

7545MBWZ Hand-Held Computer User Manual

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*ISO 9001 Certified
Quality Management System*



This user manual supports Model Numbers:

- 7545MBW & 7545MBWZ
- FCC ID: GM37545MBW & GM37545MBWZ

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1. Declaration Of Conformity



When used in a residential, commercial or light industrial environment the product and its approved UK and European peripherals fulfil all requirements for CE marking.

EU Directives

This equipment complies with the essential requirements of EU Directives 1999/5/EC, 2004/108/EC and 2006/95/EC, as applicable. Declarations are available from your local representative.

Където е приложимо, оборудването е съобразено с основните изисквания на Европейските директиви 1999/5/EC, 2004/108/EC и 2006/95/EC. Декларации са налични от местния представител.

Toto zařízení splňuje základní požadavky směrnic EU 1999/5/ES, 2004/108/ES a 2006/95/ES, vždy dle konkrétního způsobu použití. Příslušná prohlášení jsou k dispozici u vašeho lokálního distributora.

Dette udstyr overholder de væsentlige krav i EU-direktiv 1999/5/EF, 2004/108/EF og 2006/95/EF, som er relevant. Erklæringerne kan fås hos din lokale repræsentant.

Tämä laitteisto täyttää seuraavat EU Direktiivien olennaiset vaatimukset 1999/5/EY, 2004/108/EY ja 2006/95/EY, soveltuvin osin. Vaatimustenmukaisuusvakuutukset ovat saatavilla paikalliselta edustajalta.

Dit produkt voldoet aan de voorschriften van de richtlijnen van de EG Raad (1999/5/EC, 2004/108/EC en 2006/95/EC), indien van toepassing. Declaraties zijn beschikbaar bij uw locale vertegenwoordiger.

Cet appareil est conforme aux exigences essentielles des Directives de l'Union Européenne 1999/5/CE, 2004/108/CE et/ou 2006/95/CE. Veuillez consulter votre représentant local pour les déclarations applicables.

Ezen készülék technikai jellemzői megfelelnek a vonatkozó 1999/5/EC, 2004/108/EC és 2006/95/EC EU rendeletekben foglalt követelményeknek. A megfelelőségi dokumentáció a gyártó helyi partnereinél áll az Ön rendelkezésére.

Questo prodotto, ove applicabile, risponde alle direttive Europee 1999/5/EC, 2004/108/EC e 2006/95/EC. Dichiarazioni sono disponibili presso il vostro rappresentante locale.

Ten sprzęt jest zgodny z ogólnymi wymaganiami Dyrektyw UE nr 1999/5/EC, 2004/108/EC i 2006/95/EC, na ile znajdują zastosowanie. Oświadczenia są dostępne u lokalnych przedstawicieli.

Acest echipament este în conformitate cu cerințele esențiale ale Directivelor EU 1999/5/EC, 2004/108/EC și 2006/95/EC. Certificatele sunt disponibile la reprezentanta locală.

Toto zariadenie spĺňa základné požiadavky smerníc EÚ 1999/5/ES, 2004/108/ES a 2006/95/ES, vždy podľa konkrétneho spôsobu použitia. Príslušné vyhlásenia sú k dispozícii u vášho lokálneho distribútora.

Das Gerät erfüllt die wesentlichen Anforderungen der EU-Direktiven 1999/5/EC, 2004/108/EC und 2006/95/EC, soweit anwendbar. Eine entsprechende Bescheinigung kann bei Ihrem zuständigen Vertriebspartner angefordert werden.

Ta oprema je skladna in izpolnjuje nujne zahteve direktiv EU 1999/5/ES, 2004/108/ES in 2006/95/ES. Deklaracije so na voljo pri vašem krajevnem predstavniku.

Αυτός ο εξοπλισμός συμμορφώνεται με τις βασικές απαιτήσεις των εφαρμοσμένων οδηγιών 1999/5/EC, 2004/108/EC και 2006/95/EC της Ευρωπαϊκής Ένωσης. Οι επίσημες δηλώσεις είναι διαθέσιμες από τον τοπικό σας αντιπρόσωπο.

Dan l-apparat huwa konformi mar-regolamenti stipulati mid-Direttivi Ewropej 1999/5/EC, 2004/108/EC u 2006/95/EC skond kif inhu applikabbli. Kopji ta' dawn id-dikjarazzjonijiet huma aċċessibbli mingħand ir-rappreżentant locali tiegħek.

Este equipo cumple con las **condições** vigorantes de la EU directivas 1999/5/EC, 2004/108/EC e 2006/95/EC, com é pertinente. Las normativas **estão** disponível com su representado local.

Este equipo cumple con los requerimientos esenciales de las directivas de la EU 1999/5/EC, 2004/108/EC y 2006/95/EC, si es aplicable. Dichas declaraciones están en poder de sus representantes locales.

Ši iranga atitinka esminius ES direktyvu 1999/5/EC, 2004/108/EC ir 2006/95/EC reikalavimus. Deklaracijas galima gauti iš Jusu vietinio atstovo.

Šis iekartas atbilst ES direktivu 1999/5/EC, 2004/108/EC un 2006/95/EC prasibam. Deklaracijas ir pieejamas regionalajas parstavniecibas.

See seadmed vastavad olulistele nõuetele ELi direktiivide 1999/5/EC, 2004/108/EC ja 2006/95/EC, mida kohaldatakse. Deklaratsioonid on saadaval Teie kohaliku esindaja.



Use of the 802.11 device in France: owing to French Government restrictions, the 802.11 device is limited to indoor use. It may be used outdoors, on private property, only with prior authorization from the French Ministry of Defense.

2. Regulatory Summary

FCC Information To Users

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications made to this equipment not expressly approved by Psion Teklogix Inc. may void the FCC authorization to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment under 47 CFR 2.1093 paragraph (d)(2).

End users must follow the specific operating instructions for satisfying RF exposure compliance.

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

Some equipment in hospitals and aircraft are not shielded from radio frequency energy. Do not use the hand-held onboard aircraft, or in hospitals, without first obtaining permission.

Do not use near pacemakers. Omnia may affect the operation of some medically implanted devices such as pacemakers, causing them to malfunction. Avoid placing your Omnia next to such devices. Keep a minimum distance of 20 cm between the medical device and Omnia to reduce the risk of interference. If you have any reason to suspect that interference is taking place, turn off Omnia and contact your medical specialist for assistance.

Note: *To maintain compliance with the FCC RF exposure guidelines, if you wear the Omnia on your body, use the Psion Teklogix approved carrying case. Use of non-approved accessories may violate FCC RF exposure guidelines.*

Emissions Information For Canada

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations (ICES-003). When using the 802.11 radio option, to prevent radio interference, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada (ICES-003). En cas d'utilisation du module radio 802.11, afin d'éviter toute interférence radio avec le service autorisé, l'appareil doit être utilisé à l'intérieur, tout en tant éloigné de toute fenêtre afin de garantir le maximum de protection. Si cet équipement (ou son antenne émettrice) est installé à l'extérieur, il est alors soumis à licence.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Users are advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

De plus, les utilisateurs sont avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Warning for Australia

The user needs to switch off the device when exposed to areas with potentially explosive atmospheres such as petrol stations, chemical storage depots and blasting operations.

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1.1 About the User Manual

This User Manual describes how to configure, operate, and maintain the Psion Teklogix Omnii Hand-Held Computer.

Chapter 1: Introduction

provides a basic overview of the hand-held.

Chapter 2: Basic Operation

describes preparing Omnii for operation, including setting up your wireless network.

Chapter 3: Getting To Know Your Omnii

describes Omnii features, including how to charge and maintain the battery, the keyboard features, the display, using the internal scanner, etc.

Chapter 4: Windows Embedded CE 6.0

describes the Microsoft® Windows® Embedded CE 6.0 desktop and how to use it, outlines the basics of moving around a Microsoft Windows Embedded CE 6.0 window, selecting and opening icons and files, and working with a dialog box. It also shows you how to change the appearance and actions of the desktop from Windows Classic Shell to the PsionVU Shell.

Chapter 5: Configuration

describes the Microsoft Windows Embedded CE 6.0 Control Panel and how to use it to configure Omnii, along with scanners/imagers, *Bluetooth*, and so on. This chapter also introduces you to the PsionVU program, which enables you to customize your computer settings, remove or add shortcuts to the desktop and Control Panel, and lock down access to various different components on the computer and the system tray icons for security. With PsionVU and PsionVU Shell you can greatly enhance your User Experience.

Chapter 6: Peripheral Devices & Accessories

describes the peripherals and accessories available for your Omnii computer.

Chapter 7: Specifications

lists the specifications for your Omnii computer, radio, scanners/imagers, and battery.

Appendix A: Port Pinouts

describes the Omnii pinouts.

Appendix B: Wireless Zero Config

outlines the steps used to configure your radio using *Windows Zero Config*.

Appendix C: Bar Code Settings - TBD

details your bar code options.

Appendix D: Teklogix Imagers Applet

describes in detail your imager's settings.

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 Overview of 7545 Hand-Held Computer

Omnii Hand-Held Computer is a modular, industrial hand-held computer. A variety of options are available to suit applications in courier/delivery, field service, manufacturing facilities, material handling applications in warehouses, ports and yards, with a focus on real time wireless data transactions. Bar code input methodologies are supported by a variety of available scanners. Optimization for specific operational environments is also supported with a wide range of peripheral options and carrying accessories.

Note: Omnii Hand-Held Computer is a body worn device, and to maintain compliance with the FCC RF exposure guidelines, use a Psion Teklogix approved carrying case. Use of non-approved accessories may violate FCC RF exposure guidelines.



Note: For hand-held computer and accessories specifications, refer to "Specifications" on page 209.



Platform

- Texas Instruments® OMAP3® Processor, 800 MHz
- Flash Memory: configurable from 512 MB to 16 GB
- RAM 256 MB

Operating System

- Microsoft Windows Embedded CE 6.0

Bundled Applications

- Internet Explorer® 6
- Windows Mobile Device Center
- Wordpad®, ActiveSync®

Supported Applications

- Open TekTerm
- Lockdown Browser
- Naurtech Browser

Device Management and Provisioning

- Mobile Control Centre (MCC)
- Wavelink Avalanche
- Total Recall / TweakIt / Hermes

User Interface

- Colour Touch Display 9.4 cm (3.7 in.) diagonal
 - VGA/QVGA, 480 x 640 resolution
 - High visibility version: superior sunlight visibility
 - High Impact version: withstands 1.25 Joule impact
- Touchscreen
 - Passive stylus or finger operation; pan and flick gestures supported
 - Signature capture

- Keyboards
 - Large selection of backlit keypads in both alpha and numeric formats. For a list of currently available keyboard configurations, consult your Psion Teklogix representative, or go to “Keyboard and Keypad Kits” on page 181.
- Audio
 - Beeper
 - Rear speaker (optional)
 - Integrated Microphone and PTT Speaker
 - Supports walkie-talkie style Push-to-Talk over PTT Speaker; VoIP supported over both standard Wi-Fi and PTT microphone/speaker.
- Vibration feedback available to indicate successful bar code scanning in noisy environments.

Wireless Communication

- Integrated 802.11b/g radio (CCX v4 certified)
- FIPS 140-2 support
- Internal Wi-Fi antenna
- Integrated *Bluetooth*[®] class II, V 2.0 + EDR
- Optional SIRF III GPS Receiver



The following figures illustrate the main features of 7545—for detailed views, please see “Omnii Features” on page 11.

Figure 1.1 7545 Model



Figure 1.2 Bottom View (Docking Connector)



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2.1 7545 Features

Figure 2.1 Front View



Figure 2.2 Side Views

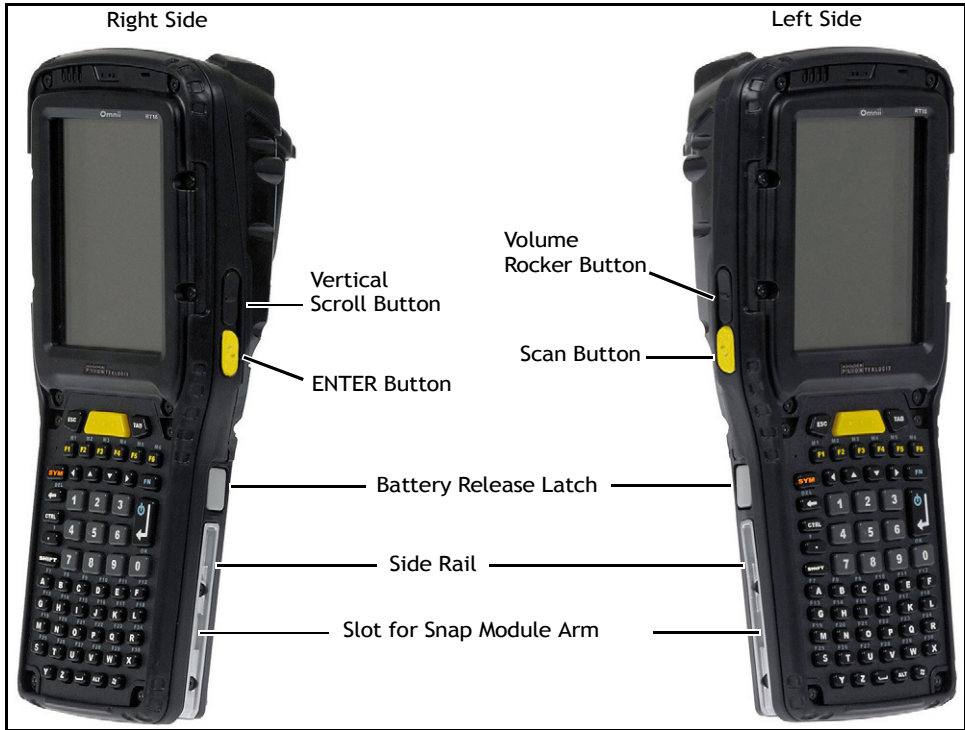
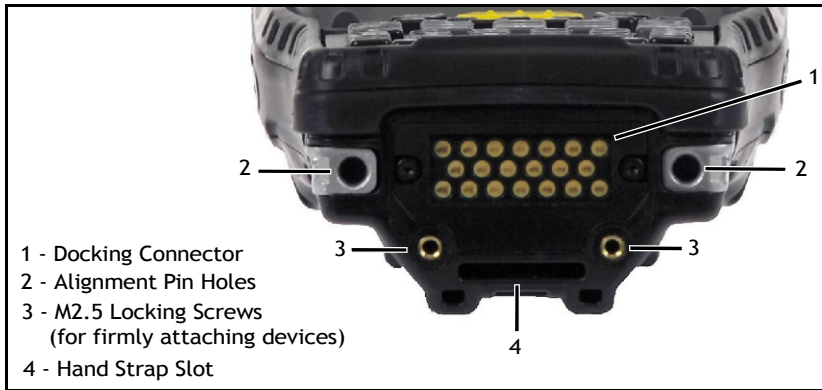


Figure 2.3 Bottom View



2.2 Preparing 7545 for Operation

2.2.1 The Battery

Omnii is powered by a Lithium-ion Smart Battery pack, 5000 mAh—Model ST3000.



Important: *Before charging the battery, it is critical that you review the battery safety guidelines in the Omnii Hand-Held Computer Regulatory & Warranty Guide (PN 8000191).*

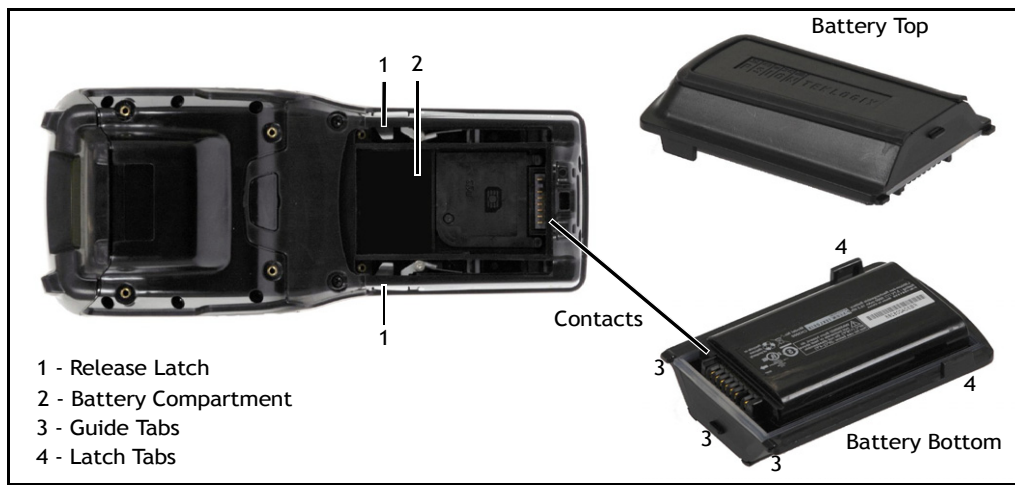
Battery packs shipped from the factory are charged to approximately 40% and must be fully charged prior to use. Batteries can be charged using a variety of chargers and docking stations. For detailed information, see “Battery Details” on page 41.

Replacing the Battery Pack



Important: *Always switch the unit off before changing the battery (see “Switching Omnii On and Off” on page 15). However, assuming the default power saving parameters and battery reserve level have not been altered, battery swap time is a minimum of 5 minutes—you will not lose data if the battery is replaced within this time frame.*

Figure 2.6 Omnii Battery





Note: If you are using a docking station or an external power supply, you can insert an uncharged battery and use the device while the battery charges.

Assuming the default power saving parameters and battery reserve level have not been altered, a battery can be removed for up to 5 minutes without losing data. After 5 minutes the terminal may reboot.

2.2.2 Removing the Battery Pack

- If your unit is equipped with a hand or shoulder strap, unhook it from the base of the battery.
- Press the two latch buttons at the sides of the compartment simultaneously, and slide the battery out.

2.2.3 Installing the Battery Pack

- Slide the charged battery with the contoured plastic facing you into the unit with the contacts matching position and the guide tabs moving into the corresponding slots at the base of the compartment. Click both sides of the battery into place.
- If your computer is equipped with a hand or shoulder strap, re-attach the clip to the slot at the base of the battery.

Switch the unit on (see “Switching Omnii On and Off” on page 15).

2.3 Switching Omnii On and Off

Follow the instructions below for your Omnii.

Switching Omnii On

- Press and hold down the [ENTER/Power] key for at least one second.

When the unit is turned off, normally it automatically enters a power-saving, “suspend” state. When Omnii is switched on from the suspend state, operation resumes within a few seconds in the screen in which you were working prior to turning the computer off.



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

The battery 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 117 for details.

To switch on the hand-held, you will need to replace the overheated battery. However, if you supply AC power to Omnii with a battery that falls below the configured Suspend Threshold, the unit will switch on.

Switching Omnii Off

- To switch off Omnii, press the [FN] key and then press and release the [ENTER/Power] button. Omnii will automatically enter the *Suspend* state.



Important: *Turning off the hand-held does not result in a complete shutdown; rather, the unit enters a power-saving, “suspend” state. When Omnii is turned on from suspend state, operation resumes within a few seconds.*



Important: *If the word ‘FN’ is displayed underlined in the taskbar area at the bottom of the screen, this key is locked “on” and Omnii will not switch off. Press the [FN] key twice followed by [ENTER/Power] to switch Omnii off.*

However, if you’ve set the mode to “Lock” (see “Keyboard One Shot Modes” on page 102), Omnii can be turned off even when the [FN] key is locked ‘on’.

2.4 Resetting Omnii

To perform a warm or cold reset, you can access the menu by going to *Start>Shutdown*. Alternatively you can use the keyboard shortcuts described below.



Note: *If your Desktop is switched to the PsionVU Shell (refer to “The PsionVU Desktop Shell” on page 76), resetting the unit is done solely by use of the keyboard shortcuts.*



Warm Reset

To execute a warm reset:

- Press and hold down the [FN] key and the [ENTER/Power] 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.



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

Cold Reset

To execute a cold reset:

- Press and hold down the [SYM] key, the [FN] key, and the [ENTER/Power] key, simultaneously for a minimum of four seconds.



Note: As part of the normal Windows Embedded CE cold boot process, the screen may go blank for a few seconds after the splash screen loading bar reaches the end. The desktop is displayed after a few moments.

Bootloader



Important: *This reset returns Omnii to factory settings.*

To implement the bootloader:

- Press and hold down the [FN] key, the [ENTER/Power] key, and the [SCAN] key, simultaneously for a minimum of four seconds.

After the cold reset, the BooSt menu appears.

- Type '1' to "Run Main OS" (continue loading the Windows Embedded CE operating system).

Hard Reset



Important: *This procedure is recommended as a last resort, when all other methods fail.*

To execute a hard reset:

- Remove the battery.
- Using a coin, or other conductive item, connect pins 5 and 6 of the Omnii battery contacts for at least 6 seconds.



- Replace the battery and power Omnii on. The terminal will boot as if from a cold reset.

2.5 Attaching Carrying Accessories

Psion Teklogix recommends that a carrying accessory—a hand strap or shoulder strap—be installed on Omnii before use. For detailed information, please see “Carrying and Protective Accessories” on page 184.

2.6 Calibrating the Touchscreen



Note: The touchscreen function can be turned off (see “Touch” on page 131).

The Omnii touchscreen feature is factory-calibrated and ready-to-go; however, over time the touchscreen's operating parameters may change, and it may need to be recalibrated for correct operation. Refer to “Calibrating the Touchscreen” on page 50 for details.

2.7 Configuring Your Wireless Network

Omnii contains an integrated 802.11b/g radio module. The *Wi-Fi Config* application is used to configure the radio for one or more wireless network profiles. To configure the radio, follow the steps outlined under the following heading “Wireless Networking”.

To configure your *Bluetooth* settings, please go to “Bluetooth® Setup” on page 134.

To see the radio specifications, please go to “Wireless Radios” on page 215.

2.8 Wireless Networking

The *Wi-Fi Config* application is used to configure the Omnii 802.11 a/b/g/n radio for one or more wireless network profiles. A network profile contains settings for SSID (Service Set Identifier) and security options.



Note: In most situations, the configuration of your 802.11 radio will require parameter setting and access keys from a network administrator.

To launch the *Wi-Fi Config* application:

- Tap on **Start>Programs>Wi-Fi Config**.



The *Wi-Fi Config* screen is displayed.

2.8.1 Wi-Fi Config: Status Tab

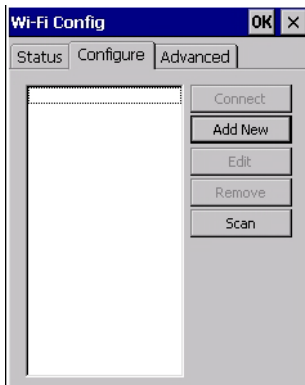
The *Status* tab displays information about the wireless network to which Omnii is configured to connect. When there are no network profiles configured, this tab is not populated.



Disable/Enable Radio: This button toggles between *Disable Radio* and *Enable Radio* depending on whether the radio is turned off or on.

2.8.2 Wi-Fi Config: Configure Tab

- To configure the radio for a wireless network, tap on the **Configure** tab.



Connect: Used to connect to an already existing wireless network configuration.

Add New: Used to create a new wireless network configuration.

Edit: Used to change values in an already existing wireless network configuration.

Remove: Used to delete a wireless network configuration.

Scan: Used to detect and list available wireless networks. You can highlight a network in the list, and tap on *Add New* to activate the network.

There are two methods available when configuring a radio network—you can either scan for an existing network or manually create a network. If you tap on the **Scan** button, a list of networks detected by the radio is displayed. Highlighting one of the listed networks and tapping on the *Add New* button creates a new profile that is completed based on the security capabilities detected by the radio. You may need to add additional information, depending on your network requirements.

If you tap on the **Add New** button rather than the *Scan* button, you can create a network manually.



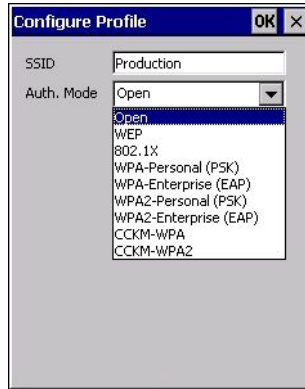
Important: *The steps below describe how to manually create a network. Keep in mind that this is intended only as an example and may vary from your own network requirements. If, for example, you are using a different type of security for your network, the fields you complete may not match those described here.*

- Enter the **SSID** (Service Set Identifier) for your network.



2.8.2.1 Authentication Mode

Omnii supports several classes of authentication—*Open*, *WEP*, *WPA/WPA2 (Personal PSK, Enterprise, CCKM-WPA, CCKM-WPA2)*, and *802.1x with EAP*. Tapping on the *Auth. Mode* menu displays your authentication options.



Note: Each Auth. Mode has a unique Configure Profile screen attached to it with fields appropriate to the authorization mode you've chosen.

Open Authentication

Open authentication does not provide security. When this option is chosen, Omnii will connect to wireless networks which do not use authentication or encryption.

WEP (Wired Equivalent Privacy)

WEP provides static security to prevent others from accidentally accessing your network. If you choose this option, you can specify the type of WEP authentication—*Open* or *Shared*, the WEP security key length—*64 bit* or *128 bit* and the key type—*ASCII* or *Hex*. *WEP Key* fields are also provided where you can specify a 5 or 13 ASCII character sequence or an equivalent 10 or 26 Hexadecimal digit sequence that matches the active WEP key on the access point.

WPA & WPA2 Personal PSK (Pre-Shared Key)

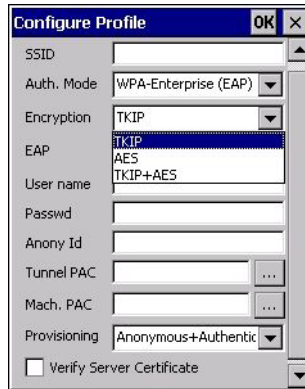
When PSK is selected, either *WPA Personal PSK* or *WPA2 Personal PSK*—a shared key must be configured on both the access point and the hand-held computer. One of the following can be chosen from the *Encryption* drop-down menu: *TKIP*, *AES* or *TKIP+AES*.

802.1X, WPA & WPA2 Enterprise, CCKM-WPA & CCKM-WPA2

These authentication modes use *802.1X* with *EAP* authentication. When *802.1X* is selected, Omnii uses *WEP* encryption with automatic (as opposed to static) keying. For the others, the user may choose *TKIP*, *AES* or *TKIP+AES* encryption.

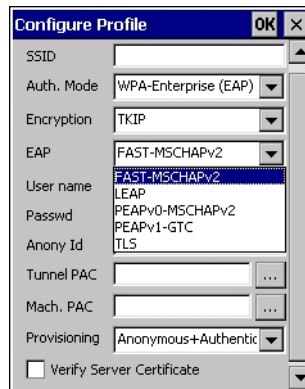
2.8.2.2 Encryption

The *Encryption* menu allows you to choose the type of encryption that will be used to protect transmitted data. Choose an *Encryption* method valid for your network from the drop-down menu. Only the *Encryption* options that are compatible with the type of *Auth. Mode* you've chosen will be listed. In fact, in some cases, this menu will not be available at all.



2.8.2.3 EAP

This menu allows you to choose the *EAP* (Extensible Authentication Protocol) type used for 802.1x authentication to an access point.



The following *EAP* types are supported by *Wi-Fi Config*:

- **TLS:** Provides strong security via the use of client certificates for user authentication.

- **PEAPv0-MSCHAPv2:** Provides secure user authentication by using a TLS tunnel to encrypt EAP traffic. *MSCHAPv2* is used as the inner authentication method. This is appropriate for use against Windows Active Directory and domains.
- **PEAPv1-GTC:** PEAP authentication using GTC as the inner method which utilizes one time passwords (OTPs) for authentication against OTP data bases such as SecureID.
- **LEAP:** Is an authentication method for use with Cisco WLAN access points. LEAP does not require the use of server or client certificates. LEAP supports Windows Active Directory and domains but requires the use of strong passwords to avoid vulnerability to off-line dictionary attacks.
- **FAST-MSCHAPv2:** Is a successor to LEAP and does not require strong passwords to protect against off-line dictionary attacks. Like LEAP, EAP-FAST does not require the use of server or client certificates and supports Windows Active Directory and domains.
- Complete the fields in the **Configure Profile** screen. If you're uncertain about some of the options, your system administrator will be able to provide the correct information for your wireless network.
- Once you've completed the necessary fields, tap on **OK**.

2.8.2.4 Verify Server Certificate

When the *Verify Server Certificate* box is checked, Omnii will verify the certificate provided by the authentication server during the authentication process. This requires that an appropriate certificate be manually installed on Omnii for the verification.

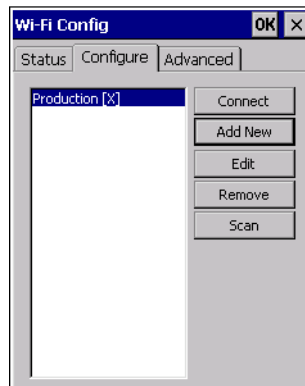
2.8.2.5 Enable OPMK

When used with compatible wireless infrastructure, Opportunistic Key Caching (OPMK) reduces the number of full authentications required when roaming. Only available with WPA2-Enterprise (EAP) authentication mode.



2.8.2.6 Connecting the Wireless Network

Your configured network is listed in the *Configure* tab. An *[X]* next to a network indicates that this is the network to which Omnii will connect.



- Tap on the **Connect** button to activate your network.

The *Status* tab is displayed. The *Status* field displays *ASSOCIATING* while the 802.11b/g radio attempts to connect to the network. Once the association is complete, the *Status* tab is populated with the appropriate information about your network.



2.8.3 Configuring TCP/IP

If your network is not using a DHCP server, you will need to assign an IP address.

2.8.3.1 IP Address

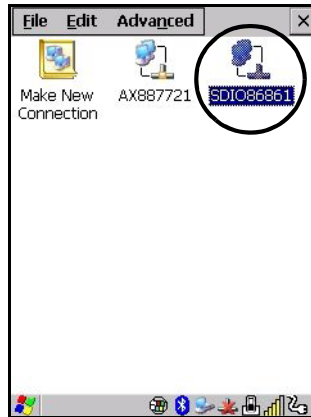
To assign an *IP address* for your Omnii:

- Tap on the **radio icon** in the taskbar,



or

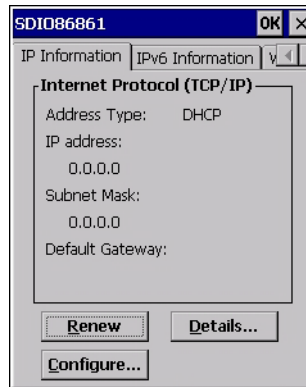
Tap on **Start>Settings>Network and Dial-up Connections**. Tap on the **radio icon** for which you want to assign an IP address—in the sample screen below, the icon is labelled *SDIO86861*.



The *Wireless Statistics* screen is displayed.

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

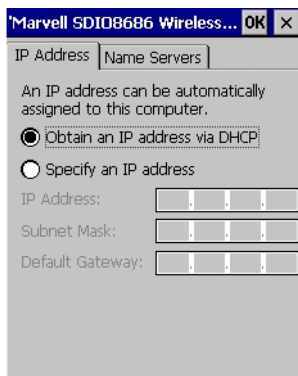
Figure 2.7 SDIO86861 IP Information Tab



Note: When DHCP is enabled, tapping the 'Renew' button forces Omnii 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 hand-held is dropped from the network.

To define a static IP address:

- Tap on the **Configure** button.



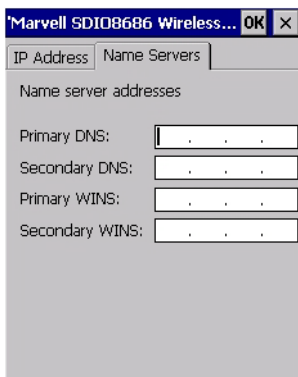
- Tap on the radio button next to **Specify an IP address** to select it.
- Type an **IP**, **Subnet Mask** and **Default Gateway** address in the appropriate fields. Press [ENTER] to save your information.

2.8.3.2 Name Server



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

- In the *SDIO8686 IP Information* tab (see Figure 2.7), tap on the **Configure** button.
- Tap on the **Name Servers** tab.



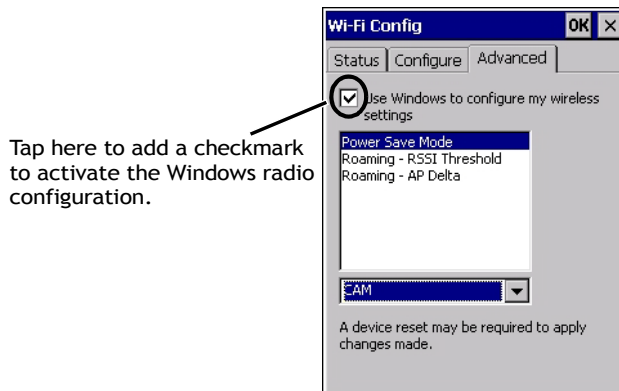
The DNS and WINS fields in the *Name Servers* tab allow you to specify additional WINS and DNS resolvers. The format for these fields is ###.###.###.###.

2.8.4 Wi-Fi Config: Advanced Tab

Use Windows to configure my wireless settings

In the *Advanced* tab you can set Windows to configure the radio, using *Wireless Zero Config*.

- Tap on the checkbox to the left of **Use Windows to configure my wireless settings** to enable this option.



Power Save Mode

This allows you to set the 802.11 power saving mode of the radio to: *CAM* (continuous access—always on) (recommended); or *MAX_PSP* (maximum power saving mode).

Roaming - RSSI Threshold

This sets the RSSI threshold value, below which the radio will start scanning for new access points when roaming. Values range from *-55 to -90 dBm*.

Roaming - AP Delta

This sets how much greater (in dBm) the RSSI of a new access point must be than the RSSI of the currently associated access point in order for the hand-held to initiate a roam. Values range from *5 to 30 dBm*.

Concluding the Wi-Fi Configuration

If you've made changes in the Advanced menus, you will need to warm reset your Omnii.

- Choose **Start>Shutdown>Warm Reset**.

- A dialog box is displayed letting you know that you will lose all unsaved data. Tap on **OK**.

Once the reset is complete, if you checked the box next to **Use Windows to configure my wireless settings**, the *Wireless Zero Config* screen is displayed on the hand-held. Refer to Appendix B: “Wireless Zero Config” for details.

2.9 Checking the Scanner

If your Omnii 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 hand-held’s screen.

Performance is improved if you disable all unneeded bar codes in the *Bar Codes* screen. Review “Teklogix Scanners” on page 158 and Appendix C: “Bar Code Settings - TBD” for details about bar codes.

2.10 Data Transfer between Omnii and a PC

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® connectivity software can be used to connect your Omnii to PCs.

If the Windows Vista® or Windows 7 operating system is installed in your PC, ActiveSync is not required to transfer data between your Omnii and your PC.

By using a Snap Module or Desktop Docking Station with your Omnii, you can connect to a PC with a cable and:

- View Omnii files from Windows Explorer.
- Drag and drop files between Omnii and the PC in the same way that you would between PC drives.
- Back up Omnii files to the PC, restore them from the PC to the hand-held again, etc.

2.10.1 Using Microsoft ActiveSync



Note: If you use a serial port to connect devices like Omnii to your desktop computer, the connection may not succeed because ActiveSync has trouble connecting at non-default baud rates.

To work around this problem, set the ActiveSync baud rate on the desktop to use the same baud rate as the device. You can set the baud rate by editing the registry on the desktop host computer, as detailed in the steps outlined at the following website:

<http://support.microsoft.com/kb/324466>

To install ActiveSync, follow the step-by-step instructions provided with the program's setup wizard. For details, go to the following website and type the name into the search box:

<http://www.microsoft.com/downloads/en/default.aspx>

2.10.2 Using Windows Mobile Device Center

If you are running *Windows Vista* or *Windows 7*, your data transfers do not require ActiveSync. Instead, you will need to download *Windows Mobile Device Center*. For instructions, go to the following website and type the name into the search box:

<http://www.microsoft.com/downloads/en/default.aspx>

To transfer data between your PC and your hand-held:

- Tap on **Start>Computer** to display the drives. Omnii will be visible here.
- Open drives, files and folders as you would on your PC.

2.11 Voice - Using the Phone Dialer

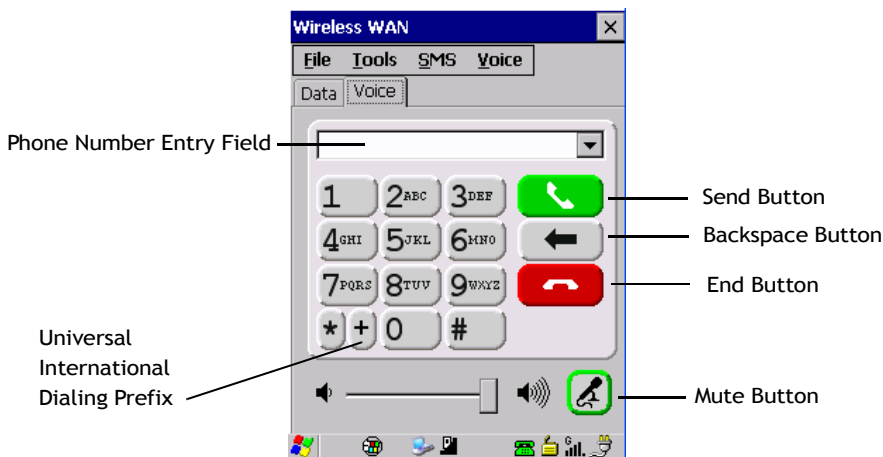
If the WWAN modem is installed and enabled, the *Phone icon* and the *GSM signal strength icon* will appear automatically on the taskbar.

- Double click on the **Phone icon** to access the phone dialer.

You can also follow the steps below to access the phone dialer:

- To access the dialer, tap on **Start>Settings>Control Panel**.
- Tap on the **Wireless WAN icon**, and then tap on the **Voice** tab.

The *Voice* tab displays a phone dialer used to dial phone numbers. The *Voice* menu provides commands which allow you to manage your phone contacts, view your phone history, and so on.



2.11.1 Dialing a Number

To make a phone call, all you need is the recipient's phone number.

- Type the recipient's phone number in the phone number entry field.
- **Send button** – tap to dial the number you typed.
- **Backspace button** – tap to erase characters in the phone number entry field.
- **End button** – tap to disconnect the phone call.
- **Mute button** – During a phone call, tap to mute sound transmission. Tap again to restore sound.
- **+ button** – When making an international call, the + sign can be used as a universal substitute for any international dialing prefix and is guaranteed to work worldwide. The entry sequence must be as follows: + **country code** followed by **phone number**.

Example: A standard phone number: 011 36 30 275 28466 using the + substitution is typed as follows: +36 30 275 28466

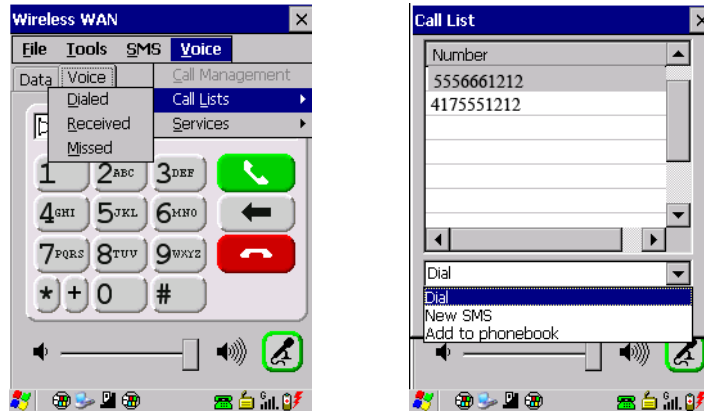
The + symbol replaces the universal dialing prefix 011.

2.11.2 Voice Menu

This menu allows you to manage calls, view your call history, and if required, assign a call forwarding service to your hand-held.



Call Lists



The *Call List* command manages your call history, listing calls you've *Dialed*, *Received* and *Missed*. When you choose one of these commands, a dialog box lists the phone numbers.

A drop-down menu provides a list of commands you can execute on a phone number in the *Call List*. You can choose to:

- Dial the number,
- Send a New SMS, or
- Add to phonebook to add the highlighted phone number to your phonebook. (Refer to "Phonebook" on page 35 for details additional details about the Phonebook.)

In the *Call List*:

- Highlight the **phone number** with which you want to work.

- Choose a command in the drop-down menu.
- Tap on the **Execute** button to carry out the command.

Services



The *Service* menu offers a *Call Forwarding* option for your hand-held. If you choose this option, it may take a number of seconds for your unit to read the network settings.

To forward all calls:

- Tap in the **checkbox** next to **Forward all calls**, and then type the phone number to which all incoming phone calls will be routed.

To specify when a call will be forwarded, that is:

Forward the call only when it is not answered after a specified number of seconds,

Forward the call when you have identified yourself as ‘unavailable’, *or*

Forward the call when your unit is busy:

- Tap in the appropriate checkbox, and enter the phone number to which the call will be routed.

Call Management

The *Call Management* option only becomes available in the *Voice* menu when at least one phone call is either *On hold* or *Active*. When you choose this command, the currently active phone call is listed in a dialog box.



Using the drop-down menu, you can choose to:

Hang Up All Calls - This option only appears when more than one call is listed.

Hang Up - This option disconnects only the call you've highlighted in the list.

Hold - This option places the call you've highlighted on hold.

Retrieve - This option is only available when a call is on hold, and choosing it retrieves the call you have highlighted from hold.

- In the *Call Management* list, highlight the phone number to which you'd like to apply a command.
- Choose a command from the drop-down menu, and tap on **Execute** to carry out the command on the highlighted phone number.

If you have two active calls on your hand-held, one *On Hold* and one *Active*, you can set up a conference call between yourself and the other callers. To set up a conference call:

- Highlight the phone number that is currently *On Hold*, and choose **Retrieve**. Tap on **Execute**.

Both calls will be listed as *Active* in the *Call Management* list. All calls are now conferenced so that you as well as your callers can speak to one another.

2.11.3 File Menu - Phonebook Management

Tapping on the *File* menu provides access to your *Phonebook*.

Phonebook

The *Phonebook* allows you to store frequently used phone numbers. When no numbers have been added to your phonebook, the only command available to you is *New Entry*.



To add a new phone number to your phonebook:

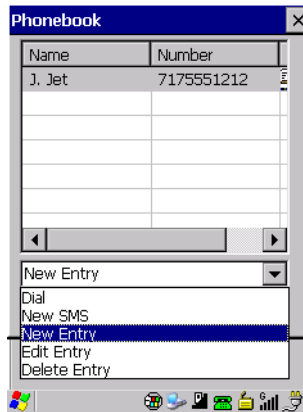
- Choose **New Entry** in the drop-down menu, and tap on **Execute**.



- Type the name corresponding to the phone number you want to add.
- Press **Tab** and type the phone number you want to store.
- Tap in the checkbox next to *Store in SIM* to save the phone number there, or leave this checkbox blank if you prefer not to store the number on the SIM card.
- Tap on the **Execute** button to save the phone number in your *Phonebook*.

Phonebook entries are saved even after you exit Wireless WAN.

Once you've added a phone number to the *Phonebook*, a list of new commands is available in the drop-down menu.



You can choose one of the following:

- *New Entry* to add another phone number,
- *New SMS (Short Message Service)* to send a new SMS,
- *Edit Entry* to change an existing name and/or phone number, *or*
- *Delete Entry* to erase an existing phone entry.

In the *Phonebook*:

- Highlight the entry with which you want to work.
- Choose a command from the drop-down menu, and tap on **Execute** to carry out the command.

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3.1 Battery Details

Omnii Hand-Held Computers operate by lithium-ion battery packs, Model ST3000.

Please see the following sections for detailed battery information:

- Installation: “Preparing Omnii for Operation” on page 14.
- Calibration and power settings: “Power Properties” on page 115.
- Chargers and docking stations: “Peripheral Devices & Accessories” on page 179.
- Specifications: “Lithium-ion Smart Battery 5000 mAh (ST3000)” on page 214.
- Contact pinout: page A-4 of Appendix A: Port Pinouts.

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 the Omnii Hand-Held Computer Regulatory & Warranty Guide, PN 8000191.*

3.1.2 Battery Swap Time

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

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

Refer to “Suspend Threshold and Estimated Battery Backup” on page 117 for details about reserving battery power for data backup purposes.

The *Suspend Threshold* adjustment in the *Power Properties* tab allows you to determine the battery capacity at which Omnii 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*, Omnii shuts off with more energy left in the battery so RAM can be backed up for a longer period of time.



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

The battery 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 117 for details.

To switch on the hand-held, you will need to replace the overheated battery. However, if you supply AC power to Omnii with a battery that falls below the configured Suspend Threshold, the unit will switch on.

3.1.3 Charging the Battery

Batteries shipped from the factory are charged to approximately 40% of capacity. Lithium-ion battery packs must be fully charged before use. These batteries can be charged with a variety of chargers and docking stations. For detailed information on these accessories, please see Chapter 6: “Peripheral Devices & Accessories”.

Normally it takes 3 to 4 hours to charge a battery. The Omnii intelligent charging system protects the battery from over-charging by terminating the charge process when the battery is at maximum capacity.

Table 3.1 Omnii Internal Battery Charging Times

% Charge Completed	During Sleep Mode	While Operating
100%	4 hrs.	8 hrs.
75%	2 hrs.	6 hrs.



Important: *To avoid damaging the battery, chargers will not begin the charge process until the battery temperature is between 0°C to 45°C (32°F to 113°F).*

3.2 The Keyboard

Omnii offers a wide variety of Alpha and Numeric keyboard layouts. See “Keyboard and Keypad Kits” on page 181 for a list of available configurations. Most of the keys on these keyboards operate much like a desktop computer. Where a key or key function is not consistent with the PC keyboard, those differences are described in the following sections.

Press the [SHIFT] key twice to lock the shift state on (the up arrow in the taskbar will be underlined). Press [SHIFT] again to turn the shift state off.

To access CAPS LOCK mode, press [FN] + [SHIFT]. In this state, if you press a numeric key, the number is displayed rather than the normal shifted function of that key. Press [FN] + [SHIFT] again to turn the CAPS LOCK mode off.

The Arrow Keys

The [Arrow] keys are located near the top of the keyboard, and are represented on the keyboard as triangles pointing in different directions. The [Arrow] keys move the cursor around the screen in the direction of the arrow: up, down, left and right. The left arrow key should not be confused with the [BACKSPACE] key which is depicted as a left arrow. The cursor is the flashing box or underline character that indicates where the next character you type will appear.

The [BACKSPACE/DEL] Key

The [BACKSPACE] key (represented on the keyboard as an arrow pointing left) moves the cursor one character to the left, erasing the previous key stroke.

The [DEL] key ([FN] + [BACKSPACE]) erases the character at the current cursor position.

The [CTRL] and [ALT] Key

The [CTRL] and [ALT] keys modify the function of the next key pressed and are application dependent. Pressing either key twice locks it 'on' (it appears underlined on the Taskbar). Pressing the key once again unlocks it.

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.

The [SPACE] Key

The [SPACE] key is represented on the keyboard by a long, low horizontal line contained by a small vertical line on each side. Pressing this key inserts a blank space between characters. In a Windows dialog box, pressing the [SPACE] key enables or disables a checkbox.

The [SCAN] Key

Omnii is equipped with a single [SCAN] key on the keyboard and an extra [SCAN] button located on the left side of the unit. [SCAN] keys activate the scanner beam. For units that do not have internal scanners, these keys can be remapped to serve other functions.

3.2.2 Modifier Keys

The [SHIFT], [CTRL], [ALT], [FN] and [SYM] keys are modifier keys that change the function of the next key pressed.

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

[SHIFT] and [FN]

The [SHIFT] and [FN] modifier keys provide access to additional keys and system functions. The functions related to these modifier keys are colour-coded in white and blue print respectively above the keyboard keys, dependant on your keyboard format.

[SYM]



Note: When using the Mobile Devices SDK Developers' Guide (P/N 8100016), note that the [SYM] key is interchangeable with the [ORANGE] key.

The Symbol [SYM] modifier key is represented on the keyboard by the characters 'SYM' and provides access to commonly used symbolic characters. Pressing the key brings up the Symbol soft input panel (SIP) onscreen keyboard, with symbols mapped to each key. If you wish to adjust the settings for the pop-up screen (e.g. time of delay before screen appears, etc.), modify the file *softinputpanel.xml*, located in the Windows folder.



Note: Modifier keys are remapped in the Control Panel, and the Symbol SIP will automatically show and use the new mappings after the next reboot.

The onscreen keyboard corresponds to the specific keyboard on your Omnii—either numeric or alphanumeric.

3.2.3 Function Keys and Macro Keys

In addition to the standard keyboard functions (see “The Keyboard” on page 42), Omnii supports function keys and macro keys.

All function keys and macro keys can be custom defined for each application. The TekTerm application utilizes these keys (for detailed information, see the *TekTerm Software User Manual*, P/N 8000073).

3.2.3.1 Function Keys

Function keys perform special, custom-defined functions within an application. These keys are accessed by pressing one of the dedicated function keys on the keyboard, or through the appropriate [SHIFT] or [FN] key sequence, depending on the keyboard variant being used.

Alphanumeric Keyboard Function Keys

The Alphanumeric keyboards are equipped with up to thirty function keys, including those function keys that are colour-coded in blue print above the alpha keys or function keys (depending on your keyboard).

To access the blue function keys, press the [FN] key followed by the appropriate alpha or function key.

Function keys [F1] through [F24] can be used with the Windows Embedded CE operating system or another application. The additional function keys, [F25] through [F30] along with the macros, are not used as part of the Windows Embedded CE operating system.

Numeric Keyboard Function Keys

The Numeric keyboards are equipped with up to 24 function keys, including those function keys that are colour-coded in white print above the function keys. Function keys F25 through F30 can only be accessed by remapping another key to that function.

To access the white function keys, press the [SHIFT] key followed by the appropriate function key.

3.2.3.2 Macro Keys



Important: Refer to “Keyboard Macro Keys” on page 104 for details about creating macros.

Several of the Omnii keyboards are equipped with a series of macro keys that can be programmed to replace frequently used keystrokes, along with the function of executable keys like the [ENTER/Power] key, the [BACKSPACE] key, any function key and arrow key, etc.

59-Key Alphanumeric Keyboard Macro Keys

These keyboards have six macro keys: [M1] to [M6], located on the S to X keys (second-last row of keys).

To access a macro key, press the [FN] key followed by the macro key.

36-Key Numeric Keyboard Macro Keys

These keyboards are equipped with five macro keys: [M1] to [M5]. These keys are colour coded in blue print above function keys [F1] to [F5].

To access a macro key, press the [FN] key followed by the macro key.

3.2.4 Numeric Keyboards—Accessing Alpha Keys

On the Numeric Omnii keyboards, all alphabetic characters are printed on the unit plastic in blue typeface above the keys. Alpha characters are accessed by pressing the [FN] modifier key, then pressing another key on the keyboard.

The Alpha Modified Numeric 789 keyboard has each blue alphabetic character assigned as a single [FN]-shifted character on individual keys. An indicator in the left corner of the taskbar displays the currently selected character.

The Numeric 123 keyboards have telephone-style alphabetic keys, with the blue alphabetic characters located in groups of 3 or 4 above each of the numeric keys. To access characters on these keyboards, a few extra steps are needed, as described below.

Choosing a Single Alpha Character



Note: The following examples assume that the [FN] key is enabled as ‘Lock’ mode in the ‘One Shot’ screen (accessible through the Control Panel Keyboard icon). In ‘Lock’ mode, pressing the [FN] key once locks it ‘on’. Refer to “Keyboard One Shot Modes” on page 102 for details.

The examples below illustrate how to access A, B and C, all of which are printed in blue characters above the numeric key [2]. The letters you choose appear in the softkey bar as you press the numeric key, providing a visual indicator of which letter will be displayed on the screen.

To choose the letter ‘a’:

- Press the [FN] key, and press the numeric key [2].
- Press the [FN] key again to unlock or turn it off.

To choose the letter ‘b’:

- Press the [FN] key, and press [2] twice.
- Press the [FN] key again to unlock or turn it off.

To choose the letter ‘c’:

- Press the [FN] key, and press [2] three times.
- Press the [FN] key again to unlock or turn it off.



Note: Keep in mind that there is a timeout of one second between key presses when sequencing through the alphabetic characters on a key. If you pause longer than one second between key presses, the alphabetic character that is displayed at that time will be entered.

Selecting Uppercase Letters

To display a single capital letter, press the [SHIFT] key first, then the letter you want.

To access CAPS LOCK mode, press [FN] + [SHIFT]. In this state, if you press a numeric key, the number is displayed rather than the normal shifted function of that key. Press [FN] + [SHIFT] again to turn the CAPS LOCK mode off.

3.2.5 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 Embedded CE *Control Panel*. The behaviour of the keypad backlight is tailored in the Keyboard Properties dialog box. Refer to “Keyboard Backlight” on page 102 for details about this option.



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

3.3 The Display

Omnii is equipped with display backlighting to improve character visibility in low light conditions. The backlight switches on when a key is pressed.

3.3.1 Adjusting the Display Backlight

The behaviour of the display backlight and the intensity of the backlight can be specified in the *Display Properties* dialog box in the *Control Panel*.

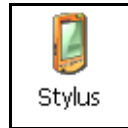


Note: Refer to “Backlight” on page 97 for details about the Display Properties dialog box.

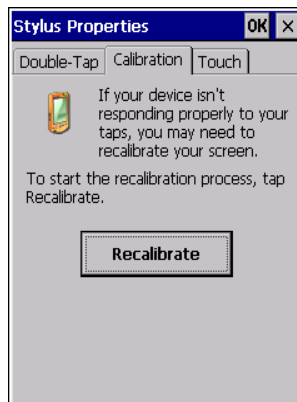
3.3.2 Calibrating the Touchscreen

If your Omnii 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.



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



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

3.4 Indicators

Omnii uses LEDs (Light Emitting Diodes), onscreen messages, vibrations, and audio tones as indicators.

3.4.1 LEDs

Omnii is equipped with four coloured LEDs. This section outlines what these LEDs indicate.



Important: *If an LED is illuminated in red, the operator should be cautious as this generally indicates an abnormal operating condition or active laser emission.*

Figure 3.3 LED Status Indicators



3.4.1.1 Battery Charge Status LED

The far left LED is reserved for battery charge status. This indicator is active even when the hand-held is inserted in a docking station (and in suspend mode) so that the charge status of the battery can be detected easily.

Table 3.2 Battery Charge LED Behaviours

Charge LED Behaviour	Function
OFF	External power not detected.
Solid Green	Battery charging complete.
Flashing Green	Charge in progress.
Yellow	Cell temperature out of range for charge.
Solid Red	Unable to charge battery.

3.4.1.2 Operating System Status LED

The second LED indicates system notifications and operating system status. It is also available for user-loaded custom Windows Embedded CE applications.

Operating LED Behaviour	Function
OFF when unit is in Suspend or Shutdown.	Normal operating status.
Solid Yellow	The unit is powering on.
Fast Flashing Yellow	The unit is in Standby mode.
Flashing Yellow	This LED is controlled by the Sounds and Notifications Control Panel applet.

3.4.1.3 Radio Status LED

The third LED from the left indicates the status of the GPS radio in Omnii.

Radio Traffic LED Behaviour	Function
OFF	The GPS radio is disabled.
Slow Flashing Blue	The GPS radio is enabled and active.

3.4.1.4 Scanner Status LED

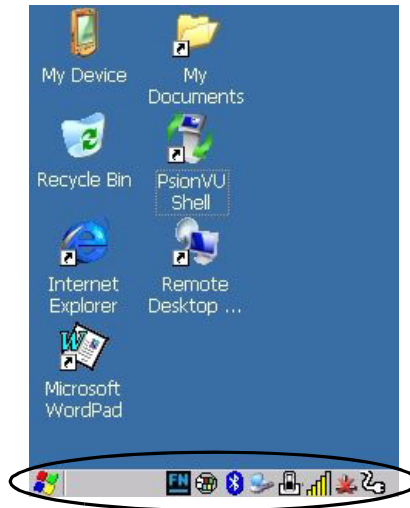
The fourth (far right) LED indicates scanner status.

Scan LED Behaviour	Function
OFF	The scanner is not in use.
Solid Red during scan	Scan in progress.
Solid Green after decode OFF when scan ended	Successful scan.
Flashing Red	Unsuccessful scan.

3.4.2 Onscreen Indicators

The taskbar at the bottom of the screen displays a variety of system status indicators, including the Input Panel button if you have chosen to show that option in the *Taskbar and Start Menu* settings.

Figure 3.4 Taskbar



The taskbar changes dynamically, and only those icons that are applicable are displayed. For example, if a radio is not installed in your Omnii, 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 the [Windows] key to display the Start Menu, and then tap on the desired application.



Modifier Key Indicators

[SHIFT], [CTRL], [ALT], [FN] and [SYM] are modifier keys that have onscreen indicators to show when a key is active or locked. If a modifier key is pressed once to activate it, the key is displayed in the taskbar, for example, pressing the [FN] key once displays ‘FN’ in the taskbar. If a modifier key is pressed twice, it is ‘locked on’ and the onscreen indicator is displayed with underlined letters in the taskbar, for example, pressing [FN] twice displays ‘FN’ in the taskbar.



Power

The battery shaped icon displayed in the taskbar provides quick access to the charge state of the battery. Tapping on the icon once will show the percentage charge left in the battery. Tapping on the icon twice opens the *Power Properties* menus (see “Power Properties” on page 115), where you can set the low battery warnings levels, and time to enter Suspend.

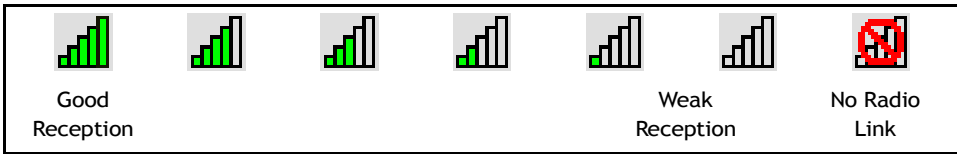


If Omnii is using external AC power, an AC icon is displayed in the taskbar.



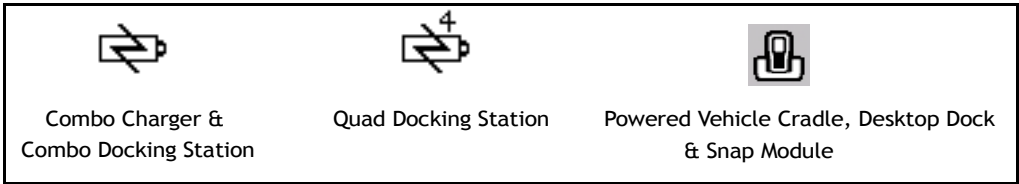
802.11 Radio Signal Quality

Increasing radio signal quality is represented by longer, filled bars within this icon.



Docking Device

When a hand-held is inserted in a docking station, charger or cradle, an associated icon appears in the taskbar.





Bluetooth Radio

This icon displayed in the taskbar represents the installed *Bluetooth* radio.



Input Panel

You can tap the Input Panel icon to activate the soft keyboard application.

3.4.3 Audio Indicators

Omnii supports several audio options, including *Bluetooth*. The optional rear speaker can be used for system (Windows) sounds and *.wav* files. When a rear speaker is absent, those sounds are routed to the front receiver. The beeper provides a variety of sounds and can be configured to emit a sound 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. The volume rocker button is located on the left side of the hand-held. Information on configuring sounds is detailed in "Volume & Sounds Properties" on page 132.

3.4.4 Vibrations

You can set Omnii to vibrate when a successful or unsuccessful bar code scan is performed. See "Teklogix Scanners", page 158.

3.5 Monitoring the Network Connection

The radio signal icon in the taskbar indicates the strength of the communication link with an 802.11 access point.

To access the radio signal icon:

- Tap on the radio icon in the taskbar to display the wireless statistics dialog box.

To access the radio signal icon using the keyboard:

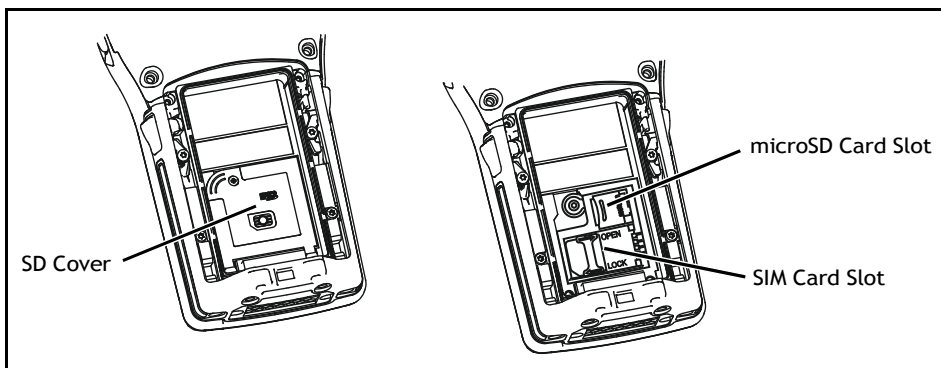
- Press the [Windows] key to display the *Start Menu*.
- Highlight **Shortcuts** and then choose **System Tray** from the sub-menu.
- Use the [LEFT] and [RIGHT] arrow keys to highlight the **radio signal** icon in the taskbar.
- Press [ENTER] to display the *Wireless Statistics* dialog box.



Note: Moving in and out of the radio coverage area can have varying effects on a network session. At times, you may need to renew your connection by logging in again.

3.6 Inserting the microSD Card and SIM Card

There are two slots available in the battery compartment—the lower slot is provided for a *microSD* (Secure Digital) card, which provides additional non-volatile memory to your Omnia, and the upper slot is for a *SIM* (Subscriber Identity Module) card, which allows access to the Voice option, access to the Internet, and so on.

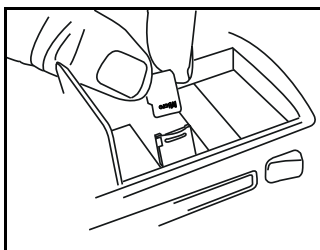


3.6.1 Inserting the Cards

- Switch off the power to Omnia.
- Remove the battery.
- Use a Phillips screwdriver to remove the SD cover screw. Flip the cover open or remove it.

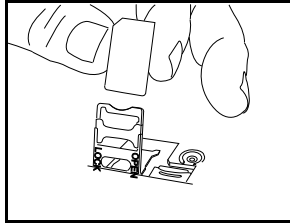
For a microSD card:

- Slide the microSD card door to the left to unlock it. Flip it open.
- Slide the microSD card into the guides on the SD card door.
- Close the microSD card door, and slide it to the right to lock it.



For a SIM card:

- Slide the SIM card metal door latch to the right to unlock it, then flip the door open.
- Slide the card into the guides on the SIM card door.
- Swing the hinged door back down into place, and slide the metal door latch to the left to lock it.



3.7 Uploading Data in a Docking Station

The Desktop Docking Stations allow your hand-held to upload transaction data to a server computer when a radio link is not available. When Omnii is properly inserted in a docking station, a dock icon is displayed in the taskbar at the bottom of the unit screen. For detailed information, refer to “Desktop Docking Stations - Models ST4002 and ST4003” on page 191. Review the documentation provided with the user application installed in your Omnii before performing data uploads.

3.8 General Maintenance

3.8.1 Caring for the Touchscreen

The touchscreen is covered with 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:

- mustard
- ketchup
- sodium hydroxide
- concentrated caustic solutions
- benzyl alcohol
- concentrated acids

If the touchscreen is used in harsh environments, consider applying a disposable screen protector (ST6112). 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.

3.8.2 Cleaning Omnii



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

To prevent damage to the touchscreen, use only your finger or the stylus (pen) supplied with your Omnii.

- Use only mild detergent or soapy water to clean the hand-held unit.
- Avoid abrasive cleaners, solvents or strong chemicals for cleaning. Omnii has a plastic case that 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.

WINDOWS EMBEDDED CE 6.0

4

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4.1 Navigating in Windows Embedded CE and Applications

Graphic user interfaces like Windows Embedded CE 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 Embedded CE 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. In those applications that support it, you can also flick and pan your finger to scroll through screens.

4.1.1 Navigating Using a Touchscreen



Note: If the touchscreen is not registering your screen taps accurately, the touchscreen may need recalibration. Refer to “Calibrating the Touchscreen” on page 50.

Omnii comes equipped with a stylus—a pointing tool that looks like a pen. The stylus is used to select objects on the touchscreen. You can also use gestures with your fingers. You can use two gestures: pan and flick. Use left or right flicks to quickly move between tabs of a multi-tab control panel, or to scroll long lists of options. Use panning by touching and dragging a page that has scrollbars.



Note: To prevent damage to the touchscreen, use only a finger touch or the stylus (pen) supplied with your Omnii.

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

- Double-tap on the appropriate icon.

4.1.2 Navigating Using the Keyboard

If you would like to use keyed input to choose icons and navigating dialog boxes, displaying the desktop you can refer to Table 4.1 for a description of the navigation keys.

Table 4.1 Keyboard Navigation

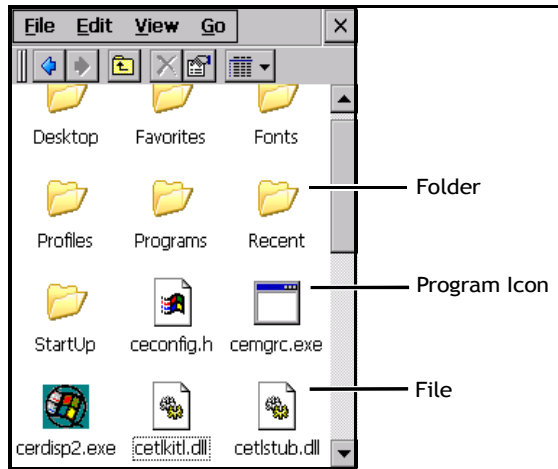
Operation	Key or Key Combination
Switch between active applications	[ALT] [TAB]
Open task manager	[ALT] [ESC]
Move the cursor	Arrow keys

Operation	Key or Key Combination
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	[Windows]

Keep in mind that unlike a desktop computer, Omnii 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 “Working with Files, Folders, and Programs” on page 62 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.

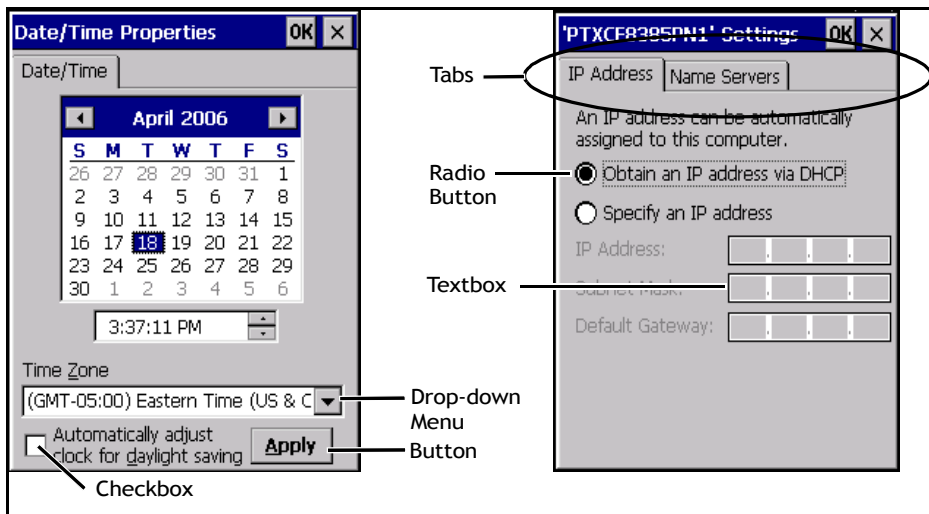
If you're using the keyboard:

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

4.3 Using a Dialog Box

A dialog box (like the samples in Figure 4.2) appears when you need to make selections and enter further information. You can move between dialog items by tapping on them, or by pressing the arrow keys and the [TAB] key ([SHIFT] [TAB] moves the cursor backwards).

Figure 4.2 Dialog Boxes



Note: You can tap on an element in a dialog box to select or deselect it, display drop-down menu items, 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 4.2 on page 63 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.

4.4 The Windows Classic Shell Startup Desktop

When Omnii boots up, the default startup desktop (Windows Classic 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 4.3 Omnii Windows Classic Shell 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 [Windows] to display the Start Menu, and select Desktop. Now the desktop will be “in focus” and the arrow keys will highlight the icons.

4.4.1 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 Omnii. If you're not sure how to work with the files, folders and programs displayed, refer to “Working with Files, Folders, and Programs” on page 62.

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 Embedded CE 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*.

Microsoft WordPad

WordPad is a basic word processor used to create, edit, and print *.rtf*, *.doc*, and *.txt* files.

My Documents

The *My Documents* folder is a standard location for storing user-created files. The folder is located under the root of the hard drive on which Windows is installed.

Remote Desktop Connection

Remote Desktop Connection is an Omnii application used to connect to a Windows Terminal Server so that you can run a “session” on the Server machine using the hand-held (Windows Embedded CE device). “Remote Desktop Connection” on page 87 provides a website with details about this option.

Shell Switch

The appearance and actions of the desktop can be changed by tapping on the **Shell Switch** icon, which activates the PsionVU shell. After switching to PsionVU, the desktop appearance will be very different. For detailed information, please go to “The PsionVU Desktop Shell” on page 76.

4.4.2 The Taskbar



Omnii 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 hand-held is attached to a charger, cradle, docking station, or Snap Module, an associated icon is displayed. In addition, the taskbar displays the application(s) currently running on your unit.

The taskbar also displays active modifier keys: [SHIFT], [ALT], [CTRL], [FN] and [SYM]. Keys that have been locked “on” are displayed with underlined 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 an underlined ‘Ctrl’ in the taskbar. (For detailed information on modifier keys and keyboard options, see “The Keyboard” on page 42).

4.4.2.1 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 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 [Windows] 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.

4.4.2.2 Customizing the Taskbar

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

- In the *Start Menu*, choose **Settings**, and then **Taskbar**.

If you're using the keyboard:

- Press [Windows] 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.



- Tap 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. A check mark indicates active items.

4.4.3 The Start Menu

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, tap on the *Start Menu*.



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

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 *Run* dialog box, type the letter 'r'.

4.4.3.1 The Desktop

Choosing the *Desktop* option from the *Start Menu* displays the Omnii desktop.



4.4.3.2 Programs

- Choose **Programs** to display a sub-menu of options. The programs displayed will be those resident in the *Windows\Programs* folder of the computer.

Figure 4.4 Program Sub-Menu



This sub-menu allows you to choose *Command Prompt*, *Internet Explorer*, installed applications (e.g., Microsoft WordPad), *PsionVU Access*, *Remote Desktop Connection*, *Wi-Fi Config*, or *Windows Explorer*.

Demo

This folder contains the *Demo Scanner*, *Demo Signature* and *Demo Sound* applications. *Demo Scanner* can be used to test how the hand-held reads and writes bar codes. *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 sound files. 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 sound but will require more file storage space. Lower sample rates and/or bits per sample produces a smaller file, but the sound quality suffers. The record and play buttons operate the same as any recording device. The *X* icon deletes the sound and the *diskette* icon allows you to save your sound.

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

Omnii is equipped with Microsoft Internet Explorer for Windows Embedded CE. You can access the *Internet Options* icon through the *Start Menu* under *Settings>Control Panel* or by double-tapping on the desktop icon *My Device* and then, double-tapping on the *Control Panel* icon.

Microsoft WordPad

WordPad is a basic word processor used to create, edit, and print *.rtf*, *.doc*, and *.txt* files.

PsionVU Access

PsionVU Access allows you to change the appearance and actions of the desktop from the default Windows Classic Shell to the PsionVU shell.

Remote Desktop Connection

Remote Desktop Connection is an Omnii application used to connect to a Windows Terminal Server so that you can run a “session” on the Server machine using the hand-held (Windows Embedded CE device). “Remote Desktop Connection” on page 87 provides a website with details about this option.

Wi-Fi Config

The *Wi-Fi Config* application is used to configure the Omnii 802.11b/g radio for one or more wireless network profiles.

Windows Explorer

The Windows Explorer installed on your Omnii is consistent with all Windows Embedded CE devices.

4.4.3.3 Shortcuts

Figure 4.5 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. These indicators are attached to dialog boxes that provide additional information.

- Choose **Shortcuts, System Tray**.

When *System Tray* is chosen, the taskbar icons become accessible. To display the dialog box attached to an icon:

- Use the arrow keys to highlight an icon, for example, the *Bluetooth* icon.
- Press [ENTER] to display the *Bluetooth* menus.

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:

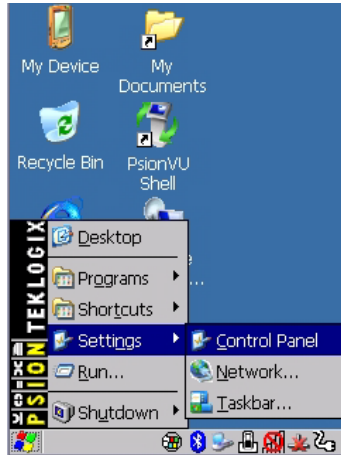
- Tap on **Shortcuts, Task Manager**, or
- Press [ALT] [ESC].



4.4.3.4 Settings

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

Figure 4.6 Settings Sub-Menu



Control Panel

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

Network and Dial-Up Connections

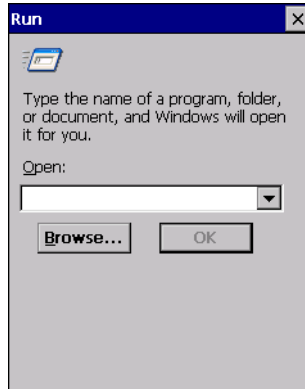
The *Network and Dial-up Connections* window allows you to configure the Omnii network interfaces or execute an existing configuration. Refer to “Configuring Your Wireless Network” on page 19 for radio setup details.

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 68 for additional details about this option.

4.4.3.5 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.



4.4.3.6 Shutdown

The *Shutdown* menu includes these options: *Suspend*, *Warm Reset* and *Cold Reset*.



Suspend

The *Suspend* option suspends Omnii immediately. This is equivalent to turning the hand-held off.

Warm Reset

The *Warm Reset* option resets the hand-held, leaving all saved files and registry settings intact. Any unsaved data is lost.

Cold Reset

The *Cold Reset* option resets the hand-held (see page 17). Any files not stored in permanent memory are lost; however, the registry settings are saved.

4.5 The PsionVU Desktop Shell

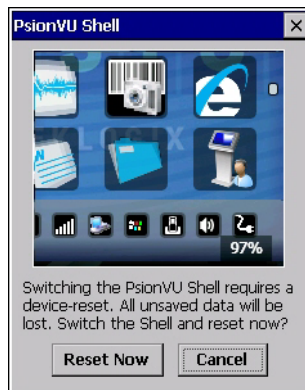
The appearance and actions of the desktop can be changed by tapping on the **PsionVU Shell** icon on your desktop, which activates the PsionVU shell.



Note: Omnii will be reset if you choose to switch shells.



Figure 4.7 Switch to PsionVU Shell



After resetting the Omnii, the desktop appearance will be very different. The programs are accessed with finger (or stylus) taps and swipes. If there are more applications than shown on one screen, a white animated dot will be present on the side of the screen in the direction

of the next set of icons. Swiping the screen to that direction will move the display to the next screen.



*Note: Although the Desktop appearance defaults to the “Ingenuity” theme, the theme is not changed using the **PsionVU Shell** icon. To change themes, open the **Shell Settings>Advanced** menu in **PsionVU Access** (see “Shell Settings” on page 124).*



A different program, *PsionVU Access*, enables you to customize your computer settings, remove or add shortcuts to the Favourites Bar and Control Panel, and limit access to various different components on the computer and the system tray icons for security. For details see “PsionVU Access” on page 122. To change your Desktop background, refer to “Shell Settings” on page 124.

Active Tasks Bar

Open applications are shown in the top bar—the most recently opened is the first icon on the left. Tapping once on a program icon will maximize the application. This feature replaces the Task Manager of the Windows Classic Shell.

Date/Time Bar

Tapping once on the date or time will open the *Date/Time Properties* settings to enable you to change your settings and time zone.

Favourites Bar

The *Favourites Bar* replaces the Windows Classic Shell's Desktop and Start Menu. These icons are the program shortcuts from your *Windows>Start Menu*. Tapping once will open the program. If you tap and hold on an icon, the application name is displayed.

Notifications Bar

This bar shows the run-time program notifications for *Battery, Volume, Wi-Fi, Phone* or *GPRS*, and other notifications for the programs you are running. This feature replaces the Taskbar of the Windows Classic Shell.

Desktop Minimized View

When an application is opened and maximized, the desktop view is minimized and the *Notifications Bar* is shown at the bottom of the screen. Tapping anywhere on the **Notifications Bar** (except on the SIP) will restore the PsionVU desktop.



*Note: In order to use the SIP, turn on the automatic settings in **Control Panel>Input Panel**.*

PsionVU Access

The *PsionVU Access program* allows you to open a different program, *PsionVU*, which enables you to customize your computer settings, remove or add shortcuts to the Favourites Bar and Control Panel, and limit access to various different components on the computer and the system tray icons for security. For details see “PsionVU Access” on page 122. To change your Desktop background, refer to “Shell Settings” on page 124.

To open *PsionVU*:

- Tap on the **PsionVU Access** icon in the *Favourites Bar*.

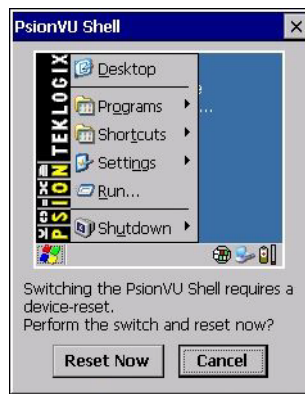


4.5.1 Restoring the Windows Classic Shell

The default Desktop appearance and actions can be restored by tapping on the **PsionVU Shell** icon in the *Favourites Bar*.



Figure 4.8 Shell Switch to Windows Classic Shell Desktop



Note: Omnii will be reset if you choose to switch shells.

4.5.2 Shutdown

Turning off Omnii places the hand-held into a power-saving *suspend* state. In this state, all radios remain on, but the display, keyboard backlight and processor are switched off. When Omnii is turned on from this state, operation resumes within a few seconds in the screen in which you were working prior to suspend.

- Press the [FN] key, and then press the [ENTER/Power] key.



Important: *If the word 'FN' is displayed underlined in the taskbar area at the bottom of the screen, this key is locked "on" and Omnii will not switch off. Press the [FN] key twice followed by [ENTER/Power] to switch Omnii off.*

However, if you've set the mode to "Lock" (see "Keyboard One Shot Modes" on page 102), Omnii can be turned off even when the [FN] key is locked 'on'.



Note: If your Desktop is switched to the Windows Classic Shell, the unit will display a shutdown options screen before turning off (see “Switching Omnii On and Off” on page 15).

Resetting Omnii

To perform a warm or cold reset, or boot to BooST, use the keyboard shortcuts described below.

Warm Reset

To execute a warm reset:

- Press and hold down the [FN] key and the [ENTER/Power] 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.



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

Cold Reset

To execute a cold reset:

- Press and hold down the [SYM] key, the [FN] key, and the [ENTER/Power] key, simultaneously for a minimum of four seconds.



Note: As part of the normal Windows Embedded CE cold boot process, the screen may go blank for a few seconds after the splash screen loading bar reaches the end. The desktop is displayed after a few moments.

Bootloader



Important: *This reset returns Omnii to factory settings.*

To implement the bootloader:

- Press and hold down the [FN] key, the [ENTER/Power] key, and the [SCAN] key, simultaneously for a minimum of four seconds.

After the cold reset, the BooSt menu appears.

- Type ‘1’ to “Run Main OS” (continue loading the Windows Embedded CE operating system).

Hard Reset



Important: *This procedure is recommended as a last resort, when all other methods fail.*

To execute a hard reset:

- Remove the battery.
- Using a coin, or other conductive item, connect pins 5 and 6 of the Omnii battery contacts for at least 6 seconds.



- Replace the battery and power Omnii on. The terminal will boot as if from a cold reset.

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5.1 Remote Desktop Connection

Remote Desktop Connection is an Omnii application used to connect to a Windows Terminal Server so that you can run a “session” on the Server machine, using Omnii (Windows Embedded CE device).

Refer to the following website for step-by-step information about setting up this connection: <http://www.microsoft.com/windowsxp/using/mobility/getstarted/remotefintro.msp> or contact Psion Teklogix support services. Locate the office closest to you at: www.psionteklogix.com/service-and-support.htm

5.2 The TekTerm Application

TekTerm is a powerful emulation application ideally suited for real time data transaction applications associated with mainframes and servers. Omnii 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*, P/N 8000073.

5.3 Pocket PC Compatibility

Omnii supports the AYGShell API set that allows Pocket PC-compatible applications to run on the hand-held. Windows Embedded CE includes application programming interface (API) compatibility support for the Microsoft Windows Powered Pocket PC 2002 shell in units running Windows Embedded CE.

The website listed below describes the APIs exposed through AYGShell and the application compatibility between Windows Powered Pocket PC 2002-based applications and Windows Embedded CE based devices:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dncenet/html/WINCENET_CEPC App.asp

5.4 The Control Panel

The Windows Embedded CE *Control Panel* provides a group of applications 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 63.

When Omnii boots up, the startup desktop (Windows Classic Shell) is displayed, and any applications stored in the Startup folder start up immediately.

To access the *Control Panel*:

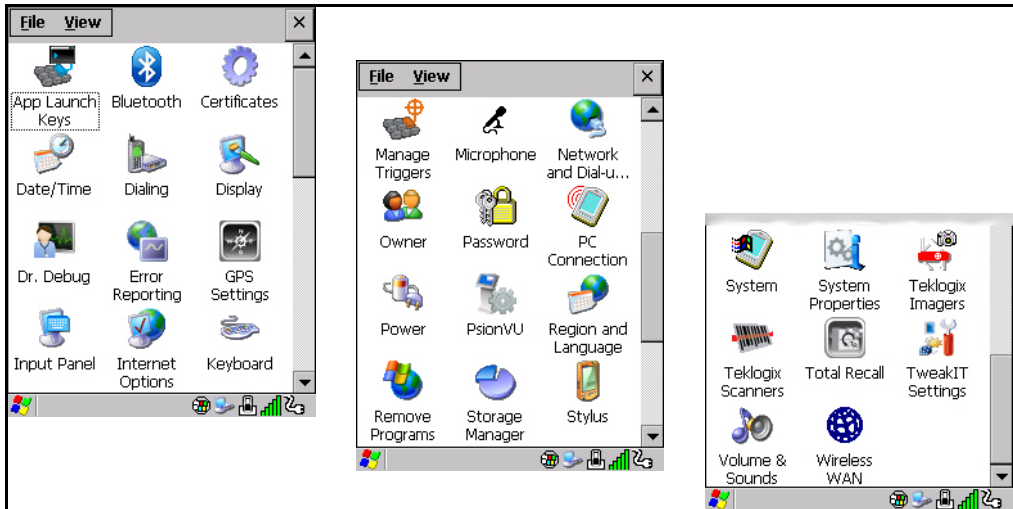
- Press [Windows] to display the *Start Menu*.
- Tap on **Settings>Control Panel**.

If you're using the keyboard:

- Press [Windows] 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 Omnii.

Figure 5.1 Control Panel Icons



5.4.1 Control Panel Icons

The *Control Panel* provides a group of applications that allow you to customize and adjust settings on your Omnii. This section shows the related icons in the Control Panel and gives a brief description of each. “Control Panel Applications: Basic Setup” on page 93 describes the basic configuration for these applications.



App Launch Keys

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



Bluetooth

Bluetooth

Opens the *Bluetooth* Manager which provides options for configuring various *Bluetooth* peripherals. It also provides the capability to use a *Bluetooth*-enabled cellular phone as a data modem to exchange information with other *Bluetooth* devices and provide network access.



Certificates

Certificates

This program provides access to the Certificates Manager and Stores. The Certificates Manager displays the certificates in the Windows Certificates Store, and allows you to import, delete, and view these certificates. “Certificates” on page 95 directs you to the appropriate setup information.



Date/Time

Date/Time

Allows you to set the current Month, Date, Time, and Time Zone on your unit.



Dialing

Dialing

Specifies dialing settings, including area code, country code, dial type and the code to disable call waiting. You can store multiple patterns—for example, ‘Work’, ‘Home’, and so on using this dialog box.



Display

Display

Changes the display backlight and the appearance (colour scheme) on the unit desktop.



Dr. Debug

Dr. Debug

Provides both error diagnostic and troubleshooting tools.



Error Reporting

Error Reporting

Allows you to enable or disable Microsoft error reporting prompts.



GPS Settings

GPS Settings

Allows you to enable and configure GPS operation.



Input Panel

Input Panel

Provides the framework for a Microsoft Soft Input Panel (SIP) should you need to design your own SIP, or change some soft keyboard options.



Internet
Options

Internet Options

Provides options to configure your Internet browser. You can determine items such as the default and search page that the browser applies when connecting to the Internet, the cache size, the Internet connection options, and the security level that is applied when browsing.



Keyboard

Keyboard

Toggles character repeat on and off and specifies delay and rate for repeated characters. It also allows you to adjust the keyboard backlight threshold and intensity, and many other functions.



Manage
Triggers

Manage Triggers

Allows multiple-scanner trigger management, including the ability to configure each of the trigger buttons. You can configure the trigger ID for each trigger button for both single- and double-click, and the double-click time.



Microphone

Microphone

Enables you to adjust the gain for the specific microphones associated with your hand-held.



Network
and Dial-u...

Network and Dial-up Connections

Displays network interfaces and allows new dial-up and VPN interfaces to be created. It also allows Windows configuration of the interface. Refer to “Configuring Your Wireless Network” on page 19 for details.



Owner

Owner

Provides fields in which you can specify owner information. A *Notes* tab allows additional information to be entered and displayed when the unit is powered up. *Network ID* tab information is used to access network resources. (This information should be provided by your System Administrator.)



Password

Password

Allows you to assign a password to restrict access to elements of the unit. Once assigned, password access cannot be circumvented so it is important that you write down your password and keep it in a safe place.



PC Connection

Enables direct connection to a desktop computer (or through ActiveSync—see “Data Transfer between Omnii and a PC” on page 30). Selecting the *Change Connection* button allows you to change the type of direct connection to your PC.



Power

Power

Displays battery pack power status. (Alternately, battery status can be accessed through the taskbar.) Additional tabs allow you to determine suspend states and specify a suspend threshold.



PsionVU

PsionVU

PsionVU enables you to customize your computer settings, remove or add shortcuts to the desktop and Control Panel, and lock down access to various different components on the computer and the system tray icons for security. With *PsionVU* and *PsionVU Shell* (see “The PsionVU Desktop Shell” on page 76) you can customize the entire look and feel of your User Experience.



Region and Language

Region and Language

Allows you to specify the local language that is to be displayed on the hand-held screen along with the format of numbers, currency, time and date for your region.



Remove Programs

Remove Programs

Lists the programs that can be removed from your unit. To remove a program, select it and then click on the **Remove** button.



Storage Manager

Storage Manager

Allows you to view information about the storage devices that are present, such as SD-MMC flash cards. For details, see page 153.



Stylus

Stylus

Adjusts how Windows Embedded CE recognizes your double-tap (as slow or rapid successive taps). In the *Calibration* tab, you can recalibrate your touchscreen by tapping on the **Recalibrate** button and following the directions on the screen.



System

System

You can display the system and memory properties, as well as create your device name. In the *Memory* tab, you can allocate memory between storage memory and program memory.



System Properties

System Properties

Identifies the computer's software and hardware components, indicating which components are installed, their version or part numbers, and whether they are enabled or disabled.



Teklogix Imagers

Teklogix Imagers

The Teklogix Imagers applet is used to create, modify, delete, and activate imager settings. This icon is only present when the appropriate imager is installed. For detailed information, see Appendix D: "Teklogix Imagers Applet".



Teklogix Scanners

Teklogix Scanners

Provides scanner parameters and the bar code symbologies that the Omnii bar code scanner will successfully read.



Total Recall

Total Recall

Provides access to a backup\restore and deployment utility to maintain applications and settings over cold reboots.



TweakIT Settings

TweakIT Settings

Allows you to change Advanced System Settings (interface, network, and servers), User System Settings (display font size), and provides the Registry Editor.



Volume & Sounds

Volume & Sounds

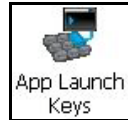
Allows you to adjust the volume of the sound emitted to indicate events like warnings, key clicks, and screen taps. You can also configure system (Windows) sounds and .wav files.

5.5 Control Panel Applications: Basic Setup

5.5.1 App Launch Keys

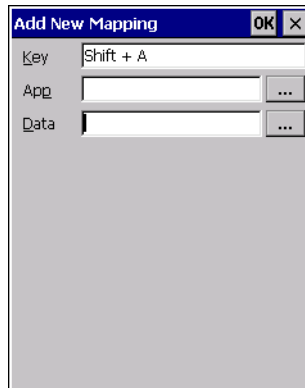
The *App Launch Keys* icon allows you to map a key to an application so that you can then launch the application from a single key-press.

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



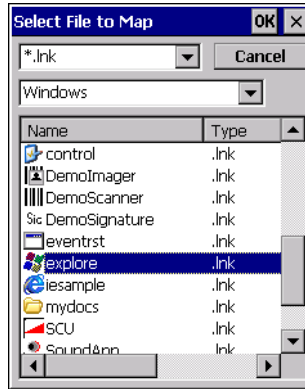
To assign an application key:

- 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.)

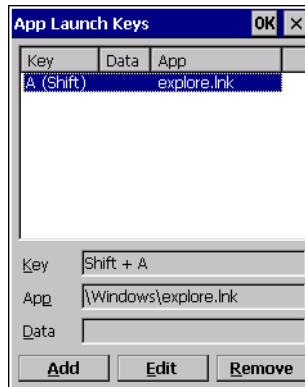
The cursor moves to the *App* field and a new screen is displayed where you can choose the application to which you want to assign the application key. If you need to, you can *Browse* through the information in your Omnii until you locate the application you want to launch.



- 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 command line parameters for your application. 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 Certificates

This program provides access to the Certificate Manager and Stores. The Certificate Manager displays the certificates in the Windows Certificate Store, and allows you to import, delete, and view these certificates. Omnii checks that the certificate has been digitally signed by a certification authority that Omnii explicitly trusts. This option is used in conjunction with 802.1x authentication to enhance Omnii security.

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



Your Omnii has certificates preinstalled in the computer. *My Certificates* is the repository for the device's personal certificate store, *Other Authorities* is the repository for the intermediate certificate store, and *Trusted Authorities* is the repository for the Trusted Root certificate store.



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

For a detailed description about Certificate setup for both the server and client-side devices (Omnii Hand-Held Computers), refer to the following website:

<http://www.microsoft.com/windowsserver2003/techinfo/overview/security.mspx>

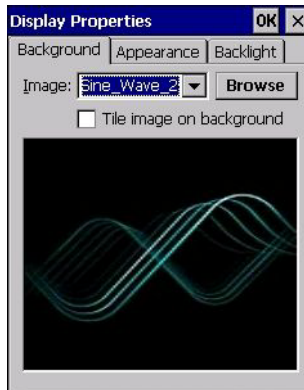
5.5.3 Display Properties

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



5.5.3.1 Background

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



This dialog box allows you to customize your background image.

5.5.3.2 Appearance

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



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

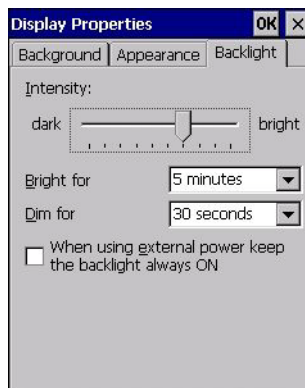
5.5.3.3 Backlight

The backlight is activated for a configurable amount of time. The *Display Properties* dialog box in the *Control Panel* allows you to specify the intensity of the backlight along with how long the backlight remains on when the unit is not in use (no key press, scanner trigger, etc.).



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 Omnii 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

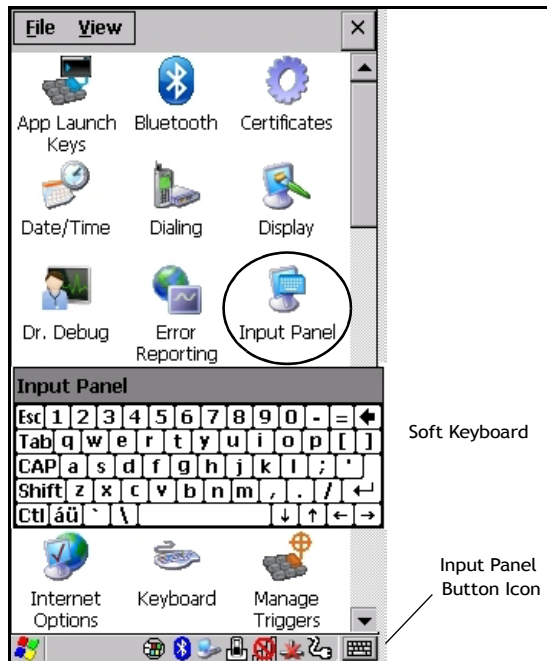
The value chosen from this drop-down menu determines the duration of time that the backlight stays on at half the configured intensity (dimmed backlight) after expiration of the Bright For delay and as long as no user action takes place (such as a keypress or scan trigger). At the expiration of the Dim 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 Omnii is operating with external power (not battery power). If Omnii is drawing power from its battery, this option is ignored and the other parameters defined in *Display Properties* dialog box take effect.

5.5.4 Input Panel

Omnii is equipped with a Soft Input Panel (SIP). Shown below is the standard Microsoft SIP, accessed from the Control Panel.



Tapping on the *Input Panel* button displays a soft input panel (soft keyboard) that can be customized using the *Input Panel* dialog box.



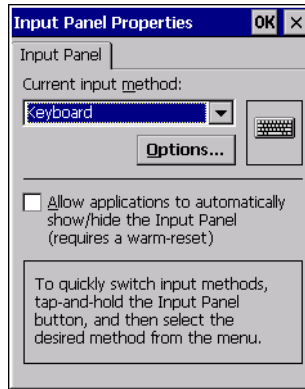
Important: *If the Input Panel button icon is not visible in the taskbar, from the ‘Start’ menu, tap on Settings>Taskbar and Start Menu. Tap the checkbox next to ‘Show Input Panel Button’. To remove this icon from the taskbar, tap in the checkbox to erase the check mark.*

The soft keyboard operates just like a standard keyboard except that rather than pressing a key, you tap on letters, numbers, modifier keys, etc. on the Omnii screen.

To customize the appearance and behaviour of the soft keyboard:

Tap on the **Input Panel** icon in the *Control Panel*.

Figure 5.2 Input Panel Properties

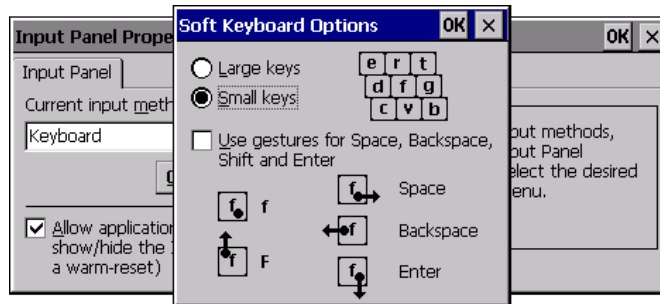


- Tap on the **Options** button to change the appearance of your soft keyboard.



Note: You can also display this dialog box by double-tapping on the Input icon in the far-right corner of the taskbar.

Figure 5.3 Soft Keyboard Options



5.5.5 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 [FN] and [SYM] modifier keys. This dialog box also allows you to define macro keys and Unicode characters.

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

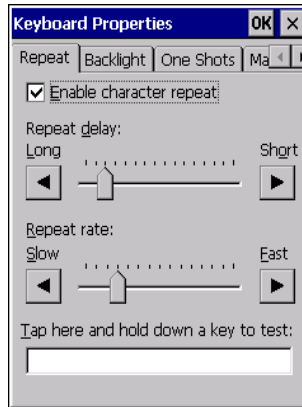


5.5.5.1 Key Repeat



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

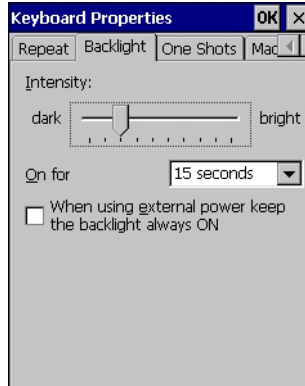
The value assigned for the *Repeat Rate* parameter determines how quickly the key you press repeats and is measured in characters per second (cps). Sliding the bar to the left slows the repeat rate, and sliding the bar to the right increases the repeat rate.



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

5.5.5.2 Keyboard Backlight

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

**Intensity**

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



Note: The keypad backlight maximum brightness will decrease over time as it ages. Use mid-range intensity settings when possible to extend the backlight lifespan. When the backlight starts to dim, use this parameter to make it brighter.

ON For

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



*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.*

5.5.5.3 Keyboard One Shot Modes

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



The options in this tab allow you to determine how modifier keys on your Omnii behave. For each modifier key—[ALT], [SHIFT], [CTRL], [FN], and [SYM]—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 [FN] key is locked 'on', the taskbar at the bottom of the screen displays it underlined. If this key is displayed without the underline in the taskbar, you'll know that the 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.

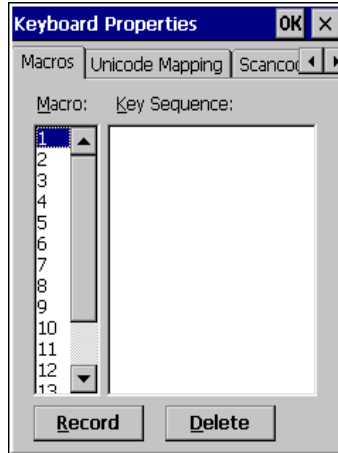
OneShot/Lock

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'.

5.5.5.4 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], [BACKSPACE] and [DEL] ([FN]-[BACKSPACE]), function keys and arrow keys.

Recording and Saving a Macro

You can program up to 6 macro keys, depending on your keyboard layout. You can also increase the number of virtual macro keys up to 15 using *Scancode Remapping* (for details, see “Scancode Remapping” on page 107).

- 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.

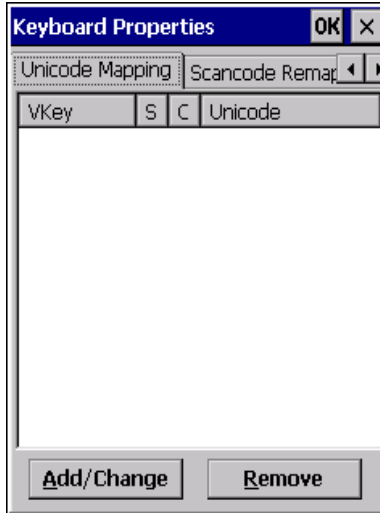
Deleting a Macro

To delete a macro:

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

5.5.5.5 Unicode Mapping

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



The *Unicode Mapping* tab is used to map combinations of virtual key values and [CTRL] and [SHIFT] states to Unicode™ values. This tab shows the configured Unicode character along with the Unicode value. For example, 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.

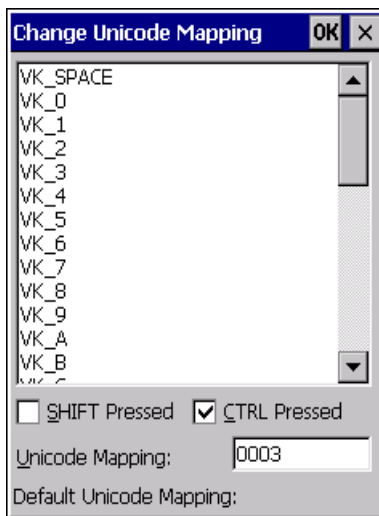
All user-defined Unicode mappings are listed in the *Unicode Mapping* tab in order of virtual key value, and then by order of the shift state. If a Unicode mapping is not listed, the Unicode mapping is mapped to the default Unicode value.

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.



- 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* tab, highlight the item you want to delete, and choose the **Remove** button.

5.5.5.6 Scancode Remapping

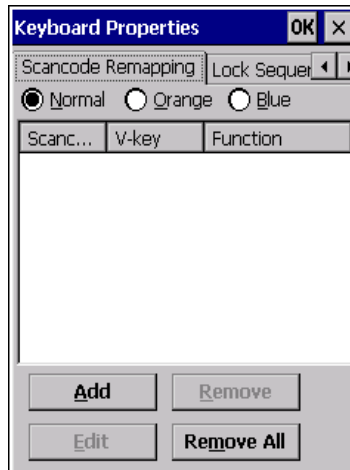
A scancode is a number that is associated with a physical key on a keyboard. Every key has a unique scancode that is mapped to a virtual key, a function or a macro. *Scancode Remapping* allows you to change the functionality of any key on the keyboard. A key can be remapped to send a virtual key (e.g.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

There are three different tables of scancode mappings: the *Normal* table, the *FN* table and the *SYM* table.



Note: When using the Mobile Devices SDK Developers' Guide (P/N 8100016), note that the [ORANGE] key is interchangeable with the [SYM] key. Similarly, in the context of the scancode mapping tables, 'Orange' is interchangeable with 'SYM'.

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



The first column in the *Scancode Remapping* tab 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'.

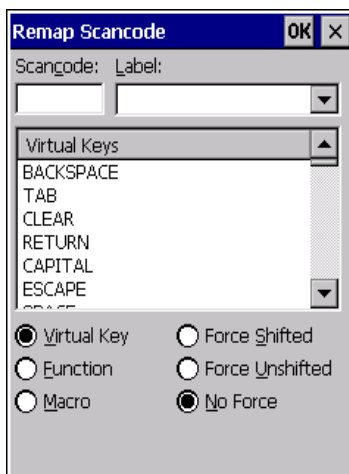
If the scancode is remapped to a function or a macro, the first and second columns remain blank while the third column contains the function name or macro key number (e.g., Macro 2).

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

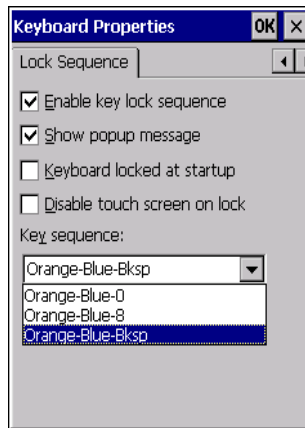
Removing a Remap

To delete a remap:

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

5.5.5.7 Lock Sequence

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

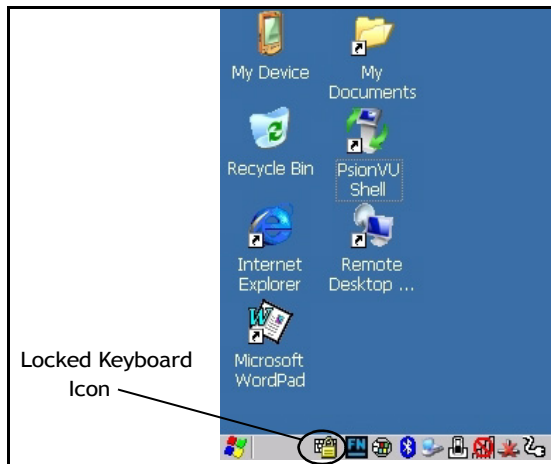


- To lock the keyboard, tap in the checkbox next to *Enable key lock sequence*.
- Tap in the checkbox next to *Keyboard locked at startup*.
- In the *Key sequence* drop-down menu, choose the key sequence you will need to type to unlock the keyboard.



Note: It is useful to leave the 'Show popup message' enabled (default) so that anyone attempting to use the 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.

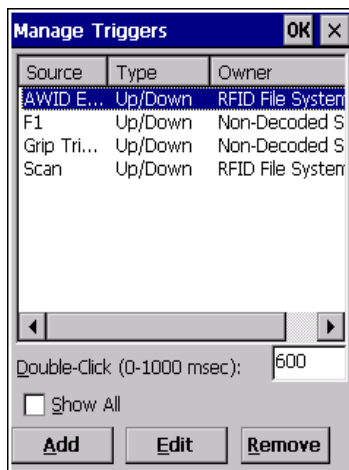
5.5.6 Manage Triggers

Allows users to configure how bar code scanners and other devices such as RFID readers 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.



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



5.5.6.1 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) is software-based. When the specified key is pressed, the owner (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 114.

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 page 113), so that you can add new trigger mappings.

Edit

Tapping this button brings up the *Edit Mapping* dialog (see page 113), so that you can edit existing trigger mappings.

Remove

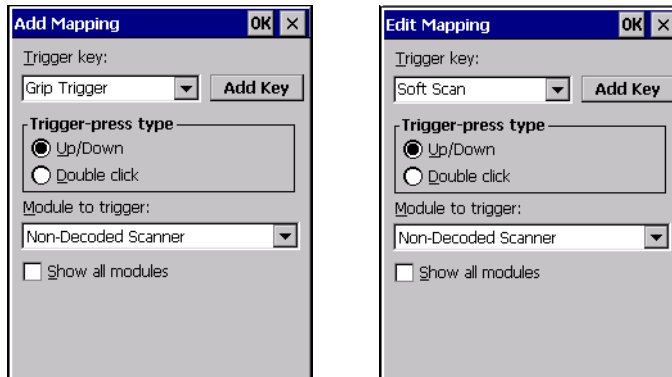
Tapping this button removes an existing mapping.

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.

5.5.6.2 Add and Edit Trigger Mapping

These dialogs allow you 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

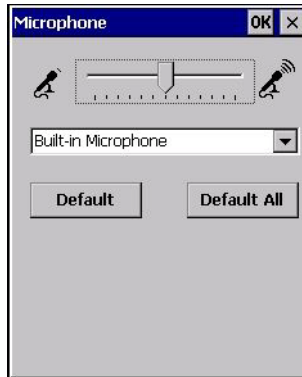
By default, inactive owners are not shown. By checking this checkbox, all owners, both active and inactive, are displayed.

5.5.7 Microphone

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



Use this dialog box to adjust the gain for the specific microphones associated with your hand-held.



- Tap on the drop-down menu, and choose the microphone for which you want to adjust the gain.
- Slide the microphone tab to the left to decrease the gain and to the right to increase the gain.

Tapping on the *Default* button sets the current microphone you've chosen to the default gain. Tapping on *Default All* sets *all* microphones listed to their default gain.

5.5.8 Power Properties

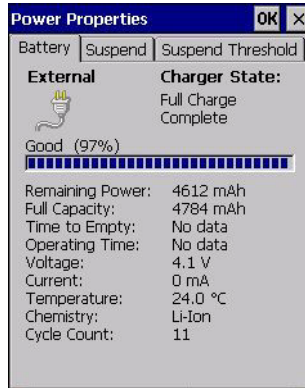
This icon displays a Power Properties dialog box that indicates the unit's battery capacity and allows you to manage battery use.

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



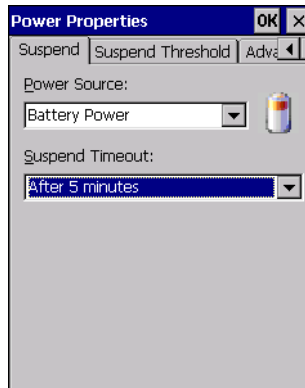
5.5.8.1 Battery Capacity

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



5.5.8.2 Power Saving Suspend

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



Power Source

This drop-down menu allows you to specify whether the unit is using *AC Power* or *Battery Power*.

Suspend Timeout

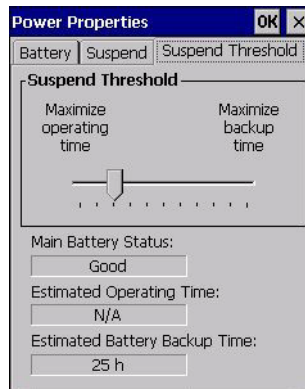


Important: *Psion Teklogix recommends setting the Suspend value to 3 minutes. To further reduce power consumption, carefully consider the duration of time that the display backlight is ‘on’ (see “Backlight” on page 97).*

When Omnii 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 hand-held 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 Omnii CPU enters a sleep state, and wireless communication is shut off. The state of the device (RAM contents) is preserved. Pressing [ENTER] wakes the system from suspend state.

5.5.8.3 Suspend Threshold and Estimated Battery Backup



The *Suspend Threshold* adjustment tells the system when to shut down when the battery drains. If you choose *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 hand-held 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 cold boot.*

In most real-time transaction environments this is not a problem (it only takes a few seconds to cold 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 Omnii Windows Embedded CE 6.0 environment does not store any critical data in RAM (such as the registry or file system).

If your 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 hand-held. When the battery capacity is depleted up to the *Estimated Battery Backup* reserve specified in the *Suspend Threshold* menu, Omnii shuts off automatically and uses the reserve power to preserve the data stored on the computer. Once Omnii 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 Omnii operating time—the amount of time the unit will operate before shutting down—but reduces the power reserved for backup purposes to a minimum of 24 hours.

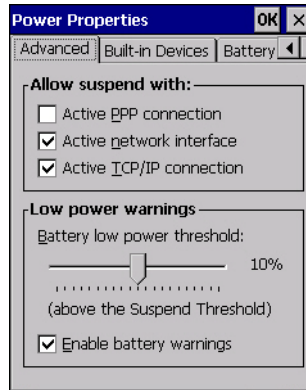
Internal super-capacitors will protect the data stored in the computer while the battery is swapped for a fully charged one.



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

5.5.8.4 Advanced

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



Allow Suspend With

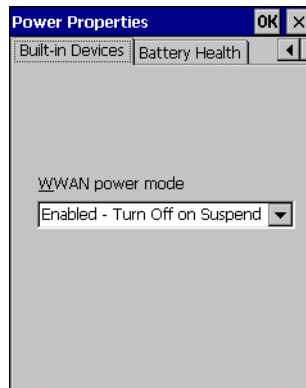
This menu allows you to specify whether or not your unit will enter Suspend Mode while it is operating with an active PPP connection, network interface or active TCP/IP connection.

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 Omnii screen, from 0% to 20%.

5.5.8.5 Built-in Devices

- In the *Power Properties* dialog box, open the **Built-in Devices** tab.



WWAN Power Mode

This menu allows you to enable power to your WWAN radio, and whether or not the radio will turn off when Omnii enters Suspend Mode.

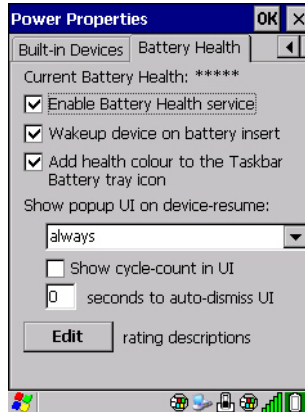
5.5.8.6 Battery Health

The Battery Health service provides an estimate of battery health based on a number of different measurements, beyond just capacity.



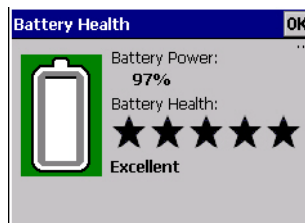
Important: *Battery Health is an estimate and should not be depended on to provide a 100% account of battery condition.*

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



Current Battery Health

The Current Battery Health default values are shown here as ***** (Excellent), *** (Used), and * (Battery should be replaced). If you tap on the battery icon in the taskbar, a pop-up screen will show the state of the battery. The image below shows the default *Excellent* status screen.



Enable Battery Health Service

This option allows you to enable the service. To access the menus after enabling the service, you will need to either wait until a resume from Suspend or restart Omnii.

Wakeup Device on Battery Insert

When this option is enabled, whenever the battery is replaced Omnii is powered up from Suspend and the current health of the battery is displayed.

Add Health Colour to the Taskbar Battery Tray Icon

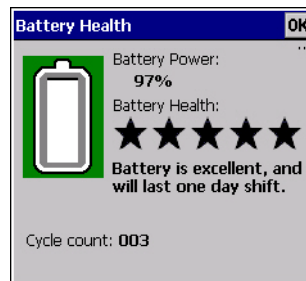
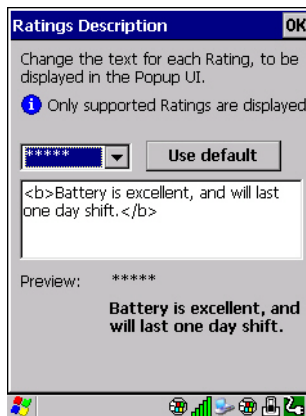
Enabling this option changes the background colour for the battery icon in the Taskbar, based on battery condition: *Green* (excellent), *Yellow* (used), and *Red* (battery should be replaced).

Show Popup UI on Device-Resume

You can decide when the battery status pop-up user interface (UI) will appear, for how many seconds, and whether the battery cycle count is displayed (**off** by default).

Edit

You can customize the ratings text with the *Edit* option. By enclosing your text within the html tag used for **Bold** `` (or removing the tag to unbold the text), you can change the text that will appear in the pop-up battery status screen. For example, the default text “**Excellent**” can be changed to: “Battery is excellent, and will last one day shift.”...



5.5.9 PsionVU Access

PsionVU Access enables you to customize your computer settings, remove or add shortcuts to the desktop and Control Panel, and limit access to various different components on the computer and the system tray icons for security.

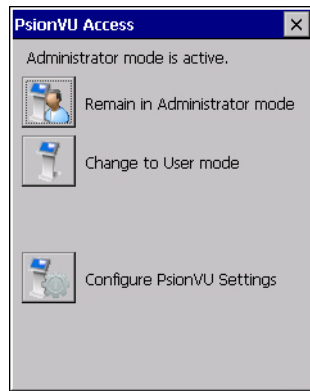


*Note: The Desktop theme can be changed from the default Windows Classic Shell to the PsionVU Shell either in the **PsionVU Access** settings (see “Other Shell Themes” on page 126) or by tapping on the Desktop icon **PsionVU Shell** (see “The PsionVU Desktop Shell” on page 76).*

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

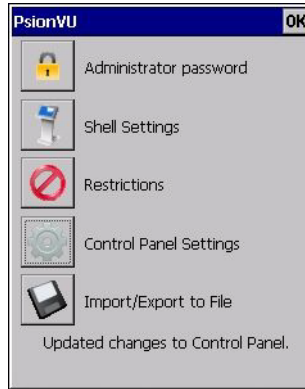


When opening the *PsionVU* application, the *PsionVU Access* dialog will come up that enables you to either proceed to the *PsionVU Settings* menus, or change from you current Access mode to the other (Administrator or User). The computer must be reset following a change, and a confirmation will appear to enable you to continue or dismiss the change.



When opening the *PsionVu Settings* option, the following menu will be available:

Figure 5.4 PsionVU Settings



5.5.9.1 Administrator Password

By setting an Administrator Password, you can limit access to various different components on the computer and the system tray icons for security. The default security setting allows User access to all options, therefore restrictions and settings can be configured without setting a password.

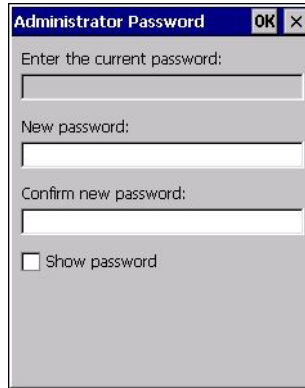


Note: If a setting or restriction is configured without setting an Administrator password, the following message is displayed: “!Administrator password is currently not set.” Once a password has been set, the message will disappear.



When an administrator password is set, the restricted options are accessed using a key combination. If a password has been set, the user would be prompted for the password.

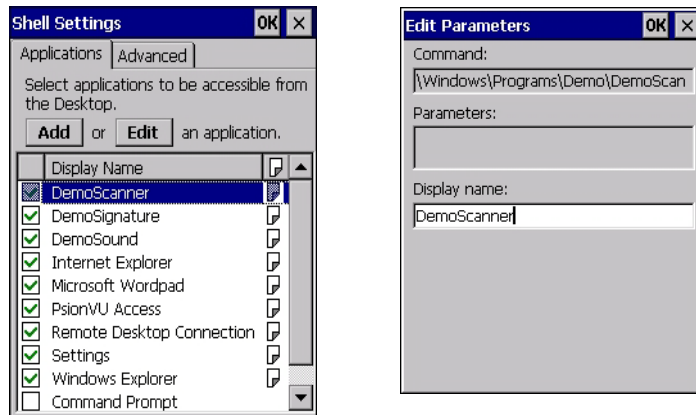
The option *Show Password* changes the displayed password from hidden (***) to readable.



5.5.9.2 Shell Settings

The Shell Settings application has two menus: *Applications* and *Advanced*.

Applications



The *Applications* menu lists all the applications installed on the computer, alphabetically. The items checked in this view are shown on the Desktop.

The *Add* and *Edit* buttons allow you to search for and add an application to the list of items in the selection window. You can add a maximum of 18 applications, after which the *Add* option will be greyed out and the following message is displayed: “!Maximum 18 entries reached.”

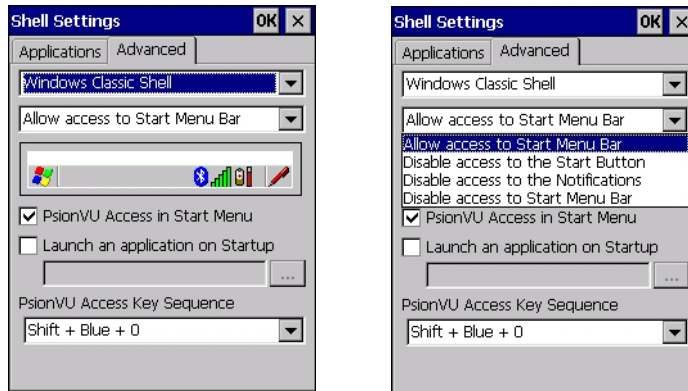
When you select an application and tap on *Edit*, you will see fields for *Command*, *Parameters*, and *Display Name*.

- **Command:** The *Command* field is prefilled with the path and name of the executable (.exe) or corresponding link (.lnk). If the selected file can't be found (e.g. external memory card has been removed, files have been deleted), a message will be displayed at the bottom of the screen: "These files cannot be found."
- **Parameters:** The *Parameters* option provides the option of adding extra parameters to the application (for .exe files only, not .lnk). For example, if the *Command* field is running "pword.exe" (Microsoft WordPad), the *Parameters* field could specify a document to open.
- **Display name:** This is an editable field which is prefilled with the name of the application.

Advanced

The *Applications* menu allows you to enable or disable some device functions.

Windows Classic Shell



The following options can be enabled or disabled in the Windows Classic Shell Desktop theme:

- **Start Menu Bar:** If disabled, access to both Start Menu and Notifications are disabled. The Notification tooltips will still display. Any changes made will occur after a device reset.
- **Start Button:** If disabled, access to the Start Button and Notifications are disabled. The Notification tooltips will still display.



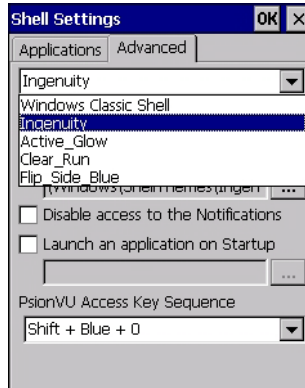
Note: If “Disable access to the Start Button” is selected, but the “PsionVU Access by Key Sequence” remains unchecked, you will see the following status-message “!A Key Sequence is required when the Start Button is disabled.”, the checkbox will be auto-checked, and the focus will be set to the key-sequence selection.

- **Notifications:** If disabled, the Notifications tooltips will still display.
- **PsionVU Access in Start Menu:** When this box is checked, the *PsionVU Access* program will be shown in the *Start Menu>Programs* list.

The following item is not optional:

- **PsionVU Access Key Sequence:** Sets the key sequence to open *PsionVU Access*.

Other Shell Themes



The following options can be enabled or disabled in the PsionVU Shell Desktop themes (shown in the drop-down list as *Ingenuity*, *Active_Glow*, *Clear_Run*, and *Flip_Side_Blue*):



*Note: The Desktop theme can be changed from the default Windows Classic Shell to one of the PsionVU themes shown here—but by tapping on the Desktop icon **PsionVU Shell** (see “The PsionVU Desktop Shell” on page 76), the “Ingenuity” theme is automatically loaded. The computer must be reset in order for the shell to change.*

- **Use this picture as the background:** You can select a picture as the Desktop background.
- **Notifications:** If disabled, the Notifications tooltips will still display.
- **Launch an application Startup:** A window is displayed listing all of the installed and added applications. Any applications selected will startup after a reboot.

The following item is not optional:

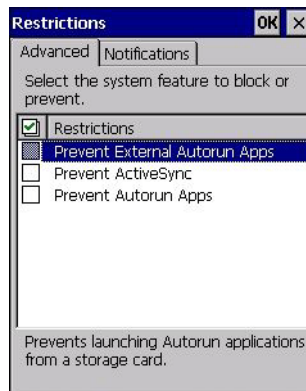
- **PsionVU Access Key Sequence:** Sets the key sequence to open *PsionVU Access*.

5.5.9.3 Restrictions

This section deals with items that are by default available to users but can be restricted by an administrator.

Advanced

The *Advanced* menu lists the system features you can restrict or block.



Notifications

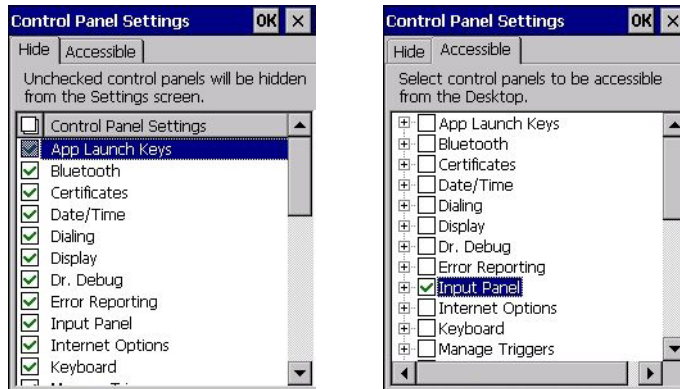
The *Notifications* menu allows you to block or disable notifications.



5.5.9.4 Control Panel Settings

In these menus you can set which applets and tabs you want to *Hide* in Control Panel, and which applets and tabs will be *Accessible* as a shortcut icon from the Desktop.

- You have the option of setting the entire applet or specific tabs within the applet as hidden or accessible. Any applet that can't be set is greyed out.



- You can add a maximum of 18 applications, after which the following message is displayed: “!Maximum 18 entries reached.”

5.5.9.5 Import/Export to File

This option enables you to *Export* your settings file (.xml), and save it in the location of your choice. In addition, an Administrator has the option to *Import* these settings from one device to multiple devices *of the same operating system*.



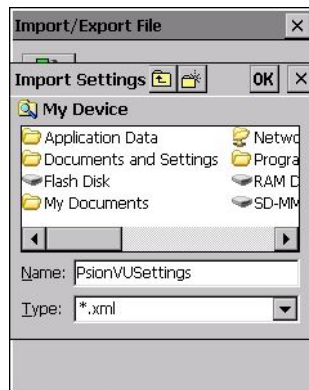
Important: *A copy of this file should also be saved in a central repository for all Psion Teklogix .xml files with a predefined name so that other Psion Teklogix utilities can locate it.*



Tapping on the **Export** button will display a “Save As” Export Settings dialog, with the default name *PsionVU_Settings.xml*, which the Administrator can change even after it has been saved.

The *.xml* file contains all of the PsionVU configured settings, including the *Administrator Password*. When the file is imported to a device, the new password is applied immediately.

- Whether choosing to import or export files, the same file location options under *My Device* will be listed. Following the action, a message stating the success of the operation and the location of the file will be displayed.
- With the exception of the password, changes made to settings will take effect only after a warm reset. If further changes to the configuration are made, they will overwrite the changes caused by the import operation. After importing a file, a dialog will appear to enable you to reset now or later.



5.5.10 Stylus Properties



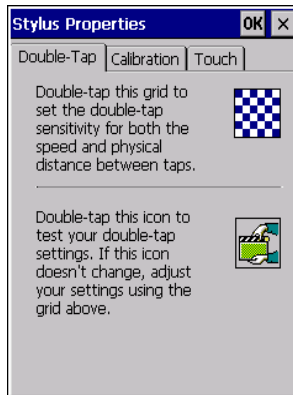
Note: Touchscreen calibration may not be enabled on your unit. If your screen appears to require recalibration, contact your supervisor.

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



5.5.10.1 Double-Tap

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



5.5.10.2 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* tab to recalibrate the screen. You will be prompted to save the calibration data.



Important: *If you do not receive a prompt to save your data, there could be a problem with your touchscreen hardware. Contact your Psion Teklogix representative.*

5.5.10.3 Touch

This tab allows you to disable the touchscreen.

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

5.5.11 System Properties

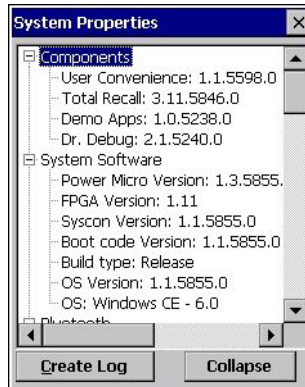
This program identifies the computer's software and hardware components, indicating which components are installed, their identification, version or part numbers, and whether they are enabled or disabled.

- In the *Control Panel*, choose the **System Properties** icon.





- You can create a log (*SystemProperties.xml*) of your current components, which will be placed in the *My Devices* folder in Windows Explorer.



- Instead of expanding each section of items individually, you can also choose to open all the lists at once by choosing the *Expand* button, which will then change to a *Collapse* button to enable you to collapse all the sections as well.

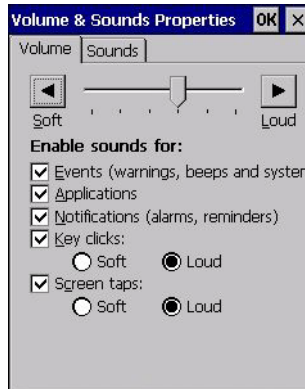
5.5.12 Volume & Sounds Properties

Omnii supports several audio options, including *Bluetooth*. The beeper is used for the standard sounds: key clicks, screen taps, and scanning. The optional rear speaker can be used for system (Windows) sounds and *.wav* files. When a rear speaker is absent, those sounds are routed to the front receiver.

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

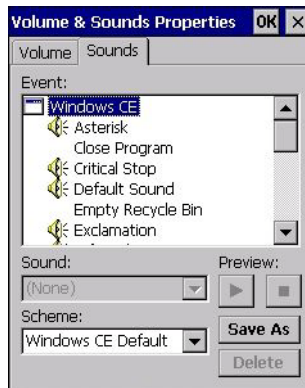


5.5.12.1 Volume Adjustments



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

5.5.12.2 Sound Adjustments



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

5.6 Bluetooth® Setup

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



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

- In the *Control Panel*, choose the **Bluetooth** icon to display the **Bluetooth Manager** screen.



The **Bluetooth Manager** allows users to search, pair and connect to other *Bluetooth* devices within their personal area network.

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

- Tap on the **Mode** tab, and tap in the checkbox next to *Turn on **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.

5.6.1 Paired Tab

This tab lists all paired devices and their corresponding services. The format of the name is <Device Name>:<Service Name>. Additional information may appear in this screen such as the Port Numbers for Serial Profiles service.