Tap  or  to close an active window, a dialog box, or a running application. If the button is not displayed on the toolbar, press  on the physical keypad.

Tap  to save the current settings and exit the application (or minimize the window in some applications). If the button is not displayed on the toolbar, press  on the physical keypad.

Note: Some programs, such as the Reader Configuration Utility (94ReaderCfg.exe), may create an associated icon on the taskbar. You may tap the icon and select [Exit] from the pop-up menu.

2.5 SYSTEM RESET & AUTO RUN

Reset the mobile computer when it stops responding to input.

- Software Reset: Simply press the [Reset] button.
- Hardware Reset: Press the [Reset] button and  at the same time.

Warning: Never perform a hardware reset unless a software reset cannot solve your problems.

2.5.1 SOFTWARE RESET (WARM REBOOT)

A software reset, also known as a warm boot, will restart the mobile computer and keep all the saved files. To perform a software reset, use the stylus to press the [Reset] button.

During operation, the removal of main battery will start a software reset too.

Warning: Data loss may occur when files are not properly closed before a software reset.

2.5.2 HARDWARE RESET (COLD REBOOT)

A hardware reset, also known as a cold boot, will restart the mobile computer too. However, it performs a full restore of the mobile computer to its factory settings and initializes SDRAM. To perform a hardware reset, press  and [Reset] button at the same time. Data and program files stored in SDRAM will be erased after a hardware reset. But you can restore data that is previously synchronized with your computer by performing an ActiveSync operation.

Warning: Only the files stored in the Flash File System are retained during a hardware reset.

2.5.3 AUTO RUN

Upon a hardware or software reset, the OS shall automatically execute **AutoRun.exe** and/or **AutoRun.ini** if any of the two files can be found in the "\DiskOnChip" folder or on SD card.

IF AUTORUN.EXE EXISTS

- Upon cold boot, the OS shall automatically execute **AutoRun.exe**
- Upon warm boot, the OS shall automatically execute **AutoRun.exe**

IF AUTORUN.INI EXISTS

- Upon cold boot, the OS shall automatically check the contents of **AutoRun.ini** and execute them (if there is any).

  Any line prefixed with a semicolon ";" is supposed to be a comment line only; otherwise it is an executable file or command and shall be executed (line by line).
- Upon warm boot, the OS shall automatically check the contents of **AutoRun.ini** and execute any line that is prefixed with a colon ":".

  Any line prefixed with a semicolon ";" is supposed to be a comment line only.

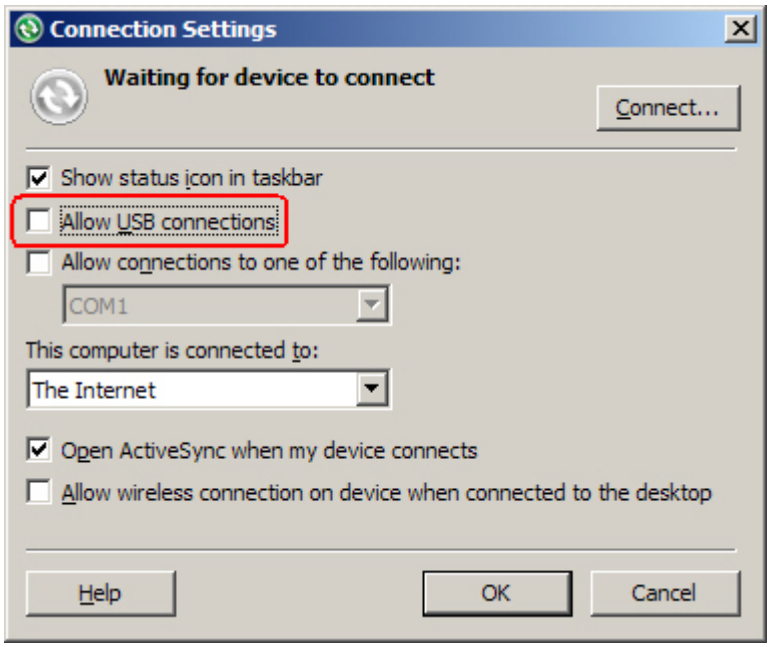
2.6 UPDATING OS IMAGE

The OS update utility is available on the CD-ROM. To re-install or update the OS image on your mobile computer, run the program "DLDR.exe" on the desktop of your computer.

Warning: The OS update should be performed with great caution because everything on the mobile computer will be erased. Backup user-installed applications and files to your computer first only.

1) Install Microsoft ActiveSync on your computer. For initial ActiveSync operation, refer to section 2.3 Using ActiveSync for details.

   Now, you must disable the ActiveSync operation as shown below.



2) Run DLDR.exe on your computer.
3) Press [Reset] + to perform a hardware reset on 9400.
4) Press P1 + simultaneously in three seconds so that 9400 can enter the "Download" mode.
5) Seat 9400 in the cradle.
6) Press SCAN on 9400 to start image update.

   It will take approximately 5 minutes to update the image. A message will be displayed on the mobile computer to indicate the OS update is completed successfully.
7) Wait a few seconds for a software reset will be performed automatically.
8) Press [Reset] + to perform a hardware reset on 9400 again.

Warning:	Do not press any key on the mobile computer while updating OS image. Once the OS update is completed, you cannot reload any older image.

Chapter 3

PERSONALIZING THE TERMINAL

In this chapter, a brief on the system settings is provided for your reference.

Note: User settings are stored in SDRAM and will be overwritten by the system defaults after a hardware reset. However, you can use the CipherLab Backup Utility to backup the current registry for restore purpose.

IN THIS CHAPTER

3.1 CHANGING SYSTEM SETTINGS

Go to **Start** > **Settings** > **Control Panel**.

ITEMS	DESCRIPTION
Accessibility	In the [Accessibility] dialog box, you may use these options to customize the way an external keyboard, display, or mouse functions. Many of these features are useful to people without disabilities

	▸ Keyboard tab: Select StickyKeys to enable simultaneous keystrokes while pressing one key at a time; select ToggleKeys to emit sounds when certain locking keys are pressed. ▸ Sound tab: Select SoundSentry to provide visual warnings for system sounds. ▸ Display tab: Select High Contrast to improve screen contrast with alternative colors. ▸ Mouse tab: Select MouseKeys to enable the keyboard to perform mouse functions ▸ General tab: Select Automatic Reset if you wish to turn off accessibility features after a specific period of time; select Notification if you wish to hear a sound when turning a feature on or off.
 Certificates	In the [Certificates] dialog box, you may view or modify digital certificates that some application use to establish trust for secure connections.
 Date/Time	In the [Date/Time] dialog box, you may change date, time, and time zone settings.
 Display	In the [Display Properties] dialog box, ▸ Background tab: Select an image for the background. ▸ Appearance tab: Select a desired color scheme for windows, dialog boxes, and items. ▸ Backlight tab: Specify for how long the mobile computer is idle and then the backlight will be automatically turned off while on battery power and external power (in the charging cradle) respectively. Tap the [Advanced] button to move the slider and adjust the brightness of the LCD backlight when it is set to be automatically turned on once a key is pressed or you tap the touch screen.
 Input Panel	In the [Input Panel Properties] dialog box, you may configure how the Soft Input Panel (SIP) works.
 Internet Options	In the [Internet Options] dialog box, you may configure how the mobile computer connects to the Internet.
 Keyboard	Connect an external keyboard to the cradle via the USB Host port. In the [Keyboard Properties] dialog box, you may configure settings for character repeat.

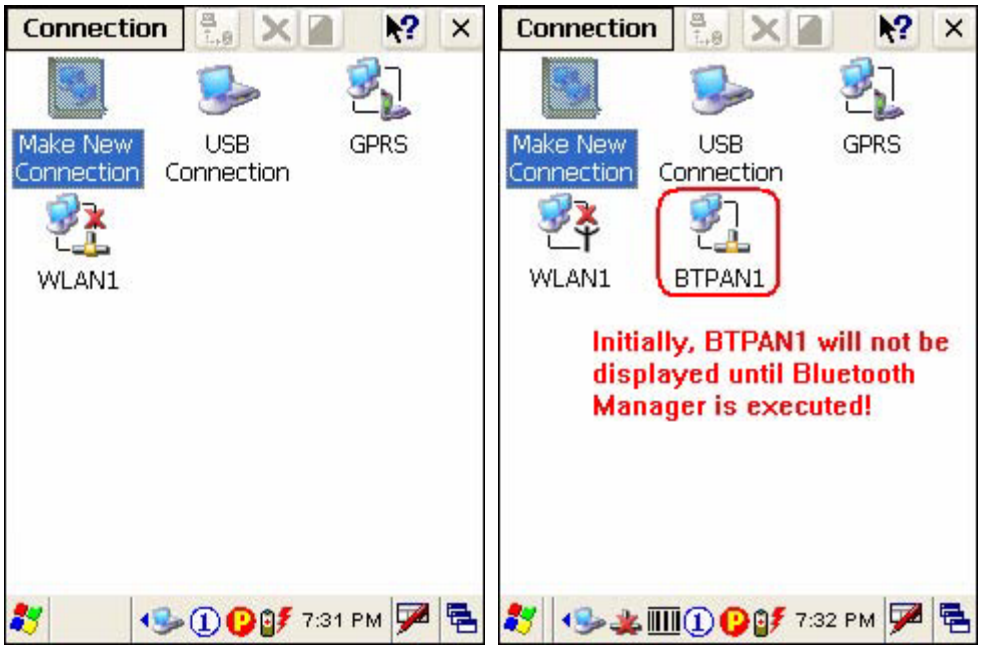
 Mouse	Connect a mouse to the cradle via the USB Host port. In the [Mouse Properties] dialog box, you may configure and test your double-click settings.
 Network and Dial-up Co...	In the [Network and Dial-up Connections] window, you may configure settings for the mobile computer connects to a network directly or through a modem. Alternatively, you may tap Start > Settings > Network and Dial-up Connections. ▸ USB Connection (via USB device port on the cradle) ▸ WLAN (via 802.11b/g) ▸ BTPAN (via Bluetooth)
 Owner	In the [Owner Properties] dialog box, ▸ Identification/Notes tab: Type your contact information or notes. ▸ Network ID tab: Type the user name, password, and domain name used to log on to the remote network.
 Password	In the [Password Properties] dialog box, you may apply password protection to limit access to the mobile computer.
 PC Connection	In the [PC Connection Properties] dialog box, you may disable the direct connection between the mobile computer and a desktop computer. ▸ By default, the mobile computer is enabled to directly connect to a desktop computer via the cradle's USB port. Alternatively, you may tap Start > Settings > Network and Dial-up Connections and select USB Connection. ▸ You may change to use Bluetooth if ActiveSync via Bluetooth has been enabled in the Bluetooth Manager
 Power	In the [Power Properties] dialog box, ▸ Battery tab: You may view the current status of main and backup batteries. ▸ Schemes tab: You may configure the power scheme and switching. ▸ Device Status tab: You may view the devices that are consuming power.
 Regional Settings	In the [Regional and Language Settings] dialog box, ▸ Region tab: You may customize the appearance and formatting to your geographic region. ▸ Language tab: By default, it is set to English (United States). ▸ Input tab: By default, it is set to English (United States)-US.
 Remove Programs	In the [Remove Programs] dialog box, you may remove any program that is installed earlier.

 Storage Manager	In the [Storage Properties] dialog box, ▸ Storage Manager tab: You may reformat the available storage device, either the DiskOnChip folder or storage card. Actions include "Dismount the storage device", "Format the storage device", and "Set up disk partitions". The Storage Manager is for the use of system administrators only.
 Stylus	In the [Stylus Properties] dialog box, ▸ Double-Tap tab: You may configure and test your double-tap settings. ▸ Calibration tab: You may need to re-calibrate the touch screen if it is not responding properly to your taps.
 System	In the [System Properties] dialog box, ▸ General tab: You may view the system information. ▸ Memory tab: You may move the slider and adjust the SDRAM allocation. ▸ Device Name tab: You may type a name and description for identifying the mobile computer. ▸ Copyrights tab: You may view the important statements on copyrights.
 Terminal Server Clie...	Client access licenses (CALs) issued by the Terminal Server license server allow clients to connect to the terminal server. Use Remote Desktop Connection to log onto a Windows Terminal Server or a computer remotely. You may access all of the programs, files, and network resources on the remote host or terminal server.
 Volume & Sounds	In the [Volume & Sounds Properties] dialog box, ▸ Volume tab: You may move the slider and adjust the volume and select to play sounds for Events, Applications or Notifications. ▸ Sounds tab: You may configure sounds for different Windows events.

3.2 CHANGING CONNECTION SETTINGS

There are two ways to access the connections settings:

- Go to **Start** > **Settings** > **Control Panel** and select **Network and Dial-up Connections**.
- Go to **Start** > **Settings** > **Network and Dial-up Connections**.



CONNECTIONS	DESCRIPTION	SEE ALSO
USB Connection	This is a shortcut to USB Connection, and the selected interface is USB for factory setting. This connection is reflected in the control panel for direct PC connection.	**Start** > **Settings** > **Control Panel** > PC Connection /
WLAN1	This is the control of 802.11b module for wireless local area networking (WLAN) connection, which is disabled by default.	
BTPAN1	This is the control of Bluetooth module for wireless personal area networking (WPAN) connection, which is not available until the **Bluetooth Manager** is executed.	

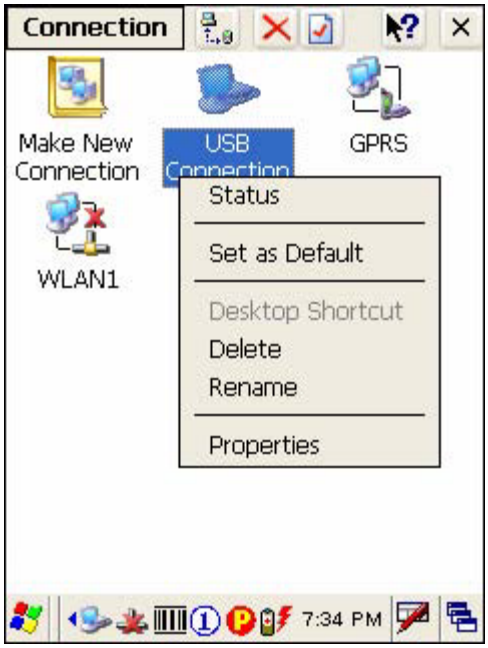
CONNECTIONS	DESCRIPTION	SEE ALSO
Connection	Tap this button to open the Connection menu. The available options depend on the connection you select.	Tap and hold the icon of a desired connection type. Then, select an option from its associated menu.
	Tap this button to toggle on/off the connection you select. The toggle is used for Enable/Disable or Connect/Disconnect.	

	Tap this button to delete the connection you select.	
	Tap this button to view the properties of the connection you select.	

3.2.1 USB CONNECTION

The USB connection is specifically for performing the ActiveSync operation via the cradle. Generally, it will automatically establish the connection and start the ActiveSync operation when you seat the mobile computer in the cradle. To stop the ActiveSync operation, simply remove the mobile computer.

Tap and hold "USB Connection". The pop-up menu provides a number of options.



Note: Please ignore [Properties] as the associated settings will not take effect.

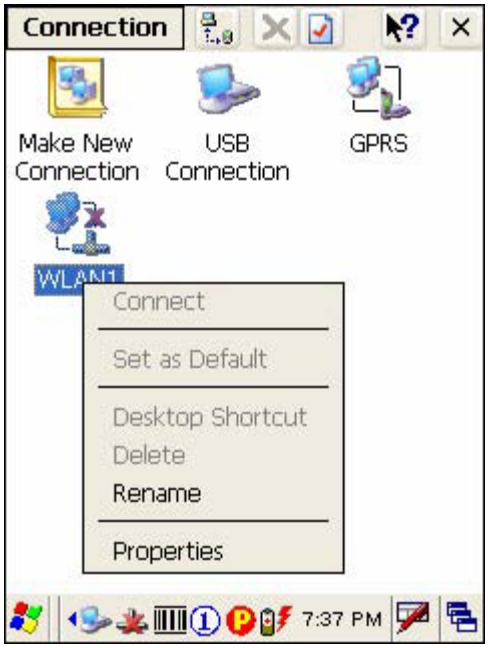
STATUS - DISCONNECT

If you want to stop the ActiveSync operation without removing the mobile computer from the cradle, select [Status] and tap [Disconnect]. Alternatively, you may double-tap  from the taskbar and tap [Disconnect].

- When connected, the status icon  will appear on the taskbar.
- When disconnected, this icon will disappear.

3.2.3 WLAN

Tap and hold "WLAN1". The pop-up menu provides a number of options.



CONNECT/DISCONNECT

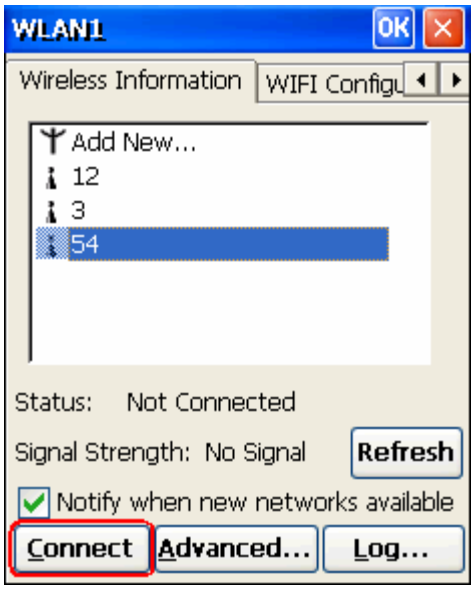
Turn on the power to the 802.11b/g module through the **Wireless Power Manager**. Wait a few seconds for the mobile computer to automatically connect to the preferred network you have configured.

CONNECTION ICONS	DESCRIPTION
 WLAN1	By default, the 802.11b/g module is disabled. No status icon.
 WLAN1	Enable the 802.11b/g module through the Wireless Power Manager. The icon  on the taskbar will become  , and the status icon  will appear. When successfully connecting to an access point or other Wi-Fi enabled device, the status icon  will become  .

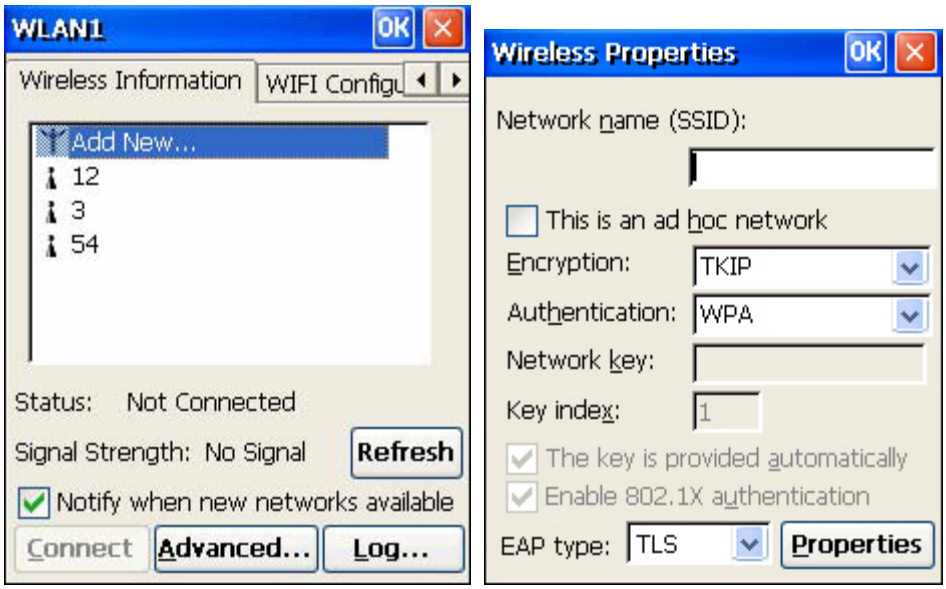
Note: By default, DHCP is enabled. Instead of using DHCP, select [Properties] and specify a static IP address to the mobile computer. Only change these settings according to your network administrator's instructions.

INITIAL CONNECTION

1) For initial connection, turn on the power to the 802.11b/g module through the **Wireless Power Manager** first.
2) Double-tap  on the taskbar.
3) Select an available network and tap [Connect].



Otherwise, you may double-tap [Add New...] and add a new network option.

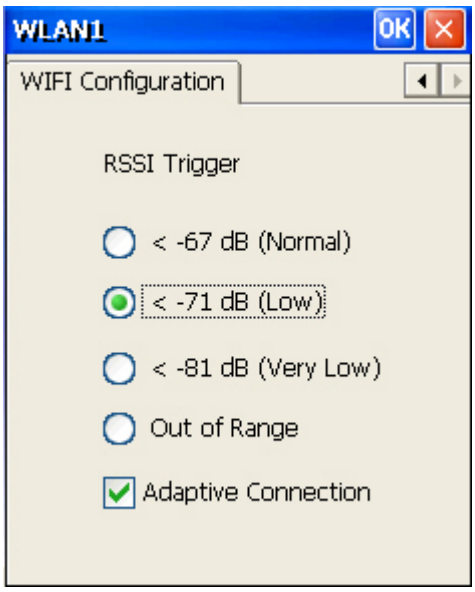


- For more network settings, tap [Advanced] on the Wireless Information tab.
- If you need to change the network settings, double-tap the selected network, and the Wireless Properties dialog box appears for configuration.

RSSI TRIGGER

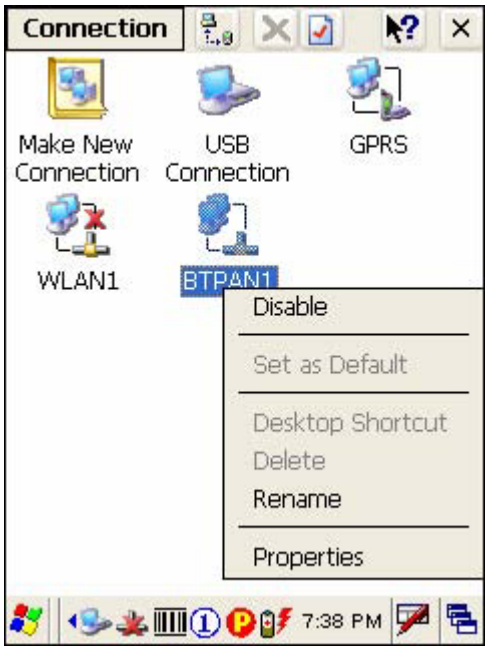
RSSI stands for Received Signal Strength Indication. Use an RSSI value to determine when it comes below a certain threshold at which point the mobile computer will seamlessly switch the network connection, for example, while moving in and out of range between different access points. Select [Adaptive Connection] and pick up a suitable value.

Cancel the selection of [Adaptive Connection] when you are using a third-party application capable of configuring the switching itself in order to maintain a constant connection to the network.



3.2.4 BTPAN

Tap and hold "BTPAN1". The pop-up menu provides a number of options.



ENABLE/DISABLE

CONNECTION ICONS	DESCRIPTION
BTPAN1	This is the control of Bluetooth module for wireless personal area networking (WPAN) connection, which is not available until the Bluetooth Manager is executed. When enabled, the status icon will become .
BTPAN1	Tap and hold "BTPAN1" to select [Disable] from the pop-up menu. The status icon will disappear.

Note: By default, DHCP is enabled. Instead of using DHCP, select [Properties] and specify a static IP address to the mobile computer. Only change these settings according to your network administrator's instructions.

Chapter 4

USING APPLICATIONS

The terminal provides several utilities and key applications which are made accessible from the desktop or the taskbar.

- **Wireless Power Manager** lets you determine whether the power is supplied to the WLAN module, along with its associated driver installed.
- **Bluetooth Manager** lets you configure the Bluetooth settings and use the Bluetooth services provided on the remote devices.
- **94ReaderCfg** lets you manage the barcode or RFID reader.
- **Inbox** lets you send and receive e-mail by connecting to a POP3 or IMAP4 server.
- **Backup Utility** lets you manipulate the way to backup programs and data.
- **Button Assignment Utility** lets you assign a specific button as a hot key for launching a program or performing a certain action.

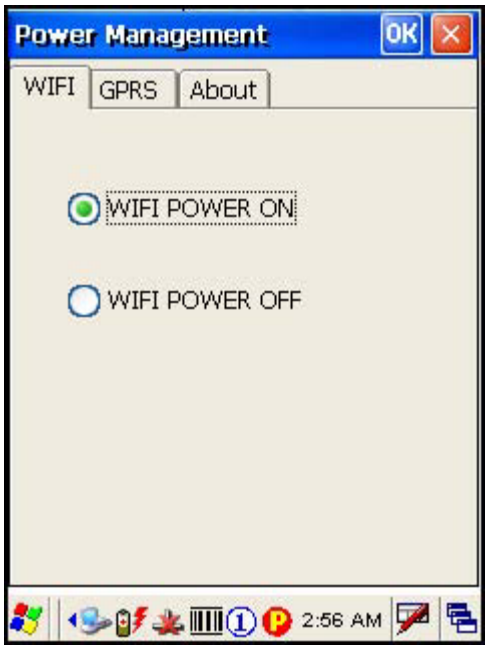
IN THIS CHAPTER

4.1 WIRELESS POWER MANAGER

Wireless Power Manager is a control panel applet, which allows you to choose and enable 802.11b/g

Note: Meanwhile, you may enable Bluetooth connectivity through the Bluetooth Manager.

1) Double-tap the associated icon on the taskbar to run **Wireless Power Manager**.



2) Select the wireless connectivity you desire, and then tap OK.

Double-tap any of the following icons to access power management.

	The icon indicates that 802.11b/g Power is turned on.

Note: You may need to turn off the wireless power or simply stop the wireless signals at times, in order to conserve battery power, or in situations where the use of radio is prohibited, such as on airplanes, in hospitals, etc.

4.2 BLUETOOTH MANAGER

Bluetooth Manager is a utility that helps you access and manage the available Bluetooth services efficiently.

4.2.1 BLUETOOTH PROFILES SUPPORTED

The supported Bluetooth profiles are:

- Serial Port Profile (SPP)
- Object Push Profile (OPP)
- File Transfer Profile (FTP)
- Dial-Up Networking Profile (DUN)
- Synchronization Profile (SP)
- PAN Service Profile (PAN)
- Human Interface Device Profile (HID)

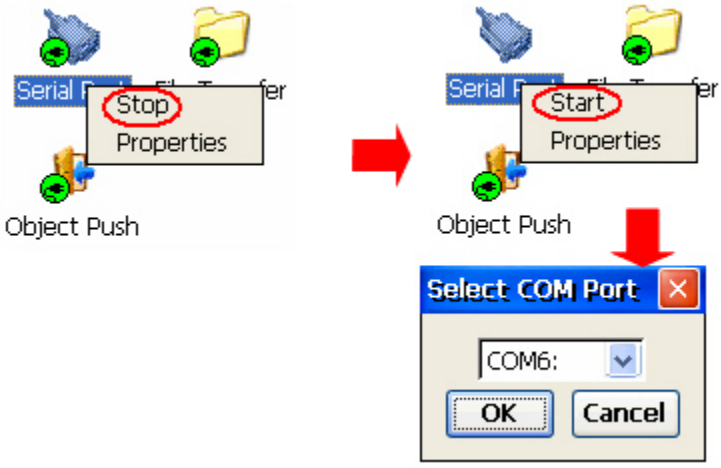
4.2.2 BLUETOOTH TOOLBAR

BUTTONS	DESCRIPTION	SEE ALSO
	Tap this button to view shortcuts to preferred Bluetooth services, which may be provided on different Bluetooth devices. Then tap a desired Bluetooth service to establish a quick link. You will have to make a connection and created a shortcut to a specific Bluetooth service first.	
	Tap this button to view the Bluetooth devices discovered during this session. ▸ If you tap the button for the first time, it will start the inquiry process to discover nearby Bluetooth devices.	
	Tap this button to view the Bluetooth services provided. ▸ By default, these services are all available, and therefore, displayed along with a plug icon "". ▸ To view properties of a service, tap and hold it to select [Properties] from the pop-up menu. ▸ To disable a service, tap and hold it to select [Stop]. 	

Serial Port Properties

If "Auto Server COM Port" is enabled, the COM port providing Serial Port service will be assigned automatically (COM6 by default).

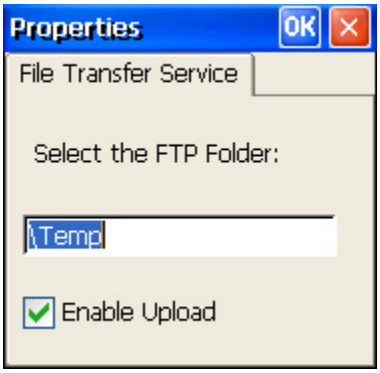
If "Auto Server COM Port" is disabled, you can select a COM port by following these steps:



File Transfer Properties

You can change the FTP folder.

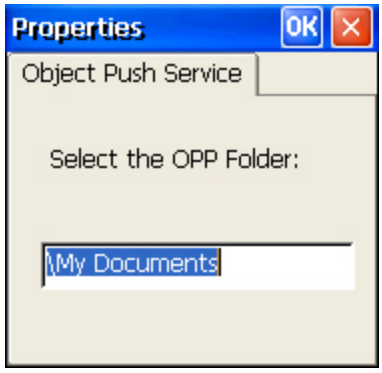
- By default, uploading files to the mobile computer is allowed. You can cancel the check box to prohibit uploading.



Setting

Object Push Properties

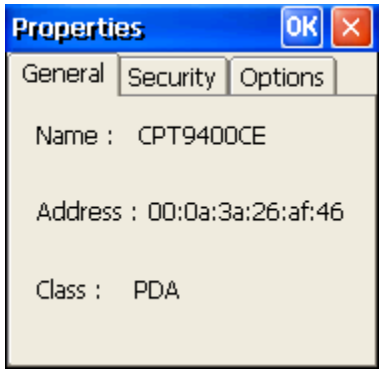
You can change the Bluetooth exchange folder.



Tap this button to view Bluetooth properties.

General tab

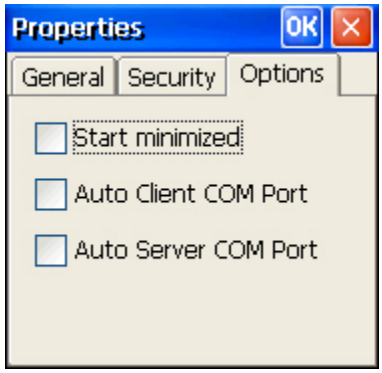
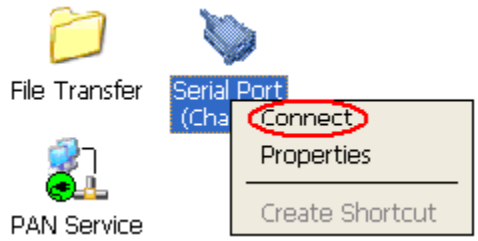
It displays device name, MAC address, as well as the device type.



If you wish to change the device name of the mobile computer, go to **Start** > **Settings** > **Control Panel** and select **System**.

Security tab

- Authentication Setting: It is disabled by default. When enabled, PIN code is required.
- Discoverability: It is set discoverable by default. If you do not wish to provide Bluetooth services to other remote devices, cancel the check box.
- Default PIN: It is disabled by default. You may set a link key to skip the PIN code input.

Options tab	 ▸ Start minimized: When selected, once you run the **Bluetooth Manager** program, its window will be minimized to an icon on the taskbar, which serves as a toggle to open or close the Bluetooth Manager window. It works the same as the "Minimized" button below. ▸ Auto Client COM Port: When enabled, the default COM port for remote Serial Port service will be assigned automatically. When disabled, you can select a COM port.  ▸ Auto Server COM Port: When enabled, the COM port for local Serial Port service will be assigned automatically.	
	Tap this button and tap [Connect via Cradle] to stop ActiveSync via Bluetooth.	
	Tap this button to minimize the **Bluetooth Manager** window.	
	Tap this button to exit the **Bluetooth Manager**.	
	Tap this button to stop inquiring.	
	Tap this button to refresh the device list.	
	When using the File Transfer service on a remote device, you can tap this button to move up one level if a subfolder exists.	

About	Tap this button to view the Bluetooth profiles supported - ▸ SPP for Serial Port Profile ▸ OPP for Object Push Profile ▸ FTP for File Transfer Profile ▸ DUN for Dial-Up Networking Profile (supports Client only) Note that the mobile computer also supports the following profiles - ▸ PAN Service Profile ▸ Human Interface Device (HID) Profile	

4.2.3 STARTING BLUETOOTH SERVICES

1) Go to **Start** > **Programs** > **BTManager** to open the **Bluetooth Manager**.

2) It takes several seconds to enable the Bluetooth services. The associated icon will appear on the taskbar. Meanwhile, the LED on the mobile computer will turn blue.

STOPPING BLUETOOTH SERVICES

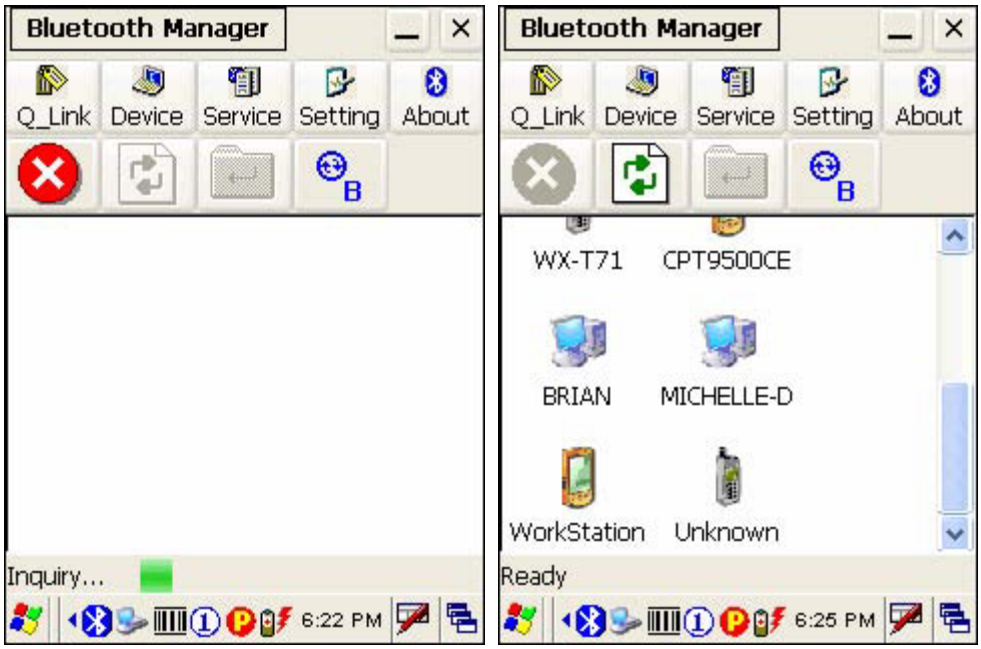
You may need to stop using the Bluetooth services, in order to conserve battery power, or in situations where the use of radio is prohibited, such as on airplanes, in hospitals, etc.

- Tap  on the toolbar of the window to stop all Bluetooth connections and exit the application. The LED on the mobile computer will go off.
- When the Bluetooth window is minimized, tap  on the taskbar to maximize the window.

4.2.4 DISCOVERING BLUETOOTH DEVICES

Tap 

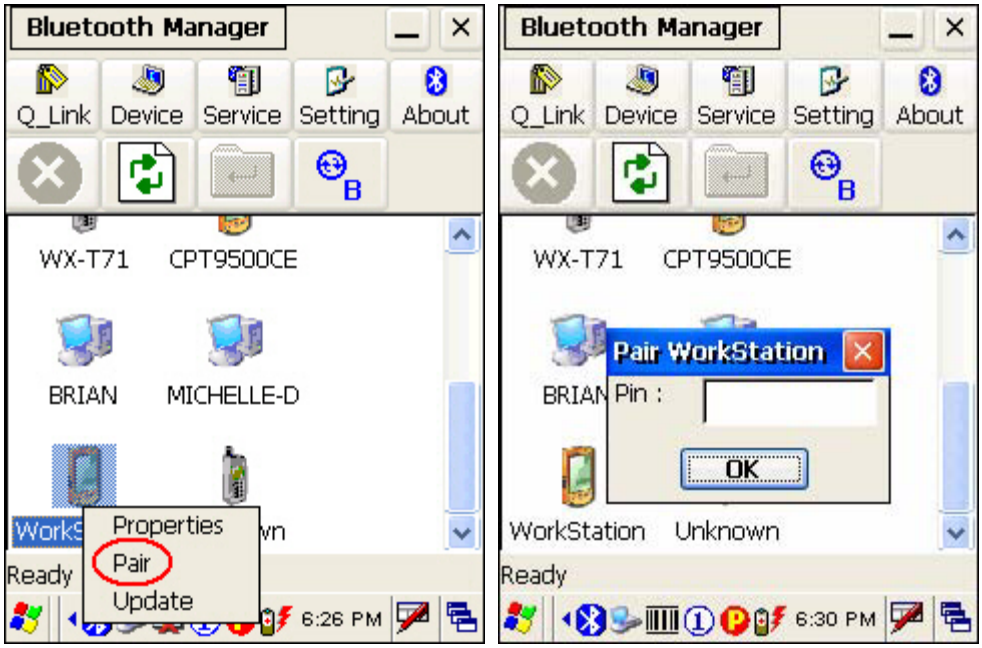
to discover nearby Bluetooth devices, and it will list the discovered devices.



4.2.5 PAIRING

When authentication is enabled on the target device, you will have to pair with it before starting a connection.

1) From the device list, tap and hold the desired device to select [Pair] from the pop-up menu. (left below)



2) Enter the PIN code that is specified on the remote device. (right above)

3) Once paired successfully, the paired device will be displayed along with a lock icon "".

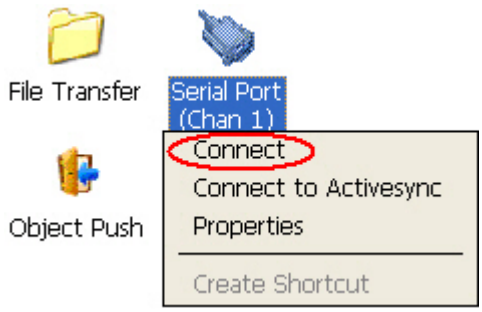
UNPAIR DEVICES

To unpair with a device from the device list, you will have to tap and hold the desired device to select [Unpair] from the pop-up menu.

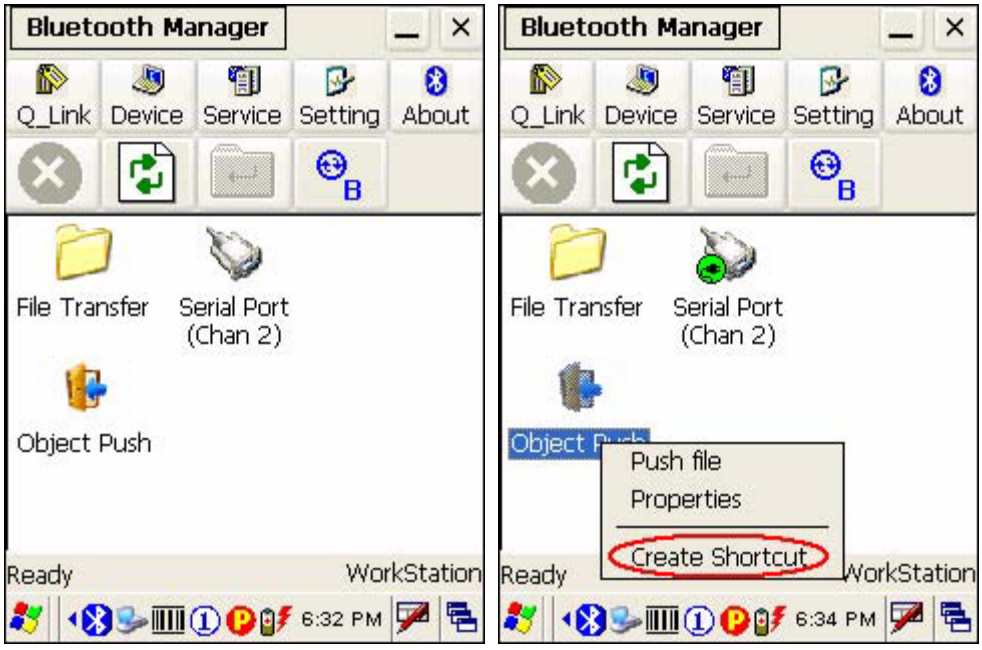
Note: The mobile computer must be unpaired on the remote device as well. (Both devices must be unpaired!)

4.2.6 CONNECTING

1) From the device list above, double-tap a device to find out the available Bluetooth services.
2) Tap and hold a desired Bluetooth service, e.g. Serial Port Service, to select [Connect] from the pop-up menu. Once the connection has been established, the connected service will be displayed along with a plug icon "".

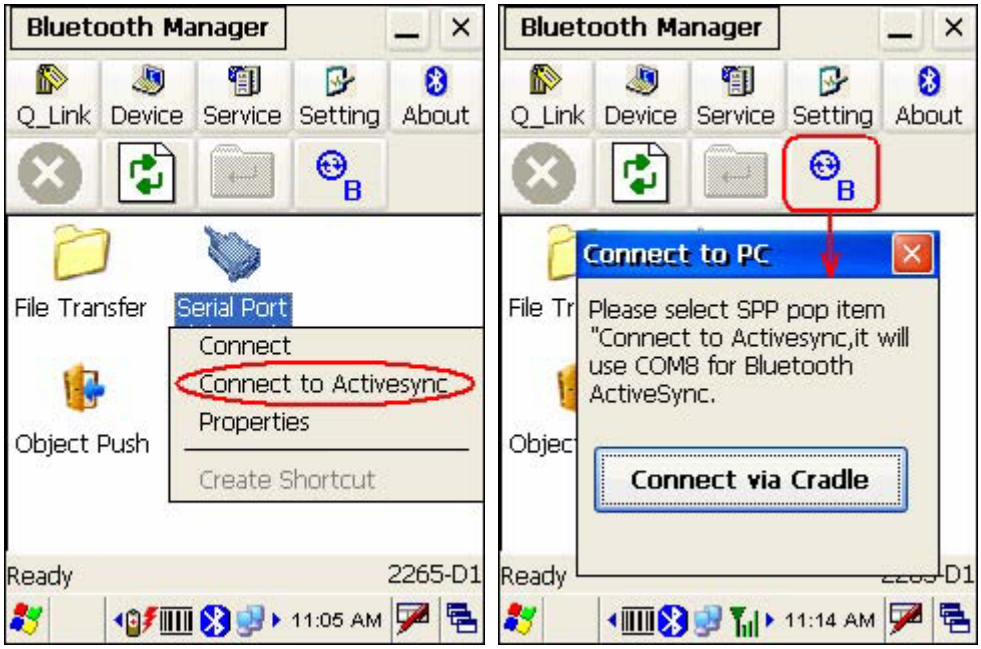


3) If you wish to add a service to the Q_Link list for establishing a quick connection in the future, tap and hold the service to select [Create Shortcut] from the pop-up menu.



BLUETOOTH ACTIVESYNC

For ActiveSync via Bluetooth, tap and hold Serial Port Service to select [Connect to Activesync] from the pop-up menu. It uses COM8 to connect to your computer by default.



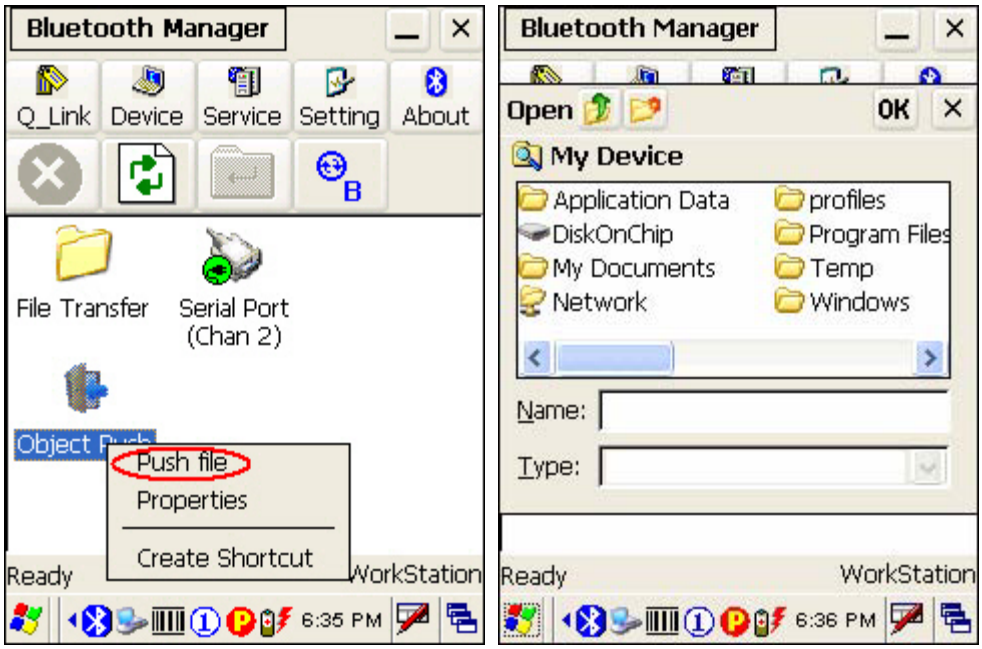
To stop ActiveSync via Bluetooth, tap  and then tap [Connect via Cradle].

USING SERIAL PORT SERVICE

Tap and hold Serial Port Service to select [Connect] from the pop-up menu. If "Auto Client COM Port" is disabled in Setting, you will need to select a COM port. Once the connection has been established, the connected service will be displayed along with a plug icon "".

USING OBJECT PUSH SERVICE

1) Tap and hold the Object Push service.
2) Select [Push file] to send a file or PIM item, e.g. a business card. (left below)
3) Choose the file you wish to send. (right below)

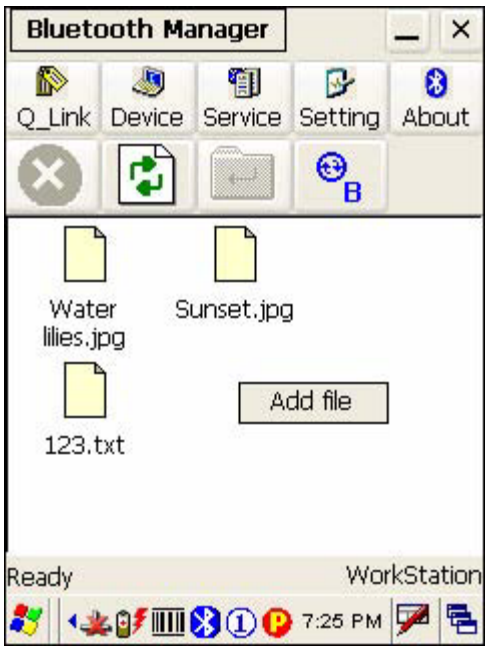


4) The mobile computer will start transferring the file.

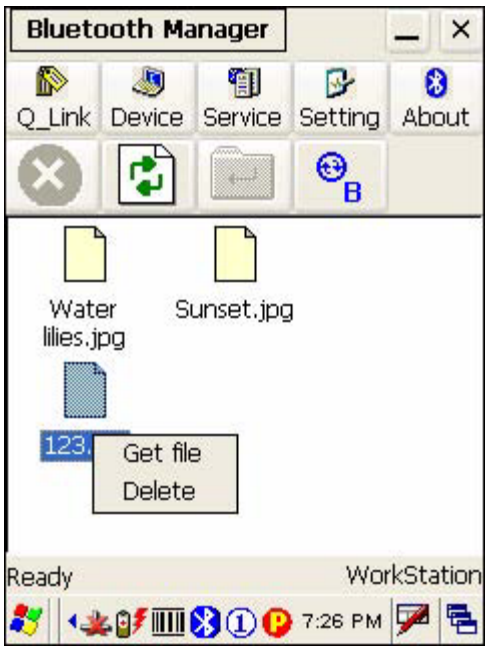
USING FILE TRANSFER SERVICE

1) Tap and hold the File Transfer service.

2) Select [Connect] (and assign COM port if necessary).
3) Tap and hold anywhere blank to select [Add file] from the pop-up menu.



4) Choose the file you wish to upload to the remote device.
5) The mobile computer will start transferring the file.
6) To download a file from the remote device, tap and hold a desired file to select [Get file] from the pop-up menu.



4.3 READER CONFIGURATION UTILITY

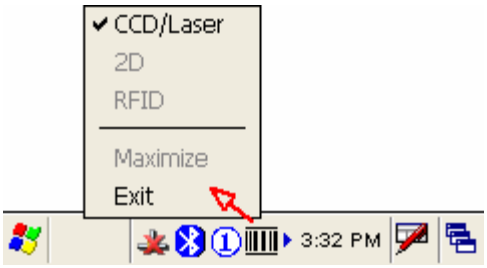
The **Reader Configuration Utility** is the control applet and tool to manage the barcode and RFID readers integrated on the mobile computer.

1) Go to **Start** > **Programs** > **94ReaderConfig** to open the **Reader Configuration Utility**.

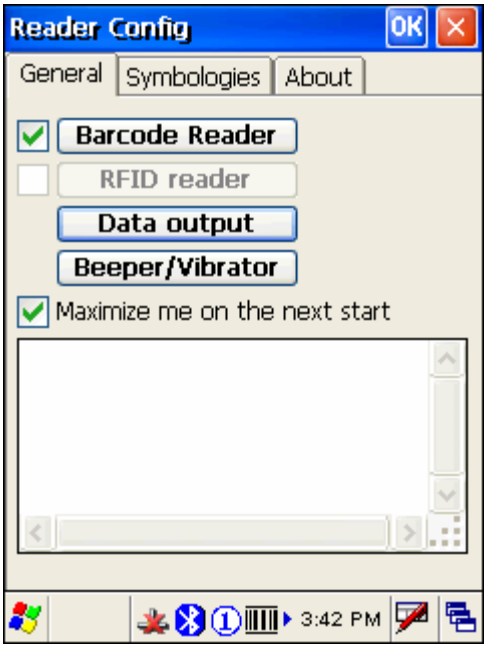
   The associated icon will appear on the taskbar.

2) Tap and hold the icon to access the menu that allows you to choose and enable one or both of the readers. There will be a check mark in front of the reader if it is enabled.

   If the RFID Reader is installed, the option will be available.



3) To meet your application requirements, proceed to configure associated reader settings as well as barcode settings.



Note: (1) The 94ReaderCfg applet will automatically detect the reader module(s) that is currently installed in the mobile computer.
(2) If you wish to reload the default settings, delete the ReaderCfgINI.txt file in DiskOnChip.

4.3.1 BARCODE READER SETTINGS

The barcode reader configurations depend on the scan engine(s) installed. You can tell which reader is currently in use and make necessary changes on the General tab.

BARCODE READER	DESCRIPTION
CCD/Laser Reader	If enabled, tap the [Barcode Reader] button to configure the reader settings for CCD or Laser scan engine. ▸ Refer to the Reader Settings Table in Appendix II – CCD/Laser Scan Engine.
2D Reader	The 2D scan engine is capable of reading linear and 2D barcodes. If enabled, tap the [Barcode Reader] button to configure the reader settings for 2D scan engine. ▸ Refer to the Reader Settings Table in Appendix III – 2D Scan Engine.

4.3.2 RFID READER SETTINGS

If the RFID scan engine is present, configurable options will be displayed.

Note: Because it is possible to read barcode and RFID tag at the same time, it is recommended that only one scan engine is enabled at a time to prevent from misreading.

Some RFID tags support both read/write operations, on a page-by-page basis. You may find it necessary to define your own read/write operation. For reference only, the table below lists the start page for read/write operation on a number of RFID tags.

START PAGE	TAG TYPE	
-1	Start from byte 0 of the default page (see below) for all tags	
3	Mifare Ultralight	(ISO 14443A)
4	SR176	(ISO 14443B)
3	ICODE SLI	(ISO 15693)
0	LRI512	(ISO 15693)
3	SRF55VxxP	(ISO 15693)
0	EM4135	(ISO 15693)

0	Tag-it HF-I	(ISO 15693)
0	Others	(ISO 15693)
5	ICODE	(Phillips)

Note: Please refer to the specifications of your RFID tags for memory organization.

READ OPERATION

By default, the RFID tag is read from byte 0 of the default page. However, the default page, amount of bytes and number of pages of each tag may be different. Specify how many bytes of data you want to read from the tag.

Generally, the read data is user data obtained from the user block. If you are sure that the data is to be read from a non-user block, such as the lock block, you need to select the check box of [Display hex values] first.

WRITE OPERATION

Type the string that you want to write to a tag. By default, the string is written to the tag from byte 0 of the default page. However, the default page, amount of bytes and number of pages of each tag may be different. Therefore, the input string will automatically be truncated to fit into pages, and data may be discarded when it comes to the end of pages available.

Generally, it will write the input string to the user block, which is free for custom use. The string will be displayed as "user data". If you wish to write the string to a non-user block, such as the lock block, you need to select the check box of [Use hex values] first.

Once you have selected to use hex values for the string, make sure the string length must be even. For example, if you want to write 0x0A, 0x0B and 0x00 to a tag, the string you input must be "0A0B00" instead of "AB0".

4.3.3 DATA OUTPUT

Tap the [Data Output] button on the General tab to choose from the three options for data output after decoding as well as configure associated settings

DATA OUTPUT	DEFAULT

Keyboard Emulation	Data is emulated as typed text and sent to the active Window. ▸ Simply run your application or Pocket PC built-in program, such as Pocket Excel, to start with data collection.	Enable
Windows Message	When selected, a Windows message will be broadcasted after decoding. ▸ Intercept the decode message in your application. ▸ Call Windows API (ReadMsgQueue) in your application to retrieve the decoded data.	Disable
Windows Event	When selected, a Windows event will be broadcasted after decoding. ▸ Intercept the decode event in your application. ▸ Call Windows API (ReadMsgQueue) in your application to retrieve the decoded data.	Disable

Note: (1) Refer to 9400 Programming Guide for details on Windows Message and Windows Event. Sample programs are provided by request.
(2) For the use of a different program rather than 94ReaderCfg, a dynamic-link library (DLL) file is provided.

Auto ENTER	This function can spare you the trouble of pressing the [Enter] key on the mobile computer to confirm each scan. It will automatically add an ENTER character in front or to the end of one scan. ▸ No ▸ Scan + ENTER (time-saving) ▸ ENTER + Scan (efficient for continuous scanning)	Scan + ENTER
Auto ENTER Character	*Auto ENTER must be enabled. ▸ None ▸ Carriage Return ▸ Tab ▸ Space ▸ Comma ▸ Semicolon	Carriage Return
Prefix String	0~10 characters	NULL
Suffix String	0~10 characters	NULL
Display Code Type	Select the check box to display the code type after decoding a barcode.	Disabled

Display Code Length	Select the check box to display the code length after decoding a barcode.	Disabled
Display RFID UID	Select the check box to display UID after decoding an RFID tag.	Enabled
Display RFID User Data	Select the check box to display user data after decoding an RFID tag.	Disabled
Use Delimiter to separate UID from data	Decide whether or not to use a delimiter to separate UID from user data when decoding an RFID tag.	Disabled

4.3.4 BEEPER / VIBRATOR

Tap the [Beeper / Vibrator] button on the General tab to configure associated settings.

BEEPER / VIBRATOR		DEFAULT
Good Read Beep	Mute, or Sound 1~9	Sound 1
Warning Beep	Mute, or Sound 1~9	Sound 2
Vibration Duration	0~30 (sec.) ▸ 0 = Disable the vibrator	0 (= Disable)

4.3.5 SYMBOLOGY SETTINGS

For barcode settings, tap the Symbologies tab.

- Refer to Appendix I – Scan Engine Settings for the symbologies or RFID tags supported by a scan engine.
- Refer to the Symbology Settings Table in Appendix II – CCD/Laser Scan Engine.
- Refer to the Symbology Settings Table in Appendix III – 2D Scan Engine.

4.4 INBOX

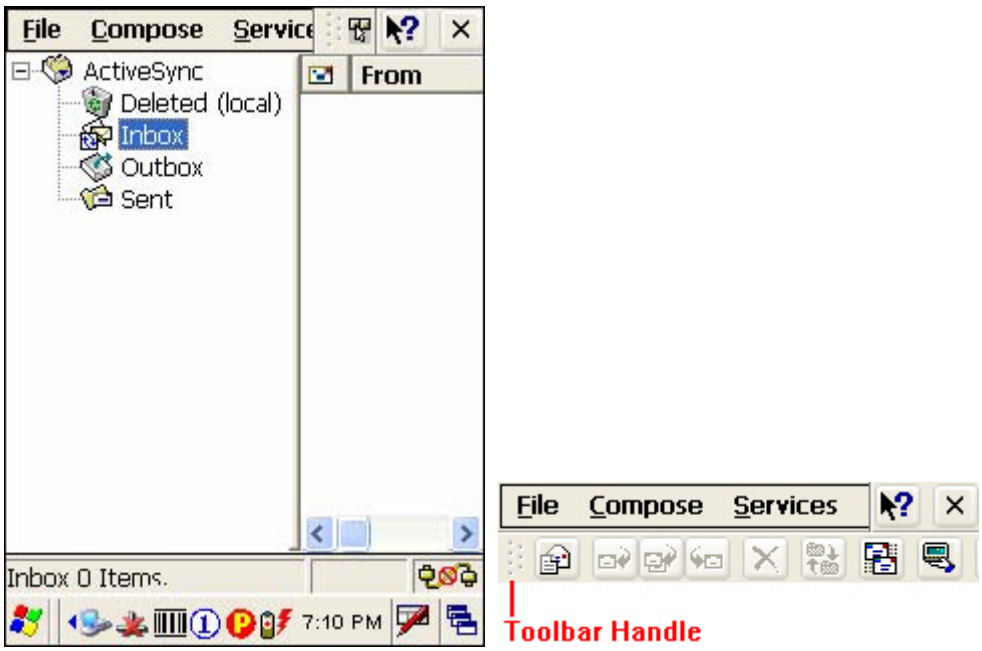
You can send and receive e-mail by connecting to a POP3 or IMAP4 server. **Inbox** provides an e-mail service for each method you use.

In addition, you can synchronize the e-mail messages in Inbox with either Microsoft Outlook or Microsoft Exchange Server on your computer through the default ActiveSync mail service.

4.4.1 CREATING AN E-MAIL BOX

1) Go to **Start** > **Programs** > **Inbox** to open the **Inbox** application.

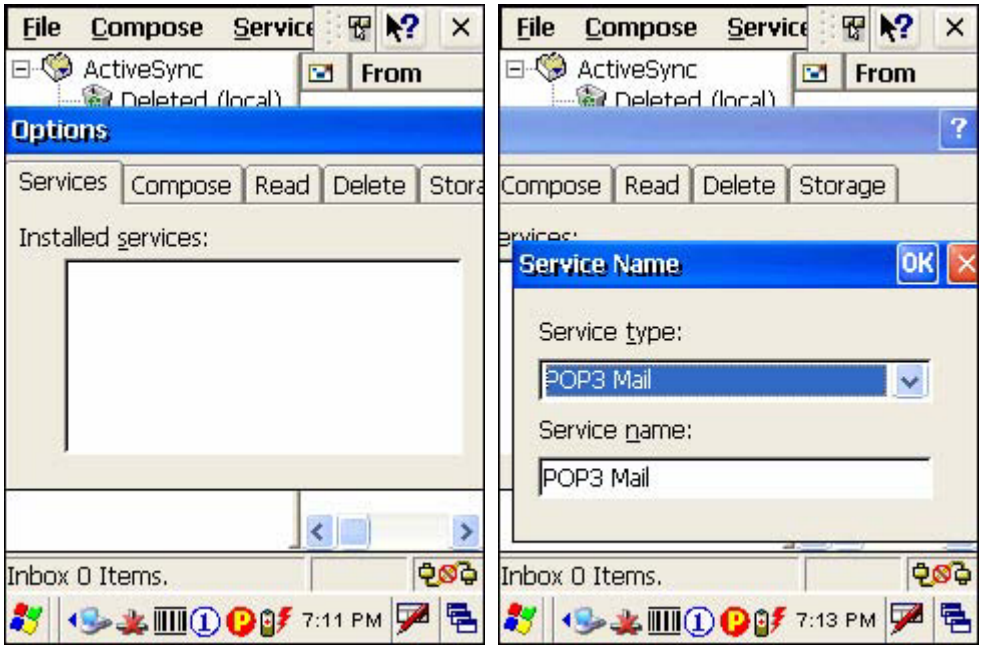
   Tap and drag the toolbar handle to move it under the menu bar.



2) Select **Services** > **Options** from the menu bar. (left below)

3) Tap and drag the dialog box to show the right edge. Tap [Add] to create an e-mail service.

4) In the Service Name dialog box, select POP3 Mail or IMAP4 Mail for the service type. (right below) Change the name of e-mail service if necessary. Tap [OK].



5) Proceed with the POP3 or IMAP4 Mail Service Definition (from 1/3 to 3/3).

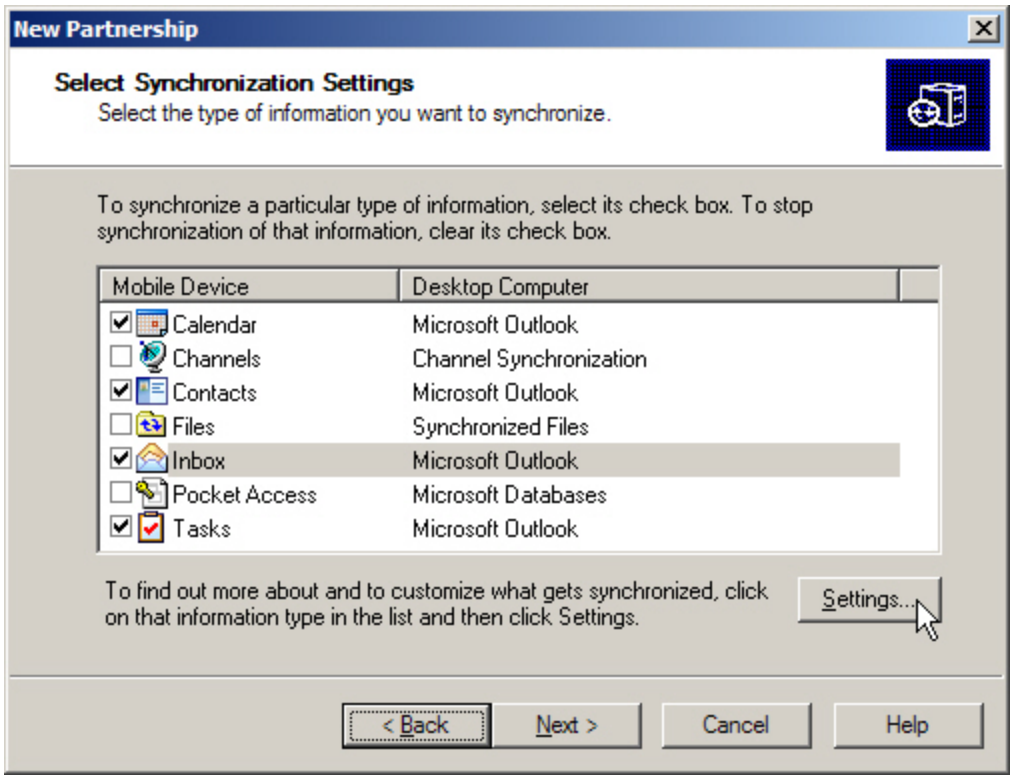
- Network Connection: Send and Receive e-mail through Ethernet, 802.11b/g or Bluetooth PAN connection.
- USB Connection: Send and Receive e-mail through USB connection via the cradle.

6) After you have successfully created an e-mail service, you may start using it now.

TOOLBAR

BUTTON	DESCRIPTION	SEE ALSO
	Compose a new message	Compose > New Message
	Reply to sender	Compose > Reply to Sender
	Reply to all	Compose > Reply to All
	Forward this message	Compose > Forward
	Delete this message	File > Delete
	Synchronize folders (multiple mailboxes for IMAP4)	Services > Synchronize Folders
	Send and receive mail manually	Services > Send/Receive Mail
	Connect or disconnect ▸ When connected, it will send and receive mail automatically.	Services > Connect

4.4.2 SYNCHRONIZING INBOX



When you seat the mobile computer in the cradle and connect it to your computer for the first time, ActiveSync 3.7.1 will guide you through setting up a partnership between the mobile computer and your desktop computer. Refer to ActiveSync with a Computer.

Select the check box of Inbox as shown above, and click [Settings] to configure it.

Note: ActiveSync 4.x does not support Inbox Synchronization. We recommend that you have ActiveSync 3.7.1 installed on your computer.

4.5 BACKUP UTILITY

The **CipherLab Backup Utility** is provided to help you easily make copies of data and restore your mobile computer's specific registry settings, install applications, user data, etc.

- Find out your OS version: go to **Start** > **Settings** > **Control Panel** and select **System**. Select the Device Name tab.

You may use the backups (.bkp) for these purposes:

- Full Restore Operation

  Backup all necessary files here (you don't have to select "Registry") so that you can restore your mobile computer to an operational state following a disaster.

- Partial Restore Operation

  Backup a few specific files here so that you can restore small numbers of files after you have deleted them by accident or found them corrupted.

- Easy Cloning

  Backup everything (including "Registry") necessary for cloning other terminals.

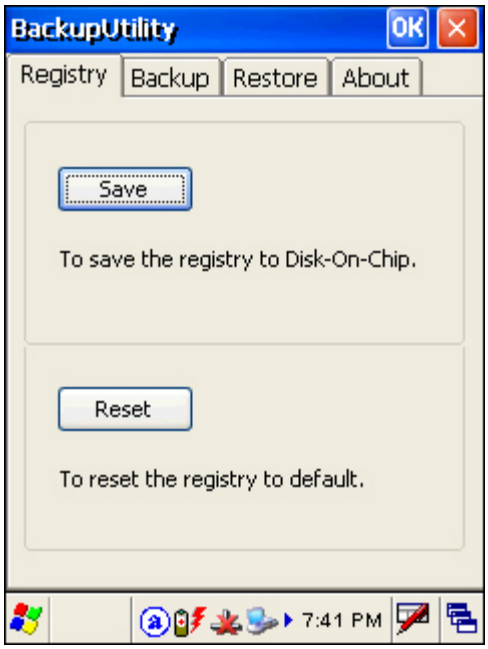
Now go to **Start** > **Programs** > **BackupUtility** to open the **CipherLab Backup Utility**.

4.5.1 MANAGING THE REGISTRY

If you are using this backup utility for the first time, you must manually save the system registry to the DiskOnChip folder first! Tap [Save] now to save the current system registry to "\DiskOnChip\Sysbak\Registry.dat".

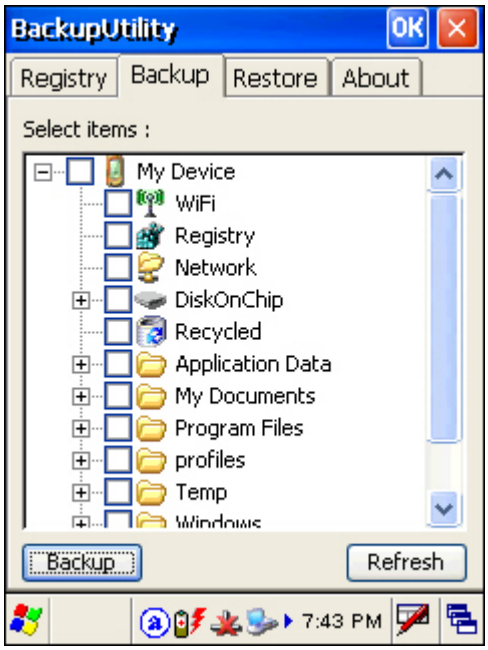
Warning:	As long as you make any changes to the system configurations and settings, you must tap [Save] to update the system registry here. Otherwise, it will reload the old registry values in use after a cold boot.

If you wish to reset the current system configurations and settings to defaults, tap [Reset] to delete the current system registry "\DiskOnChip\Sysbak\Registry.dat". It will then reload the default registry values after a cold boot.


BackupUtility
OK
Registry
Backup
Restore
About
Save
To save the registry to Disk-On-Chip.
Reset
To reset the registry to default.
7:41 PM

4.5.2 GETTING READY FOR BACKING UP FILES

Tap the Backup tab and it will automatically start scanning the file system. Within a few minutes, it will generate a list for the backup operation.



IF THE ITEMS "WIFI" AND "REGISTRY" ARE NOT LISTED...

This means no Registry.dat and Wifi.dat are found in "\DiskOnChip\Sysbak\". Take necessary steps before you tap [Refresh] to refresh the list of available items.

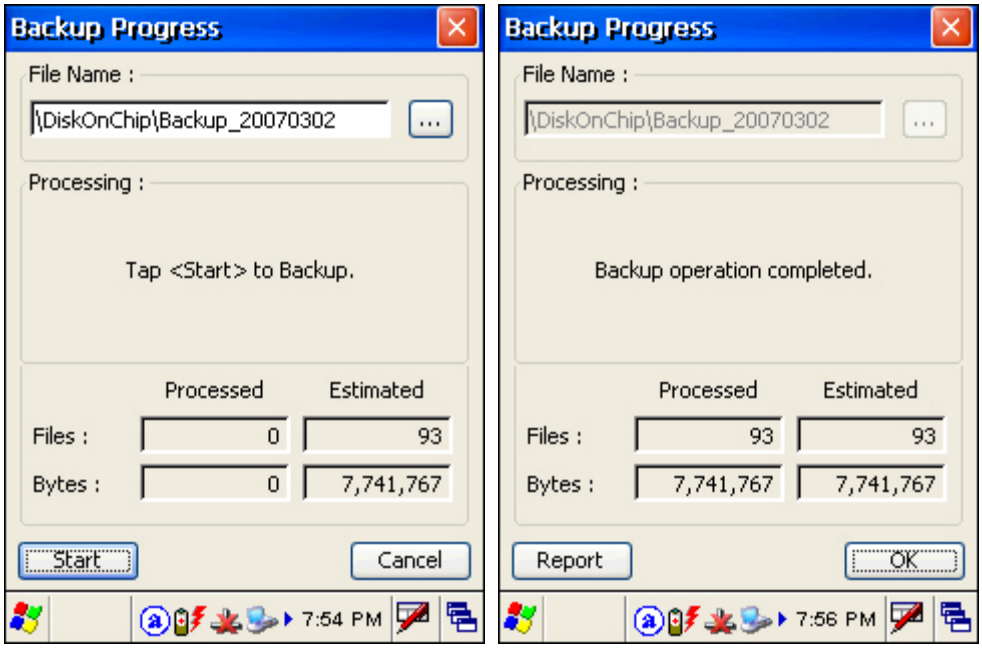
- WiFi - Turn on the power to the 802.11b/g module through the **Wireless Power Manager**, and then select an available network to connect.
- Registry - Go to the Registry tab and tap [Save].

Warning: You may not be able to backup all data when programs are still running! It is suggested that you exit all the applications before backup.

4.5.3 BACKING UP FILES

1) Select the items you wish to backup, and tap [Backup].
2) Tap [...] if you need to save the backup to a different directory or file name (.bkp).

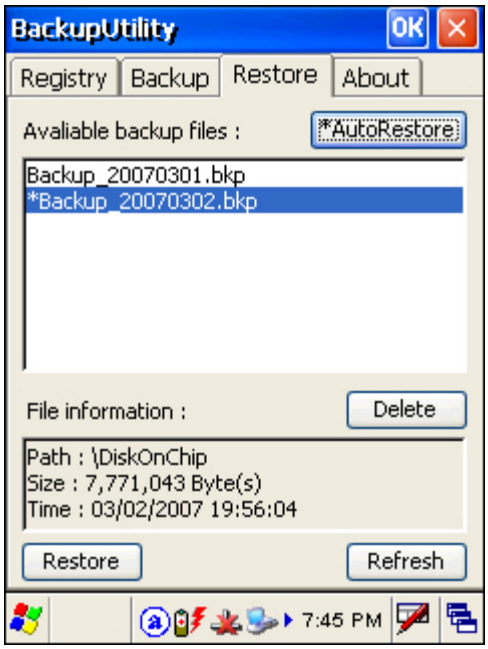
   By default, it will save the selected items to the DiskOnChip folder by the current date - the format of filename is "Backup_(4-digit year)(2-digit month)(2-digit date)".
3) Tap [Start] to pack all the selected items into one .bkp file.
4) Once the backup process is completed, tap [Report] to view the log file if necessary.
5) Tap [OK] to close the current window.



Note: If you wish to backup files to this new directory or file name in future runs, you must tap [OK] on the toolbar to save the current settings and exit the application.

4.5.4 USING BACKUPS FOR RESTORE

After the backup operation, tap the Restore tab and specify how to use these backups for automatic or manual restore operation.



FILE MANIPULATION

Tap [Refresh] to refresh the list of available backups. If a backup file is not desired any more, select it and tap [Delete].

AUTO RESTORE

Select a desired backup file from the list and tap [AutoRestore]. It will prefix an asterisk to the selected file, indicating the specific file will be used in the restore process that starts automatically right after a cold boot.

Note: For the Auto Restore setting to take effect, you must tap OK on the toolbar to save the current settings and exit the application.

MANUAL RESTORE

- Full Restore Operation
  1. Select a desired backup file from the list.
  2. Tap [Restore].
  3. Tap [Start] to run the restore process.
  4. Once the restore process is completed, you will be asked to perform a warm boot. Tap [No] if you wish to warm boot later. You may tap [Report] to view the log file if necessary.

- Partial Restore Operation
  1. Double-tap a desired backup file from the list.
  2. Select the desired items.
  3. Tap [Restore].
  4. Tap [Start] to run the restore process.
  5. Once the restore process is completed, you will be asked to perform a warm boot. Tap [No] if you wish to warm boot later. You may tap [Report] to view the log file if necessary.

Warning:	You must perform a warm boot after the restore operation!

4.6 BUTTON ASSIGNMENT UTILITY

The **CipherLab Button Assignment Utility** allows the following keys to be re-defined as another key or to serve as a shortcut key for launching a specific program.

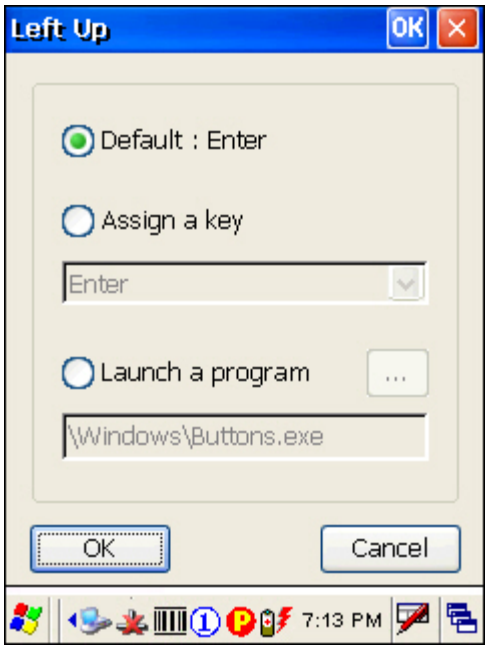
- P1 and P2 on the keypad (Programmable key 1 & key 2)
- SCAN key on the keypad
- Side triggers on each side of the touch screen – Left-Up, Left-Down, Right-Up, and Right-Down keys

Note: By default, the four side triggers are programmed to serve as ENTER keys (upper ones) as well as SCAN keys (lower ones).

Now go to **Start** > **Programs** > **Buttons** to open the **CipherLab Button Assignment Utility**.

1) Tap the label of one of these seven keys.

   For example, tap [Left Up] to configure the upper-left side trigger.



2) You may assign one of the following key values to the upper-left side trigger or have it serve as a shortcut key to launch a specific program.
   - Enter
   - Scan
   - Esc
   - Delete
   - Backspace
   - Space
   - Tab
   - F1 ~ F12
3) Tap [OK] for the change to take effect.
4) Tap OK on the toolbar to save the current settings and exit the application.

SPECIFICATIONS

PLATFORM, PROCESSOR & MEMORY

OPERATING SYSTEM

Microsoft Windows CE 5.0

CPU

Intel PXA270 at 520 MHz

MEMORY

ROM	128 MB non-volatile NAND flash memory
RAM	128 MB on-board SDRAM memory ▸ Ordering Option - 64 MB on-board SDRAM memory
Expansion Slot	One miniSD card slot for inserting memory card, optional

COMMUNICATIONS & DATA CAPTURE

COMMUNICATIONS

USB via Cradle	USB 1.1 Specification Host port (type-A) / Device port (type-B)
WPAN	Built-in module for Bluetooth Class 2 connectivity
WLAN	Built-in module for 802.11b/g networking

DATA & IMAGE CAPTURE

Digital Camera	2 mega-pixel CMOS type	
Barcode Reader	Ordering options include	▸ CCD (linear imager) ▸ Standard Laser ▸ 2D Imager
RFID Reader	Frequency 13.56 MHz	

ELECTRICAL CHARACTERISTICS

BATTERIES

Main Battery Pack	Rechargeable Li-ion battery – 3.7 V, 1800 mAh
Backup Battery	Rechargeable Lithium battery – 3.7 V, 70 mAh Data retention for at least 20 hours

POWER ADAPTER

For Cradle	AC 110/220 V (Input) to DC 6 V, 3.3 A (Output)

WORKING TIME (LASER, ONE SCAN PER 5 SECONDS)

Batch Mode with backlight	10 hours
Wi-Fi Mode with backlight	8 hours

PHYSICAL CHARACTERISTICS

COLOR TOUCH SCREEN DISPLAY

Display	3.5" Transflective TFT-LCD, 65536 colors
Resolution	QVGA (320 × 240 pixels)

KEYPAD

Layout	28 keys for alphanumeric layout ▸ Ordering Option –QWERTY keypad
Backlight	White LED backlight for display and keypad

NOTIFICATIONS

Status LED	Triple-color LED – Red / Green / Blue
Audio	Mono speaker integrated Headset jack – 2.5 mm DIA stereo earphone jack with microphone input ▸ Bluetooth headset supported
Vibrator	9000 ± 2000 RPM, Max. 50 dB

ENCLOSURES

Materials	Rubber & ABS plastic
Dimensions	170 mm (L) 90 mm (W) 38 mm (H)
Weight	Approx. 400 g (configuration-dependent)

ENVIRONMENTAL CHARACTERISTICS

TEMPERATURE

Operating	-10 °C to 50 °C
Storage	-20 °C to 60 °C

HUMIDITY

Operating	10% to 90%, non-condensing
Storage	5% to 95%, non-condensing

RESISTANCE

Impact Resistance	1.5 m, 5 drops per 6 sides
Tumble Test	50 cm, 2000 drops
Splash/Dust Resistance	IP 64
Electrostatic Discharge	± 15 kV air discharge, ± 8 kV direct discharge

REGULATIONS

EMC Regulations	FCC, CE, C-Tick, TELEC, RSS-210

PROGRAMMING SUPPORT

DEVELOPMENT ENVIRONMENT & TOOLS

Integrated Development Environment	Visual Studio 2005 Visual Studio .NET 2003 eMbedded Visual C++ 4.0 SP4
Software Development Kit	9400 SDK or Windows CE 5.0 Standard SDK System API (static and DLL) for system configuration ReaderDLL for reader configuration

SOFTWARE & UTILITIES

Reader Configuration Utility

Terminal Emulation for VT100/220 or IBM 5250

Application Generator

STREAM Wireless Studio

Web Browser

Third-party software –

- Wavelink Avalanche Enabler & Telnet Client
- MCL Collection - MCL Client