition is corrected.

## 2.6. Resetting the PDT

### 2.6.1. Soft (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 for a Warm Reset**: If an application "hangs," initiate a warm reset to terminate the application only.

**Process for a Warm Reset**: Press the **Reset** button on the back of the PDT.

**After a Warm Reset**:

- The desktop appears with the application shortcuts on the screen.

- The custom settings in the registry are persistent.

### 2.6.2. Hard (Cold) Reset

1. You can use a Cold Reset to initiate the device if WINCE.NET OS locks up or Warm Reset does not work

2. To perform a Cold Reset, press the **Power** button on the front and the **Reset** button on the back simultaneously.

3. The device will reboot after a Cold Reset.

> **CAUTION:** It is best to use only the warm reset. Try a warm reset before you initiate a cold reset. All applications will be closed and working RAM and all files will be cleared if you initiate a cold reset. Before a cold reset, back up your files to Flash ROM, Flash Card, or PC.

# 3. Settings

## 3.1. Introduction

To view 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

View the **Control Panel** and the settings you can modify by tapping **Start > Settings > Control Panel.**
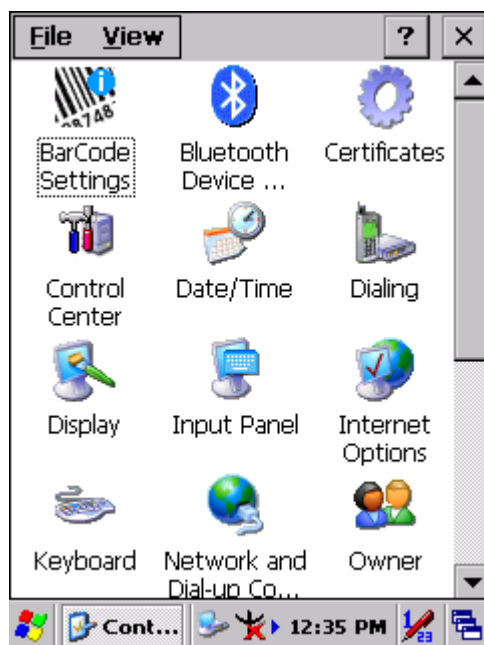


*Figure 3-29: Control Panel*

*Table 3-13. Bluetooth Device Properties*

| Icon | Item & Function |
|------|-----------------|
| | **BT Service** Tab (See *Error! Reference source not found.*):<br>• Select **Enable Bluetooth Device** to enable the Bluetooth device.<br>• Wait for 20 seconds to initialize the Bluetooth hardware correctly.<br>• Tap **Scan Device Service** to open the **Bluetooth Manager** window. Then tap the **Scan Device** button to initiate a scan for Bluetooth hardware. The Bluetooth manager lists the Bluetooth devices that it finds (see *Figure 3-33: Bluetooth Manager scan inquiry*). If Bluetooth hardware is not found, the **Bluetooth Hardware Error** window appears (see *Figure 3-34: Bluetooth hardware error*). *Table 3-14. Bluetooth Icons* describes the Bluetooth icons.<br>• Double tap the device on the device list to connect to it. The Bluetooth Manager Authentication window appears. Tap **No** to connect to the device without authentication, or tap **Yes** to authenticate the device before connecting. (See *Figure 3-35: Bluetooth authentication error*.)<br>• If the **Yes** button was selected in the **Bluetooth Manager Authentication** window, the **Enter PIN** window appears. Enter a PIN (between 1 and 16 characters) in the **Enter PIN** text box, and tap **OK**. The mobile computer sends the PIN request to the device for bonding. (See *Figure 3-36: Bluetooth Enter PIN*.)<br>• 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 on the device list.<br>**Serial Port** Tab:<br>• Tap **Enable Bluetooth Device** to enable the Bluetooth device.<br>• Wait for 20 seconds to initialize the Bluetooth hardware correctly.<br>• If want to use Virtual com, only SPP base profiles are supported.(i.e., Printer, Modem, and LAP). Switch to the **Serial Port** tab, and you will see the devices that are trusted or active. Select the device to which you want to map a virtual COM port and select the virtual COM port you want to use.<br>• Now that COM port is mapped for the BT device. |
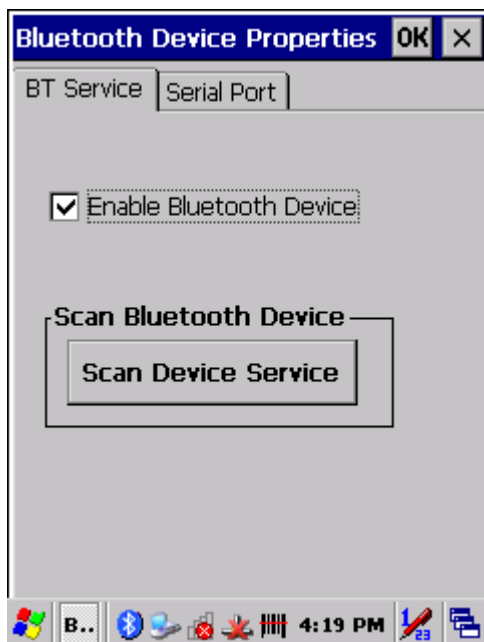
*Figure 3-30: Enable Bluetooth Device*
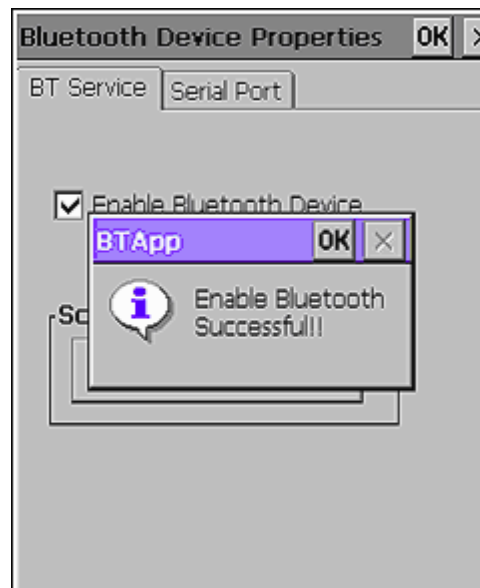


*Figure 3-31: Enable Bluetooth Successful*



*Figure 3-32: Bluetooth Manager Scan Device*



*Figure 3-33: Bluetooth Manager scan inquiry*

51
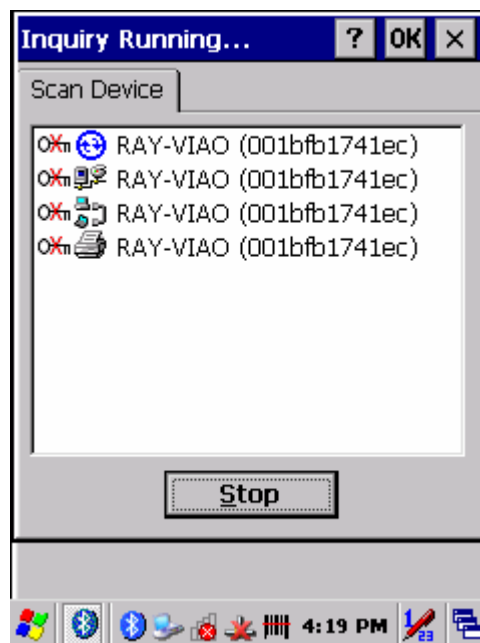
**Figure 3-34: Bluetooth hardware error**



**Figure 3-35: Bluetooth authentication error**
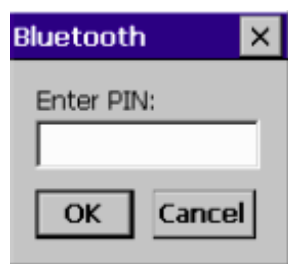


**Figure 3-36: Bluetooth Enter PIN**
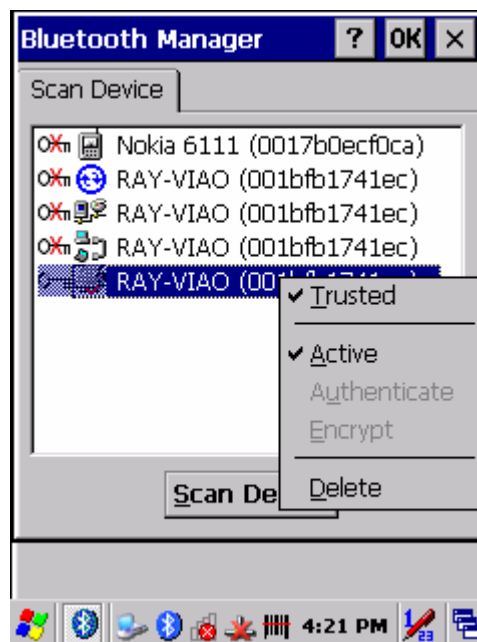


**Figure 3-37: Bluetooth Scan Device Trusted/Active**
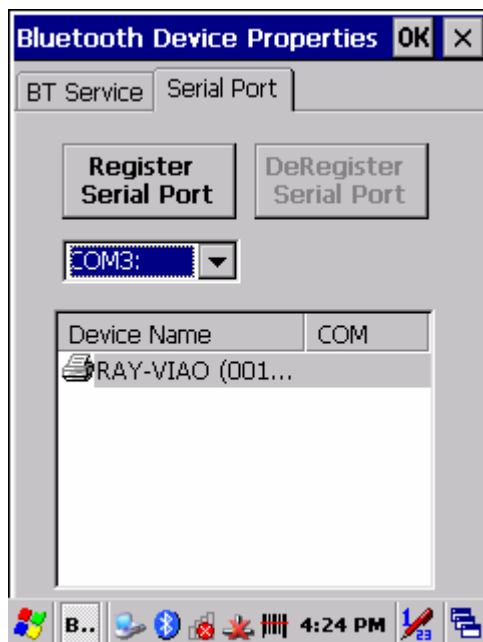
*Figure 3-38: Bluetooth Manager COM port inquiry*
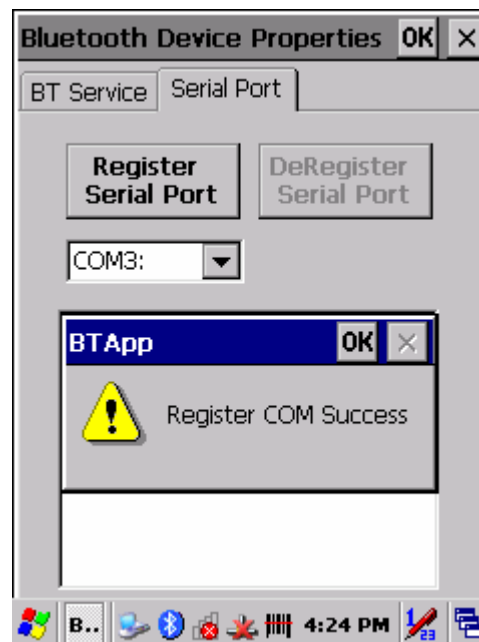


*Figure 3-39: Bluetooth Manager COM port success*

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

*Table 3-14. Bluetooth Icons*

| Icon | Meaning | Description |
|------|---------|-------------|
|  | Unknown device icon | Device is not defined |
|  | Locked icon | Device is locked and can be paired 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. |

### 3.2.1.  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.

*Table 3-15. Certificates*

| Icon | Item & Function |
|---|---|
| Certificates | **Store** Tab (See *Figure 3-40: Certificates: Stores tab*):<br>• In the **Stores** tab, select the certificate store you wish to view or modify from the drop-down list.<br>• The **Trusted Authorities** store lists the top-level certificates for authorities you trust. (See *Figure 3-41: Certificates: Trusted Authorities*.)<br>• The **My Certificates** store contains your personal certificates, which you use to identify yourself. (See *Figure 3-42: Certificates: your Trusted Authorities*<br>• Intermediate certificate authorities that help establish a chain of trust are stored in the **Other Authorities** store. |
| | **Store** Tab:<br>• To add a certificate or associated private key to the selected store, select **Import** (See *Figure 3-43: Certificates: Import*.)<br>• To view more details of the selected certificate, such as the expanded name or expiration date, choose **View**.<br>• To delete the selected certificate from the store, choose **Remove**. |
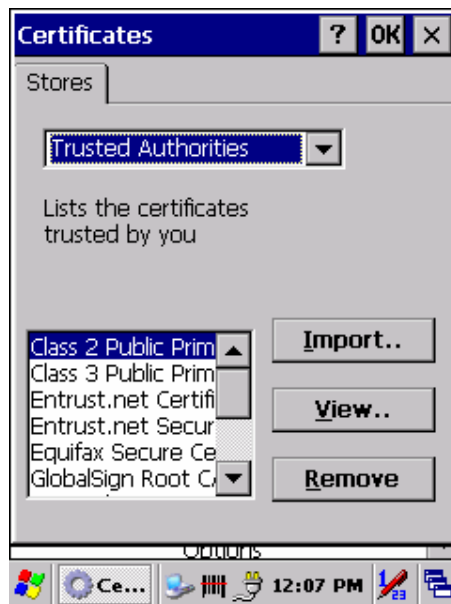


**Figure 3-40: Certificates: Stores tab**
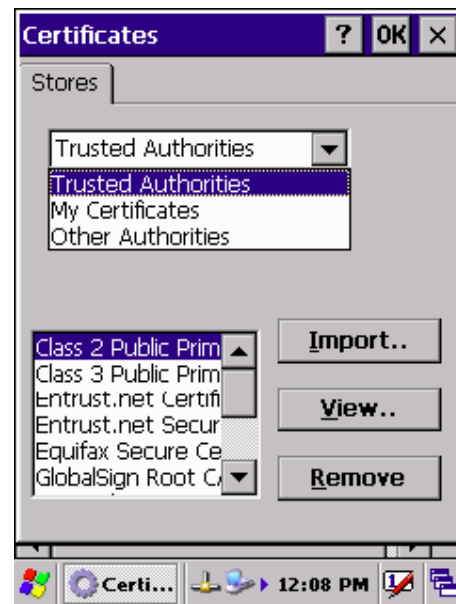
**Figure 3-41: Certificates: Trusted Authorities**

*Figure 3-42: Certificates: your Trusted Authorities*
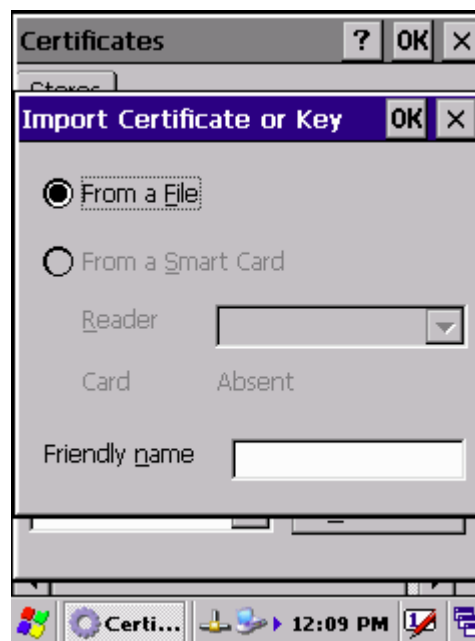


*Figure 3-43: Certificates: Import*



*Figure 3-44: Certificate Details*

### 3.2.2. Control Center

The **Control Center** includes four applications: **Information**, **Brightness**, **Function Key Settings**, and **Backup & Restore**.
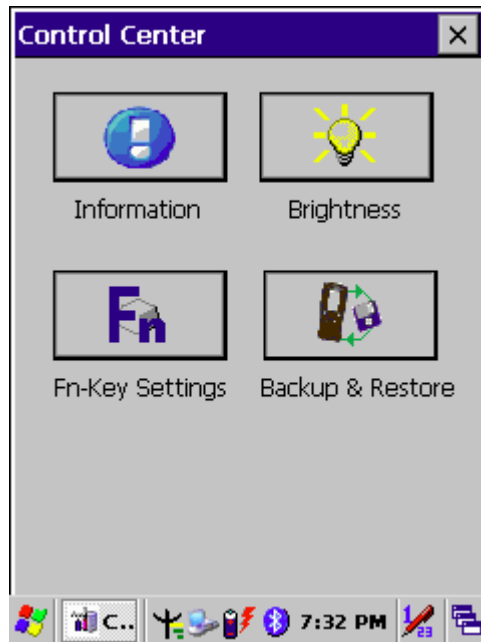


*Figure 3-45: Control Center*

*Table 3-16. Control Center Icons*

| Icon | Item & Function |
|------|-----------------|
| | **Information** Tab:<br>• Provides the software version, MAC address, Bluetooth ID, serial number and configuration number. |
| | **LCD Brightness**<br>• LCD Brightness: Allows you to adjust the brightness of the LCD backlight. There are 5 levels. Set the LCD brightness by adjusting the slider from low to high.<br>• Battery power, and device is idle for more than the specified number of seconds. Options are 15 seconds, 30 seconds, 1 minute, 2 minutes, and 5 minutes. The default is 2 minutes.<br>• External power, and device is idle for more than the specified number of seconds. Options are 15 seconds, 30 seconds, 1 minute, 2 minutes, and 5 minutes. The default is 2 minutes.<br>• Enable keypad brightness: When selected, this enables keypad brightness. |
| | **Fn-Key Settings**<br>    Fn Key  The Default Application Program<br>    F1      Internet Explorer<br>    F2      Microsoft WordPad<br>    F3      Control Center<br>    F4      My Computer<br>    F5      Barcode Settings    (Only for PHL 8200)<br>    F6      Media Player    (Only for PHL 8200)<br>    F7      Backup Restore    (Only for PHL 8200)<br>    F8      Inbox    (Only for PHL 8200)<br>To assign your favorite application program to Hot Keys:<br>• Choose one of the Hot Keys from the pull-down list. (See *Figure 3-47: Fn key settings: Select a function key*.)<br>• Tap **Browse**… inside the **Assign program** applet.<br>• Select one application program you want from the program list; choose **OK**.) See *Figure 3-48: Fn key settings: Select an application*.)<br>• Tap **Default** to return to the default setting. |
| | |

*Figure 3-46: Brightness*


*Figure 3-47: Fn key settings: Select a function key*
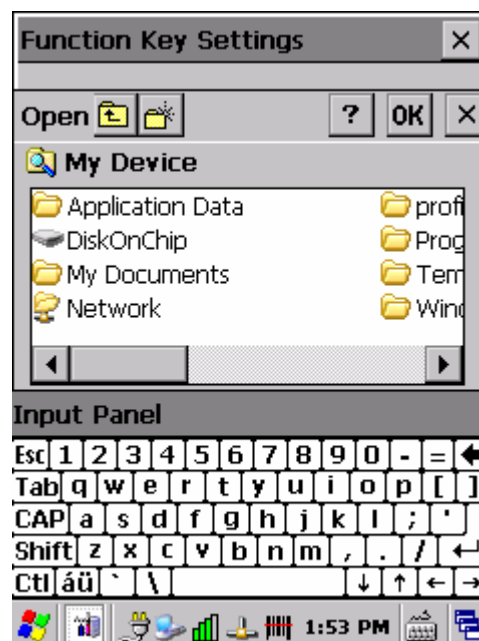

*Figure 3-48: Fn key settings: Select an application*

### a) Backup Restore

*Table 3-17. Backup Restore*

| Icon | Item & Function |
|---|---|
| | **Backup Restore** Tab: |
| | • You can backup and restore the system to/from a flash disk or an inserted memory card (**Disk on Chip (DoC)** or **SD card**). (See *Figure 3-49: Backup/Restore*.) |
| | • When you launch the backup/restore application, it checks the backup file in the **DoC** directory first. If you select an alternate storage location, it will also check that location. |
| | • If the application finds the backup file, the date of that file appears in the **Last backup date** dialog; if not, the **Restore Now** button is disabled. |
| | • When you press the **Backup/Restore** button, a warning dialog box appears. (See *Figure 3-50: Backup & Restore Start*.) |
| | • When system backup/restoring is finished, a message dialog appears. (A. **Backup**: *Figure 3-51: Backup OK*, B. **Restore**: *Figure 3-52: Restore OK*) |
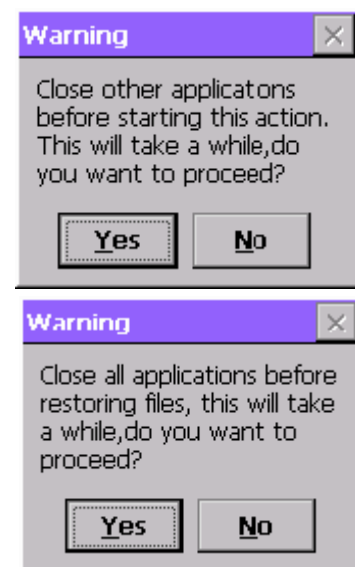


Figure 3-49: Backup/Restore          Figure 3-50: Backup & Restore Start
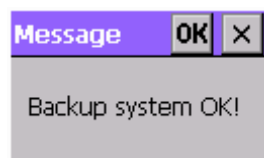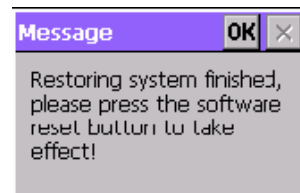
*Figure 3-51: Backup OK*                    *Figure 3-52: Restore OK*

### 3.2.3.  Date/Time

*Table 3-18. Date/Time*

| Icon | Item & Function |
|------|-----------------|
|  | **Date/Time** Tab<br>• Please see the detailed information in section 2.4.1 Setting Time and Date. |

### 3.2.4.  Dialing Properties
The Dialing Properties applies to the PDT model with GPRS functionality.

*Table 3-19. Dialing Properties*

| Icon | Item & Function |
|------|-----------------|
| ![Dialing icon] **Dialing** | **Dialing Properties** Tab<br><br>• In the **When dialing from** list, select the **Location** where you want to change settings.<br><br>• To create a new location, select **New**. Enter the location, and select **OK**.<br><br>• Enter or edit the area code and local country code, as needed.<br><br>• In **Dial using**, select **Tone dialing** or **Pulse dialing**. Most phone lines are tone.<br><br>• To automatically disable call waiting, select **Disable call waiting by dialing**, select the appropriate number sequence in the list, or enter a new sequence.<br><br>**Editing dialing patterns**<br><br>• Using the codes listed in the topic; revise the dialing patterns as needed.<br><br>**NOTES:**<br><br>• If you need to use characters other than the ones listed here, use manual dialing.<br><br>• Hyphens and spaces in dialing strings are ignored.<br><br>• Some external modems may not respond to certain characters, even though your device lets you add them to the dial string. |
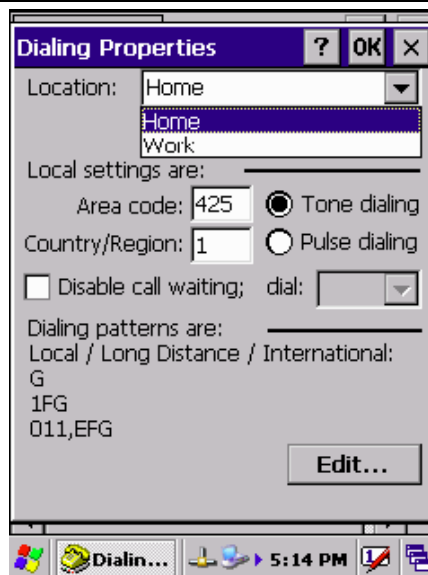


*Figure 3-53: Dialing Properties: location*
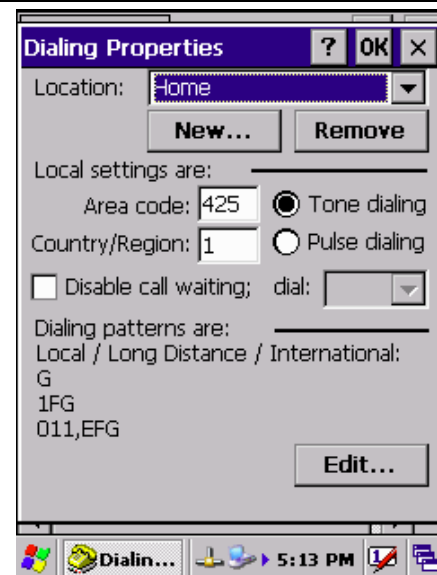
*Figure 3-54: Dialing Properties: new location*
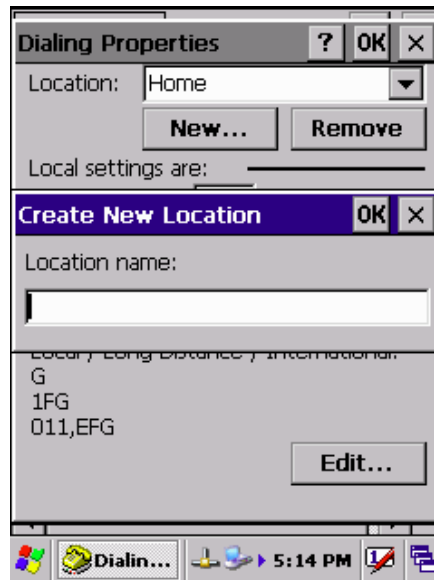
*Figure 3-55: Dialing Properties:
new location*
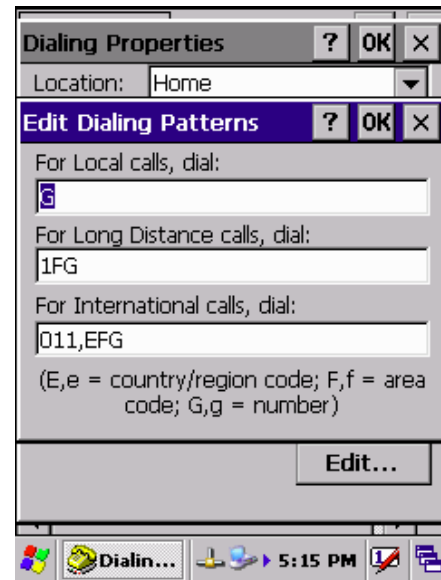


*Figure 3-56: Dialing Properties:
dialing patterns*

### 3.2.5. Display Properties

*Table 3-20. Display Properties*

| Icon | Item & Function |
|---|---|
| Display | **Background** Tab.<br>• From the **Image** list, select an image you want as the background of the desktop.<br>• To locate an image in another folder, select **Browse**.<br>• To have the image cover the entire background, select **Tile image on background**.<br>**Appearance** Tab<br>• Change the color scheme:<br> o From the **Scheme** list, select a scheme.<br> o View your choice in the preview box. If you like the scheme, select **Apply**.<br>• Create a custom color scheme:<br> o From the **Item** list, select a display item.<br> o From the **Basic colors** list, select a color, and **OK**.<br> o View your color selection(s) in the **Preview** box.<br> o To save the scheme, select **Save**.<br> o In the **Save this color scheme as** box, enter a name for the scheme, and select **OK**.<br> o Select **Apply**. |

*Figure 3-57: Display Properties*
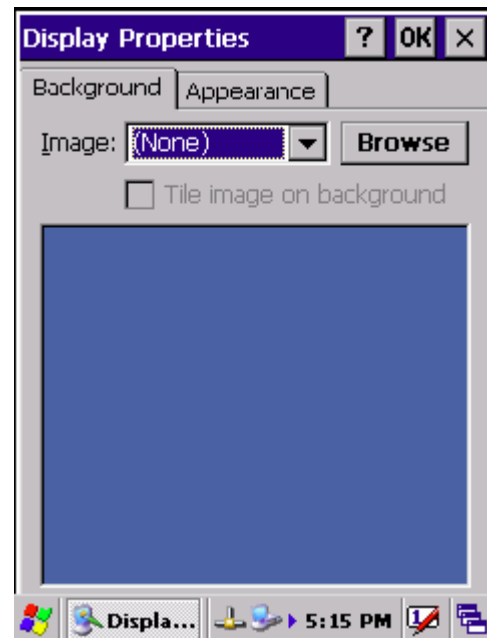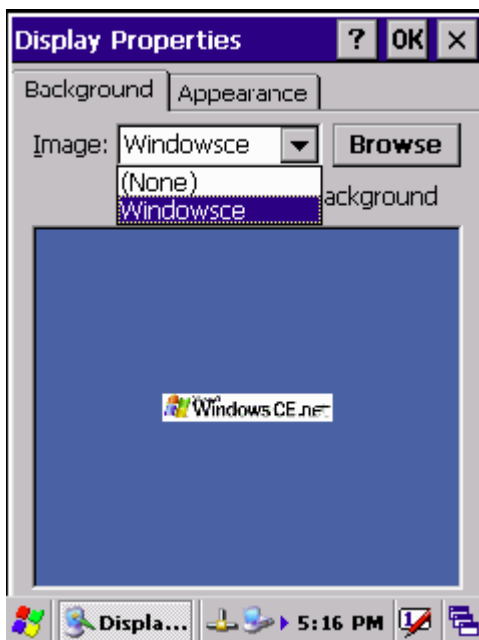
*Figure 3-58: Display Background Image*



*Figure 3-59: Display Properties Browse*
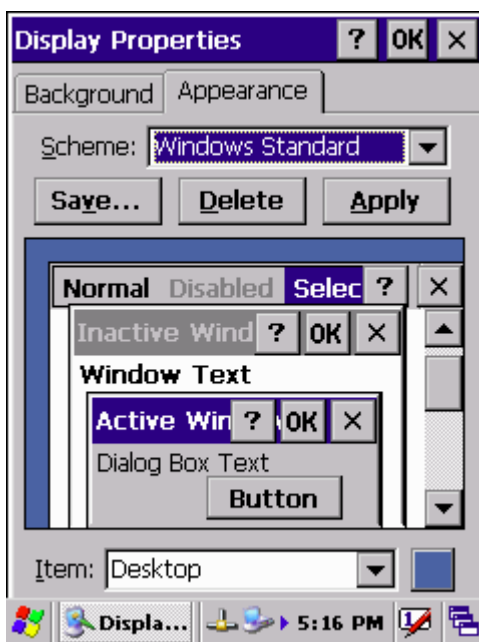


*Figure 3-60: Display Properties Scheme*
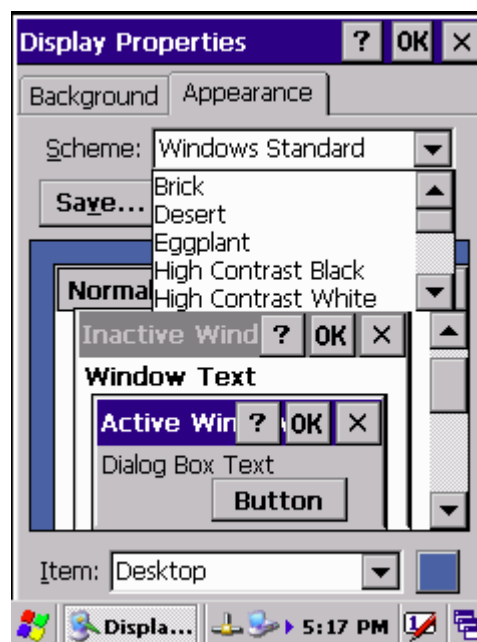


*Figure 3-61: Display Properties Scheme selection*

### 3.2.6. Input Panel

*Table 3-21. Input Panel*

| Icon | Item & Function |
|---|---|
| Input Panel | **Input Panel** Tab<br>• Select the input method you want to change.<br>• To change the **Soft Keyboard Options**, select **Keyboard** and tap **Option**. (See *Figure 3-62: Input Panel Properties.*)<br>**Options** Tab:<br>• Change the soft keyboard options as desired (See *Figure 3-63: Input Panel Soft Keyboard Options*), selecting from:<br>  o Large or small keys<br>  o Using gestures for space, black-space shift, and enter<br>  o To exit the soft keyboard Options, press **OK** on the control bar, or press the **<Enter>** key on the keypad.<br>  o To exit the **Input Panel**, press **OK** on the control bar, or press the **<Enter>** key on the keypad. |
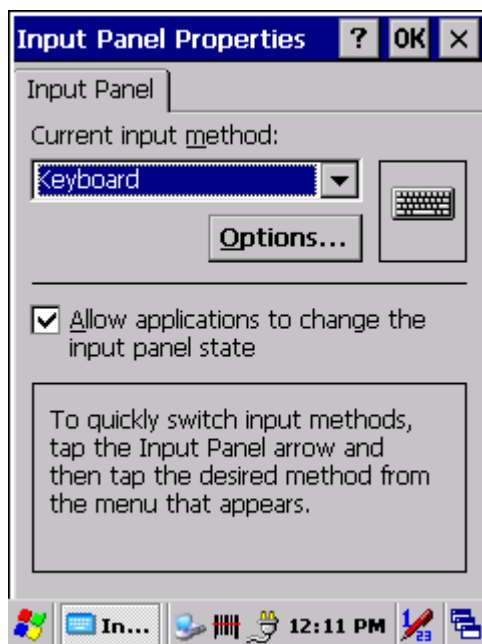
*Figure 3-62: Input Panel Properties*

*Figure 3-63: Input Panel Soft Keyboard Options*

66
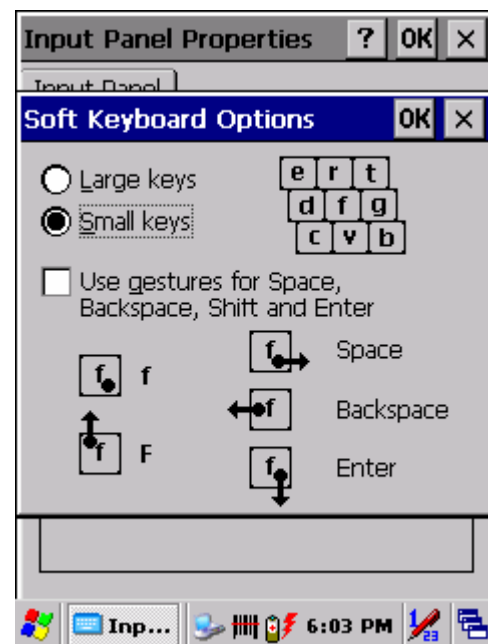
### 3.2.7. Internet Options

*Table 3-22. Internet Options*

| Icon | Item & Function |
|------|-----------------|
| Internet Options | **General** Tab<br>• Type in the URL of the desired start page and the desired search engine. You also change the **Cache Size**, **Clear the Cache** and **Clear the History**.<br>**Connection** Tab<br>• Modify the network access setting as desired.<br>**Security** Tab<br>• Modify the security settings as desired. You can enable any of the following by tapping the checkbox:<br>   o Allow cookies<br>   o Allow TLS 1.0 security<br>   o Allow SSL 2.0 security<br>   o Allow SSL 3.0 security<br>   o Warm when switching across secure and insecure areas.<br>**Advanced** Tab<br>• Modify the security settings as desired. You can enable any of the following by tapping the checkbox:<br>   o Display Image in pages<br>   o Play sounds in pages<br>   o Enable scripting<br>   o Display a notification about every script error<br>   o Underline links-<br>      o Never<br>      o Always<br>      o Hover Large or small keys |

*Figure 3-64: Internet Options: General tab*
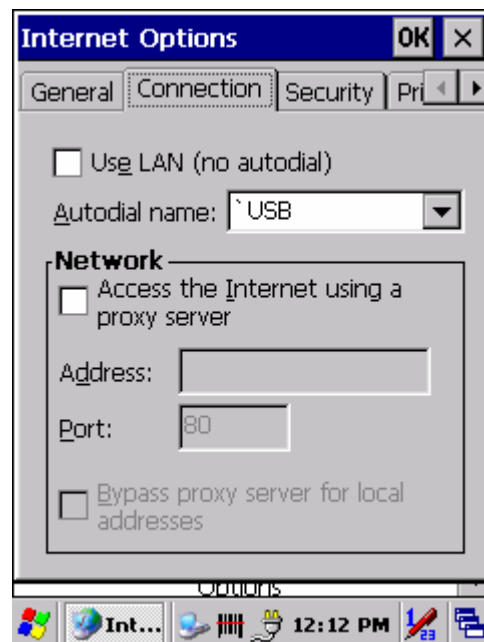


*Figure 3-65: Internet Options: Connection tab*



*Figure 3-66: Internet Options: Security tab*
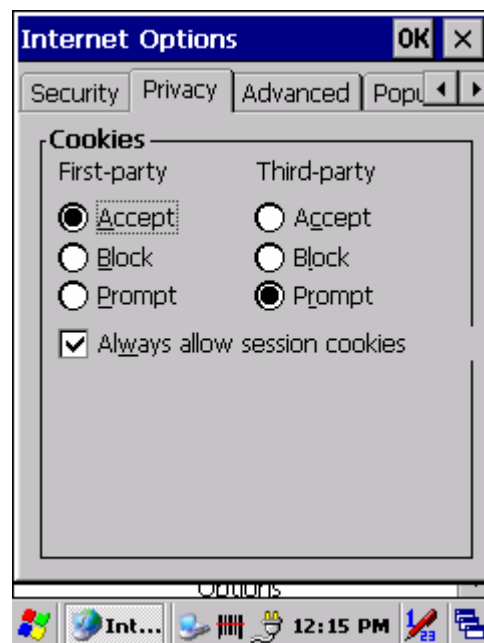


*Figure 3-67: Internet Options: Privacy tab*

### 3.2.8.  3.2.11 Keyboard

*Table 3-23. Keyboard*

| Icon | Item & Function |
|------|-----------------|
| **Keyboard** | **Repeat** Tab<br>• To change the amount of time between depressions before repetition starts, adjust the **Repeat delay** slider<br>• To change the repeat rate, adjust the **Repeat rate** slider.<br>• Test your new setting.<br>• Tap **OK** to exit the **Keyboard** Tab. |
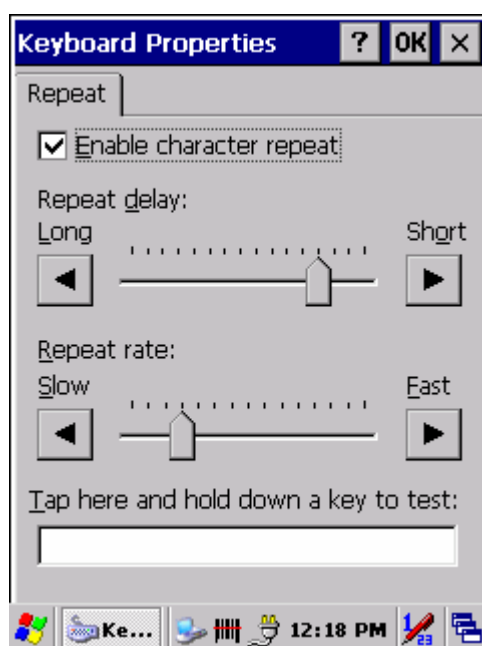


*Figure 3-68: Keyboard Properties*

### 3.2.9. Network and Dial-up Connections

*Table 3-24. Network and Dial-up Connections*

| Icon | Item & Function |
|---|---|
| **Network and Dial-up Co...** | **Connection** Tab<br><br>• To create a **Dial-up Connection**.<br>     o Double-tap the **Make New Connection**.<br>     o In the **Make New Connection** dialog box, enter a name for the connection.<br>     o Select **Dial-Up Connection**.<br>     o Select the **Next** button.<br>     o Select the modem you want use.<br>     o Select **Configure**.<br>     o 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**.<br>     o 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.<br>     o Select the **Next** button and type the telephone number.<br>     o Select the **Finish** button.<br><br>The connection you just created appears as an icon in the **Network and Dial-up Connections** folder.<br><br>• Set up a Point-to-Point Protocol (PPP) account with an ISP and obtain the following information:<br>     o Access telephone number<br>     o User name<br>     o Password<br><br>• 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, |

| Icon | Item & Function |
|------|-----------------|
| | as well as primary and secondary DNS address. <br><br> • **Modify Connection Settings** <br>   o Select **Start > Settings > Network and Dialup Connections** <br>   o Select the icon for connection settings you want to modify. <br>   o Select **File > Properties** or double-tap the appropriate icon. <br>   o Select desired options. There may be additional settings that depend on the connection. To modify, select the icon and select the icon and select **Advanced Settings…** from the menu. |
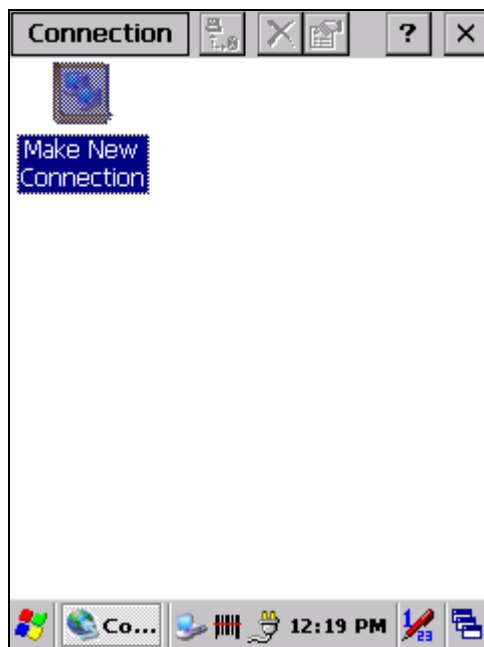
*Figure 3-69: Network & dial-up connections: Connection icon*
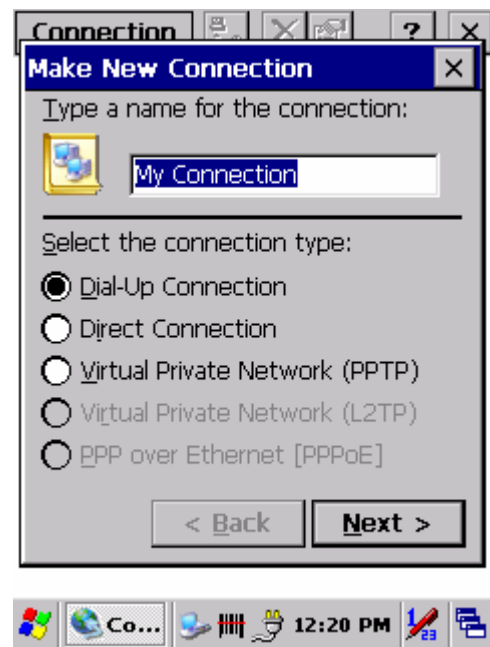
*Figure 3-70: Network & dial-up connections: Name the connection*
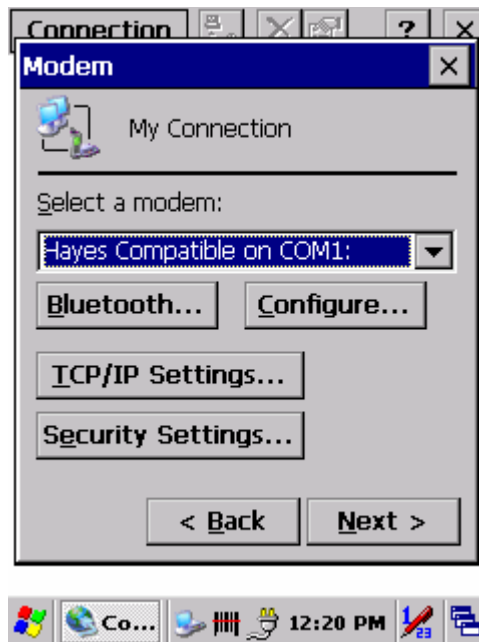
*Figure 3-71: Network & dial-up
connections: Select a modem*
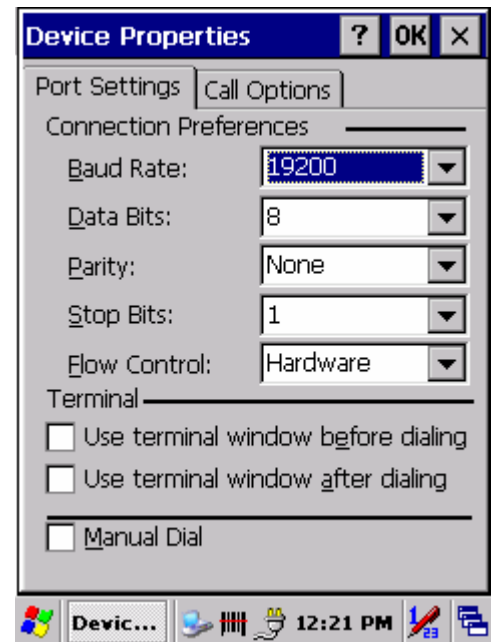


*Figure 3-72: Network & dial-up
connections: Port Settings*
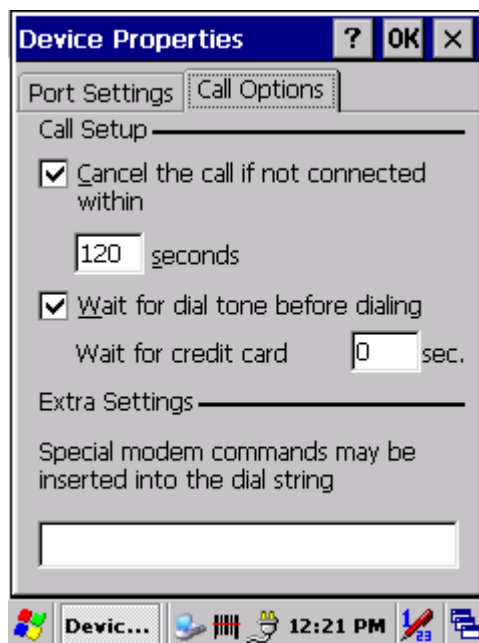


*Figure 3-73: Network & dial-up
connections: Call Options*



*Figure 3-74: Network & dial-up
connections: Phone Number*
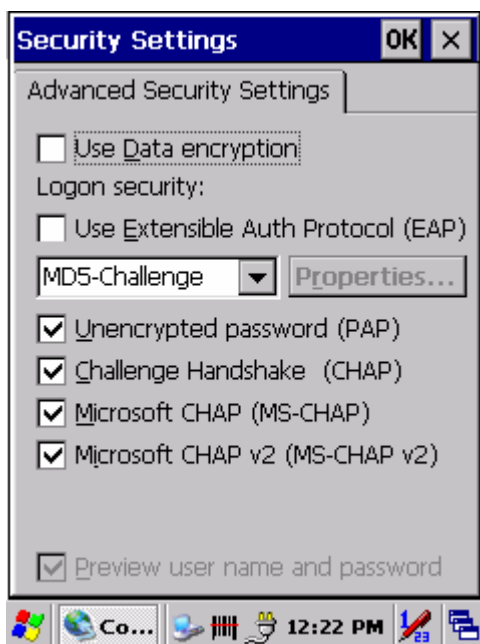
*Figure 3-75: Network & dial-up connections: Advanced Security Settings*
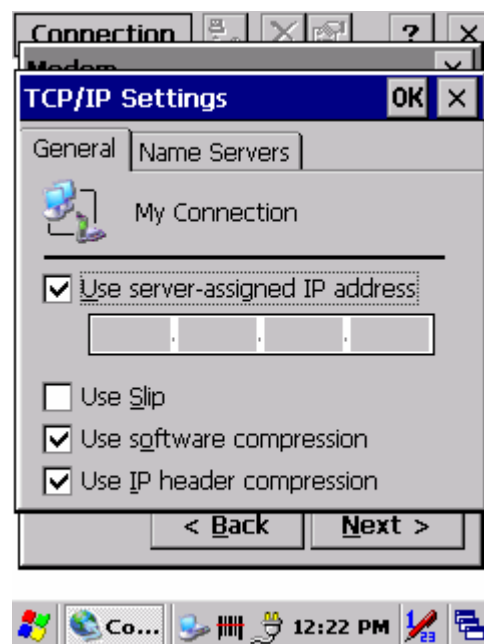


*Figure 3-76: Network & dial-up connections: TCP/IP Settings - General*
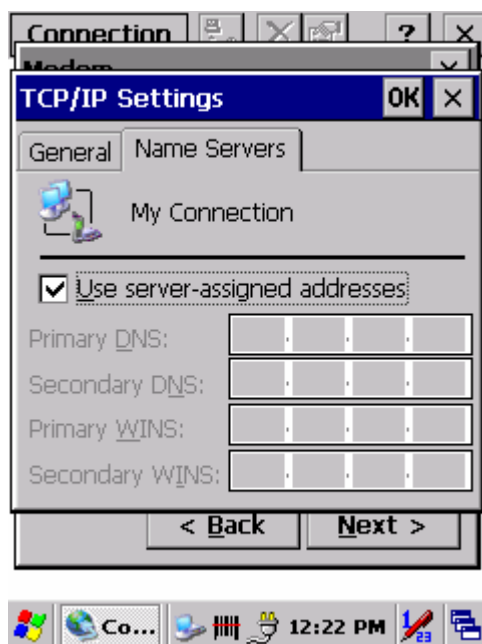


*Figure 3-77: Network & dial-up connections: Name Servers*

### 3.2.10. Owner

*Table 3-25. Owner*

| Icon | Item & Function |
|------|-----------------|
| **Owner** | **Identification** Tab<br>• Fill in or edit the data as desired.<br>• To have this information displayed when you start your device, select **Display owner identification** at power on. (See *Figure 3-78: Owner Properties: Identification*.)<br>• To set up identification for remote networks, see **Network ID** tab. (See *Figure 3-80: Owner Properties: Network ID*.)<br>• Enter the user name, password, and domain name you use to log on to remote network. |



*Figure 3-78: Owner Properties: Identification*
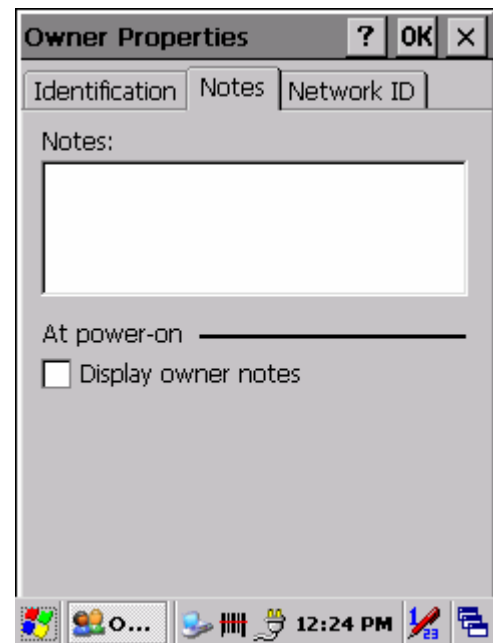


*Figure 3-79: Owner Properties: Notes*
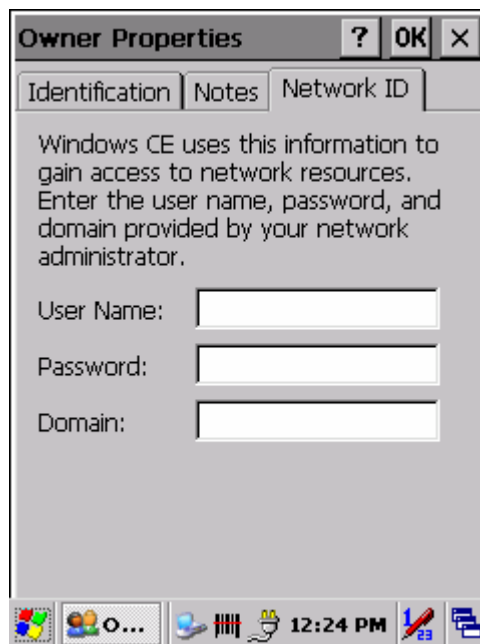
*Figure 3-80: Owner Properties:
Network ID*

### 3.2.11. Password

*Table 3-26. Password*

| Icon | Item & Function |
|------|-----------------|
| Password | **Password Setting** Tab<br>• Enter the password.<br>• In the **Confirm password** box, enter the password again.<br>• To require the password on startup, select **Enable password protection at power-on** and/or select **Enable password protection for screen saver**.<br>• To exit the **Password** control panel, press **OK** from the **control bar**, or press the **<Enter>** key on the keypad. |



*Figure 3-81: Password Properties*

### 3.2.12. PC Connection

*Table 3-27. PC Connection*

| Icon | Item & Function |
|---|---|
| PC Connection | **PC Connection** Tab<br>• Select the first checkbox to enable direct connections to the desktop computer. (See *Figure 3-82: PC Connection Properties*.)<br>• Tap the **Change Connection…** button to modify the connection method from USB or serial. (See *Figure 3-83: PC Connection Properties: Change Connection*.)<br>• To exit the **Change Connection** dialog, press **OK** from the control bar, or press the **<Enter>** key on the keypad.<br>• To exit the **PC Connection properties** control panel, press **OK** from the control bar, or press the **<Enter>** key on the keypad. |
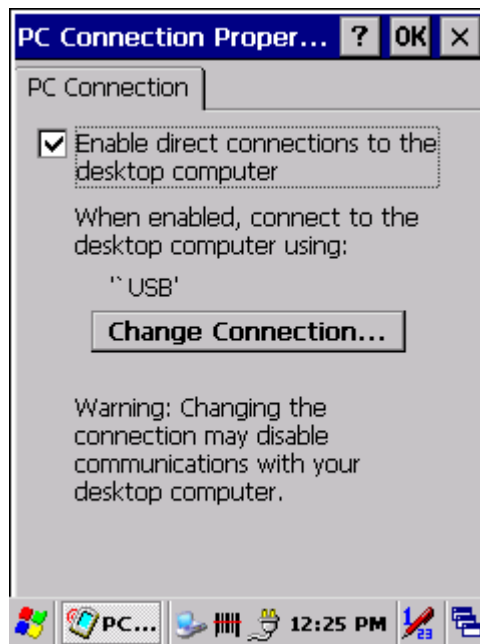
*Figure 3-82: PC Connection Properties*
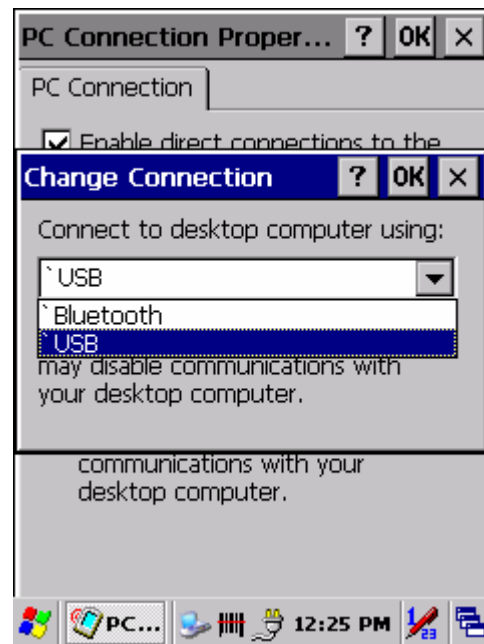
*Figure 3-83: PC Connection Properties: Change Connection*

### 3.2.13. Power

*Table 3-28. Power Properties*

| Icon | Item & Function |
|------|-----------------|
| Power | **Battery** Tab<br>• Provide change level indicators for **Main battery** and **Backup battery**.<br>• Provide remaining power capacity of main battery.<br>• If a **Main Batteries Very Low** warning message shows, the remaining battery life is about 30 minutes before the PHL 8100 shuts down. (See *Figure 3-84: Power Properties: Battery*.)<br>• To exit the **Battery** control panel, tap **OK** from the **command** bar, or tap the **<Enter>** key on the keypad.<br>**Schemes** Tab<br>• The **Schemes** Tab allows you to determine the time to **Switch state to Suspend** mode when using either **Battery Power** or **AC Power**.<br>• Select **Battery Power** or **AC Power** as the power scheme from the pull-down list.<br>• Select the time to suspend mode from the pull-down list. (See *Figure 3-86: Power Properties: Switch state to Suspend*.)<br>**Device Status** Tab<br>• Provide 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.<br>**NOTES:**<br>• This icon inside the **Task** bar shows that the AC adapter is providing power to the PDT.<br>• This icon inside the **Task** bar shows that Main Batteries are providing the power to the PDT.<br>• This icon inside the **Task** bar shows that the AC adapter is providing the power to the PDT and is charging the main batteries. |
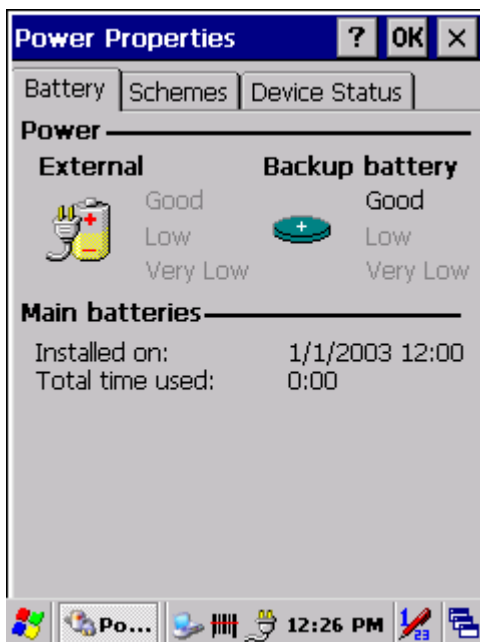
*Figure 3-84: Power Properties: Battery*
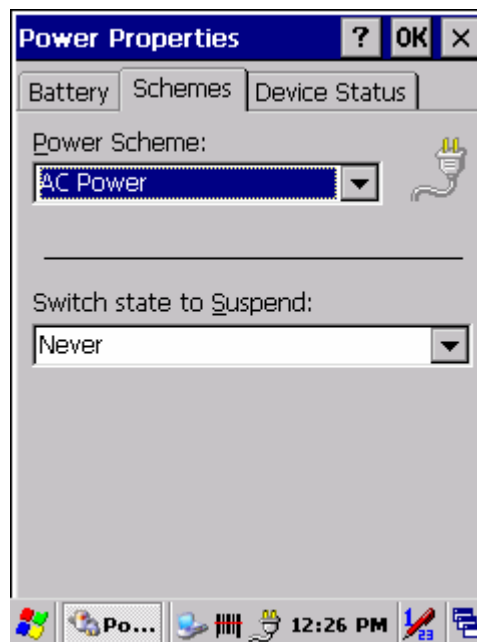


*Figure 3-85: Power: Schemes/AC Power*
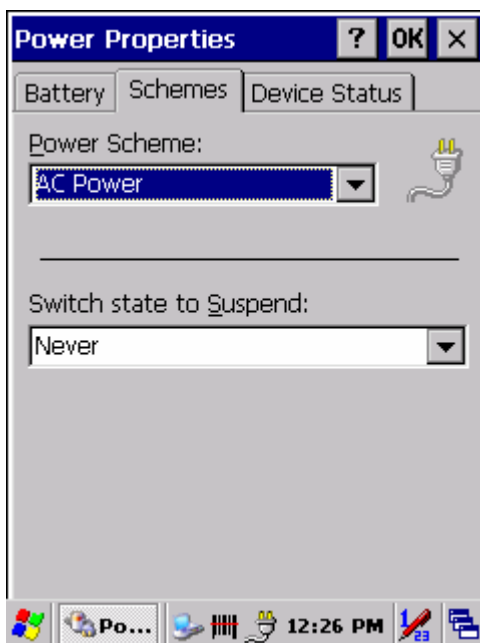


*Figure 3-86: Power Properties: Switch state to Suspend*
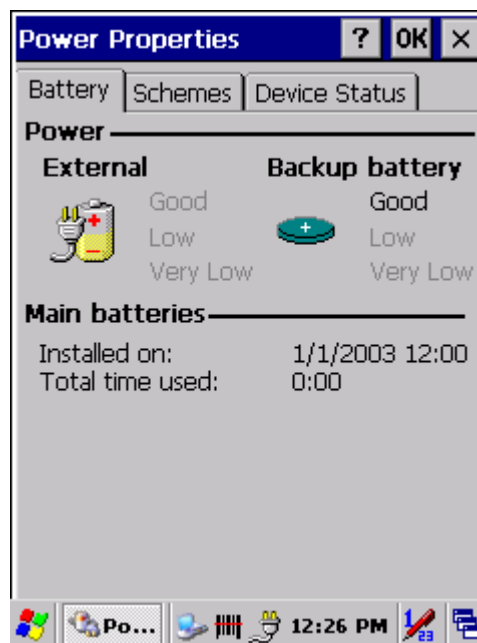


*Figure 3-87: Power: main batteries very low*

### 3.2.14. Regional and Language Settings

*Table 3-29. Regional and Language Settings*

| Icon | Item & Function |
|---|---|
| Regional Settings | **Regional** Tab <br>• Select the desired location/language. <br>• Review the **Appearance samples** in the bottom half of the screen. <br>• Select the tab at the top for any settings you wish to change. Options that may be modified include **Number**, **Currency**, **Time**, and **Date**. |
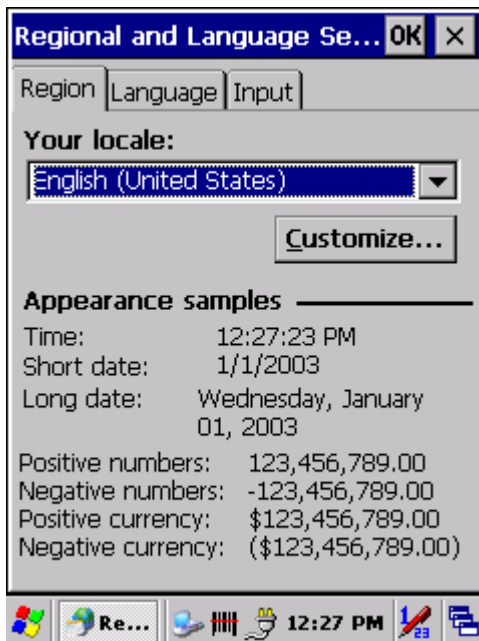
*Figure 3-88: Regional and Language Settings: Region*

*Figure 3-89: Regional and Language Settings: Language*

*Figure 3-90: Regional and Language
Settings: Input*

### 3.2.15. Remove Programs

*Table 3-30. Remove Programs*

| Icon | Item & Function |
|------|-----------------|
| Remove Programs | **Remove Programs** Tab<br>• Only user installed programs can be removed.<br>• Select the program you wish to remove from the list and tap the **Remove** button. |



*Figure 3-91: Remove Programs*

### 3.2.16. Stylus Properties

*Table 3-31. Stylus Properties*

| Icon | Item & Function |
|---|---|
| Stylus | **Double Tap** Tab (See *Figure 3-92: Stylus Properties: Double Tap*.)<br><br>• Double-tap the checkerboard grip at a comfortable speed.<br><br>• Double-tap the clapboard to test your settings<br><br>• The function is OK if the figures are changed.<br><br>• Tap **OK** to exit **Stylus Properties**.<br><br>Calibration (See *Figure 3-93: Stylus Properties: Recalibrate* and *Figure 3-94: Stylus Properties: Calibration*.) |
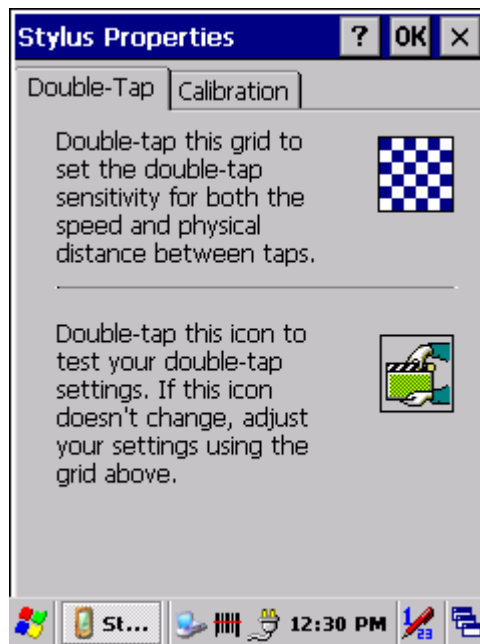
*Figure 3-92: Stylus Properties: Double Tap*

*Figure 3-93: Stylus Properties: Recalibrate*

*Figure 3-94: Stylus Properties:*
*Calibration*

### 3.2.17. System

*Table 3-32. System*

| Icon | Item & Function |
|---|---|
| System | **General** Tab (See *Figure 3-95: System: General*.)<br><br>• To show:<br>   o Firmware information<br>   o Information about processor type, memory size, expansion card<br><br>**Memory** Tab (See *Figure 3-96: System: Memory*.)<br><br>• Move the slider to adjust memory allocation. Default storage memory is normally is normally set to ~54MB with the reminder assigned to Program memory.<br><br>• Press the **OK** key on the keypad.<br><br>**NOTE:** The difference between the RAM size in **Information Properties** and the total memory size of **storage memory and program memory** is used by the operating system.<br><br>**Device Name** Tab (See *Figure 3-97: System: Device Name*.)<br><br>• Your device uses this information to identify itself to other computers.<br><br>• The input panel will open to facilitate data entry.<br><br>• To close the Device Name, press the **OK** button, or press the **<Enter>** key on keypad.<br><br>**Copyright** Tab (See *Figure 3-98: System: Copyright*.)<br><br>• Refer to this tab for specific copyright data. As a user, you are responsible for reading this statement. |

Figure 3-95: System: General
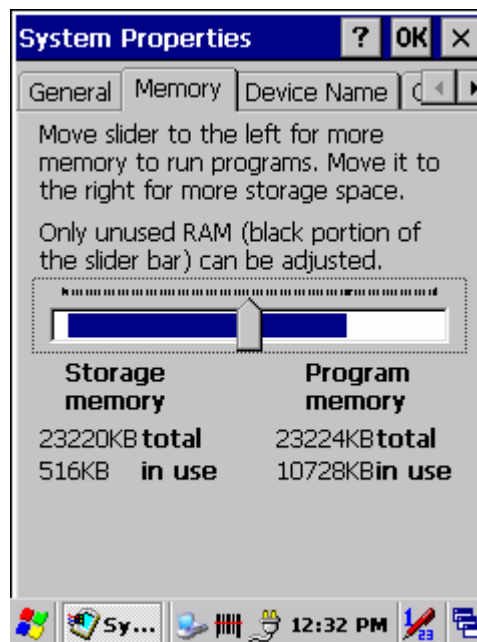
Figure 3-96: System: Memory
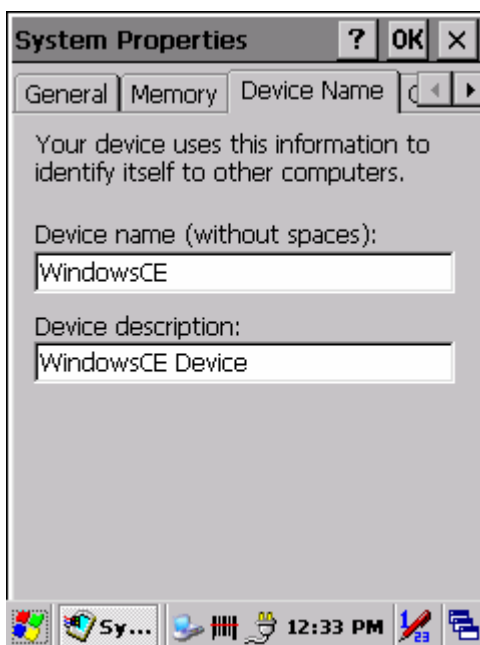
Figure 3-97: System: Device Name
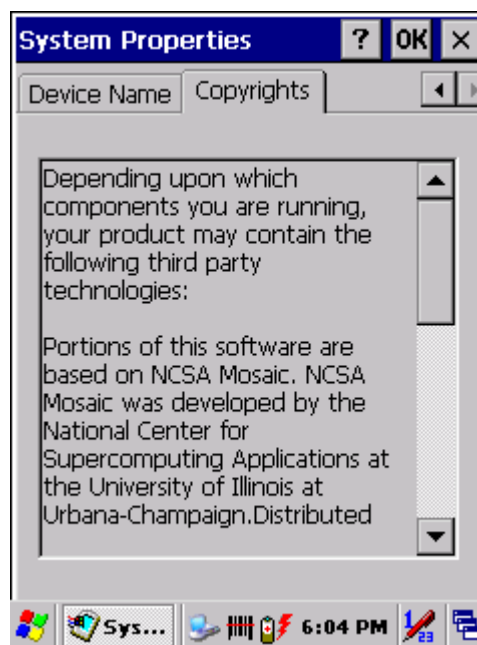
Figure 3-98: System: Copyrights

### 3.2.18. Volume & Sounds Properties

*Table 3-33. Volume and Sounds*

| Icon | Item & Function |
|------|-----------------|
| Volume & Sounds | **Volume** Tab (See *Figure 3-99: Volume & Sounds Properties: Volume*.)<br><br>• The factory default for Volume is the fourth level. You can adjust the volume for your environment and comfort.<br><br>• Set the volume by adjusting the slider from **Soft** to **Loud**, or press **Right** or **Left** navigation keys<br><br>**Sounds** Tab (See *Figure 3-100: Volume & Sounds Properties: Sounds*.)<br><br>• Enable the desired sounds for key clicks, screen taps, notifications, and applications. |



| | |
|---|---|
| *Figure 3-99: Volume & Sounds Properties: Volume* | *Figure 3-100: Volume & Sounds Properties: Sounds* |
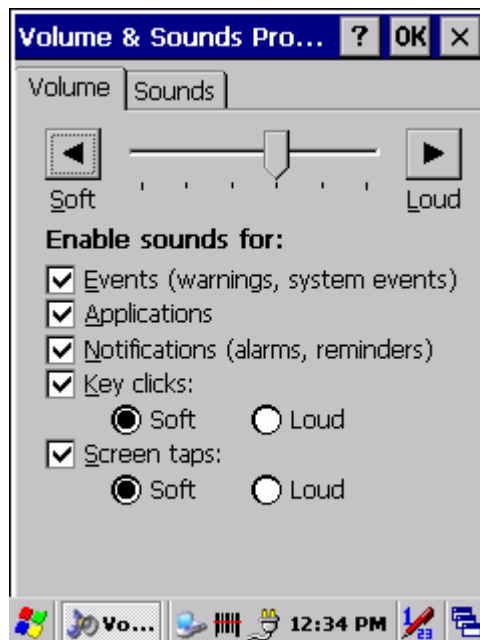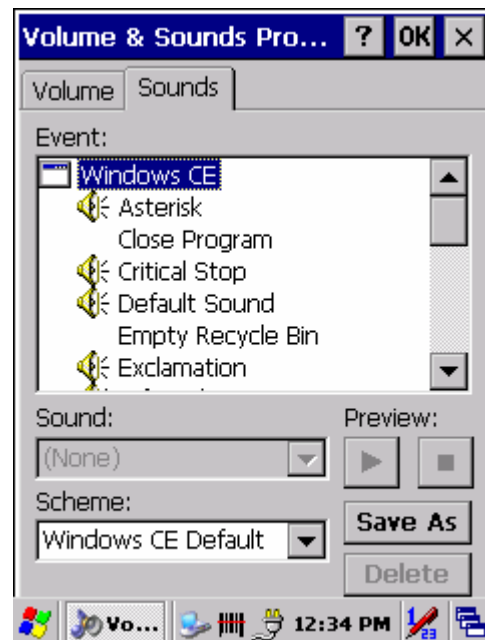
## 3.3.     Task Bar and Start Menu

*Table 3-34. Task Bar and Start Menu*

| Icon | Item & Function |
|------|-----------------|
| Task Bar and Start Menu | **General** Tab<br>• In this tab, you can change the position of the **Task** bar and **Start** menu<br>• Is **Always on top** or not<br>• **Auto hide** or not<br>• **Show clock** or not<br>**Advanced** Tab:<br>• Tap the **Clear** button to remove the contents of the documents menu.<br>• Enable **Expand Control Panel** to list all icons of **Control Panel** from top to bottom. |

# 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:

4. Go to the Microsoft Windows CE.NET Web site and download the current version of **ActiveSync**:
http://www.microsoft.com/mobile/pockeypc/downloads/.

5. Install the latest version of **Microsoft ActiveSync** on the host PC.

6. Open **ActiveSync**.

7. Select **File > Communication Settings** from the **ActiveSync** menu bar.

8. Go to **Using ActiveSync** in section 4.2 to continue using **ActiveSync**.

### 4.1.2. Connecting PDT to Host PC

1. You can use either the USB/serial (RS-232C) port of Single Dock or a USB/serial (RS-232C) 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 to the host PC via **Bluetooth**, or IrDA **ActiveSync**.

4. 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:

1. Select **Start> Programs >Communication > (Serial, USB, Bluetooth, or IrDA) Activesync**.

2. Click on the selected **ActiveSync** icon.

3. 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).

4. 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.
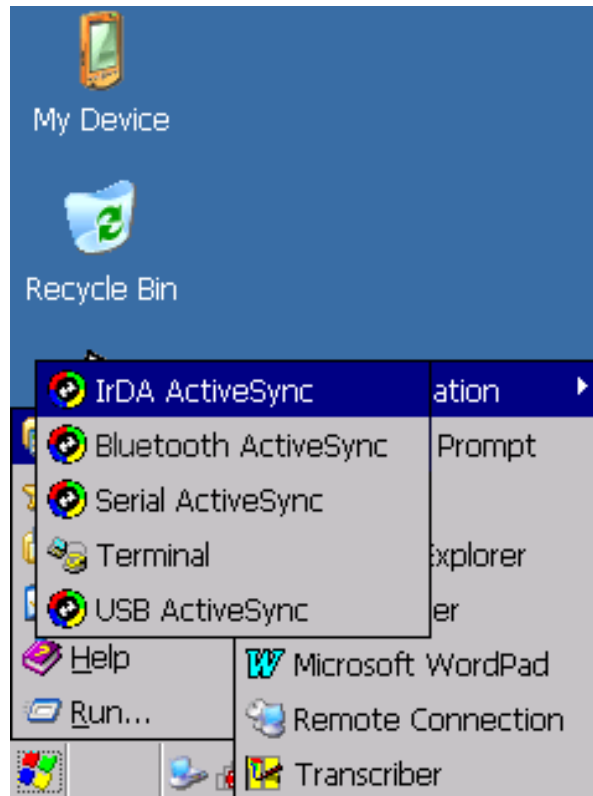


*Figure 4-101: Communication*

### 4.2.2. ActiveSync File Synchronization

**ActiveSync** file synchronization requires an **ActiveSync** partnership between the PDT and the host PC. Refer to **Setting up a Partnership**, above:

1. Select the files in the synchronization configuration for the PDT partnership.

2. Select **Tools > Options** from the **ActiveSync** command bar to configure the synchronization options.

3. Place the file to be synchronized in the **Synchronization** folder created in your **My Documents** directory. (This 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.
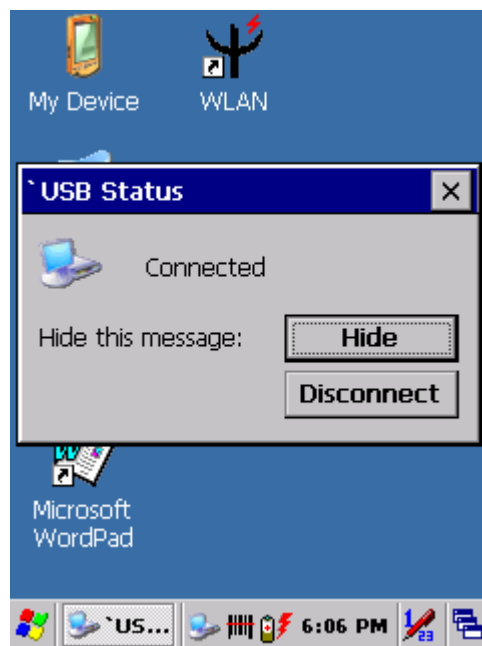


*Figure 4-102: Connected*

## 4.3. Networking

Please see section *3.2.10 Owner* for setting up the network ID. See section *2.4.6 Setting Up Wireless LAN RF* to set up the 802.11b wireless LAN for RF connecting.

# 5.   Software Applications

## 5.1.  Introduction

The PDT includes **Calculator**, **Inbox**, etc.

You can switch to any software program by tapping the **Start** menu.

## 5.2.  Software Applications

### 5.2.1.  Inbox

Use **Inbox** to send and receive email messages in the following ways:

- Synchronize email messages with **Microsoft Exchange** or **Outlook** on the host computer.

- Send and receive email messages by connecting directly to an email server through an Internet server provider (ISP) or a network.

To set up **Inbox**:

1. Select **Start > Programs> Inbox** to open it.

2. Select **Service > Options** from the command bar. Drag the dialog to show the right edge to configure email.

3. Select **Add…**


*Figure 5-103: Inbox*

> **NOTE:** 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**.

4. 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 email service in the "**Service name**" field. **This name cannot be changed later.**

5. Select **OK.**

6. The **Mail Service Setup** wizard appears after you add a service.

- If you are adjusting the setting of an existing service, select **Service> Options**, select the service you are using, and then **Properties**. In the **Service Definition** dialog box, complete the following entries as needed:
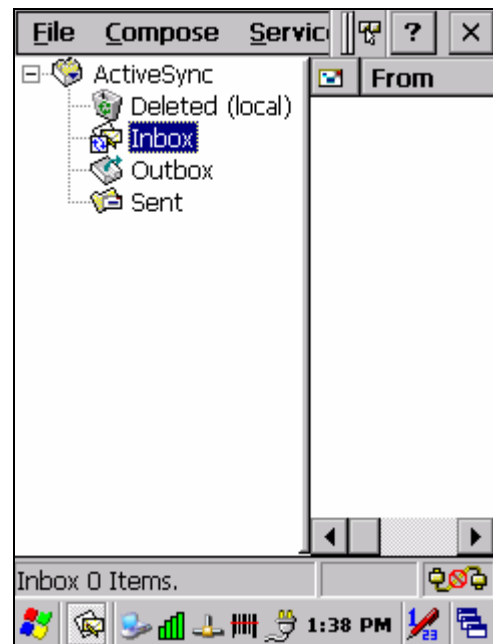
✦ **Connection**: Select the name of the connection you created to connect to the mail server. If you are receiving email through a network (Ethernet) connection, select **Network Connection**. If you want Inbox to use your current connection, select (**none**). If you have not created a connection, select **Create new connection**. Double-tap the **Make New Connection** icon, and follow the instructions in the wizard. When finished, select **Inbox** in the **Task** bar and continue setting up **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 he 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**, depending on the service you are using. If this is not your email address, enter the correct address in the box.

7. **Set general preferences:**

- If you are adjusting the setting of an existing service, select **Service> 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 connect time and cost.

    ✦ **Check for new messages every**: Select the time interval (in minutes) at which 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 to be informed that new mail has arrived.

    ✦ **Display a message box when new mail arrives** (IMAP4 only): Select to be informed that new mail has arrived.

- ✦ **Send using MIME format** (POP3 only): Select to send messages with extended characters.
- ✦ **Only display messages from last 3 days**: Select how many days' messages you want downloaded.

8. **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 speed download time by preventing the complete downloaded 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 slow download time. This setting applies whether you have chosen to download full copies of messages by default, or if you selectively download full copies of messages and 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 you have chosen to download full copies of messages by default, or if you selectively download full copies of messages by opening the message and selecting **Services> Get Full Copy**. Limitations apply.
  - ✦ **Only if smaller than** (IMAP4 only): Select to restrict the size of the attachments you download. Set to 10K if you want to receive meeting requests only.

9. **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.

10. **Save copies of sent messages:**

- By default, sent messages are not saved on your device.

- Select **Services > Options> Compose** tab.

- Select **Keep copy of sent mail in Sent folder**.

11. **Set the action to follow deleting, moving, or responding to a message:**

- Select **Services > Options > Read** tab.

- Select desired options.

12. **Delete a message:**

- Select the message and 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 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 that have been deleted from the device will be deleted from the server the next time you connect.

13. **Empty the Deleted (local) Folder:**

- Select **File > Empty Deleted (local)**. This permanently deletes messages in the **Deleted (local)** folder.

- To check or adjust the current settings for deleting messages, select **Services > Options> Delete** tab.

14. **Move or copy a message:**

**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.

- 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.

**15. 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 uPDTted. 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, **Inbox**, **Outbox**, and all folders 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**.

**16. 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 email address is inserted. If there is more than one match, select the correct address from the **Choose Email Recipients** dialog box. If there is no match, then add a new email address through **Choose Email 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.

**17. 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.

**18. 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.

**19. 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.

**20. 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 downloads messages from your mail server to **Inbox** on your device. When you select **Services > Connect** in **Inbox**, **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 the 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 storage 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 very 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, email 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 to 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 **Journal**, see the Help for the desktop version of **Outlook**.

**21. 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 email. However, this feature does not work if TNEF is enabled so that you can receive meeting requests.

**22. Check attachments status:**

- An attachment sent with an email message, whether it has been downloaded or not, will appear as an icon at the bottom of the message in its own window pane. 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.

**23. 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**.

**24. Store an attachment:**

- Select the **Service > Options > Storage** tab.

- Select to store attachments on internal RAM or 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.

**25. 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.

**26. 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. |
| --- |

## 5.2.2. Internet Explorer

With **Internet Explorer**, you can view Web or intranet Web pages on your device. You will need to use a modem or WLAN to connect to an Internet server provider (ISP) or network.

**a) Connect to the Internet**

Before you can view Web pages, you must set up a remote connection to your ISP or network.

**b) Start Internet Explorer**

- Open Internet Explorer by selecting **Start > Programs > Internet Explorer**.

- To get default home page, navigate to the desired default Web page.

- Select **View > Internet Options** from the command bar.



*Figure 5-104: Internet Explorer*

- Enter the desired URL in the **Start page** field.

- Press the **OK** button.

**c) Navigation Control**

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

To achieve more screen real estate in Internet Explorer, you can hide the **Status** bar and **View** menu. From the top menu bar, go to **View > Hide Toolbars**.

Once it is hidden, you must cold reset to access these features again. Refer to section *2.6.2 Hard (Cold) Reset* for more information.

**d) Set Up a Proxy Server**

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

- Select the **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 for local address, such as corporate intranet pages, select **Bypass proxy for local address**.

**e) Enable Cookies**

A cookie file contains information about your identity and preferences so that a Web site can tailor information to your needs. The Web site sends the file and it is stored on your mobile device.

- Select the **View > Internet Options > Security** tab.

- Select **Allow cookies**.

**f) Search for an Internet Site**

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

**g) Go to an Internet Address**

- Select **Address Bar**, if necessary, to display the address bar.

- Enter the address.

- Press the **Enter** key.

**h) View Previously Visited Sites**

- Tap the arrow button at the right site of the **Address Bar**.

- Select the **Web address** you want to view.

**i) Add and View Favorites**

- Go to the page you want add

- Select **Favorites > Add To Favorites**.

- If necessary, locate the folder you want.

- Confirm or change the name.

- To view your favorite Web sites, select **Favorites** and the Web site you want to view.

**NOTE:** To organize your Favorites list, select **Favorites > Organize Favorites**.

**j) Browse Web pages**

- To move to a page you have previously view, select **View > Back**.

- To move to the next page (provided you have viewed it previously), select **View > Forward**.

- To return to your Home page, select **View > Go > Home**.

**k) Refresh current page**

- Select **View > Refresh**.

**l) Stop loading a page**

- Select **View > Stop**.

**m) View current page**

- Select **View > Internet Options**.

- To view the protocol, page type, size, and address, select the **General** tab.

- To view security information about the page, select the **Security** tab.

**n) View HTML source code**

- While viewing the page, select **File > Save As** and save the file as .txt file.

- Open the file in a word processing program, such as **WordPad**.

**o) Change home and search page settings**

- Open the page you want to use as your home or search page.

- Select **View > Go > Home** or **Search**.

**p) Save a copy of current page**

You can save Web pages and view them later when you're disconnected from the Internet or Intranet without using cached memory.

- Select **File > Save As**.

- Specify a folder location and give the file name.

**q) Copy a Web page to a document**

- Select all or part of the Web page you want to copy.

- Select **Edit > Copy**.

- Go to the document where you want to place the information and select the location.

- Select **Edit > Paste**.

r) **Select security Options**

- Select the **View > Internet Options > Security** tab.

- Select the security protocols you want.

s) **Change the font size**

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

### 5.2.3. Microsoft WordPad

You can create and edit documents and templates in **WordPad**, using buttons and menu commands that are similar to those used in the desktop version of **Microsoft Word**. You can work with files Normal or Outline view.

**WordPad** documents are usually saved as .pwd files, but you can also save documents in other file formats, such as .rtf or .doc.

a) **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 document, select that part. Otherwise, the whole document is searched.
  - ✦ Select **Edit > Replace**.
  - ✦ Enter the text you want to find and the text you want to replace it with. For a paragraph, enter **^p**. For a tab stop, enter **^t**.
  - ✦ Select the replacement options you want.

✦ 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 the text, select the **Copy** button.
  ✦ To paste the information, move the insertion point to the desired location, and select the **Paste** button.

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

### b) Formatting Text

- Create 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 you want.
  ✦ Select **Set As Default**.
  ✦ To confirm that your changes will be applied to subsequent documents you create, 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 font you want.
  ✦ 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 color, select **Format > Font** and select the color you want from the **Color** list.
- Adjust the paragraph alignment:
  - ✦ Select the paragraph you want to align.
  - ✦ Select the **Align Left**, **Center**, or **Align Right** button.

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

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

c) **Adjusting the DisplayF**

- Wrap text in the window:
  - ✦ Select **View > Wrap to Window**.
- Display the document using the full screen:
  - ✦ 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**.

d) **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.

e) **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**.

> **TIP:** If you select a different font (or subset of a font), a different set of **Symbols** will be displayed.

f) **Printing a Document**

- Select **File > Print**.

- Select the printing options you want.

> **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.

g) **Setting a Password for a Document**

- Select **File > Password.**

- Type and verify the password.

- You must save the document (**File > Save**) to return the password.

h) **Converting Documents**

**About document conversion**: If an email program is installed on your device and you receive an attached **Word** document or template created in **Word** version 6.0 or later, **WordPad** will convert the file on your device. To view the document, simply open the attachment in your email program or open the file in the **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 your device. If you save the file, save with a different file name.

For more information about conversion performed on your device, see the following topics.

i) **Changes Caused by Word Document Conversion**

- Formatting

  ✦   **Borders and Shading**: Borders and shading are not displayed in **WordPad**, but are restored when 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 colors available on your device.

✦ **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 retailed 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 you convert the **WordPad** file back to a **Word** document.

✦ **OLE Objects**: OLE objects are removed during conversion.

✦ **Revision marks, annotations, and comments**: Revision marks are visible but cannot be changed. Annotations and documents are removed during conversion.

### 5.2.4. Remote Connection

Using **Remote Desktop Connection**, you can log on to **Windows Terminal Server** and use all programs installed on this server. For example, instead of running **Microsoft WordPad**, you can run the desktop version of **Microsoft Word**.

a) **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** 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**.
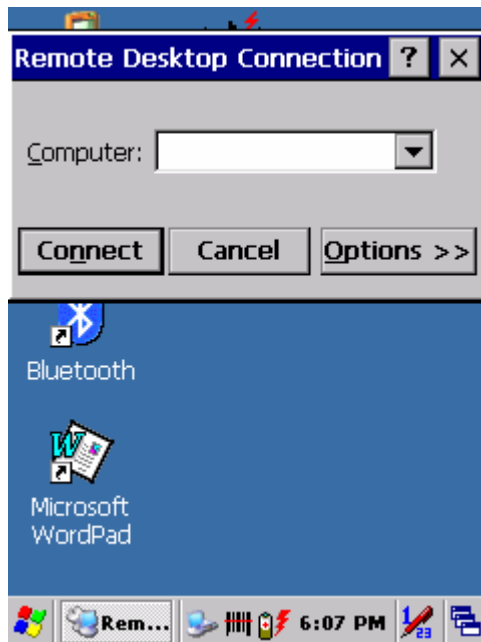
*Figure 5-105: Remote Connection*

**b)  Disconnecting Without Ending a Session**

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

- Select **Disconnect > OK**.

> **NOTE:** If you previously disconnected from a **Terminal Server** without ending the session, the **Terminal Server** will continue to execute any running processes and **Remote Connection** can later reconnect to this same session (if your administrator has configured **Remote Connection** to reconnect to disconnected sessions).

**c)  Disconnecting and Ending a Session**

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

### 5.2.5.  Windows Explorer

**Windows Explorer** works almost the same on your PDT as it does on your PC. See the topics below for information about the difference in **Windows Explorer** on your device.

**a)  Navigating in File View**

- Go forward and back.

- To go to the previous folder, select **Go > Back**.

- To go to the next folder (which you have just viewed), select **Go > Forward**.
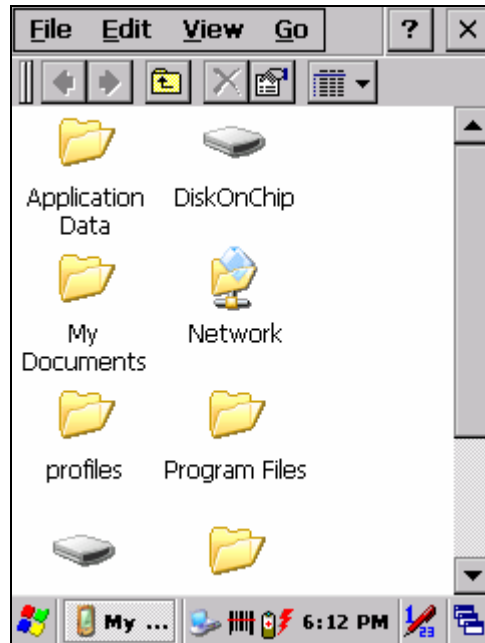


*Figure 5-106: Windows Explorer*

- Use the **Go** menu.

- To quickly access the **My Documents** folder, select **Go > My Documents**.

- To see all of the folders you have accessed, select **Go > History**. Double-tap a folder to return to it.

**b)  Viewing Files as Icons Lists**

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

- To view a list, select **View > Details**.

**c)  Working with Files and Folders**

- Create a new folder.

- If necessary, open the folder where you want the new folder to reside.

- 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**.

### d) Creating Desktop Shortcuts

- Display the file or Web page for which you want to create a shortcut.

- Select **File > Send to**.

- Select **Desktop as Shortcut.**

### e) Switch to Internet

- Type a URL in the **Address** bar.

## 5.3. DiskOnChip

The DiskOnChip provides storage memory to store the application or a data file.

> **NOTE:** The DiskOnChip storage memory persists through all reset (warm/cold reboot) conditions and software/firmware uPDTtes.

We strongly recommend installing all applications, applets, programs, and important data files to the DiskOnChip flash location.

> **CAUTION:** If an application or a data file is only installed or saved in 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 your current application, select **File > Save As,** navigate to the **DiskOnChip** location, and save it.

### 5.3.2.  DiskOnChip Location

To access the contents of **DiskOnChip** storage:

- Double-tap the **My Computer** icon on the desktop.

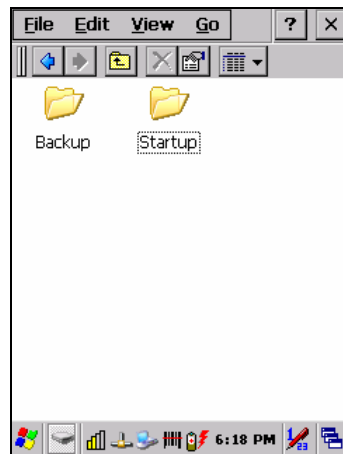- Double-tap the **DiskOnChip** icon to view **DiskOnChip**.



*Figure 5-107: 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 following **Free** is the amount of memory currently available on your device.
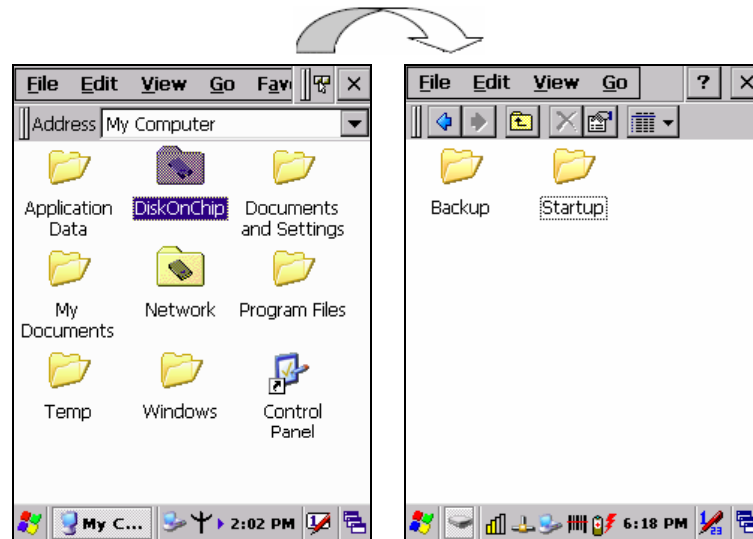


*Figure 5-108: DiskOnChip size*

## 6.  Appendix A – Enabling GPRS Module

Use the PDT with integrated GPRS module to send data. You can connect to the Internet or work network over GPRS (General Packet Radio Service).

### 6.1.  Inserting a SIM Card

A SIM (Subscriber Identity Module) card is required to operate the GPRS communication features on your PDT.

> **NOTE:** If the battery is already installed, you must remove it before inserting the SIM card.

To insert the SIM card into the PDT:

1.  Remove the battery cover and battery.

2.  Push the metal latch forward to unlock and lift the SIM holder.

3.  Insert a correctly oriented SIM card into the SIM holder.

4.  Put down the SIM holder and push the metal latch backwards to lock it.

5.  Place the battery and battery cover back.

### 6.2.  Setting up a GPRS connection

1.   Tap the phone icon in the system tray twice.

2.  A GPRS power control window is displayed.
    You need to select "Enable GPRS Module" and tap the OK button.



3.  After a few seconds you might be prompted to input a PIN code and tap the OK button (only if PIN code is configured).

4.     The phone icon will turn to Enabled mode.

5.   You will be prompted wether you want to "Dial-up to GPRS".

- If you select "Yes", the device will attempt to connect with the current GPRS settings. You can set the settings by selecting **Start** -> **Settings** -> **Network and Dial-up** -> **GPRS connection**. (The dial-up setting might differ depending on the mobile network operator. Contact you operator for correct settings.)

- If you select "No", GPRS module will be enabled, but no connection to a network is established.