

**Handheld Computer
Model No.: 7505**

User Manual



**ISO 9001 Certified
Quality Management System**

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INTRODUCTION

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1.1 About This Manual

This manual describes how to configure, operate and maintain the Psion Teklogix Ikôn Rugged PDA.

Chapter 1: Introduction

provides a basic overview of Ikôn.

Chapter 2: Basic Checkout

describes the steps required to get the Ikôn ready for operation, including setting up your 802.11b/g radio.

Chapter 3: Getting To Know Your Ikôn

describes Ikôn features and outlines how to charge and maintain the battery. This chapter also provides a description of the keyboard, how to navigate in Microsoft® Windows® CE 5.0, and so on.

Chapter 4: Working With Windows CE 5.0

describes the Microsoft Windows CE 5.0 desktop and how to use it. This chapter also outlines the basics of moving around a Microsoft Windows CE 5.0 window, selecting and opening icons, files, folders and working with a Windows dialog box.

Chapter 5: Configuration

describes the Microsoft Windows CE 5.0 Control Panel and how to use it to configure the Ikôn, along with attached scanners, and so on.

Chapter 6: Peripheral Devices & Accessories

describes the peripherals and accessories available for your Ikôn.

Chapter 7: Specifications

lists Ikôn, radio, scanner, and battery specifications.

Appendix A: Port Pinouts

describes Ikôn pinouts.

Appendix B: Wireless Wide Area Network (WWAN)

describes WWAN configuration information (GPRS radio Model No. RA3030).

Appendix C: SCU For 802.11b/g Radio

provides detailed descriptions of the Summit Client Utility menus.

1.2 Text Conventions



Note: Notes highlight additional helpful information.



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



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

1.3 Ikôn Rugged PDA Features



Important: For all safety, regulatory and warranty information, refer to the Ikôn Rugged PDA Regulatory & Warranty Guide, PN 8000148.

Ikôn is a ruggedized PDA running the Microsoft Windows CE 5.0 operating system. It is intended for use in commercial and light industrial applications with a focus on real time wireless data transactions. All possible bar code input methodologies are supported by one of a variety of scanners available. Optimization for specific operational environments is supported with a wide range of peripheral options and carrying accessories.



Note: For complete Ikôn Rugged PDA specifications, refer to “Specifications” on page 247.

- Adjustable Backlight.
- Touchscreen.
 - Passive stylus or finger operation.
 - Signature capture.
- Keyboards.
 - Full Aphanumeric
 - Numeric, with or without Phone option.
 - Ergonomically enhanced for ambidextrous, one-hand operation.
 - Backlit, high durability hard-capped keys.

Wireless Communication

Optional expansion modules for:

- 802.11b/g (proprietary module) operating in the 2.4GHz band.
 - Supports IEEE 802.11b data rates of 1, 2, 5.5, and 11 Mbps using Direct Sequence Spread Spectrum (DSSS).
 - Supports IEEE 802.11g data rates of 6, 9, 12, 24, 36, 48, and 54 Mbps, using Orthogonal Frequency Division Multiplexing (OFDM) base band modulation.

Integrated *Bluetooth*[®] class 2, ver 2.0

- Supports Enhanced Data Rate (EDR) for up to 3 Mbps data rate.
- Supports Advanced Frequency Hopping (AFH) for reduced interference with 802.11b/g radio.

*Note: 802.11b/g, GSM, and **Bluetooth** are available simultaneously.*



BASIC CHECKOUT

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Figure 2.2 Back Of The Ikon

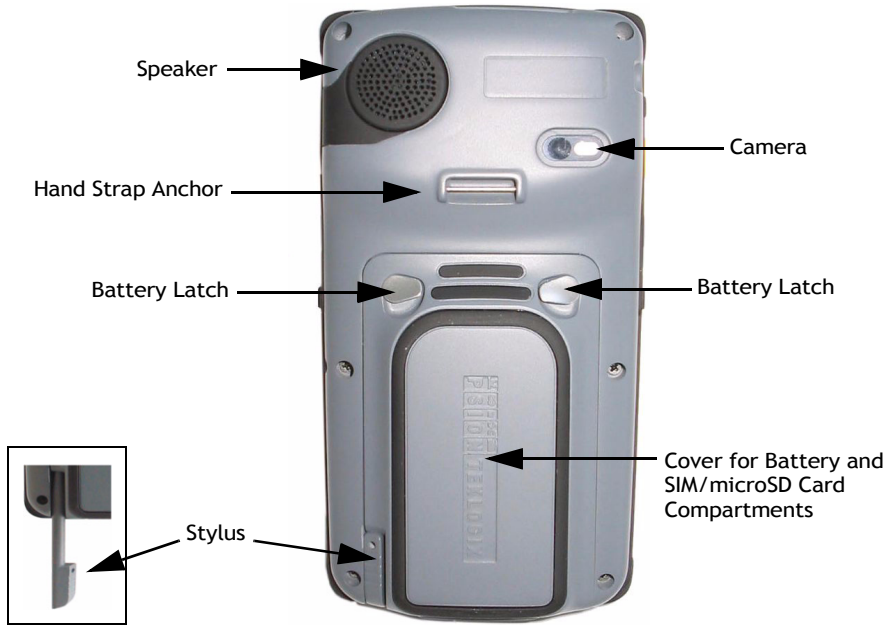
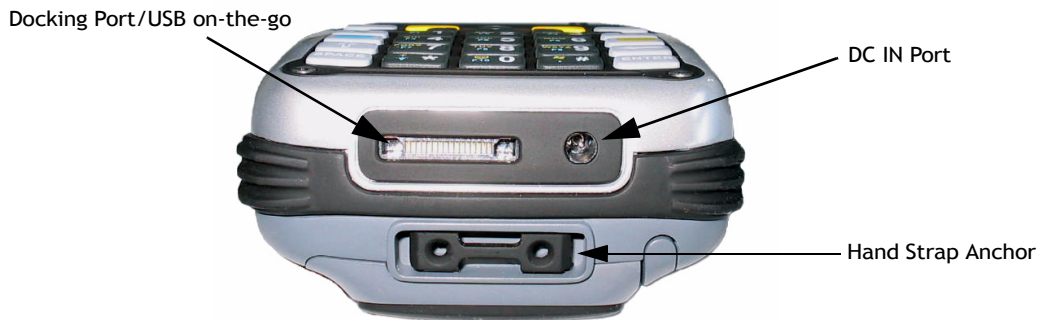


Figure 2.3 Bottom Of The Ikon (Ports)



2.2 Preparing The Ikôn Rugged PDA For Operation

2.2.1 The Battery

The Ikôn is powered with a Lithium Ion battery pack, 5000 mAh—Model No. CH3000.



Warning: *Before charging the battery, it is critical that you review the battery safety guidelines in the Ikôn Rugged PDA Regulatory & Warranty Guide Regulatory & Warranty Guide, PN 8000148.*

Battery packs shipped from the factory are charged to approximately 40% and must be fully charged prior to use. Batteries can be charged using a variety of chargers and docking stations along with an Ikôn internal charger. When using the internal charger, a suitable power source is required. The battery, and all chargers and docking stations are described in Chapter 6: “Peripheral Devices & Accessories” beginning on page 219.

2.3 Turning The Ikôn On And Off

2.3.1 Installing The Battery



Important: *Press the Power button to turn off the PDA before opening the battery cover on your Ikôn (see “Switching The Ikôn Off” on page 12).*

- To unlock the battery cover, turn the left-hand battery fastener to the left, and turn the right-hand battery fastener to the right.
- Remove the battery cover.
- Snap the *charged* battery into the unit. Replace the battery cover, and lock the fasteners in place.



Note: If you are using a docking station or an external power supply, you can insert an uncharged battery and switch it on.

2.3.2 Switching The Ikôn On

- Press and hold down the Power button, located on the front of the unit at the top right, for at least one second.
- When the yellow LED flashes, release the Power button.

The desktop screen is displayed.



Note: If the unit was already in use—the unit may be off (suspend state)—pressing [ENTER] ‘wakes’ the unit from this state. The screen in which you were working prior to the suspend state is displayed. “GPS” on page 104 describes how you can assign other ‘wake up’ keys or enable a two-key ‘power on’ sequence.



Important: *If your Ikôn fails to power up, consider the following troubleshooting options:*

The battery capacity may be too low (capacity < 100mAh), it may be overheated (>60C°), a non-Psion Teklogix battery may be installed, or the battery may have fallen below the configured Suspend Threshold. See “Suspend Threshold And Estimated Battery Backup” on page 102 for details.

If you provide AC power to an Ikôn, and either the battery capacity is too low or the battery is overheated, a yellow LED will flash and the unit will not switch on. To switch on the PDA, you will need to replace the overheated battery or, in the case of a depleted battery, wait for the capacity to reach an acceptable level.

However, if you supply AC power to an Ikôn with a battery that falls below the configured Suspend Threshold, the PDA will switch on.

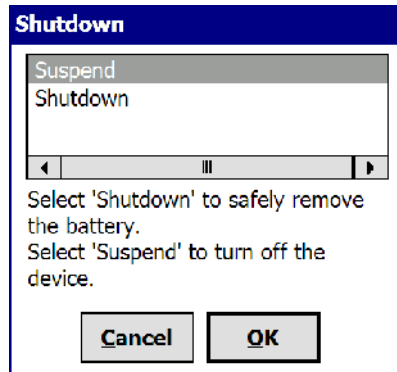
2.3.3 Switching The Ikôn Off



Important: *Keep in mind that turning off the Ikôn does not result in a complete reboot; rather, the unit enters a power-saving, “suspend” state. When the unit is turned on from suspend state, operation resumes within a few seconds.*

- To switch off the Ikôn, press and hold the Power button for five seconds. The Shutdown dialog box (Figure 2.4 on page 13) will appear for you to choose whether you want to *Shutdown* or *Suspend*.

Figure 2.4 Shutdown Dialog Box



The *Suspend* option will simply suspend the device. Radios such as the GPRS or UMTS can still operate while the device is suspended. In this case the blue LED radio indicator will continue blinking.

The *Shutdown* option will turn off all radios before suspending the device. When this happens, the blue LED radio indicator will stop blinking since all radios are turned off.

2.4 Calibrating The Touchscreen



Note: Keep in mind that the touchscreen function can be turned off (see “Touch” on page 106).

The Ikôn touchscreen is factory-calibrated and ready-to-go; however, over time the touchscreen operating parameters may change, and it may need to be recalibrated for correct operation. Refer to “Calibrating The Touchscreen” on page 38 for details.

2.5 Configuring The Summit 802.11b/g

Pision Teklogix supports an 802.11b/g Compact Flash (CF) wireless LAN radio card. It is a Direct Sequence Spread Spectrum radio.

If your unit is equipped with an 802.11b/g CF radio, follow the steps below to set up this type of radio for communication with a wireless LAN. For detailed information, see “SCU For 802.11b/g Radio” on page C-1.

2.5.1 Summit Client Utility (SCU) For 802.11b/g Radio

This section describes the Summit Client Utility (SCU). The SCU provides the utilities you will need to configure the Summit 802.11b/g Compact Flash radio module so that it can communicate through a wireless LAN effectively and securely.

2.5.2 Assigning The IP Address

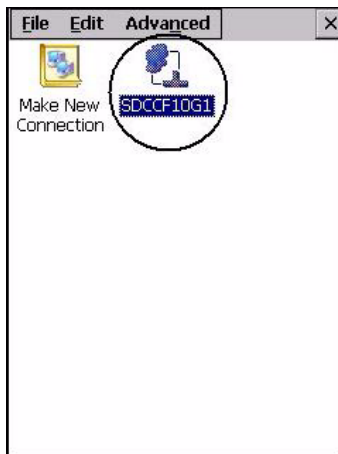
Before launching the SCU, you need to configure how the IP address will be obtained. If your network is not using a DHCP server, you will need to assign an IP address.

1. Tap on **Start>Settings>Network and Dial-up Connections**.

If you're using the keyboard, press [ORANGE] [#] to display the *Start Menu*. Use the [DOWN] arrow key to highlight *Settings*. Press the [RIGHT] arrow key to display the sub-menu. Highlight *Network*, and press [ENTER].

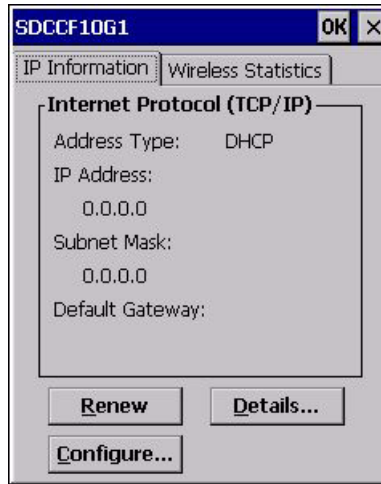
2. Choose the **Summit WLAN Adapter** icon to open the *802.11b/g Wireless LAN Settings* window. In the figure below, this icon is labelled **SDCCF10G1**.

Figure 2.5 Summit WLAN Adaptor Icon



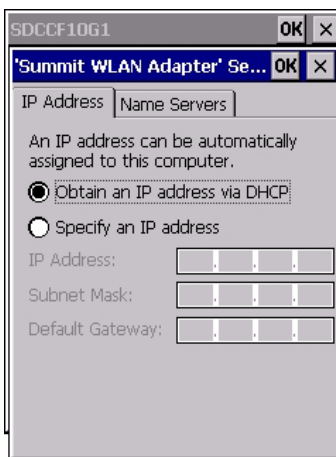
The *Summit WLAN Adapter Settings* menu is displayed (In this screen shown as the *SDCCF10G1* menu).

3. Tap on the **IP Information** tab.



*Note: Choosing the **Renew** button forces the Ikôn to renew or find a new IP address. This is useful if, for example, you are out of communication range for a longer period of time and your Ikôn is dropped from the network.*

4. To define a static IP address, tap on the **Configure** button. The *Summit WLAN Adapter Settings* menu provides two options:
 - Tap on **Obtain an IP address via DHCP** to have an address assigned automatically, or
 - If you want to use a particular IP address, tap on **Specify an IP address**, and type the preferred address as well as the *IP*, *Subnet Mask* and *Default Gateway* addresses in the appropriate fields. Tap **OK** to save your information.

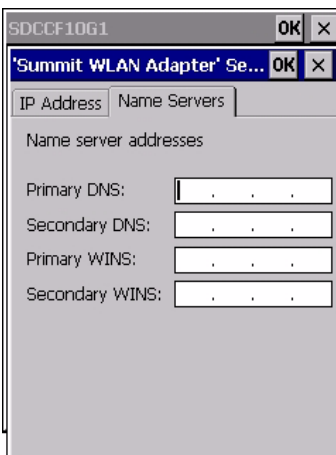


2.5.3 Name Servers Tab



Note: If DHCP is enabled, name server addresses are assigned automatically.

- In the *SDCCF10G1* window, display the **IP Information** tab.
- In the *Summit WLAN Adapter Settings*>*IP Information* tab, tap on the **Configure** button.
- Display the **Name Servers** tab.



The DNS and WINS fields in the *Name Servers* tab allow you to specify additional WINS and DNS resolvers. The format for these fields is *###.###.###.###*.

2.5.4 Using The SCU To Connect To The WLAN



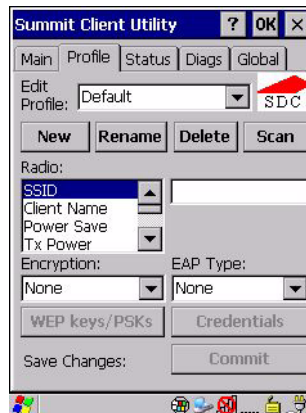
This section provides a quick set of steps to create a profile. Detailed information about each of the SCU tabs—*Main*, *Profile*, *Status*, *Diags* and *Global*—is provided in Appendix C: “SCU For 802.11b/g Radio”. To launch the SCU so that your Ikôn can connect to a wireless LAN:

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

Figure 2.6 SCU Main Tab



- Tap on the **Profile** tab.



- Tap on the **New** button to define a new profile.

- Type a name using any alpha-numeric combination to uniquely identify this profile.
- Tap on **OK** to return to the *Profile* tab.
- Tap on **Commit** to save the profile name.
- When a pop-up message indicates that your profile will be saved, tap on **OK**.

2.5.4.1 SSID

To configure the SSID for the network to which you want to associate:

- Type an SSID in the text box to the right of *SSID*. This field is limited to 32 characters.
- Tap on **Commit** and then, in the pop-up message, tap on **OK** to save your SSID setting.



Important: *To learn more about the other options available in the radio attributes list, refer to page C-5 of Appendix C: SCU For 802.11b/g Radio.*

2.5.4.2 EAP Type

- Tap on the **EAP type** drop-down menu, and choose the appropriate type of authentication—*LEAP, EAP-FAST, PEAP-MSCHAP, and PEAP-GTC*.
- Next, tap on the **Credentials** button, and type credentials for IEEE 802.1X EAP types.



Important: *Refer to page C-6 of Appendix C: SCU For 802.11b/g Radio for details about security settings. Additional EAP details are described in “EAP Credentials” on page C-7.*

2.5.4.3 Encryption

- Tap on the **Encryption** drop-down menu, and choose the appropriate type of encryption—*Manual WEP, Auto WEP, WPA PSK, WPA TKIP, WAP2 PSK, WAP2 AES, CCKM TKIP, CKIP Manual, or CKIP Auto*.

If you choose *Manual WEP, WPA PSK, or WPA PSK*:

- Tap on the **WEP/PSK Keys** button. For Manual WEP, choose up to four static WEP keys. For PSK, type an ASCII passphrase or hex PSK.
- Configure any other settings that are supplied by the network administrator for the SSID to which you will associate.
- Make certain that you tap on **Commit** *following each change*.

Once you've completed the configuration:

- Tap the **Main** tab. Tap on the **Active Profile** button—your new profile will be listed in the drop-down menu.

When you tap on the profile you created, the 802.11b/g radio module attempts to connect to the network using the following steps:

- Associate to the SSID.
- Authenticate to the network.
- If EAP authentication is being used, derive dynamic encryption keys.
- If DHCP is being used by the network, obtain an IP address.

If the radio is not connecting properly:

- Tap on the **Status** tab.

The *Status* dialog box lists the IP and MAC addresses, and indicates the current state of the radio, the signal strength, channel and so on.

You can go to the *Diags* tab for DHCP renewal, ICMP Echo Requests (Pings), and diagnostics.



Important: For details about the *Status* dialog box, refer to page C-1 of Appendix C: *SCU For 802.11b/g Radio*.

2.6 Checking The Scanner

If your Ikôn is equipped with an internal scanner, you can test it to ensure that it is operating properly. Point the scanner window at a bar code that your scanner was designed to decode—for example, a 1D UPC bar code or 2D bar code. Press the SCAN key or pistol trigger, and check for a valid decode on the Ikôn screen.

Performance is improved if you disable all unneeded bar codes in the *Bar Codes* screen. Review “Scanner Settings” on page 161 or details about bar codes.

2.7 Data Transfer Between The PC And The Ikôn

Data transfer options vary slightly depending on the type of operating system installed in your PC.

For Windows XP SP2 operating systems or earlier, Microsoft® ActiveSync® is PC connectivity software that can be used to connect your Ikôn to PCs running this software.

If the Windows Vista® operating system is installed in your PC, ActiveSync is not required to transfer data between your Ikôn and your PC.

By connecting the Ikôn to a PC with a cable, you can:

- View Ikôn files from Windows Explorer.

During a warm reset:

- Running programs are halted, and any unsaved data in them is lost.
- The contents of flash memory, including the registry, custom settings and user-added programs, are retained.
- The OS is reloaded from saved settings.
- The contents of RAM are preserved.

You can perform a warm or cold reset by choosing those options in the Shutdown menu, or follow the directions below.

2.9.1 Performing A Cold Reset



Important: *A cold reset returns the Ikôn to factory settings.*

To execute a cold reset:

- Press and hold down the [ENTER] key and the Power button simultaneously for a minimum of four seconds.

You will need to press the Power button to turn the Ikôn back on.

2.9.2 Performing A Warm Reset

To execute a warm reset:

- Press and hold down the [BLUE] key and the [ENTER] key simultaneously for a minimum of four seconds.

A warm reset closes open applications; any unsaved data are lost. Installed programs and saved data are preserved. The Ikôn automatically reboots.



Note: You do not need to reset your Ikôn after configuring the radio.

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3.1 The Battery

The Ikôn operates with a Lithium Ion battery pack, Model No. CH3000. Preparing the unit for operation requires that a battery pack be charged and installed in the Ikôn.

3.1.1 Battery Safety



Important: *Before attempting to install, use or charge the battery pack, it is critical that you review and follow the important safety guidelines in the quick reference guide entitled *Ikôn Rugged PDA Regulatory & Warranty Guide Regulatory & Warranty Guide, PN 8000148*.*

3.1.2 Removing The Battery Pack



Important: *Always switch the unit off before opening the battery cover to remove the battery.*

Refer to “Installing The Battery” on page 11.

3.1.2.1 Battery Swap Time

Assuming the default power saving parameters and battery reserve level have not been altered, battery swap time is a minimum of 10 minutes—you will not lose data if the battery is replaced within this time frame.

To protect data, the safest place to store data is on a microSD memory card or externally to the device on a USB memory stick or on a PC. You can also save data in the “Flash Disk” partition of the file system.

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



Important: *Since there are some circuits that draw power directly from the battery, the Ikôn can not run if the battery is low (capacity < 100mAh), even when external power is present. If you try to turn the Ikôn on, you will see a blinking yellow LED, but it will not turn on unless the battery status changes within the next 30 seconds (battery charges up, battery is swapped for a different one, etc.).*

You will also get this blinking yellow LED and a refusal to wake up if the battery is too hot (>60C°).

Refer to “Suspend Threshold And Estimated Battery Backup” on page 102 for details about reserving battery power for data backup purposes.

3.1.3 Charging The Battery

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

3.1.3.1 Chargers And Docking Stations



Important: *FOR DETAILED INFORMATION about chargers and docking stations, refer to Appendix 6: “Peripheral Devices & Accessories”.*

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

- AC wall adaptor (Model No. CH3110) operates as an AC power source and when plugged in, also charges the battery installed in the unit.
- Desktop Docking Station (Model No. CH4000) operates as both a charger and a docking station. Operating as a charger, both the battery installed in the Ikôn and a spare battery can be charged simultaneously.
- Quad Docking Station (Model No. CH4004) can charge the battery of up to four Ikôns inserted in the docking station.

Normally it takes 2.5 to 3 hours to charge a battery. The Ikôn intelligent charging system protects the battery from over-charging by terminating the charge process when the battery is at maximum capacity.



Note: Refer to “Monitoring The Battery And Maximizing Run Time” on page 43 for additional information about the battery.

3.2.3.1 Activating Modifier Keys

When a modifier key is pressed once, it is displayed in lowercase letters in the taskbar at the bottom of the Ikôn screen. For example, if the [CTRL] key is pressed, *ctrl* key is displayed at the bottom of the unit screen. Once the next key is pressed, the modifier key becomes inactive and disappears from the taskbar.

Keep in mind, however, that the ‘One Shot’ function allows you to determine how many key presses will lock a modifier key ‘on’—one press or two. Refer to “Keyboard One Shot Modes” on page 90 for details.

3.2.3.2 Locking Modifier Keys

When a modifier key is pressed twice, it is ‘locked’ on. A ‘locked’ modifier key is displayed in uppercase letters in the taskbar. For example, pressing the [CTRL] key twice locks it on—it is displayed as **CTRL KEY** in the taskbar at the bottom of the computer screen.

The locked modifier key will remain active until it is pressed a third time to unlock or turn it off. Once a modifier key is unlocked, the uppercase representation at the bottom of the screen is no longer displayed.

3.2.4 The Keys

The [SHIFT] Key

The [SHIFT] key is used to display uppercase alpha characters and provide access to the symbols above the numeric keys. You can lock this key ‘on’ so that when you press an alpha key, an upper case character is displayed. When you press a numeric key, the associated symbol on the numeric key is displayed on the screen.

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

The Arrow Keys

The Arrow keys move the cursor around the screen in the direction of the arrow: up, down, left and right. The cursor is the flashing box or underline character that indicates where the next character you type will appear.

The [SPACE] Key

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

The [BKSP] Key

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

The [CTRL] And [ALT] Key

The [CTRL] and [ALT] keys modify the function of the next key pressed and are application-dependent. Note that these keys are *only* available on *numeric* keypads that are *not* equipped with [Talk] and [End] phone keys; however, you can access the [CTRL] key using the onscreen, soft keyboard.

The [TAB] Key

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

The [ESC] Key

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

The [SCAN] Keys

All units are equipped with three yellow [SCAN] keys—one yellow key on the left side of the unit along with two yellow triangular keys just below the Ikôn display. For units that *do not have* internal scanners, this key can be re-mapped to another function.

The Function Keys-[F1] to [F10]

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

The Macro Keys

While macro keys are not physically stamped on the keyboard, up to 12 macro functions can be added using the *Scancode Remapping* function. Refer to “Scancode Remapping” on page 94 for details about mapping keys.

For details about creating a macro, refer to “Keyboard Macro Keys” on page 91.

first press the [ORANGE] key and then press the numeric key above which the alpha character you want to type is printed.

Choosing A Single Alpha Character

The examples below illustrate how to access, A, B, and C, all of which are printed in orange characters above the numeric key [2].



Important: *The letters you choose appear in the taskbar, providing a visual indicator of which letter will be displayed on the screen.*

To choose the letter **a**:

- Press the [ORANGE] key, and press the numeric key [2].



Note: To choose the second, third or fourth alpha character assigned to a numeric key, you may want to lock the [ORANGE] key 'on'. By default, the [ORANGE] key is locked 'on' when pressed once. However, depending on how your unit is set up in the 'One Shots' tab, you may find that you need to press the [ORANGE] key twice to lock it 'on'. Refer to "Keyboard One Shot Modes" on page 90 for details.

To choose the *second* letter in the sequence—in this example, the letter **b**:

- Lock the [ORANGE] key 'on'. ORG KEY is displayed in upper-case characters in the taskbar to indicate that this key is locked 'on'.
- Press numeric key [2] twice to display the letter **b**.

To choose the *third* letter in the sequence—in this example, the letter **c**:

- Lock the [ORANGE] key 'on'.
- Press numeric key [2] *three times* to display the letter **c**.



Note: Keep in mind that there is a timeout if you pause for one second between key presses when selecting the second, third or fourth letters on a key. For example, suppose you want to type the letter 'c'—you'd need to press the [2] key three times. With the [ORANGE] key locked 'on', if you press [2] twice and then pause between key presses for 1 second, the letter 'b' will be selected automatically.

Creating Uppercase Letters

To display a capital letter:

- Press the [ORANGE] key and then the [SHIFT] key before typing the alpha character.



Note: If you want to use uppercase characters at all times, press [BLUE] [SHIFT]. An icon of an uppercase 'A' is displayed in the taskbar indicating that all letters will be displayed as uppercase characters.

Choosing Multiple Alpha Characters

- Lock the [ORANGE] key 'on'.

Each time you press a numeric key from [2] through [9], an alpha character will be displayed on the screen. Remember that you can refer to the softkey bar for a visual indication of which alpha key will be displayed on the screen.



Important: Once you have finished typing alpha characters, remember to turn off or unlock the [ORANGE] key.

3.2.6 The Keypad Backlight

The intensity of the keypad backlight and the conditions under which this backlight is activated can be configured using the *Keyboard* icon in the Windows CE 5.0 *Control Panel*. The behaviour of the keypad backlight is tailored in the *Keyboard Properties* dialog box. Refer to “Keyboard Backlight” on page 89 for details about this option.



Note: Keep in mind that this option may be restricted to supervisory use only.

3.3 The Display

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

3.3.1 Adjusting The Display Backlight

The *Display Properties* dialog box in the *Control Panel* allows you to determine the behaviour of the display backlight and its intensity. Refer to “Display Backlight” on page 84 for details about the Display Properties dialog box.

3.3.2 Calibrating The Touchscreen

If your Ikôn touchscreen has never been calibrated, or if you find that the stylus pointer is not accurate when you tap on an item, use the *Stylus Properties* dialog box in the *Control Panel* to recalibrate the screen.

- In the *Control Panel*, choose the **Stylus** icon to display the *Stylus Properties* window.

Figure 3.3 Stylus Icon



- Select the **Calibration** tab, and then choose the **Recalibrate** button.

Figure 3.4 Calibration Screen



- Follow the directions on the calibration screen to calibrate the screen.

3.4 Ikôn Rugged PDA Indicators

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

3.4.1 LEDs

Three LEDs are located on the upper-left side of the unit, above the screen. The green LED is the battery charge indicator; the yellow LED indicates an application; the blue LED indicates whether the radio is on or off. When you press [ENTER], the LED flashes green to indicate that the unit has been powered up. The LED table following outlines the behaviour of the LED while the unit is docked in a charger.

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

Table 3.1 Function Of Ikôn LEDs

LED Behaviour	Charge Status
Green Charge LED (left-most LED)	Charge indicator. See Table 3.2 for descriptions of Charge LED behaviour.
Yellow Application LED (center LED)	Application LED. This LED's behaviour is application-dependent.
Blue Radio Power LED (right-most LED)	Radio power indicator.

If the unit is attached to an external power supply, the Ikôn LED reflects the battery charge status.



Note: The yellow LED flashes when powering up the Ikôn to show that it has started and the Power On/Off key may now be released.

Table 3.2 Ikôn Charge LED Behaviour

LED Behaviour	Charge Status
Solid Green	Charge complete.
Fast Blinking Green	Charge in progress. Battery charged to less than 80% capacity.
Slow Blinking Green	Battery charged to greater than 80% of capacity.
Blinking Yellow	The battery is low (capacity < 100mAh); or the battery is too hot (>60°C).

3.4.2 Audio Indicators

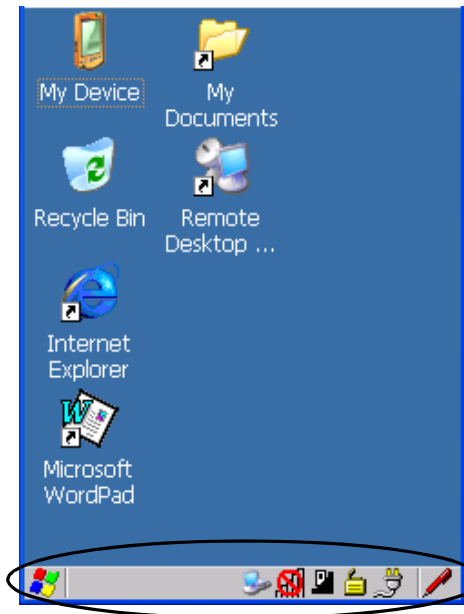
The audio speaker provides a variety of sounds when a key is pressed, a keyboard character is rejected, scan input is accepted or rejected, an operator's entry does not match in a match field or the battery is low. To specify how you want your Ikôn to respond under various conditions, refer to "Volume And Sound Properties" on page 98.

The grey volume key is located on the left side of the unit. To increase the volume, press the upper half of the key; to decrease the volume press the lower half.

3.4.3 Onscreen Indicators

The taskbar at the bottom of the screen displays a variety of system status indicators.

Figure 3.5 Taskbar



The taskbar changes dynamically, and only those icons that are applicable are displayed. For example, if a radio is not installed in your Ikôn, the radio signal icon is not displayed in the taskbar.



Windows® Start Button

If you are using the touchscreen, you can either tap the Windows icon at the bottom left of the screen, or press [ORANGE] [#] to display the Start Menu, and then tap on the desired application.

Modifier Key Indicators



Note: The [CTRL] and [ALT] keys are only available on the keyboard when the Phone option is not installed in the Ikôn (see Figure 3.2 on page 34). Those keys are replaced by Phone keys when that option is present.

[SHIFT], [CTRL], [ALT], [BLUE] and [ORANGE] are modifier keys that when pressed, are displayed in the taskbar to indicate that they are active. If a modifier key is locked ‘on’, it is displayed in uppercase characters. For example, if the [BLUE] key is locked on, it is displayed as **BLUE KEY** in the taskbar. A locked modifier key remains active until it is pressed again to unlock or turn it off.

If a modifier key has been pressed but is not locked on, it is displayed in the taskbar in lowercase characters—for example, **blue key**. It will remain active only until the next key is pressed at which point, the modifier key is turned off.



Note: The locking function of the modifier keys can be set up so that pressing one of these keys once will lock the key ‘on’. They can also be set up so that they must be pressed twice to be locked ‘on’. Refer to “Keyboard One Shot Modes” on page 90 for details.



Battery Gauge

The battery shaped icon displayed in the taskbar provides a visual indication of the remaining battery power. The icon acts as a meter that is either full, at three-quarter level, half, quarter level or empty.

When the battery level is low—approximately 15 minutes from empty—a warning window pops up. When the battery power is completely depleted, a final warning window indicates that the Ikôn will be powered down.

If the Ikôn is using external AC power, an AC icon is displayed in the taskbar.



Full



75%



50%



25%



Empty



AC Connection



Battery Charge

The battery charge icon is displayed in the taskbar when the Ikôn battery is being charged.

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

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

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

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

Tapping on the *Power* icon in the *Control Panel* displays a dialog box that provides detailed information about the battery status of the main battery installed in your unit.

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

3.5.1 Storing Batteries

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

- Always try to use a ‘first-in first-out’ approach to minimize storage time.
- Lithium Ion batteries age much faster at elevated temperatures. Store batteries at temperatures between 0°C and 20°C (32°F and 68°F).
- Always charge batteries to at least 40 to 60% before storing them. Batteries can be damaged by an over-discharge phenomenon that occurs when an empty battery is stored for a long period of time such that the cell voltage drops below a lower limit.
- To minimize storage degradation, recharge stored batteries to 40 to 60% every 4 or 6 months to prevent over-discharge damage.
- A ‘never used’ Li-Ion battery that has been stored for 3 years may have limited or no useful life remaining once put into service. Think of batteries as perishable goods.

3.6 Uploading Data In A Docking Station



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

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



Note: Refer to “CH4004 Quad Docking Station” on page 227 for more details.

The desktop docking station can complete batch uploads to a Client USB connected PC or server.

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

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

3.7 Bluetooth Radio



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

The Ikôn is equipped with an on-board *Bluetooth* radio. This type of radio enables short range data communication between devices. The *Bluetooth* also provides the capability to use a *Bluetooth*-enabled cellular phone as a data modem, exchanging information with other *Bluetooth* devices and providing network access. Refer to “Bluetooth Setup” on page 111 for setup details.

You can also pair your hand-set with a *Bluetooth* headset.

3.7.1 Pairing A Bluetooth Headset Or Other Bluetooth Device



Note: If the **Bluetooth** radio is not already enabled, tap on the Power icon in the Control Panel, tap on the Devices tab and enable the **Bluetooth** radio.

To pair a headset:

- Follow the headset manufacturer's instructions to place the headset you want to place in pairing mode.
- In the *Control Panel*, tap on the *Bluetooth* icon choose the *Devices* tab and scan for devices in your area. (Note that if you're pairing the device for the first time, the device scan occurs automatically—you do not need to tap on the *Scan* button to perform a scan.)

When the scan is complete, a list of devices is listed.

- Double-click on the **headset** you want to pair with. If you prefer, you can highlight **headset** and tap on the **Services** button.

If the headset has authentication enabled, a dialog box appears requesting that you enter a PIN number.

- Type your **pin number** and tap on **OK**.

A *Services* dialog box appears listing *headset*.

- Press and hold the stylus on **headset**. In the pop-up menu, choose **Active**.

Your headset is now paired. A COM/BSP port name will now appear beside the service for this device. An asterisk will appear under the *Active* list in the *Service* screen.

3.8 Inserting The microSD

There are two slots available in the battery compartment—the left-hand slot is provided for a microSD (Secure Digital Card)

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

3.8.1 Inserting The Cards

- Switch off the Ikôn.
- Remove the battery cover and the battery.
- Pull the SD door down as the arrow icon on the door indicates.
- Orient the microSD or SIM card according to the legend stamped into the battery well plastic.
- For microSDs, slide the card into the left-hand slot, pushing it inward until it latches into place.

- Slide the door back into place, and snap it shut.

To remove the card:

- Gently press it inward slightly until the detent unlatches, and the card is expelled from the slot.

3.9 General Maintenance

3.9.1 Caring For The Touchscreen

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

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

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

If the touchscreen is used in harsh environments, consider applying a disposable screen protector (CH6110). These covers reduce the clarity of the display slightly but will dramatically extend the useful life of the touchscreen. When they become scratched and abraded, they are easily removed and replaced.

3.9.2 Cleaning The Ikôn



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

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

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4.1 Navigating In Windows CE 5.0



Note: In order to access many of the menus discussed in this chapter, the security level must be set to 'Supervisor' (see "Security Settings" on page 60).

Graphic user interfaces like Windows CE 5.0 for portable devices and desktop Windows (2000, XP, etc.) utilize 'point and click' navigation. An equivalent keyboard shortcut is also available for every 'point and click' action.

Windows CE 5.0 supports the same 'point and click' user interface and keyboard shortcuts as desktop Windows with one difference—the 'point and click' action is accomplished using a touchscreen rather than a mouse. Actions can be performed using any combination of keyboard shortcuts or touchscreen tapping.

4.1.1 Navigating Using A Touchscreen And Stylus



Note: If the touchscreen is not registering your screen taps accurately, the touchscreen may need recalibration. Refer to "Calibrating The Touchscreen" on page 38.

Each Ikôn is equipped with a stylus—a pointing tool that looks like a pen—stored in a slot at the top of the unit. The stylus is used to select objects on the touchscreen.



Note: To prevent damage to the touchscreen, use only the stylus (pen) supplied with your Ikôn Rugged PDA.

To choose an icon, open a file, launch an applet, or open a folder:

- Double-tap the stylus on the appropriate icon.

4.1.2 Navigating Using The Keyboard

If your Ikôn touchscreen has been disabled, you can use the keyboard to choose icons, navigate dialog boxes, display the desktop, and so on. If your unit has already been fully configured and your application is launched at startup, you'll have little need for keyboard navigation, but you can refer to Table 4.1 for a description of the navigation keys.

Table 4.1 Keyboard Navigation

Operation	Key or Key Combination
Switch between active applications	[ALT] [TAB]
Open task manager	[ALT] [ESC]

Table 4.1 Keyboard Navigation

Operation	Key or Key Combination
Move the cursor	Arrow keys
Open file, folder or icon	[ENTER]
Exit & Save	[ENTER]
Close/Exit & Do Not Save	[ESC]
Navigate Dialog Boxes	[TAB] To move cursor up: [SHIFT] [TAB] To display the contents of the next 'tab' in a dialog box: [CTRL] [TAB]
Select Radio Button/Press Button	[SPACE]
Go to Start Menu	[BLUE][0]

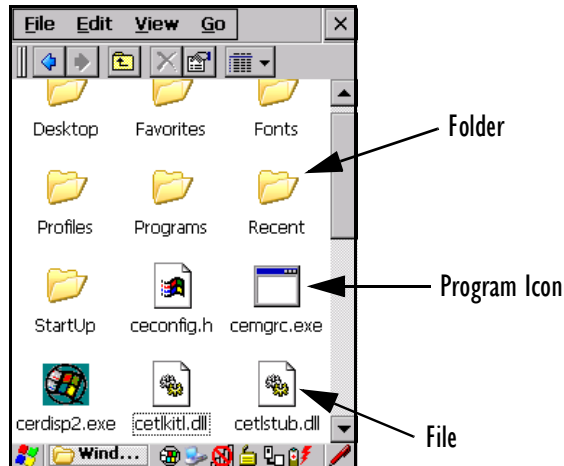


Note: The [CTRL] and [ALT] keys are only available on the keyboard when the Phone option is not installed in the Ikôn (see Figure 3.2 on page 34). Those keys are replaced by Phone keys when that option is present.

Keep in mind that unlike a desktop computer, the Ikôn does not support key chording (pressing two keys at the same time). You must press one key followed by the next in sequence. Refer to Section 4.2: “Working With Files, Folders And Programs” for additional details about keyboard navigation.

4.2 Working With Files, Folders And Programs

Figure 4.1 Working With Windows Icons



- Double-tap on the appropriate icon—either a folder icon, a program icon or a file icon—to open or launch your selection.

If you're using the keyboard:

- Use the arrow keys to highlight the icon you want to open or launch.
- Press [ENTER].

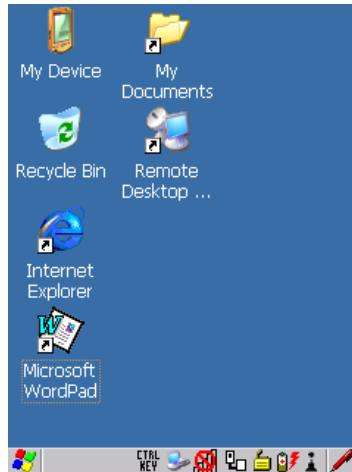
4.3 The Startup Desktop

When the Ikôn boots up, the startup desktop (shell) is displayed. Any applications stored in the Startup folder start up immediately.



Note: The startup folder is located in \Windows\StartUp and \Flash Disk\StartUp.

Figure 4.2 The Ikôn Startup Desktop



To access desktop icons:

- Double-tap on the icon to open a window or, in the case of an application icon, launch an application.

On the keyboard:

- Use the arrow keys to highlight the icon, and press [ENTER] to launch the highlighted icon.



Note: If the arrow keys do not highlight the desktop icons, the desktop may not be selected. Press [ORANGE] [#] to display the Start Menu, and select Desktop. Now the desktop will be “in focus” and the arrow keys will highlight the icons.

4.3.1 The Desktop Icons

The icons displayed in the startup desktop operate in much the same way as those displayed on any standard PC desktop that is running Windows.

My Device

Choosing this icon displays the contents of your Ikôn computer. If you’re not sure how to access the files, folders and programs displayed, refer to “Working With Files, Folders And Programs” on page 53.

Recycle Bin

This option temporarily stores items that were deleted, allowing you to either permanently delete or restore these items.

Internet Explorer

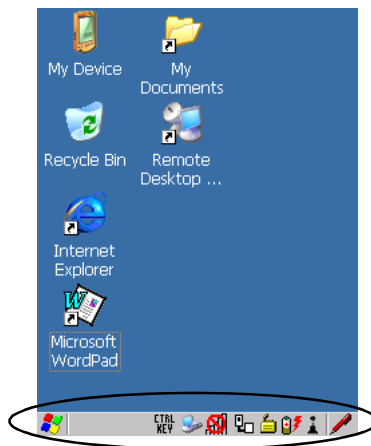
Choosing this icon launches Internet Explorer—a standard Windows CE 5.0 version. Keep in mind that your supervisor will need to set up access using the *Internet Options* and the *Network and Dial-up Connections* icons in the *Control Panel*.

Remote Desktop Connection

This option allows your Ikôn to communicate with a remote desktop PC. “Remote Desktop Connection” on page 77 provides a website with step-by-step instructions.

4.3.2 The Taskbar

Figure 4.3 The Taskbar



The Ikôn is equipped with a taskbar at the bottom of the screen. It displays icons through which you can view the battery capacity and radio signal quality of your unit. If the Ikôn is attached to a charger, cradle, docking station or PDM, an associated icon is displayed. In addition, the taskbar displays the application(s) currently running on your unit and the security level assigned to your Ikôn.

The taskbar also displays active modifier keys: [SHIFT], [ALT], [CTRL], [BLUE] and [ORANGE]. Keys that have been locked “on” are displayed in uppercase letters. For example, if you have set the [CTRL] key Lock to “on” in the Keyboard menu and you press the key, it is

displayed as CTRL KEY in the taskbar. (For detailed information on modifier keys and keyboard options, see “The Keyboards” on page 33).

4.3.2.1 Using The Taskbar

A tooltip is displayed as each taskbar icon is highlighted. The tooltip provides the status of each icon.

If you're using the touchscreen:

- Tap and hold the stylus on an icon to display the icon's tooltip. Double-tap the icon to open the *Control Panel* dialog box associated with the icon. For example, double-tap the battery icon to display a dialog box listing the current battery capacity information.

On the keyboard:

- Press [ORANGE] [#] to display the *Start Menu*.
- Choose **Shortcuts** from the *Start Menu*, and then press the [RIGHT] arrow key to display the sub-menu.
- Choose **System Tray** in the sub-menu.
- Use the arrow keys to highlight the icon in the taskbar about which you'd like more information.
- Press [ENTER] to display the appropriate dialog box.

4.3.2.2 Customizing The Taskbar

To customize the taskbar so that it displays only those icons you require:

- In the *Start Menu*, choose **Settings>Taskbar**.

If you're using the keyboard:

- Press [ORANGE] [#] to display the *Start Menu*.
- Highlight the **Settings** option, highlight **Taskbar** in the sub-menu, and press [ENTER].

The *Taskbar and Start Menu* dialog box is displayed.



Taskbar General Tab

- Tap the stylus on the items you want to activate or deactivate. The check mark indicates active items.

If you're using the keyboard:

- Highlight the options you want to activate, and press the [SPACE] key to select them. The check mark indicates active items.

Taskbar Advanced Tab



- Tap on the **Clear** button to empty the *Documents* folder.
- To display *Control Panel* applets in menu form rather than in a window, tap in the checkbox next to *Expand Control Panel*.

Taskbar Security Tab



If you check *Disable hot keys*, the *Application from Start menu* field becomes enabled. Use this field to enter the name of the application you want to run when the user presses the *Menu* hot key: [ORANGE] [#].

If you have disabled hot keys, hidden the *Start Menu* and have no application configured, the *Menu* hot key brings up the *Security* dialog box to allow authorized users to access the terminal configuration. Keep in mind that this dialog box is also displayed if an invalid application is entered in the *Application from Start Menu* field.

4.4 The Start Menu



Note: Some of the Start Menu items may be disabled based on the current Ikôn security settings.

The *Start Menu* lists the operations you can access and work with. It is available from the startup desktop or from within any application.

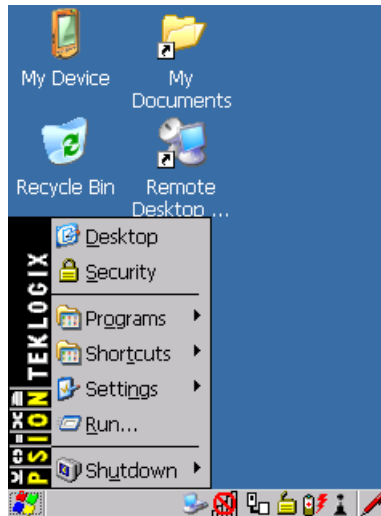
To display the menu:

- Press [ORANGE] [#].



Note: Tap on the item in the menu with which you want to work.

Figure 4.4 Start Menu



If you're using the keyboard:

- Use the arrow keys to highlight a menu item, and press [ENTER], or

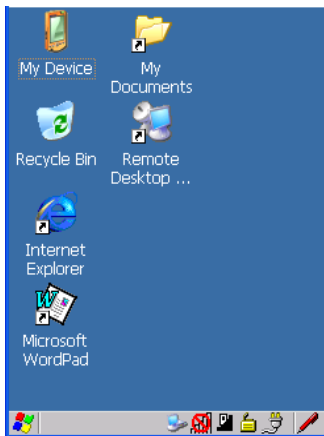
If the menu item has an underlined character:

- Type the underlined alpha character. For example, to display the *Security* dialog box, type the letter 's'.

4.4.1 The Desktop

Choosing *Desktop* in the *Start Menu* displays the Ikôn desktop.

Figure 4.5 The Ikôn Desktop



4.4.2 Security Settings

Choosing the *Security* option from the *Start Menu* displays a dialog box in which you can define the access level for the Ikôn: *Supervisor* or *User*.

Figure 4.6 Security Levels



Assigning The Supervisor Security Level

The security level is represented by an icon in the shape of a lock in the taskbar. The security levels define the options accessible to the operator in the *Start Menu* and the *taskbar*. By default, the security level is set to *User*, restricting access to only the most basic *Start Menu* items.

To allow access to all the *Start Menu* and *taskbar* options:

- In the *Security Level* dialog box, tap on the radio button next to *Supervisor*.

- In the *Password* field, type the Supervisor level password. The default password is **123456**.
- Tap on **OK**. You can now access all menu items in the *Start Menu* along with the icons in the taskbar.

Changing A Password



Note: Keep in mind that this is the same password as that assigned through the Password control panel applet. Refer to “Control Panel Icons” on page 78.

To assign a password:

- Choose a *security level*, and enter the **existing password** in the *Password* field.
- Tap on the **Set Password** button.

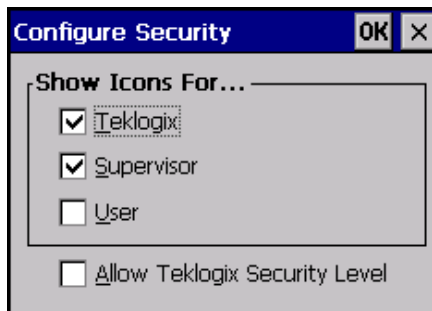
A dialog box labelled *Password Properties* is displayed.

- Type the new password in the *Password:* text box (all keyboard characters are valid).
- In the *Confirm Password:* text box, retype the new password.

Configuring Security

Choosing the **Configure** button displays the *Configure Security* dialog box.

Figure 4.7 Configuring Security



This dialog box allows you to determine which security levels will have an associated icon displayed in the taskbar. By default, a security icon is not displayed for user-level security.

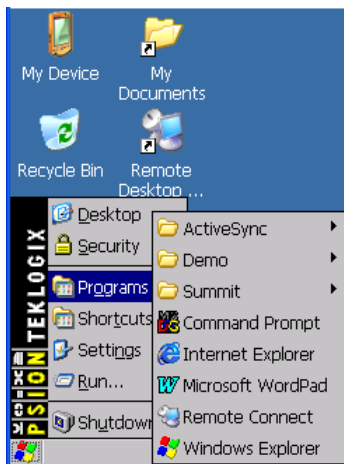


Note: It is recommended that you enable ‘Allow Teklogix Security Level’ so that authorized Psion Teklogix service personnel can access your unit should it require maintenance.

4.4.3 Programs

- Choose **Programs** to display a sub-menu of options.

Figure 4.8 Program Sub-Menu



ActiveSync®

This option allows you to connect to another device using ActiveSync.

Demo

This folder contains the *Demo Scanner*, *Demo Signature*, and *Demo Sound* applications. *Demo Scanner* can be used to test how the Ikôn reads and writes RFID tags. *Demo Signature* allows you to capture a signature written on the screen with your stylus and save it to a file. *Demo Sound* allows you to record and playback. The 'Sample Rate' and the 'Bits Per Sample' are the rates at which the sound will be recorded. Sounds recorded at the higher sample rate or bits per sample will be higher quality but will require more file space to store. Lower sample rates and bits per sample or both the file result in a smaller file but the quality suffers. The record and play buttons operate in the same way they do on any recording device. the 'X' icon deletes the sound and the 'diskette' icon allows you to save your sound.

Summit

This folder provides access to the Summit Client Utility (SCU), a utility that allows you to configure your Summit 802.11b/g radio.

Command Prompt

Command Prompt is used to access the DOS command prompt. At the prompt, you can type DOS commands such as *dir* to display all the directories in the drive.

Internet Explorer

The Ikôn is equipped with Microsoft Internet Explorer for Windows CE 5.0. You can access the *Internet Options* icon through the *Start Menu* under *Settings>Control Panel* or by double-tapping on the desktop *Internet Explorer* icon.

Remote Connect

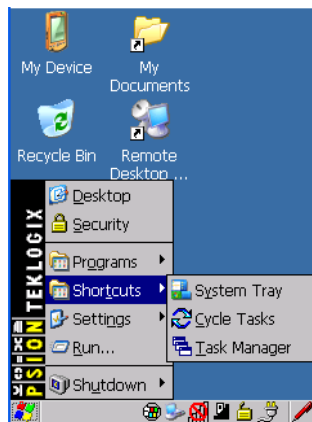
Remote Connect is an Ikôn application used to connect to a Windows Terminal Server so that you can run a “session” on the Server machine using the Ikôn (Windows CE 5.0 device). “Remote Desktop Connection” on page 77 provides a website with details about this option.

Windows Explorer

The *Windows Explorer* installed on your Ikôn is consistent with all Windows CE 5.0 devices. You can access this option from the *Start Menu* under *Programs> Windows Explorer*.

4.4.4 Shortcuts

Figure 4.9 Shortcuts Sub-Menu



System Tray

If your touchscreen is not enabled, you can use the *System Tray* option to access the icons in the taskbar at the bottom of the screen. The taskbar displays indicators such as a radio signal

icon and the security level. These indicators are attached to dialog boxes that provide additional information.

- Choose **Shortcuts>System Tray**.

Using the icons in the taskbar, you can either display the *Control Panel* dialog box associated with an icon, or you can view a “tooltip”. A tooltip provides the status of each icon.

- Tap and hold the stylus on an icon to display the icon’s tooltip. Double-tap on the icon to open the *Control Panel* dialog box associated with the icon.

On the keyboard:

- Press [ORANGE] [#] to display the *Start Menu*.
- Choose **Shortcuts** from the *Start Menu*, and then press the [RIGHT] arrow key to display the sub-menu.
- Choose **System Tray** in the sub-menu.
- Use the arrow keys to highlight the icon in the taskbar about which you’d like more information. As each icon is highlighted, a tooltip is displayed.
- To display the associated *Control Panel* dialog box, press [ENTER].

Cycle Tasks

When *Cycle Tasks* is selected (and the Task Manager is not open), you can cycle through active applications.

To cycle through your active applications:

- Choose **Shortcuts>Cycle Tasks**, or

Press [ALT] [TAB].

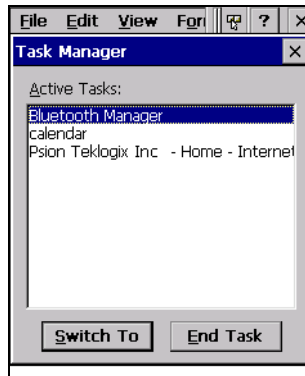
Task Manager

The *Task Manager* allows you to switch to another task or to end an active task. To display the task manager window:

- Tap on **Shortcuts>Task Manager**, or

Press [ALT] [ESC].

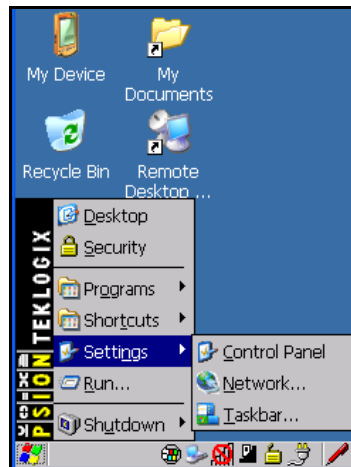
Figure 4.10 Task Manager



4.4.5 Settings

The *Settings* sub-menu includes the following settings: *Control Panel*, *Network and Dial-up Connections*, and *Taskbar and Start Menu*.

Figure 4.11 Settings Sub-Menu



Control Panel

The *Control Panel* contains applets used to configure hardware, the operating system and the shell. If your Ikôn is running with the Psion Teklogix TekTerm application or another application, additional configuration applets may appear in the *Control Panel*.

Run

Network And Dial-Up Connections

The *Network and Dial-up Connections* window allows you to configure the Ikôn radio or execute an existing configuration. Refer to “Configuring The Summit 802.11b/g” on page 13 for radio setup details.

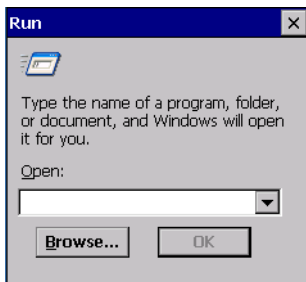
Taskbar And Start Menu

The *Taskbar and Start Menu* option displays a dialog box in which you can customize the taskbar, choosing which options will be displayed. Refer to “Customizing The Taskbar” on page 56 for additional details about this option.

4.4.6 Run

Choosing the *Run* option from the *Start Menu* displays a dialog box in which you can enter the name of the program, folder or document you want to open or launch.

Figure 4.12 Run Dialog Box



4.4.7 Shutdown

The *Shutdown* menu includes these options in a sub-menu: *Suspend*, *Warm Reset*, and *Cold Reset*. For detailed information on Warm and Cold Reset, see “Resetting The Ikôn” on page 26. For other options for turning the Ikôn off, see Section 2.3.3 on page 12.

Figure 4.13 Shutdown Sub-Menu



*Note: This menu varies slightly depending on the security level chosen. When the Ikôn is set to **User level**, the Shutdown option is replaced by **Suspend**. A sub-menu is not available.*

Suspend

The *Suspend* option suspends the Ikôn immediately. This is equivalent to turning the Ikôn off. Radios such as the GPRS or UMTS can still operate while the device is suspended. In this case the blue LED radio indicator will continue blinking.

To shutdown with all radios off, please refer to “Switching The Ikôn Off” on page 12.

Warm Reset

The *Warm Reset* option resets the Ikôn, leaving all saved files and (registry) settings intact. Contents of RAM are preserved.

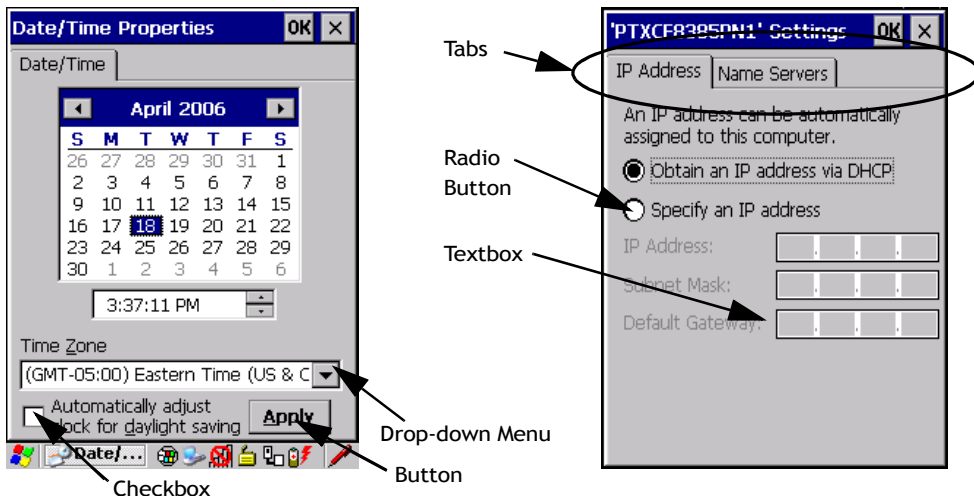
Cold Reset

The *Cold Reset* option resets the Ikôn, leaving all saved files and (registry) settings intact, and resets the hardware. Contents of RAM are lost.

4.5 Using A Dialog Box

A dialog box (like the samples in Figure 4.14 on page 68) appears when you need to make selections and enter further information. You can move between dialog items by tapping on them with your stylus, or by pressing the arrow keys and the [TAB] key ([SHIFT] [TAB] moves the cursor backwards).

Figure 4.14 Dialog Boxes



Note: You can use the stylus to tap on an element in a dialog box to select or deselect it, display drop-down menus, save your selections, and so on.

Dialog boxes contain one or more of the following elements:

Tab: A tab separates different elements of a dialog box. Press the [TAB] key until a tab in the dialog box is highlighted. To display adjoining tabs, press the [RIGHT] or [LEFT] arrow key. To display the information in the next tab from anywhere in the window, press [CTRL] [TAB].

Textbox: A textbox requires that you type information. Press the [TAB] key to highlight the textbox and then type the appropriate information.

Drop-down: This type of menu is identified by up and down arrows next to the drop-down menu to indicate that additional options are available. Press the [TAB] key to highlight the menu, and use the arrow keys on your keyboard to cycle through the options.

Checkbox: This box allows you to select or deselect an option. To select or deselect a checkbox, press the [TAB] key to highlight the checkbox, and press the [SPACE] key to select or deselect it.

Radio buttons: These buttons allow you to choose from a number of options. For example, in the sample screen in Figure 4.14 on page 68 you can choose to *Obtain an IP address via DHCP* or *Specify an IP address*. Press the [TAB] key to highlight a radio button option, and then select a radio button by pressing the arrow keys to highlight the appropriate option.

Buttons: This type of button allows you to *Save*, *Delete* and so on the options you've chosen in a dialog box. Use the [TAB] key to highlight the button you want to use. Press the [ENTER] key to activate it.

Saving Your Choices: Once you've made all your changes, press the [ENTER] key to save your changes and exit the window.



Note: A dialog box item that is displayed in grey text indicates that it is not currently available.

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5.1 Remote Desktop Connection

Remote Desktop Connection is a Windows application that enables you to connect to a computer across the Internet using the Ikôn (Windows CE 5.0 device).

Refer to the following website for step-by-step information about setting up this connection:

<http://www.microsoft.com/windowsxp/using/mobility/getstarted/remotedesktopintro.aspx>

or contact Psion Teklogix support services. (Refer to the *Ikôn Rugged PDA Regulatory & Warranty Guide*, PN 8000148, or locate the office closest to you at www.psionteklogix.com).

5.2 The TekTerm Application

TekTerm is a powerful emulation application ideally suited for real time data transaction applications associated with mainframes and servers. The Ikôn includes unique features that support TekTerm—a Psion Teklogix application that has the ability to maintain multiple simultaneous sessions with a variety of host computers. For detailed information, please refer to the *TekTerm Software User Manual*, PN 8000073.

5.3 The Control Panel

The Windows CE 5.0 *Control Panel* provides a group of icons through which you can set a variety of system-wide properties, such as mouse sensitivity, network configuration and the desktop color scheme.



Note: If you are uncertain how to move around a dialog box and make selections, review “Using A Dialog Box” on page 67.

When the Ikôn boots up, the startup desktop (shell) is displayed, and any applications stored in the Startup folder start up immediately.

To access the *Control Panel*:

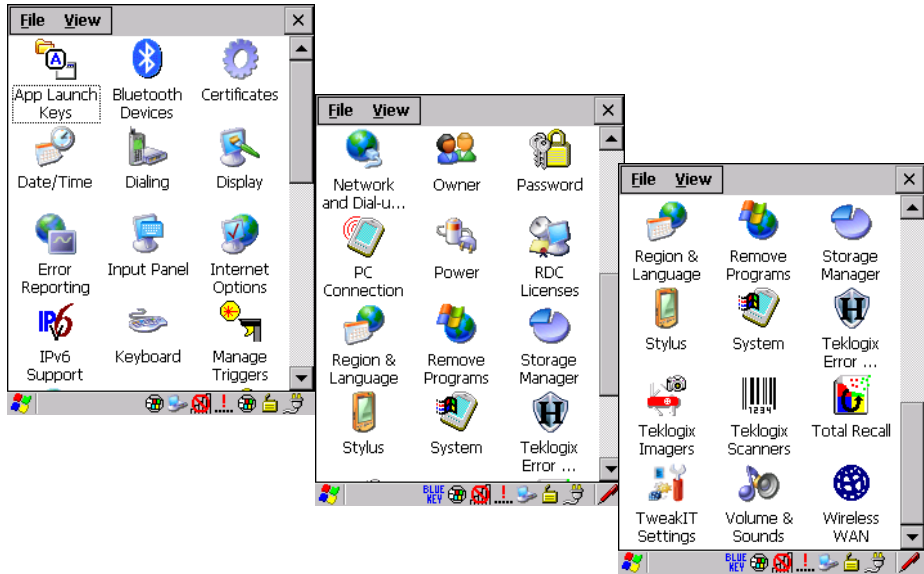
- Tap on **Start>Settings>Control Panel**.

If you’re using the keyboard:

- Press [ORANGE] [#] to display the Start Menu.
- Highlight **Settings** in *Start Menu*, and press the [RIGHT] arrow key to highlight the *Control Panel*.
- Press the [ENTER] key.

The *Control Panel* folder contains icons used in the setup of your Ikôn.

Figure 5.1 Control Panel



5.4 Control Panel Icons

The *Control Panel* provides a group of icons that allow you to customize and adjust settings on your Ikôn.



App Launch
Keys

App Launch Keys

By mapping keys to applications using this program, you can then launch those applications from a single key-press.



Bluetooth
Devices

Bluetooth Devices

Provides the tools to manage device pairing and configuration.



Certificates

Certificates

A public key is transmitted as part of a certificate. The certificate assigned through this icon is used to ensure that the submitted public key is, in fact, the public key that belongs to the submitter. The client checks that the certificate has been digitally signed by a certification authority that the client explicitly trusts. “Certificates” on page 110 directs you to the appropriate setup information.

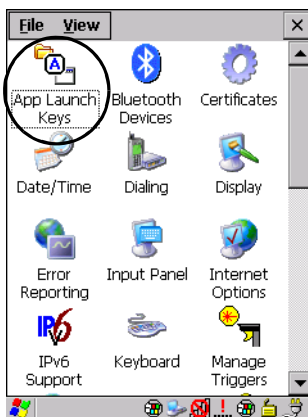
5.5 Basic Setup

5.5.1 App Launch Keys

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

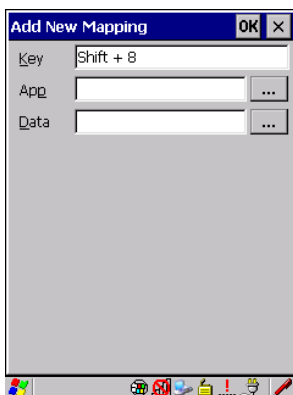
- In the *Control Panel*, choose the **App Launch Keys** icon.

Figure 5.2 Choosing The App Launch Keys Icon



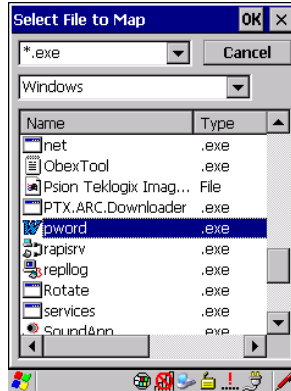
To assign an application key:

- Tap the **Add** button.



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

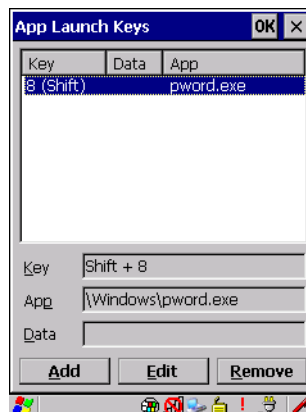
The cursor moves to the *App* field and a new screen is displayed where you can choose the application to which you want to assign the application key. If you need to, you can *Browse* through the information in your Ikôn until you locate the application you want to launch.



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

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

- Tap on **OK**.



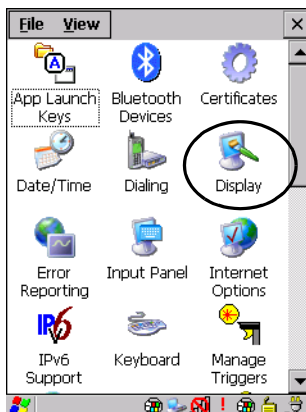
- If you need to Edit, Remove or Add another *App Launch Key*, you can do it from this final screen. Otherwise, tap on **OK** to save your *Application Launch Key*.

- To launch the application you chose, press the application key you assigned.

5.5.2 Display Properties

- In the *Control Panel*, choose the **Display** icon.

Figure 5.3 Choosing The Display Icon



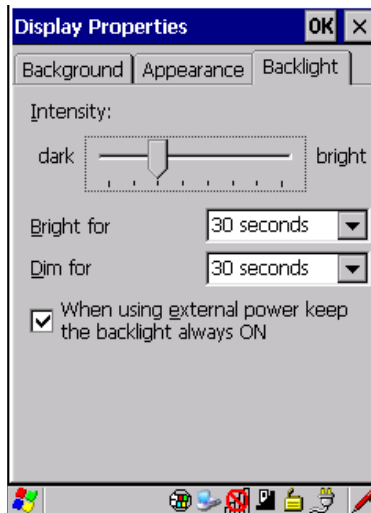
5.5.2.1 Display Backlight

The backlight is activated for a configurable amount of time when the Ikôn is in use (key press, scanner trigger, or data received from the host). The *Display Properties* dialog box in the *Control Panel* allows you to specify the intensity of the backlight along with how long the display will maintain the specified intensity.



Note: Keep in mind that this option may be restricted to supervisory use only.

- In the *Display Properties* dialog box, open the **Backlight** tab.



Note: Backlight changes take effect immediately. You do not need to reset the unit.

To maximize battery run time, keep the display backlight brightness and active durations as low as possible.

Intensity

This parameter is used to adjust the light intensity of the Ikôn backlight. Sliding the bar to the left lowers the light intensity, and sliding it to the right raises the intensity.

Bright For

The value chosen from this drop-down menu determines the duration of time that the backlight stays on at the configured intensity after the last user action (keypress, scan trigger).

Dim For

The value chosen from this drop-down menu determines the duration of time that the backlight stays on at half the configured intensity (dimmed backlight) after expiration of the *Bright For* delay and as long as no user action takes place (such as a keypress or scan trigger). At the expiration of the *Dim For* duration, the display backlight shuts off.

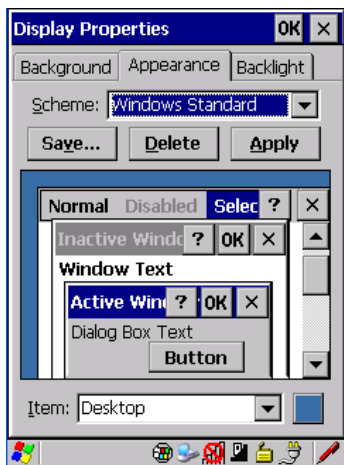
External Power Checkbox

When you select the checkbox next to *When using external power keep the backlight always ON*, the backlight remains on at the configured intensity when the Ikôn is operating with ex-

ternal power (not battery power). If the Ikôn is drawing power from its battery, this option is ignored and the other parameters defined in *Display Properties* dialog box are used.

5.5.2.2 Display Appearance

- In the *Display Properties* dialog box, open the **Appearance** tab.



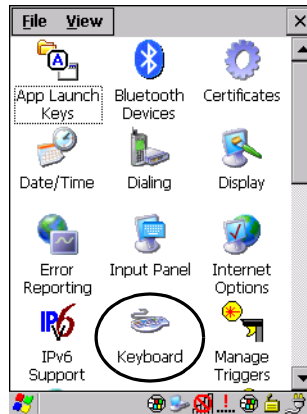
This dialog box allows you to customize the display colour scheme.

5.5.3 Keyboard Properties

This icon displays the *Keyboard Properties* dialog box in which you can adjust the repeat rate of the keys, the intensity of the keyboard backlight and the behaviour of the [BLUE] and [ORANGE] modifier keys. This dialog box also allows you to define macro keys and Unicode characters.

- In the *Control Panel*, choose the **Keyboard** icon.

Figure 5.4 Choosing The Keyboard Icon

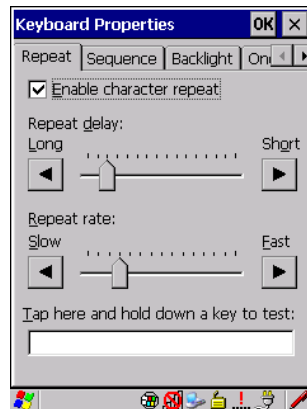


5.5.3.1 Key Repeat



Note: These settings apply when a key is held down continuously.

- In the *Keyboard Properties* dialog box, open the **Repeat** tab.



Repeat Delay

The value assigned for this parameter determines the delay in milliseconds between repeat characters. Sliding the *Repeat Delay* bar to the left increases the delay between key repeats, and sliding the bar to the right shortens the repeat delay time.

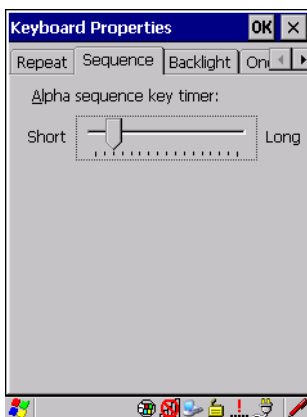
Repeat Rate

The value assigned for the *Repeat Rate* parameter determines how quickly the key you press repeats and is measured in characters per second (cps). Sliding the bar to the left slows the repeat rate, and sliding the bar to the right increases the repeat rate.



Note: Use the field at the bottom of this dialog box to test the repeat delay and rate settings you've chosen.

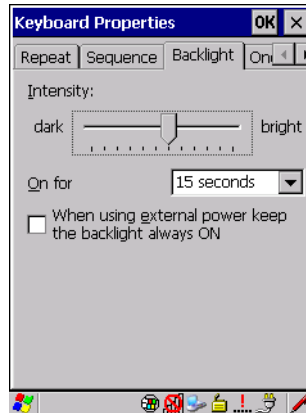
5.5.3.2 Sequence



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

5.5.3.3 Keyboard Backlight

- In the *Keyboard Properties* dialog box, open the **Backlight** tab.



Intensity

This parameter is used to adjust the light intensity of the Ikôn keyboard backlight. Sliding the bar to the left darkens the keyboard backlight intensity, and sliding it to the right lightens the intensity.

ON For

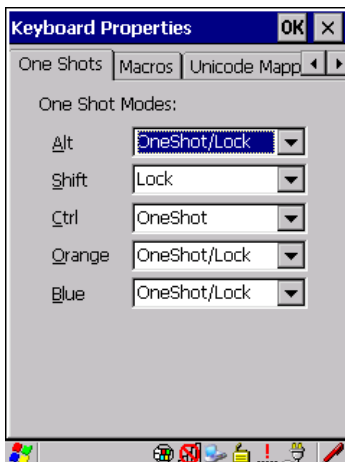
The value chosen from this drop-down menu determines the duration of time that the keyboard backlight stays on when a unit is not in use.



*Note: Tapping in the checkbox next to ‘**When using external power, keep the backlight always ON**’ forces the keypad backlight to remain on when the unit is operating with external power.*

5.5.3.4 Keyboard One Shot Modes

- In the *Keyboard Properties* dialog box, open the **One Shots** tab.



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



*Note: Keep in mind that checking the taskbar lets you know whether or not these keys are locked on. For example, if the [ORANGE] key is locked 'on', the taskbar at the bottom of the screen displays it in uppercase characters, **ORANGE KEY**. If this key is displayed in lowercase characters in the taskbar, you'll know that the **orange key** is not locked. It will become inactive following a key press.*



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

Lock

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

OneShot

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

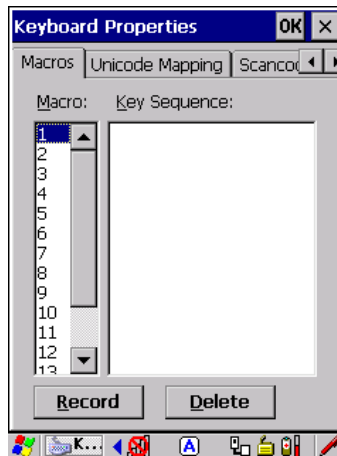
OneShot/Lock

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

If you press the modifier key twice, it is locked 'on', remaining active until the modifier key is pressed a third time to turn it 'off'.

5.5.3.5 Keyboard Macro Keys

- In the *Keyboard Properties* dialog box, open the **Macros** tab.



A macro has 200 programmable characters (or “positions”). The macro keys can be programmed to replace frequently used keystrokes, along with the function of executable keys including [ENTER], [BKSP] and [DEL] ([BLUE]-[BKSP]), function keys and arrow keys.

Recording And Saving A Macro

On the *28-key* Ikôn, you can program a maximum of 6 macro keys.

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

A message screen is displayed instructing you to *Enter Key Strokes to Record*



- Type the macro sequence you want to assign to the Macro key. You can type text and numbers, and you can program the function of special keys into a macro.
- When you've finished recording your macro sequence, press the key sequence: [CTRL] [ALT] [ENTER], or choose the **Stop Recording** button.

A new screen called 'Verify Macro' displays the macro sequence you created. The *Save* button is highlighted.

- Press [ENTER] to save your macro, or highlight CANCEL and press [ENTER] to discard it.

Executing A Macro

To execute a macro:

- Press the macro key to which you've assigned the macro. For example, if you created a macro for *macro key 1*, press [M1] to execute the macro.

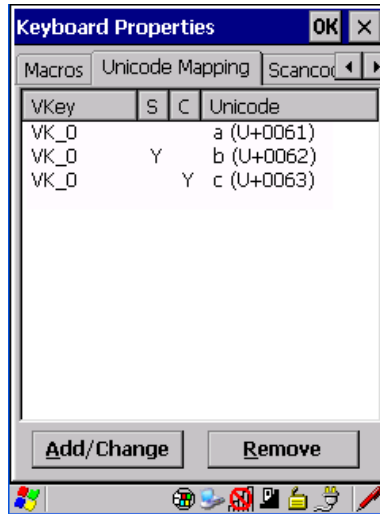
Deleting A Macro

To delete a macro:

- In the *Macros* menu, highlight the **macro number** you want to delete.
- Choose the **Delete** button.

5.5.3.6 Unicode Mapping

- In the *Keyboard Properties* dialog box, open the **Unicode Mapping** tab.



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

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

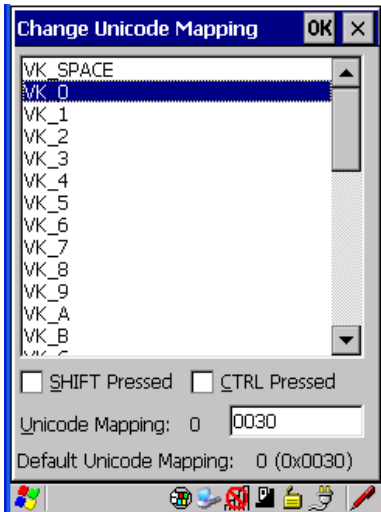
Adding And Changing Unicode Values



Important: *Changes to Unicode mappings are not saved until you exit the Keyboard Properties dialog box.*

- Choose the **Add/Change** button

Figure 5.5 Adding And Changing Unicode Values



- Highlight a value in the Unicode mapping list. In the sample screen above, a value will be assigned to virtual key 0 (VK 0).
- Position the cursor in the *Unicode Mapping* field, and type a **Unicode value** for the highlighted key.



Note: To add a shifted state, [SHIFT] and/or [CTRL], press [TAB] to position the cursor in the checkbox next to 'SHIFT Pressed' and/or 'CTRL Pressed'. Press [SPACE] to select the shift state you want to assign.

Removing Unicode Values

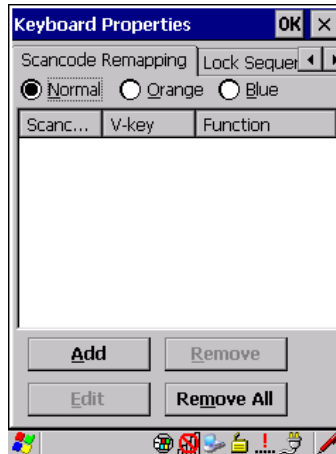
- In the *Unicode Mapping* menu, highlight the item you want to delete, and choose the **Remove** button.

5.5.3.7 Scancode Remapping

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

There are three different tables of scancode mappings: the *Normal* table, the *Blue* table and the *Orange* table. The *Normal* table defines unmodified key presses; the *Blue* table defines

key presses that occur when the [BLUE] modifier is on; the *Orange* table defines key presses that occur when the [ORANGE] modifier is on. The default mappings of these scancodes can be overwritten for each of these three tables using the *Scancode Remapping* menu accessed from the *Keyboard Properties* dialog box.



The first column in the *Scancode Remapping* menu displays the scancodes in hexadecimal. If the scancode is remapped to a virtual key, that virtual key is displayed in the next column labelled 'V-Key'. A virtual key that is 'Shifted' or 'Unshifted' is displayed in the third column labelled 'Function'.

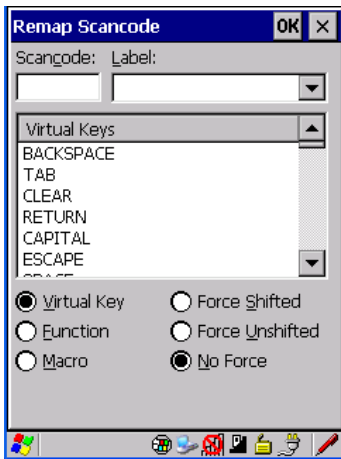
If the scancode is remapped to a function or a macro, the first and second columns remain blank while the third column contains the function name or macro key number (e.g., Macro 2).

Adding A Remap

To add a new remapping:

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

The *Remap Scancode* dialog box is displayed.



- Type the scan code in hexadecimal in the field labelled *Scancode*



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

Virtual Key, Function And Macro

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

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

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

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

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

Editing A Scancode Remap

To edit a scancode:

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

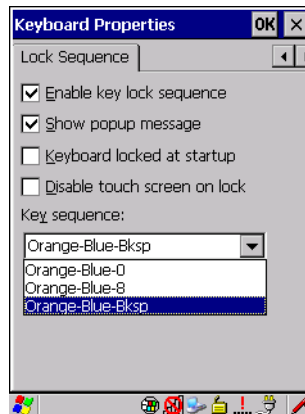
Removing A Remap

To delete a remap:

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

5.5.3.8 Lock Sequence

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

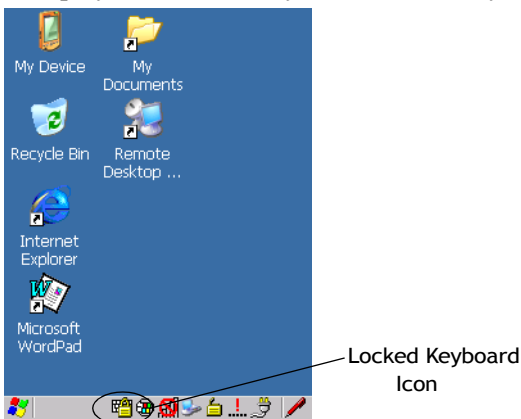


- To lock the keyboard, tap in the checkbox next to *Enable key lock sequence*.
- Tap in the checkbox next to *Keyboard locked at startup*.
- In the *Key sequence* dropdown menu, choose the key sequence you will need to type to unlock the keyboard.



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

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

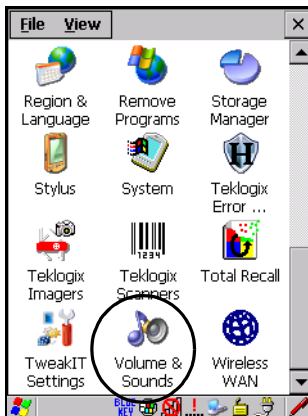


- Type the key sequence to unlock the keyboard.

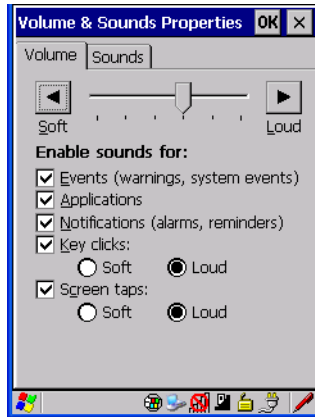
5.5.4 Volume And Sound Properties

- In the *Control Panel*, choose the **Volume & Sounds** icon.

Figure 5.6 Choosing The Volume Icon

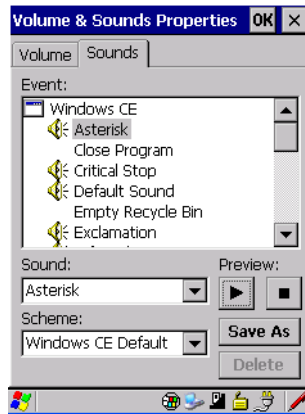


5.5.4.1 Volume Adjustments



- Slide the volume button to the left to lower the beeper volume or to the right to increase the beeper volume.
- Under the heading *Enable sounds for*, enable the conditions under which you want the Ikôn to emit a beep.

5.5.4.2 Sound Adjustments

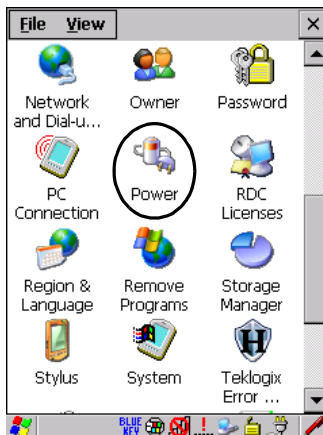


This dialogue box allows you to assign sounds to identify a particular actions. For example, you can choose the sound your Ikôn will emit when you close a program and choose another sound for a failed scan, etc.

5.5.5 Power Management Properties

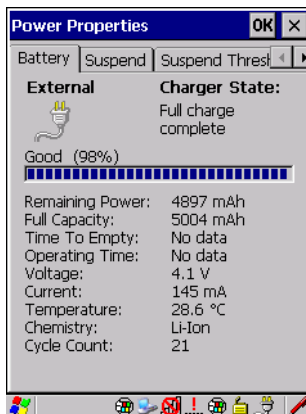
This icon displays a *Power Properties* dialog box that indicates the unit's battery capacity and allows you to manage battery use.

- In the *Control Panel*, choose the **Power** icon.



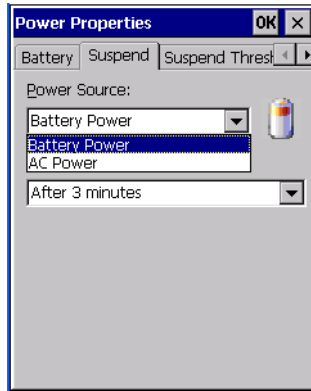
5.5.5.1 Battery Capacity

- In the *Power Properties* dialog box, open the **Battery** tab to view battery details.



5.5.5.2 Power Saving Suspend

- In the *Power Properties* dialog box, open the **Suspend** tab.



Power Source

This dialog box allows you to specify the suspend time for either *AC Power* or *Battery Power*.

Suspend Timeout

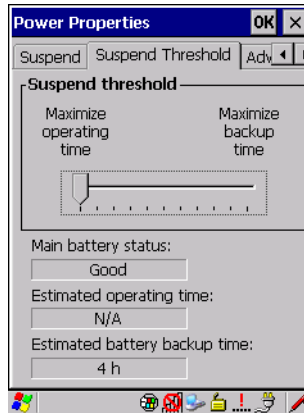


Important: *Psion Teklogix recommends setting the Suspend value to 10 minutes. To further reduce power consumption, carefully consider the duration of time that the display backlight is ‘on’ (see “Display Backlight” on page 84).*

When the Ikôn is idle—not receiving any user input (a key touch, a scan, and so on) or system activity (serial data, an activity initiated by an application, and so on)—the Ikôn uses the value assigned in the *Suspend Timeout* field to determine when the unit will go to sleep (appear to be off).

When the time in the *Suspend Timeout* field elapses without any activity, the unit enters *suspend* state. In suspend state, the Ikôn CPU enters a sleep state, and the radio is shut off. The state of the device (RAM contents) is preserved. Pressing [ENTER] wakes the system from suspend state. When the Ikôn is in suspend state, the network connection will not be broken immediately. If the connection is dropped, you must re-establish the network connection.

5.5.5.3 Suspend Threshold And Estimated Battery Backup



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



Important: *Selecting Maximum backup time will reserve approximately 20% of the battery capacity for memory backup. Once the battery is drained, the system RAM memory is lost and the unit must boot.*

In most real-time transaction environments this is not a problem (it only takes a few seconds to boot). Batch transaction environments, where data is not saved to a non-volatile memory (such as an SD FLASH card), may need to pay particular attention to this parameter. Psion Teklogix does not recommend the storage of any valuable data in system RAM.

The Ikôn Windows CE 5.0 environment does not store any critical data in RAM (such as the registry or file system).

If the user's application does not save data to RAM, Psion Teklogix recommends keeping the Suspend Threshold setting as low as possible to maximize battery run time.

The *Estimated Battery Backup* is the amount of battery power that has been reserved or set aside to protect data until a charged battery can be installed in the Ikôn. When the battery capacity is depleted up to the *Estimated Battery Backup* reserve specified in the *Suspend Threshold* menu, the Ikôn shuts off automatically and uses the reserve power to preserve the

data stored on the Ikôn. Once the Ikôn shuts down, it cannot be switched on until a fresh battery is installed, or the unit is inserted in a docking station or cradle.

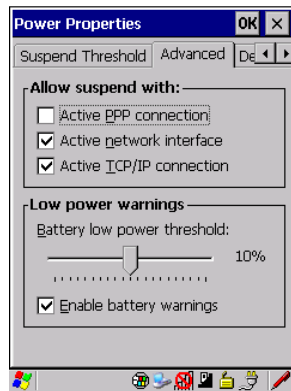
- Slide the **Suspend Threshold** button to the right to increase the battery capacity reserved for backup purposes. Data will be preserved to a maximum of 124 hours.
- Slide the **Suspend Threshold** button to the left to decrease the power reserved for backup purposes; this increases the Ikôn's operating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

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



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

5.5.5.4 Advanced



Allow Suspend With:

This menu allows you to specify whether or not your unit will enter Suspend state while it is operating with an active PPP connection, network interface or active TCP/IP connection.

Low Power Warnings

The sliding scale at the bottom of this menu allows you to specify the remaining battery capacity at which a warning message is displayed on the Ikôn screen, from 0% to 20%.

5.5.6 Stylus Properties



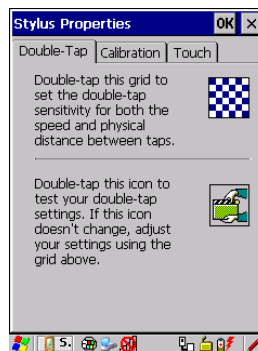
Note: Touchscreen calibration may not be enabled on your unit. If your screen appears to require recalibration, contact your supervisor.

- In the *Control Panel*, choose the **Stylus** icon.



5.5.6.1 Double-Tap

- In the *Double-Tap* menu, follow the directions to tailor the sensitivity of the stylus when you tap on the touchscreen.



5.5.6.2 Calibration

Touchscreens rarely require recalibration. However, if your touchscreen has never been calibrated or if you find that the stylus pointer is not accurate when you tap on an item, follow the directions below.

- Choose the **Calibration** tab, and then tap on the **Recalibrate** button.



- Follow the directions in the *Calibration* menu to recalibrate the screen.

5.5.6.3 Touch

This menu allows you to disable the touchscreen.

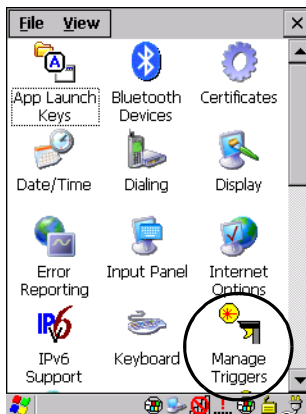
- Choose the **Touch** tab. Tap the checkbox next to *Disable the touch panel*.

5.5.7 Manage Triggers

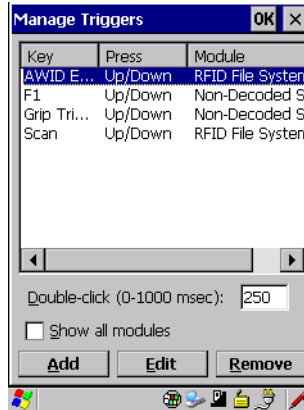
This option allows you to configure how bar code scanners and other devices are triggered. You can configure the trigger ID for each trigger button for both single- and double-click, and the double-click time.

- In the *Control Panel*, choose the Manage **Triggers** icon.

Figure 5.7 Manage Triggers Icon



- In the *Manage Triggers* screen you'll see a list of trigger mappings.



5.5.7.1 Trigger Mappings

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



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

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

Double-Click

When a key is pressed and released, then pressed again within the configured time (between 0 to 1000 milliseconds), a double-click occurs. See also “Trigger-Press Type” on page 109.

Show All Modules

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

Add

Tapping this button brings up the *Add Mapping* dialog (see “Add And Edit Trigger Mapping” on page 108), so that you can add new trigger mappings.

Edit

Tapping this button brings up the *Edit Mapping* dialog (see “Add And Edit Trigger Mapping” on page 108), so that you can edit existing trigger mappings.

Remove

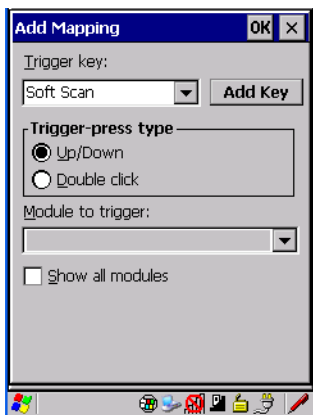
Tapping this button removes an existing mapping.

OK

The *OK* button in the top right of the *Manage Triggers* screen saves all changes made. If the cancel button *X* is tapped instead, or the [ESC] key is pressed, all changes made will be discarded.

5.5.7.2 Add And Edit Trigger Mapping

These dialogs allow the user to add and edit trigger mappings.



Trigger Key

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



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

It is also possible to map different sources to the same module (trigger consumer)—for example, two different trigger keys can be mapped to the RFID File System.

Add Key

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



Trigger-Press Type

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

Module Trigger

This identifies the driver or application receiving the trigger presses.

Show All Modules

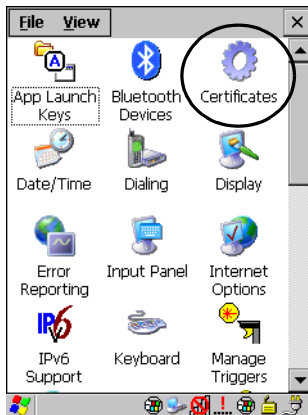
By default, inactive owners are not shown. By checking this checkbox, all owners, both active and inactive, are displayed.

5.5.8 Certificates

A public key is transmitted as part of a certificate. The certificates listed in the *Certificates* tabs ensure that the submitted public key is, in fact, the public key that belongs to the submitter. The Ikôn checks that the certificate has been digitally signed by a certification authority that the Ikôn explicitly trusts. This option is used in conjunction with 802.1x authentication to enhance Ikôn security.

- In the *Control Panel*, choose the **Certificate** icon.

Figure 5.8 Certificates Icon



Your Ikôn has certificates already preinstalled in the unit. *My Certificates* establish your identity, *Other Authorities* certificates identify intermediate certification authorities and *Trusted Authorities* certificates establish the identity of the servers with which you can connect.



You can import or remove certificates, and view certificate information for any listing, including names, dates, serial numbers, etc.

5.6 **Bluetooth**

5.6.1 **Bluetooth Setup**

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

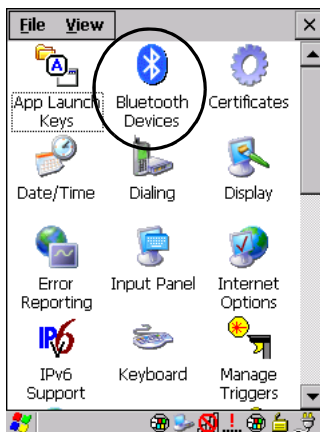


*Note: The **Bluetooth** radio uses an internal antenna.*

The *Bluetooth* radio is disabled by default. Before you begin the setup process:

- In the *Control Panel*, tap on the **Power** icon.
- Tap on the *Devices* tab, and tap in the checkbox next to *Enable **Bluetooth***. Tap on **OK**. When the radio is enabled, a *Bluetooth* icon appears the taskbar at the bottom of the screen. It is ready for setup.
- In the *Control Panel*, choose the ***Bluetooth** Device Properties* icon to display the ***Bluetooth** Manager* screen.

Figure 5.9 Bluetooth Icon



The **Bluetooth Manager** dialog box displays the other *Bluetooth* devices with which you can communicate.

5.6.1.1 Devices



If you intend to pair devices (a headset, for example), power on and bring the devices within 5 m (16.4 ft.) of the Ikon before proceeding with the discovery process described below.

Pairing A Device

To pair devices:

- Follow the manufacturer's instructions to place the device you want to pair in pairing mode

- Choose the *Devices* tab and **Scan** for devices in your area.
- When the scan is complete, highlight the device you want to pair with and either double-click or press the **Services** button.
- If a PIN dialog box appears, type your PIN and tap on **OK**.

After entering the device PIN number, the *Services* dialog appears with a list of services available on that device.

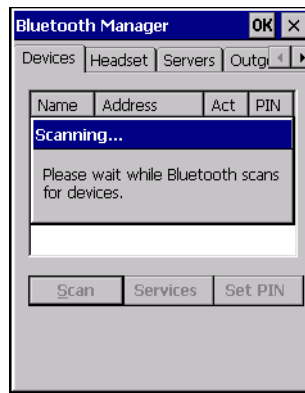
- To select a service, double-click on the service you want, or highlight the service and press the space bar.
- In the drop-down list of options available, choose **Active** to pair the device.

A COM/BSP port name will appear next to the service for this device. Your device is now paired.

Scan

- Click on the **Scan** button to list available devices.

Figure 5.10 Available *Bluetooth* Devices



Wait for the Ikôn to complete its scan (approximately 20 seconds). When scanning starts, the *Scan* button will change to *Stop*—if necessary, you can tap on this button to stop the process. Once scanning is complete, all discovered devices will be displayed in the list box, with *Name*, *Address*, *Active* status, and *PIN* information.



*Note: During the scanning process, addresses are located first, followed by names. Only the names of devices that are within the **Bluetooth** radio coverage range will be retrieved.*

The *Active* column indicates whether any service is activated for that device. When a service is activated, the device is displayed in the list even when it is not detected during the scan.

The *PIN* column indicates whether you have a PIN (password) set for the device.

At this point you can either query for services or set the PIN for each device. Once you highlight a device in the list box, both the **Services** and **Set PIN** buttons become available.

Services

A discovered device may display several service profiles that it can use to communicate, and you will want to activate the type you need. Supported profiles that can be activated include: *DUN* (Dial-Up Networking service), *Printer* (serial service), *Headset service* and *LANPPP* (LANAccessUsingPPP service). *ASync* (ActiveSync) is another available profile.

- To start the service scan, highlight a device in the *Devices* menu list, and then click on the **Services** button or double-click on the device entry.



Note: If the remote device is out of reach or turned off, it can take a considerable amount of time for the Services dialog box to appear—it may appear to be frozen.

Once the device's service profiles are displayed in the *Services* list box:

- Highlight the service to be activated.
- Press [SPACE] or right-click to display the *Activation* menu.

The *Activation* menu contains four options: *Activate*, *Authenticate*, *Outgoing*, and *Encrypt*.

Once the service is successfully activated, the assigned port (if applicable) will appear in the *Port* column of the *Services* list box. You can choose to use *BSP* or *COM* as the port name. *BSP* is the latest Microsoft *Bluetooth* stack standard, but older applications assume serial ports are *COM*. When using *COM* as the port name, the *Bluetooth* manager will try to find and use a free port between *COM7* and *COM9*. When using *BSP* as the port name, *BSP2* through *BSP9* are available for use. The port is available as soon as it is activated.



Note: The CH column shows the RFCOMM channel of the service if the service is RFCOMM-based. This information is not generally needed except for debugging purposes.

To add a service to the *Outgoing* port, an active service must first be deactivated. Then you can choose the **Outgoing** option from the *Activation* menu (highlight a service, right-click or press the [SPACE] bar to display the *Activation* menu).

The *Authentication* and *Encryption* options can be changed only before activation. To change these after activation, deactivate the service first, then change the options.

Once a service is activated, all the information regarding the service, including the RFCOMM channel number, is saved in the registry. (Some remote devices may change their RFCOMM channel numbers when they reboot, so your saved setting may not work when

the remote device is rebooted. In that case, you must deactivate the service and reactivate it to detect the current RFCOMM channel.)

Set PIN

PINs can be set for each device by pressing the **Set PIN** button in the *Devices* menu, or you can skip this step and try to connect to the device first.



Important: *The remote device must have authentication enabled, otherwise the PIN authentication will fail.*

- Highlight a device, click on the **Set Pin** button, and type the PIN.

You will receive a message, either that the PIN has been successfully validated or that it has been rejected.

If the PIN has been validated, an asterisk (*) appears in the PIN column in the *Devices* list box, indicating that this device has a PIN set. Once a PIN is entered, it is saved in the registry.

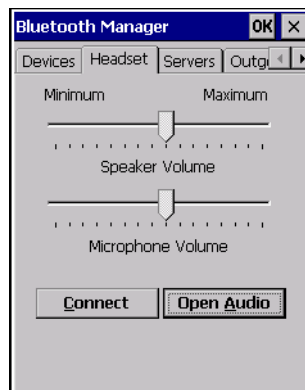
To remove the PIN:

- Choose **Set PIN**, and press [ENTER].

If the Ikôn attempts to connect to a remote device that has Authentication enabled and does not have a required PIN set, an *Authentication Request* dialog box appears.

- Enter the PIN, and tap on **OK** to connect the devices.

5.6.1.2 Headset



The *Headset* connection is initiated from this menu, and the headset speaker and microphone volumes can be adjusted here.

5.6.1.3 Servers



When the *Bluetooth* connection is initiated from your Ikôn to the remote device, the Ikôn is called the ‘client’ and the remote is called the ‘server’. The *Servers* menu displays the server profiles that can be activated in your Ikôn. There is currently one server profile available: *Serial*.

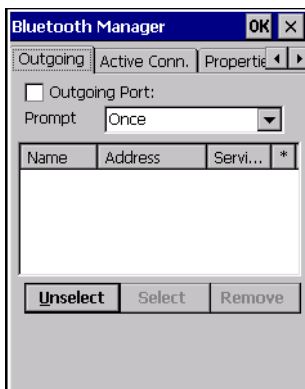
- Tap on the checkbox to activate the server, and it will display the associated port name beside the server name.

Once you activate a server profile, it is recommended that the Ikôn be rebooted before you try to bond from a server.



Note: You do not need to reboot if you are deactivating a server.

5.6.1.4 Outgoing



Outgoing Port acts as a serial port that can be used to connect to a list of *Bluetooth* devices (one at a time), but you have the freedom to switch on-the-fly.

The *Outgoing Port* checkbox allows you to create the Outgoing port. When the port is created, the *Outgoing* menu lists the port name.

The *Outgoing* list dialog box displays a list of services marked as ‘Outgoing’. The * column indicates the currently selected service. You can tap on **Unselect** to reset the current selection, or you can tap on **Select** to make a selection. The **Remove** button deletes the service from the outgoing list.

The *Prompt* menu determines the behaviour of the pop-up *Selection* menu. Choosing **Everytime** causes the *Selection* menu to be displayed each time an outgoing port is created. If you choose *Once*, the menu is displayed only when a partner service is not selected.

To display the *Selection* menu at any time:

- Press [CTRL] [ALT] [F1], and switch the partner *Bluetooth* device.

If a connection to a partner device already exists, the connection is dropped and another connection to the newly selected device is created instantly without disrupting the application that has opened the outgoing port.



Note: To add a service to the Outgoing port, an active service must first be deactivated. Then you can choose the ‘Outgoing’ option from the Activation menu (highlight a service, right-click or press the [SPACE] bar to display the Activation menu).

5.6.1.5 Active Conn.



The *Active Conn.* menu lists the *Name*, *Address*, and *Type* of the currently active connections. The table is periodically updated, but it can take a few seconds before it reflects the

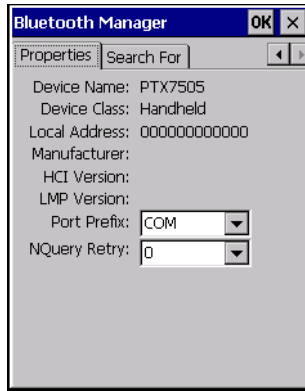
actual list of connections. The *Type* column of the table shows ‘ACL’ or ‘SCO’. The Connection list table shows the connections for scanning as well as the service connections.



Note: You can change the device-name and description of your radio by clicking on the **System** icon in Control Panel, which will open the System Properties dialog box. Click on the **Device Name** tab to access the menu and change your settings. Then click on **OK**.

Although the name will have changed in the Properties menu in **Bluetooth Controls**, the radio only reads it on boot-up. For the changes to take effect, you must reset the *Ikôn* (for reset instructions, see “Resetting The *Ikôn*” on page 26).

5.6.1.6 Properties



The *Properties* menu displays information about your *Ikôn*, and provides some port options.

The *Device Name* field shows the device name of your *Ikôn*. This name can be changed (see the *Note* on the previous page for details).

Device Class shows the Class of Device (e.g. desktop, *Ikôn*), which is always set to *Handheld*.

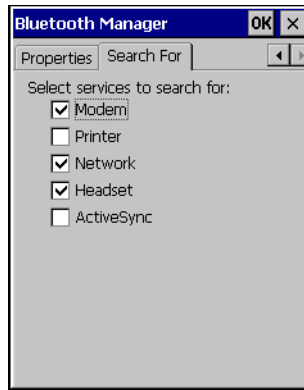
Local Bluetooth Address shows the address of your *Ikôn* radio.

Port Prefix is used to set the port name to either *BSP* or *COM*. When the name is set to *BSP*, BSP2 to BSP9 are available for activated services (including the server). When *COM* is chosen, COM7 to COM9 are available.

NQuery Retry (Name Query Retry) governs the number of times the Ikôn will attempt to query the names of other *Bluetooth* devices if the first attempt fails. (When the Ikôn scans for other devices, it sometimes fails to scan names.)



5.6.1.7 Search For

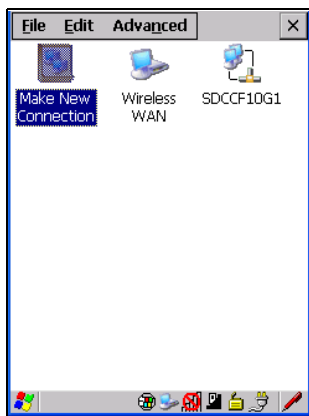


The *Search For* menu allows you to specify the services for which the *Bluetooth* radio

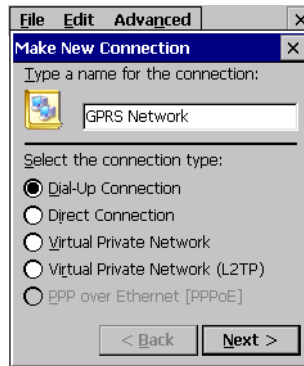
4. In the Ikôn, set up the internet parameters by choosing the **Network And Dial-up Connections** icon from the *Control Panel*



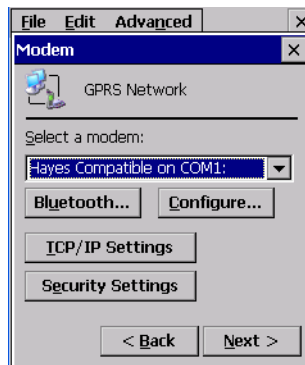
5. Choose the **Make New Connection** icon.



6. In the *Make New Connection* dialog box, choose **Dial-Up Connection**. Enter a name for your GPRS network connection.

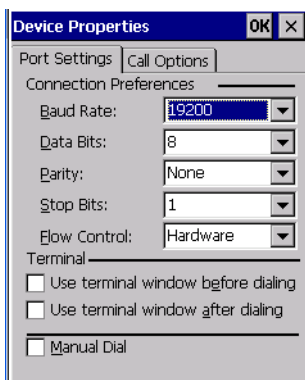


7. Choose the **Next** button to display the *Modem* dialog box.

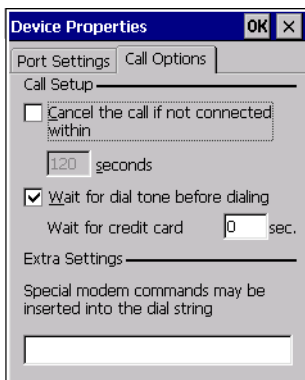


8. In the drop-down menu labelled *Select a modem*, choose the name of the modem with which you want to connect, and then choose the **Configure** button to display the *Device Properties* dialog box.

The Ikôn communicates via *Bluetooth* to your *Bluetooth*-equipped cellular telephone and retrieves the parameters for the *Device Properties* dialog box. The Ikôn then disconnects.



9. Under the *Call Options* tab, turn off **Cancel the call if not connected within**, and press [ENTER] to save your changes.

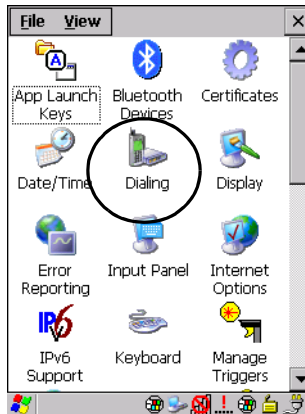


10. In the *Modem* dialog box, choose the **Next** button to display the *Phone Number* dialog box.



The phone number you enter is network carrier dependent. Once you've specified all the necessary information, choose the **Finish** button.

11. In the *Control Panel*, choose the **Dialing** icon.



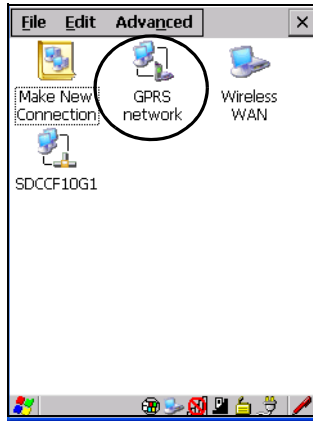
12. The values in the *Dialing Properties* dialog box need to be edited according to your network carrier specifications.



Once you've edited this dialog box to reflect your network carrier requirements, press [ENTER] to save your changes.

13. At this point, you'll need to return to the *Control Panel*, and choose the **Network and Dial-up Connections** icon.

14. In the network connection window, the new network configuration, in this case *GPRS Network* is displayed. Tap on the **new** icon.

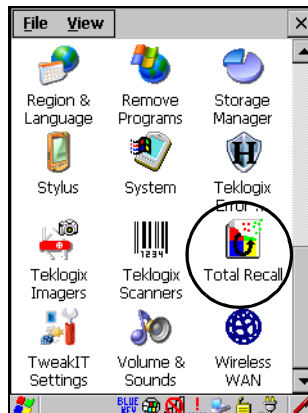


When you tap on your new connection, an onscreen message indicates the status of your connection: connected, disconnected, error messages, and so on.

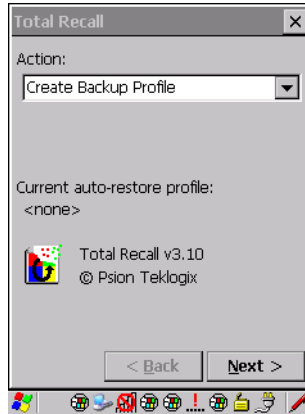
5.7 Total Recall

Total Recall is a Psion Teklogix utility developed to maintain applications and settings during a cold boot. This utility is based on a backup and restore concept.

- In the *Control Panel*, choose the **Total Recall** icon



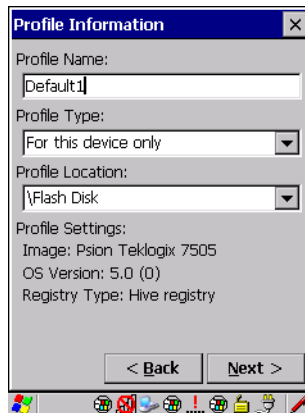
5.7.1 Creating A Backup Profile



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

- Choose the **Next** button to begin the process.

Profile Information



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

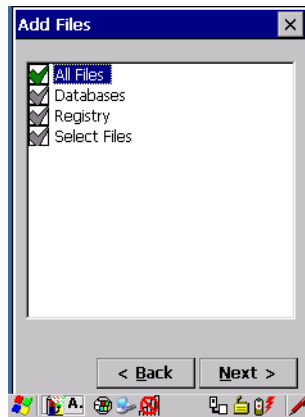
1. To begin, type a name for the profile in the field labelled *Profile Name*.
2. Choose the *Profile Type* you want to create:
For this device only—creates a backup that is manually restored by the operator.

AutoRestore for this device only—creates a profile that automatically restores itself following a restart.

AutoRestore for this and other devices—creates a profile that automatically restores after resuming from a restart, but it will not contain the touchscreen calibration coordinates or the Wireless radio settings.

3. Finally, choose the *Profile Location*: \Flash Disk.
4. Tap on the **Next** button to display the next dialog box *Add Files*.

Add Files

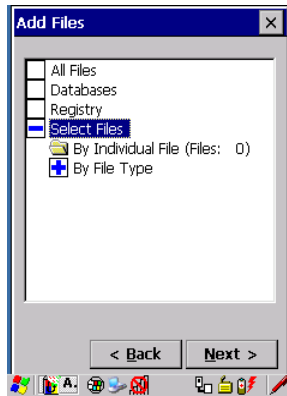


By default, *All Files* is selected so that all installed or copied files, database entries, and the Registry will be saved. You can, however, limit the backup to databases, and/or the registry only. By tapping the checkbox next to these items, you can add or remove a check mark to enable or disable the option.

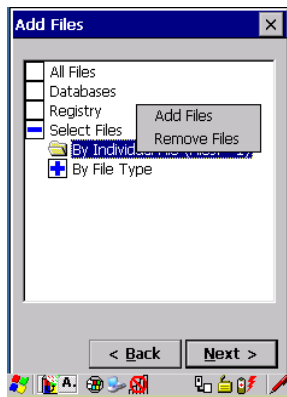
The *Select Files* option allows you to select predefined file types.

- Remove the check mark next to *All Files*. You'll notice the checkbox next to *Select Files* changes to +, indicating that additional options are available.

- Choose this icon  next to *Select Files* to view your options.



Choosing *By Individual File* displays a pop-up menu where you can tailor the list of files you want to back up.



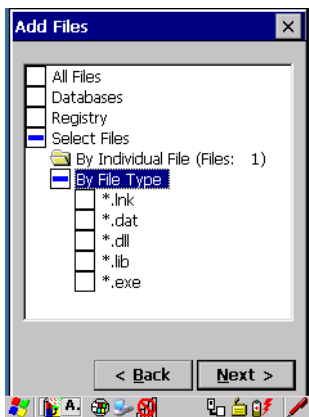
To add a file to your backup list:

- Choose **Add Files**. Browse to and choose the files you want to add to your list.

To remove a file from your backup list:

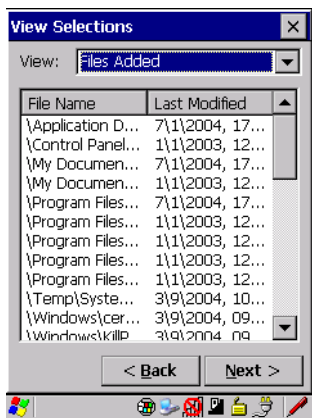
- Choose **Remove Files**—a dialog box is displayed listing the files that will be backed up.
- Highlight the item you want to remove from the list, and tap on the **Remove** button.

Choosing *By File Type* allows you to select the file types that you want backed up.



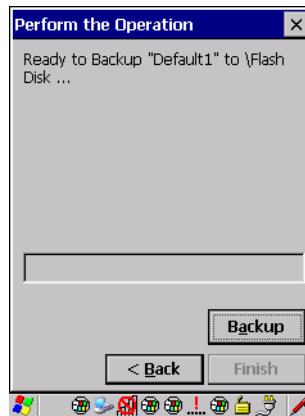
View Selections

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



- Choose the Next button to perform the operation.

Perform The Operation



- Choose the **Backup** button to start the process, and create a profile.

5.7.2 Restoring A Profile

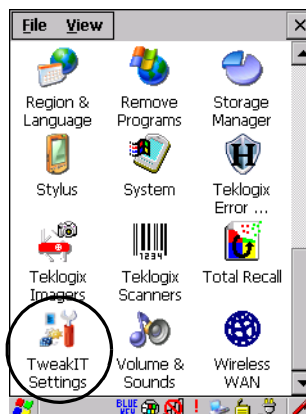
To manually restore a profile:

- Choose **Restore Selected Profile** from the drop-down menu, and choose the **Profile Name** displayed in the drop-down menu.



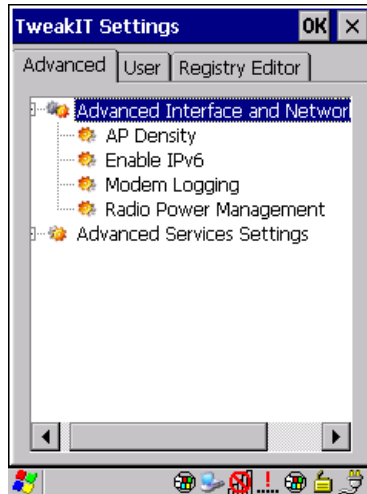
Note: You can also manually restore an auto restore profile located in flash or a storage device.

5.8 TweakIT



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

5.8.1 Advanced Interface And Network



AP Density

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

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

Enable IPv6

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

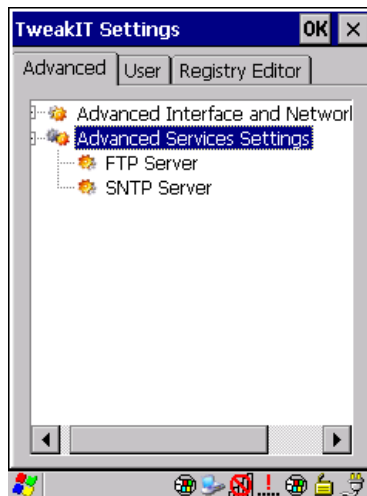
Modem Logging

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

Radio Power Management

When this option is enabled, access points that support it will use *Radio Power Management* guidelines to control the client (Ikôn) radio. Access points determine how often the Ikôn radio enters sleep mode when no activity is detected to reduce power consumption on the client side. Another benefit is that when *Radio Power Management* is enabled, even when no activity is detected, the access point does not disassociate the Ikôn (client).

5.8.2 Advanced Services Settings



FTP Server

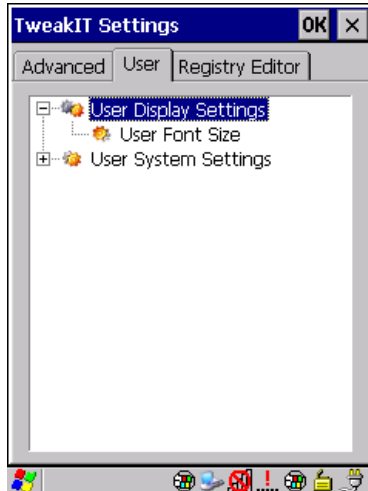
This option is enabled by default to allow file transfers. Keep in mind that data transfer in either direction is restricted to the Temp folder—that is, data are always loaded from the *FTP Server* to the *Temp* folder and from the *Temp* folder to the *FTP Server*.

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

SNTP (Simple Network Time Protocol) Server

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

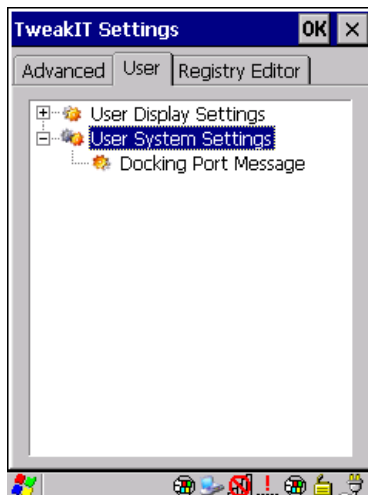
5.8.3 User Display Settings



User Font Size

This option allows you to adjust the size of the font used the Ikôn display: Large, Normal or Small.

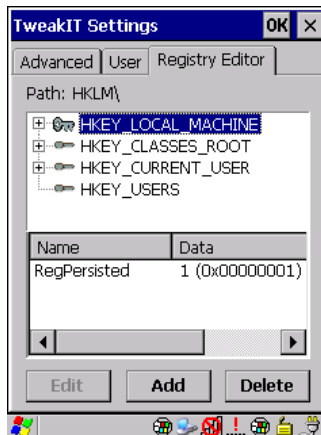
5.8.4 User System Settings



Docking Port Message

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

5.8.5 Registry Editor

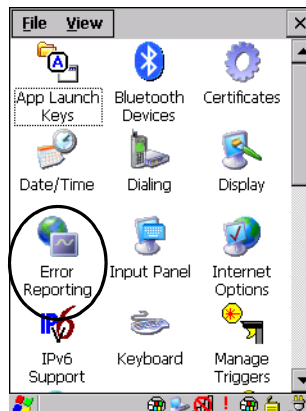


This option is reserved for senior administrators who have a strong understanding of registry keys and values. Careless registry editing can cause irreversible damage to the Ikôn.

5.9 Error Reporting

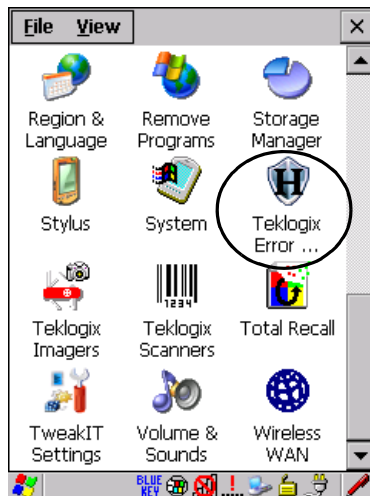
Error Reporting allows you to enable or disable Microsoft error reporting prompts.

- Tap on **Start>Settings>Control Panel**. Tap on the **Error Reporting** icon.



5.10 Teklogix Error Handling Service

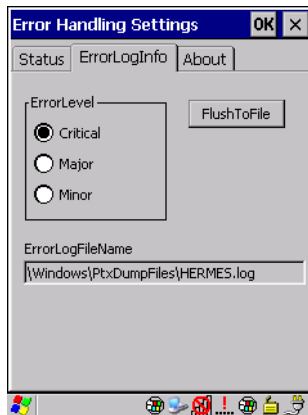
- Tap on **Start>Settings>Control Panel**. Tap on the **Teklogix Error Handling Service** icon.



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

5.10.1 ErrorLogInfo

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



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

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

5.11 The Storage Manager

The Storage Manager allows you to view information about the storage devices present in the Ikôn, such as a microSD flash card.

5.11.1 Formatting A Memory Card

Formatting a memory card bulk-erases it. Once a card is erased, partitions may be created in it, similarly to those on a hard drive. Memory-card devices are normally ‘mounted’ (made available to the system) automatically when they are inserted. They must be dismounted before they can be formatted.

To format an entire memory card:

1. Choose **Start> Settings>Control Panel**.
2. In *Control Panel*, double-click on the **Storage Manager** icon. The *Storage Manager* menu opens:



3. Choose the memory card from the drop-down list.
4. Press the **Dismount** button to dismount the memory card. All partitions on the card will be dismounted.
5. Press the **Format** button to format the memory card.

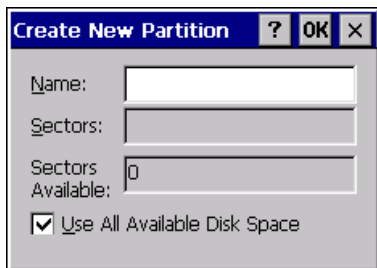
All partitions and information on the card will be erased during the formatting process.

5.11.2 Creating Partitions

Once the card is formatted, new partitions can be created in it. The default is to create one partition that occupies the whole card, but a card can be divided into more than one partition if desired. Each partition appears as a separate folder in Windows Explorer.

To create new partitions:

1. Tap the **New** button next to the *Partitions* list box. The Create New Partition dialog box appears:

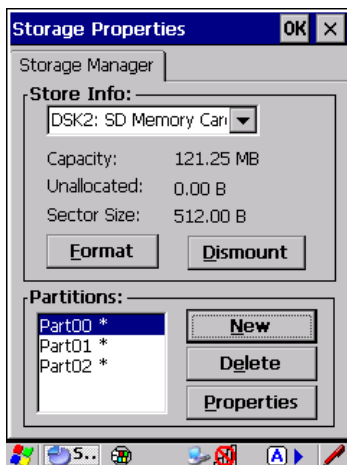


2. Type a name for the partition.
3. If more than one partition is desired, uncheck the *Use All Available Disk Space* checkbox, then specify the desired number of sectors to be used by the partition:



Note: The sector size of the card is given on the left-hand side of the Storage Properties dialog.

4. Tap **OK**. The new partition appears in the *Partitions* list:



The new partition is automatically mounted. This is indicated by an asterisk (*) next to its name in the partition list. Any unallocated space on the card is indicated at the left, and additional partitions can be created in it.

5.11.3 Partition Management

Partitions can be individually dismounted, mounted, deleted, or formatted as well. These and additional tasks are available from the *Partition Properties* dialog:



To dismount a partition:

1. Choose the desired partition.
2. Tap the **Properties** button. The *Partition Properties* dialog appears.
3. Tap the **Dismount** button. The partition is dismounted. The asterisk disappears next to its name in the partitions list.

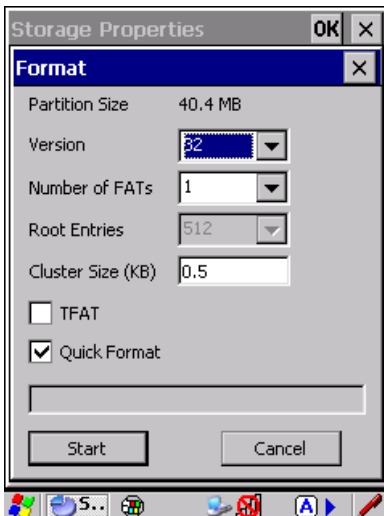
To delete a partition:

1. Select the desired partition.
2. Tap the **Delete** button. A warning dialog appears.
3. Tap the **OK** button. The partition is deleted.

To format a partition:

1. Choose the desired partition.
2. Tap the **Properties** button. The *Partition Properties* dialog appears.

3. Tap the **Dismount** button. The partition is dismounted. The asterisk disappears next to its name in the partitions list.
4. Tap the **Format** button. The *Format* dialog appears:



5. Choose your format options. These options include:
 - Version of file system (FAT-16, for devices holding up to 4 GB; or FAT-32, for devices containing up to 32 GB).
 - Number of FATs (File-Allocation Tables).
 - Number of entries allowed in the root directory.
 - Cluster size (.5 KB to 64 KB).

There are also two checkboxes, which govern:

- Whether to use the transaction-safe FAT file system (TFAT). This file system keeps multiple copies of the file-allocation table, changing one while maintaining another as a backup.
 - Whether to perform a quick format. Quick formatting removes all reference to data in the partition without erasing the actual partition. The partition will be treated as empty, and new data will overwrite it.
6. Tap Start. The partition is formatted.

To mount a partition:

1. Choose the desired partition.