SmartCompact

1D/2D Scanner

Quick Reference Guide

SmarTerminal Computers, Inc.

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Introduction

This quick reference guide allows you to use all the advanced features of SmartCompact effectively. Please go through it once before using SmartCompact handheld terminal.

Chapter 1 Get to know more about SmartCompact

1.1 Make sure you have everything

- ✓ SmartCompact main unit
- ✓ Stylus Pen
- ✓ Standard battery pack (2000 mAH Li-ion)
- ✓ Power adapter
- ✓ Power cord
- ✓ Synchronization cable (USB cable)
- ✓ Backup battery 110mA Lithium-ion (Embedded)

Optional accessories

- ✓ Docking station (Desktop and vehicle)
- ✓ CF card cover
- ✓ Protective carrying case
- ✓ MSR printer and cradle
- ✓ RFID reader (Under development)
- ✓ Synchronization cable (Serial)
- ✓ Bluetooth printer with power adapter
- ✓ 3000mAh Lithium-ion

1.2 Appearance

1.2.1 Front side

Features and description

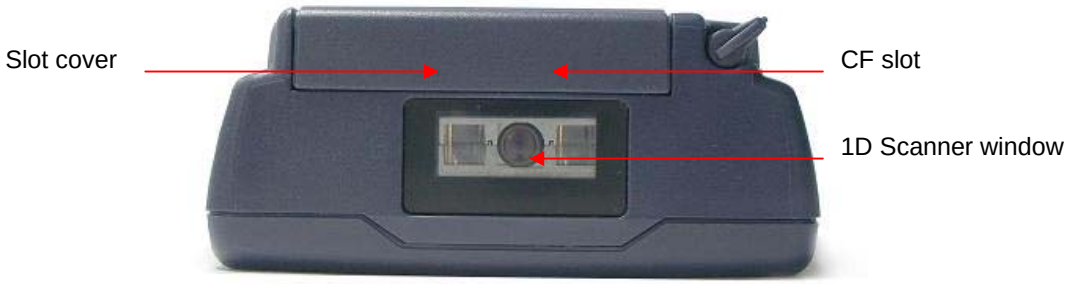
Features	Function / Description
LCD touch screen display	It shows the running application and desktop, Stylus can be used to select the application and inputting data on touch screen

1.2.2 Rear side

Rear panel features

Name	Function
Stylus pen	To use for touch screen
Internal speaker	To output audio signals
Hand strap	To hold SmartCompact unit
Main Battery	To give Dc power to SmartCompact
Battery lock switch	To lock/unlock battery pack
Backup battery on/off switch	To turn backup battery on/off
Detachable hand strap end	To detach hand strap easily for battery change
IrDA port	To communicate with other devices using infrared light
Product label	To display model name and serial number

1.2.3 Top side



Features and description

Features	Function / Description
1D Scanner window	While scanning the scanner beam is emitted and absorbed through this window
Slot cover	To protect the slot from dust
CF slot	To host CF peripherals

1.2.4 Bottom side

Features and description

Features	Function / Description
DC input jack	For DC power adapter connection to charge the batteries
I/O port	To connect to other devices using synchronization cable

1.2.5 Left side

Left Scan Key SD slot with cover

Features and description

Features	Function / Description
Left Scan key	To scan the barcode user should press this key also known was hardware scan key.
SD slot	To host SD peripherals

1.2.6 Right side

Audio I/O port

Features and description

Features	Function / Description
Right Scan key	To scan the barcode user should press this key also known was hardware scan key.
Audio I/O port	To connect headset with microphone for audio signals in / out

Chapter 2 Hot Keys

2.1 Front panel with keys

2.2 Front panel keys description

Key name	Functions description
Navigation keys	Default -- To move the cursor left, right, up and down In Function mode <up> To increase intensity of backlight <down> To reduce intensity of backlight <right> To increase speaker sound <left> To decrease speaker sound
Power key (Orange)	To turn SmartCompact (sleep / awake) and LCD backlight on/off
ESC key	Functions same as “Esc” key on keyboard in windows mode.
TAB key	Functions same as “Tab” key on keyboard in windows mode In function mode used to open application 1 or defined application
Alpha key (Yellow)	To switch to alphabet mode
Function key (Blue)	Other keys in combination with “Func” key have secondary functions
Enter key	Functions same as “Enter” key on keyboard in windows mode. In function mode works as stylus calibration.
Alpha-Numeric keys	To print various characters (0 – 9, a – z etc) in editor window
Home key	To clear desktop In function mode to turn wireless on/off.

Alpha-numeric Keys functions in different modes

Key	In numeric mode	In function mode	In alpha mode
<1>	Prints number 1 on editor screen	Functions as “Ctrl” key on keyboard	To switch to Caps lock mode
<2>	Prints number 2 on editor screen	Functions as “Alt” key on keyboard	To print a/ b/c on editor screen
<3>	Prints number 3 on editor screen	Functions as “Del“ key on keyboard	To print d/e/f on editor screen
<4>	Prints number 4 on editor screen	To open application 2 or defined application	To print g/h/i on editor screen
<5>	Prints number 5 on editor screen	To open application 3 or defined application	To print j/k/l on editor screen
<6>	Prints number 6 on editor screen	To open application 4 or defined application	To print m/n/o on editor screen
<7>	Prints number 7 on editor screen	Functions as “+” key on keyboard	To print p/q/r/s on editor screen
<8>	Prints number 8 on editor screen	Functions as “-“ key on keyboard	To print t/u/v on editor screen
<9>	Prints number 9 on editor screen	Functions as “Insert“ key on keyboard	To print w/x/y/z on editor screen
<0>	Prints number 0 on editor screen	Functions as “/“ key on keyboard	To print blank space on editor screen
<.>	Prints number decimal/period on editor screen	Functions as “*“ key on keyboard	To print ,/:/@ on editor screen

LED colors and description

Name	On state
Battery charging LED (Left)	Blinking blue – Low battery (below 10%)

	Green – Fully charged Red – While charging
Wireless LAN indicator LED (Right)	Blinking green - Wireless LAN on
Scanner LED (Top)	Red - Scanner result (error) Green - Scanner result (success)

2.3 Rear panel with keys

2.4 Rear panel keys description

Name	Function
Reset key	To perform warm and cold reset
Pistol key	For bar code reading when pistol trigger is pressed

Chapter 3 Power settings and connections

3.1 Power management

SmartCompact works on DC power.

A standard lithium ion battery pack (3.7V, 2000 mAH) is provided for Dc power input to SmartCompact. Charging time is 5 hours with 10 operation and 100 standby hours.

Battery low (below 10%) condition is indicated with Blue power LED.

In order to support SmartCompact in low battery state, there is an inbuilt 110 mAH rechargeable backup battery provided, it has backup time of 2.7 hours without main battery (in sleep mode).

For charging both main and backup batteries an AC adapter 100-240 V 50/60 Hz and 5 V/ 3A DC output is provided with power cord.

Note: Never use SmartCompact unit without main battery.

3.2 Install batteries in SmartCompact

Detach the hand strap end on rear side of SmartCompact. Unlock the Battery lock switch.

Slid the battery latch upwards and insert the battery pack given with the correct polarity.

Note: Only use the batteries which are provided for SmartCompact units.

3.3 Battery charging using power adapter

Connect power cord from AC power supply to AC adapter/charger.

Connect Ac adapter to SmartCompact through DC input jack present on bottom side.

While charging power LED will be red, after fully charged it will be green.

Backup battery also gets charged during this time.

Charging time is 5 hours.

3.4 Backup Battery on/off switch

Backup battery on/off switch is provided to turn backup battery on/off. When the SmartCompact unit is dispatched from the factory, the switch is turned off for backup battery power saving.

To turn the switch on/off use stylus pen pointed top.

On position – Up

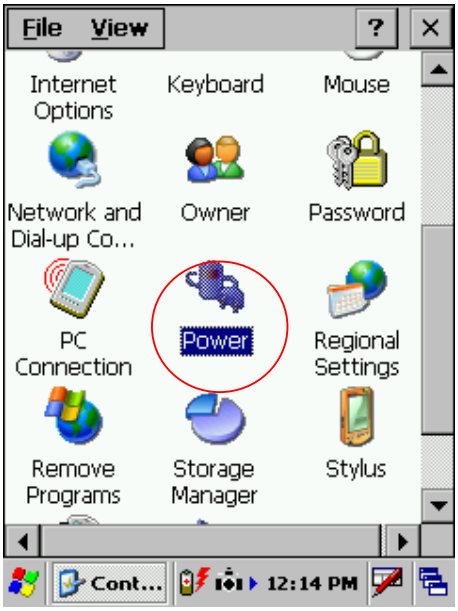
Off position – down

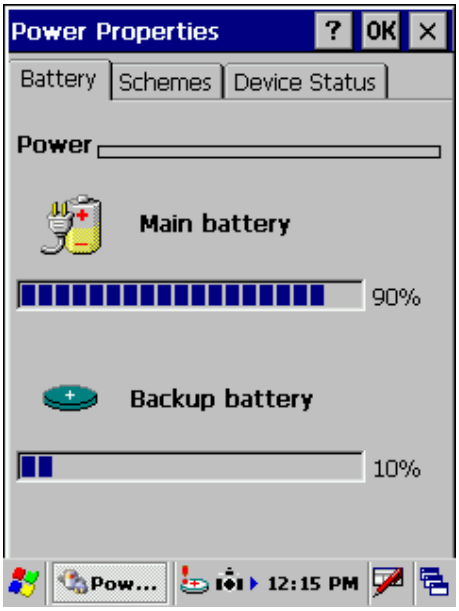
3.5 Power settings on WIN CE

To check the battery status

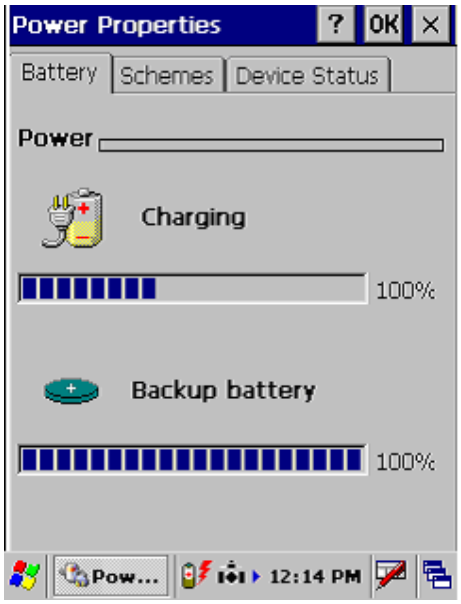
Start > Settings > Control panel > Power > Power properties > battery > power (main battery / backup battery)

It shows the charged status of both main and back batteries.

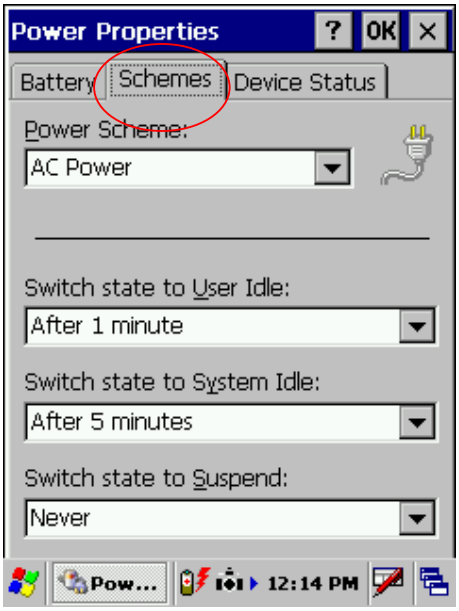




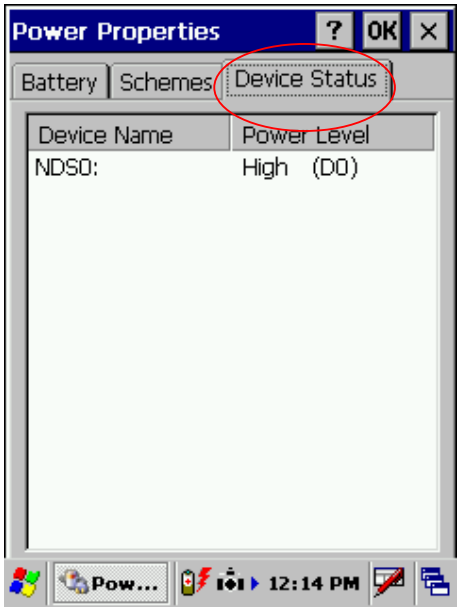
Awake mode



while charging



Power schemes



Device status

3.6 Turn on SmartCompact

Check the backup battery switch position, to turn on SmartCompact unit it has to be up position. Use stylus pen to turn it on.

Connect the main battery to SmartCompact main unit. Make sure that battery is fully charged for 5 hours, before it is used first time.

3.7 Turn off SmartCompact

To power off SmartCompact, hold the power key for 3 seconds, which will put the unit in sleep mode. LCD backlight can be turned on/off by one touch on/off of the power key.

Chapter 4 Operation modes

4.1 Normal mode

In normal mode all functions will be available and SmartCompact will be active.

4.2 Suspend mode

In suspend mode SmartCompact will look, as if it is turned off.

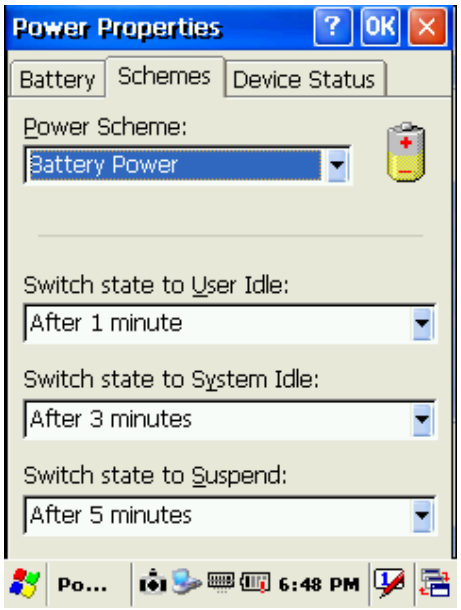
SmartCompact can be put in suspend mode in following ways:

1 Holding down the power key for 3 seconds, when it is on.

2 If main battery fails.

Note : If SmartCompact is not operated for specified period it can be switch to suspend mode, this time can be set as follows

Start > settings > control panel > power properties > schemes > battery power



SmartCompact can be put back in active mode in following ways:

1 One press of power button, when SmartCompact unit is off.

2 By putting it in powered docking station.

3 By replacing the batteries with charged ones and press power button.

Chapter 5 Resetting SmartCompact

Resetting means closing all applications and refreshing RAM (Random Access memory)

This is done in two ways:

5.1 Warm Reset

If handheld hangs in between and stops responding, please perform warm reset.

In order to perform warm reset, press (one touch) software reset button till handheld starts rebooting. Warm reset restarts the handheld by closing all the running programs. Always try warm reset first, if handheld do not respond, then try cold reset. The data which is not saved will be deleted and the saved data will remain in the appropriate directory.

5.2 Cold Reset

A cold reset clears the entire contents of RAM, including programs and data loaded in the Object Store (system memory). But the data on the “Disk on chip” will remain as it is, so it is necessary to store the important applications on “Disk on chip” before cold reset. The memory capacity of “Disk on chip” is 60MByte.

The operating system is reloaded and any applications set up for automatic installation are reinstalled. Cold reset is only recommended when all other procedures fail and SmartCompact stops working.

Follow the instructions below for the cold reset

Method 1

Press and hold function key, and then press software reset key simultaneously, till handheld starts rebooting.

Method 2

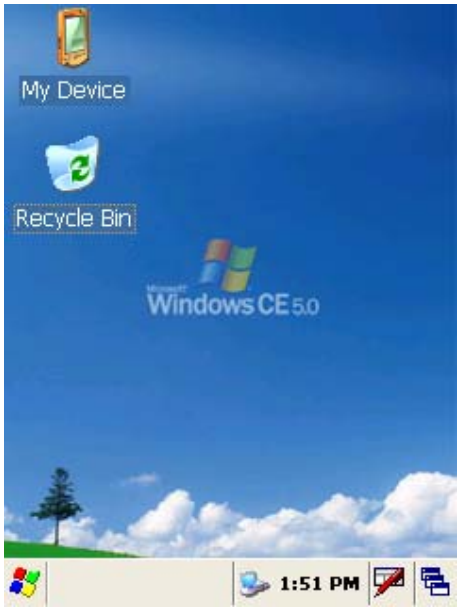
1 Release the lower clip of the hand strap.

2 Remove the battery pack.

3 Slid backup battery switch down and then again up to reset backup battery.

4 Reinstall the battery pack.

Following screen shots shows the cold reset functioning.



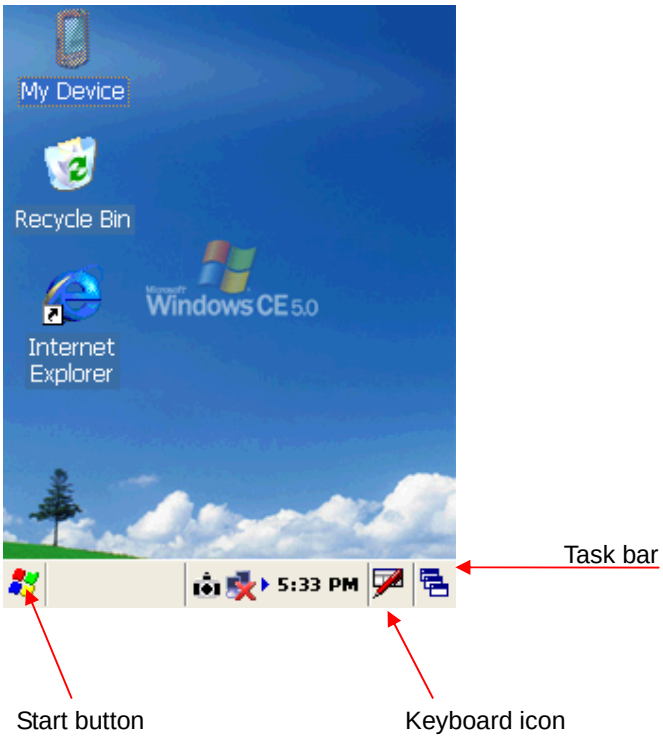
5.3 Difference between cold and warm reset

Topic	Warm reset	Cold reset
Reason for reset	If application hangs	If operating system locks up and warm reset does not work
Refresh status	It closes all applications *Preserves file system*	It closes all applications *Refreshes RAM* *Clears Files too*
Procedure to reset	One touch of software reset button	1 Slide backup battery of/off switch down then again up. 2 Press Function key & software reset key
After state	Splash screen will appear shortly Desktop will appear	After Splash screen booting image will appear and then Desktop screen will be shown. *Custom setting will remain persistent*
Priority	Always try warm reset first	Only if warm reset fails then try cold reset

Chapter 6 Configuring SmartCompact

6.1 Main Display screen description

Following is the display screen picture



It has the following

1 Task bar

2 Start button

1 Task bar: The task bar at the bottom of the screen displays the start menu icon, icons for the active programs, the current time and system icons for utilities loaded in memory.

It has keyboard icon, which opens and hides the soft input panel (SIP).

It has a button which shows present power status of SmartCompact i.e. either AC (power cord) while charging, backup battery in low power conditions.

Task bar allows user to open and close the programs or utilities.

2 Start button:

Start button is at the left corner in the task bar which allows opening start menu.

Start menu has the following options

Programs > shows all the installed program list as well as user can run the programs from sub-menus

Favorites > User can set the internet favorites and the necessary programs

Documents > list of latest open documents

Settings > Control Panel

Network and Dial-up connections

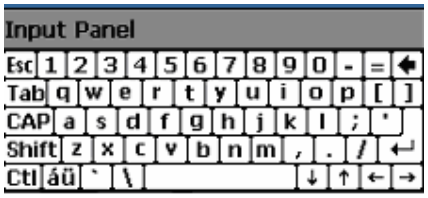
Taskbar and start Menu

Help > Win CE help manual

Run command > To run programs directly

Soft Input panel (SIP)

The keyboard button allows user to open or close the onscreen keyboard. The keys of a keyboard can be used by tapping them using stylus pen.



6.2 Calibrating the touch screen

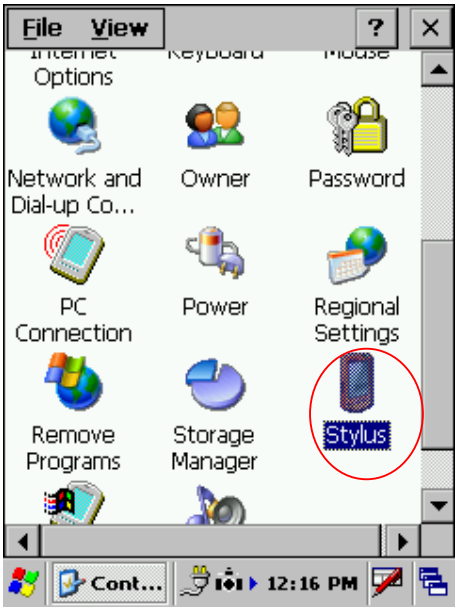
In order to use stylus pen on touch screen it is necessary to calibrate the screen first

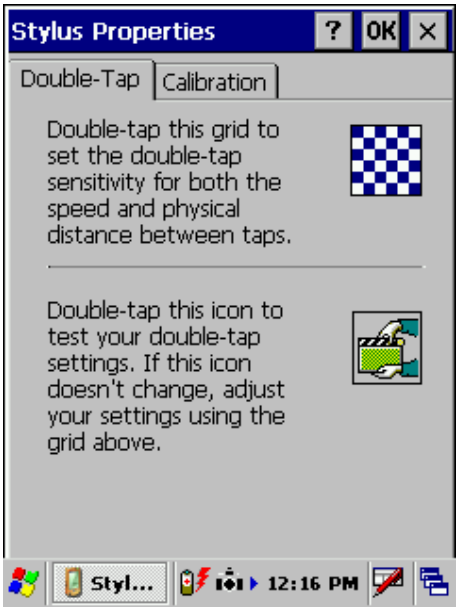
It can be done in following ways

Start > settings > control panel > stylus icon > Double tap / calibration

Double tap – Use the grid to set the double tap sensitivity for speed and physical distance between the taps.

Calibrate - Hit the recalibrate button and touch the points shown on the screen till it says calibration over. There is one more way to calibrate , press Function + Enter key.





6.3 Setting up WLAN card

In order to set WLAN settings

1 Open wireless settings screen using Function + home key, same key combination can be used again to exit the wireless LAN.

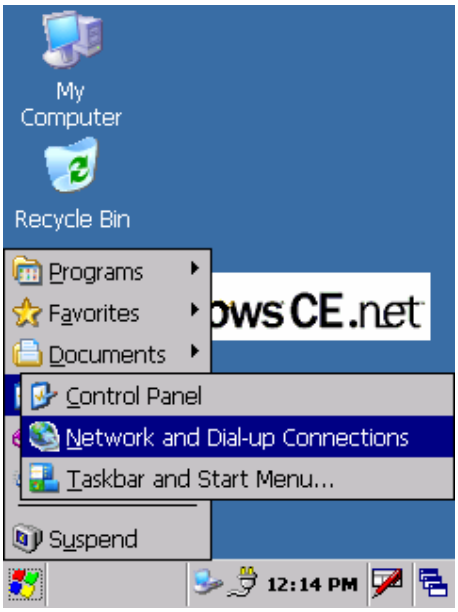
2 Select the network which need to be accessed and tap the connect button.

3 To add a new network, double tab on Add new and select the network from the list.

4 confirm it using <Ok> or press <Enter> key on keyboard.

To change the settings of wireless LAN

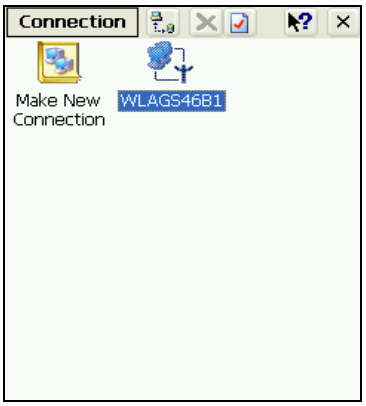
Start > Settings > Network and Dial-up Connections, Right mouse click and select properties on Wireless network

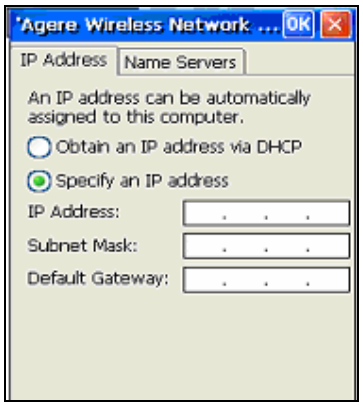


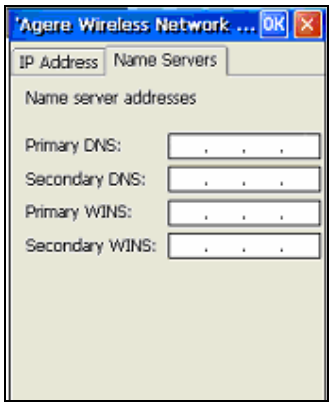
For IP address

Obtain an IP address via DHTP (Dynamic host configuration protocol) > to get automatic IP address, if this fails

Specify an IP address > Enter IP address and Server address and select <OK>, it connects to the network. User can use any browser to access internet.







6.4 Setting up GPRS/GPS/CDMA/GSM Compact Flash card

Before installing the GPRS card it is necessary to sign up for GPRS data service with local wireless carrier. Also get a SIM card that plugs into the CF card before installing it in SmartCompact.

Generally common GPRS CF cards are using serial interface so it is not necessary to install any extra driver since they can use already available PCMCIA driver.

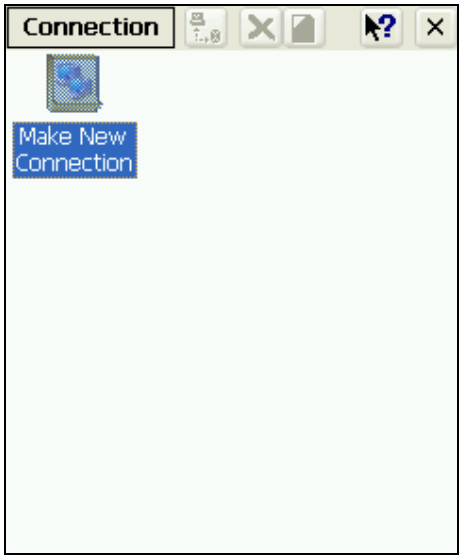
Note: If need to use very unique type GPRS card, please install the driver provided by manufacturer.

GPRS CF card can communicate immediately after plug in.

Follow the instructions given below for using GPRS CF card.

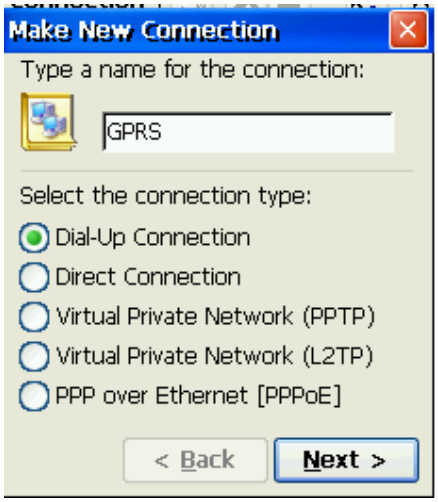
1) Select **Start> Settings > Network and Dial-up Connections >**

Make New Connection

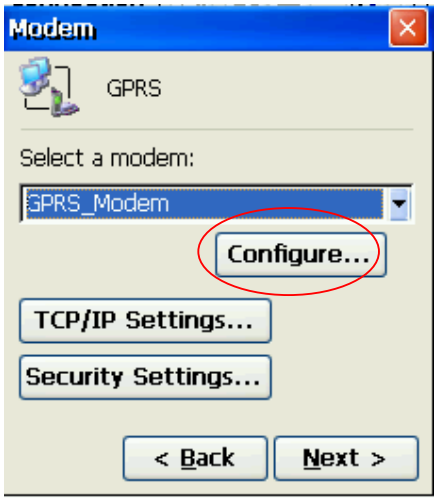


2) Click on **Make new connection**

Type name of the connection and select **Dial-Up connection** and select **Next**



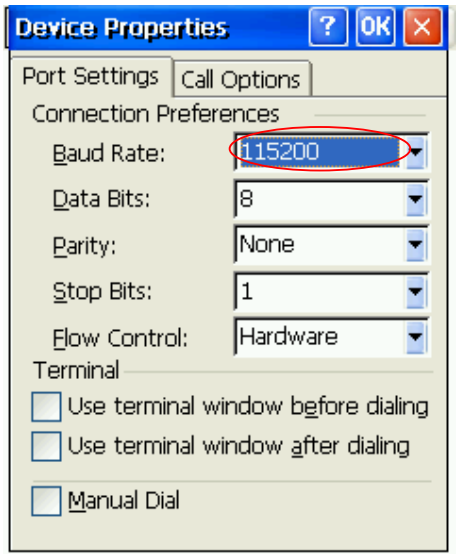
3) Select Modem type from the list as **GPRS_Modem** and Select **Next**

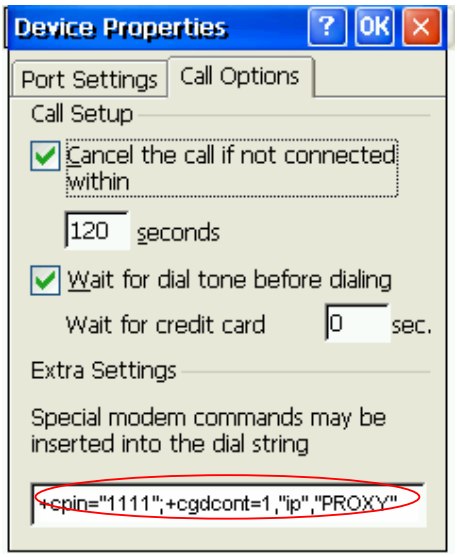


Tap on **Configure** to change the **Port setting** and **Call Options** as follows

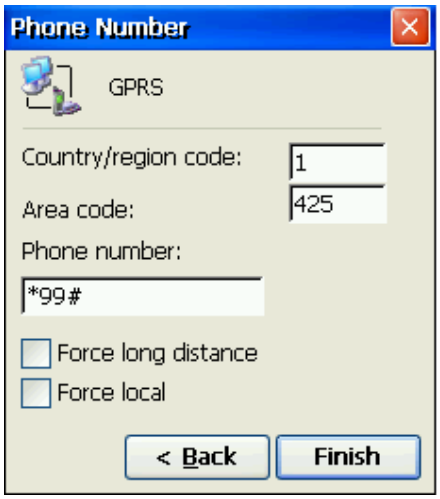
Enter Baud Rate – 115200

Extra settings -- +cpin="xxxx";+cgdcont = 1,"ip","yyyy"

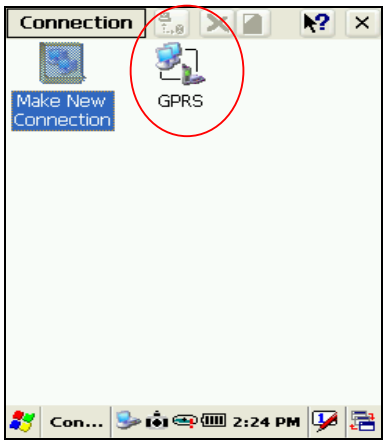




4) Enter Country and Area code, phone number and Click **Finish**



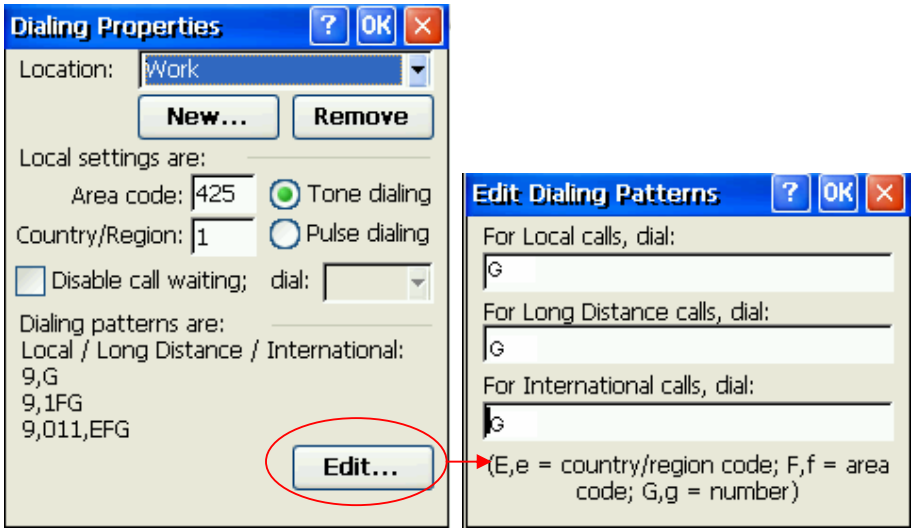
5) To connect to The GPRS network, double click on the new connection created



6) Enter User name, Password, Domain and click connect

7) Change the **Dialing properties** as per the requirement

Click **Edit** to Change Dialing patterns e.g. Enter **G** for all options



8) After successful connections following screen will be displayed.

6.5 Volume / sound control

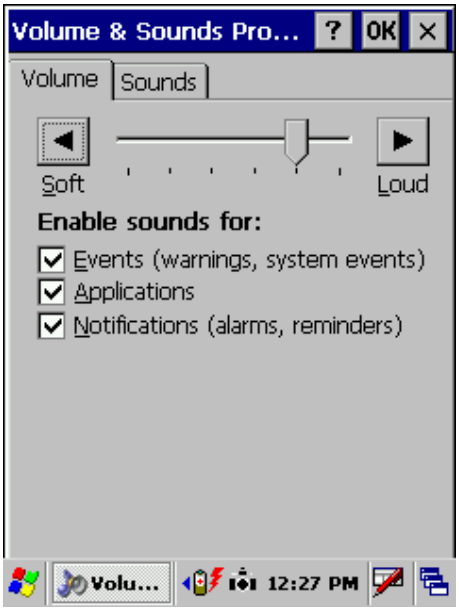
In Function mode Right and left navigation keys can be used to use to increase and decrease the sound.

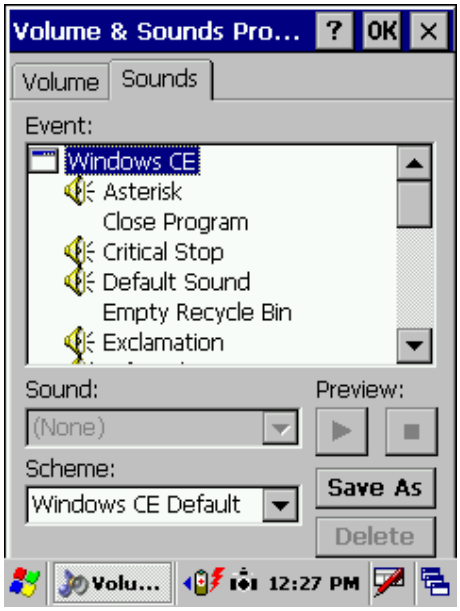
User can check the sound intensity with the background sound which is generated while increasing and decreasing the volume through application

Start > settings > control Panel > Volume/sound

Volume - Adjust the volume as per the requirement using slider and check boxes.

Sound - Select sounds as per the requirement for each event.





6.6 Date/Time settings

In order to set date and time do the following

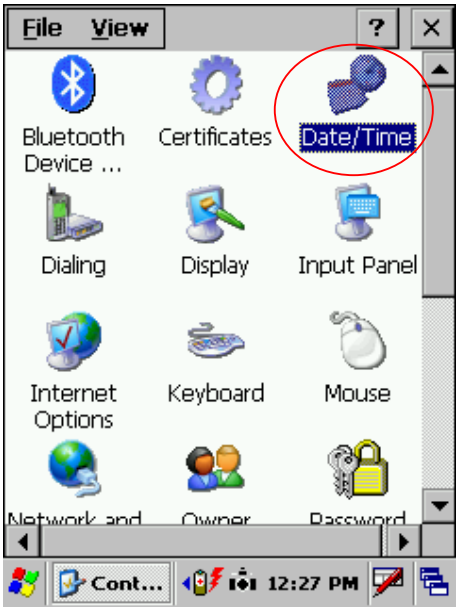
Method 1

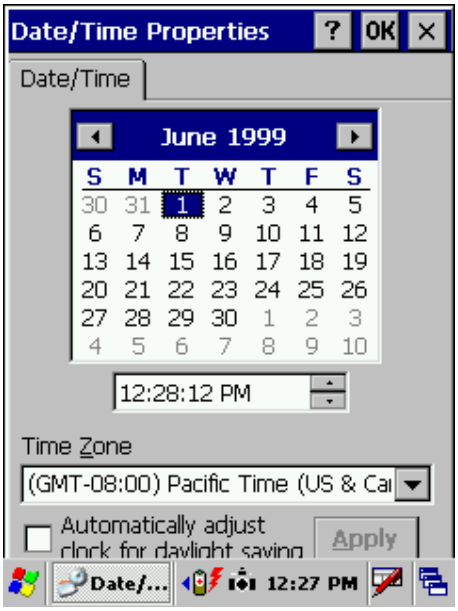
Start > settings > control panel > Date and time > Date and time properties dialog will show up.

Method 2

Double tap on the time on the task bar which will open up Date/time properties screen.

Change Date and time as per the requirement.





Chapter 7. Applications and operations

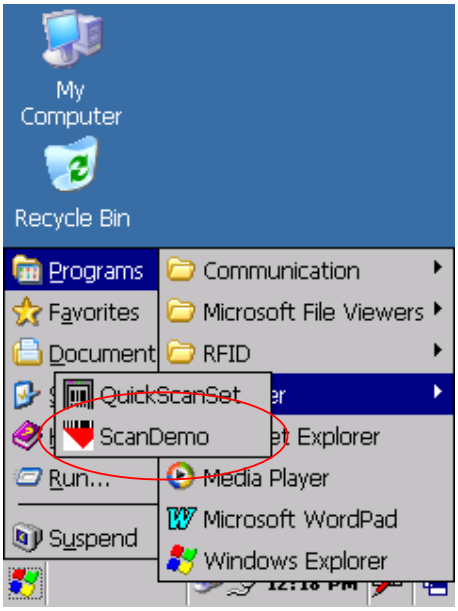
7.1 Scanning Barcode (1D/2D CCD type scanner)

CCD Charge coupled device technology scanner consists of a series of light-sensitive circuits that capture the reflected light and register its intensity and color after it is reflected from a series of mirrors. It utilizes the same technology that video cameras use.

Following procedure is used to read barcodes

1 Execute the application for bar code reading

Start > Programs > Scanning > ScanDemo application or use the icon on desktop



It runs in the background, user can find out by the bar code icon in system tray

2 Aim the scanner window at the barcode

3 Press Left or right barcode scan button for 5 seconds

4 Aim the laser beam at the center of the barcode

5 check the scanning result either with beep sound or scanner LED indicator

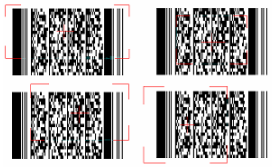
Red > Error

Green > success

If there is an error, repeat the procedure till the barcode gets successfully read

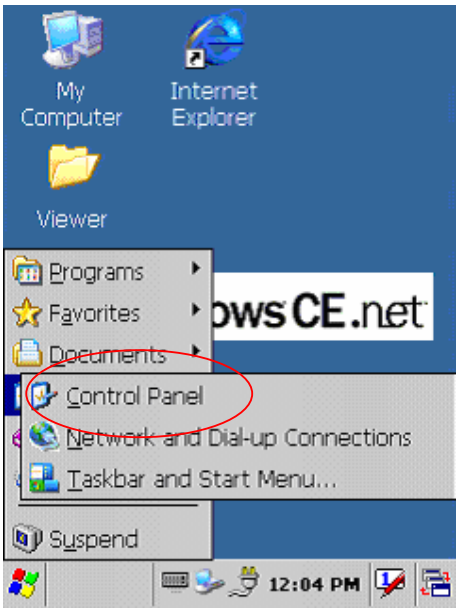
Correct scanning method

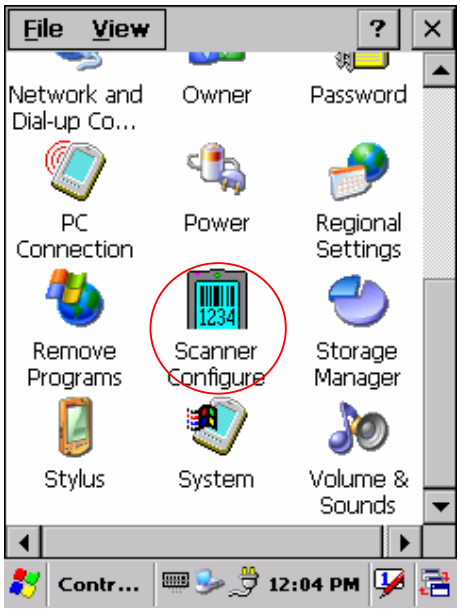
Wrong scanning method



7.2 1D/2D Scanner configuration settings

Select Start > Programs > Control panel > Scanner configuration icon

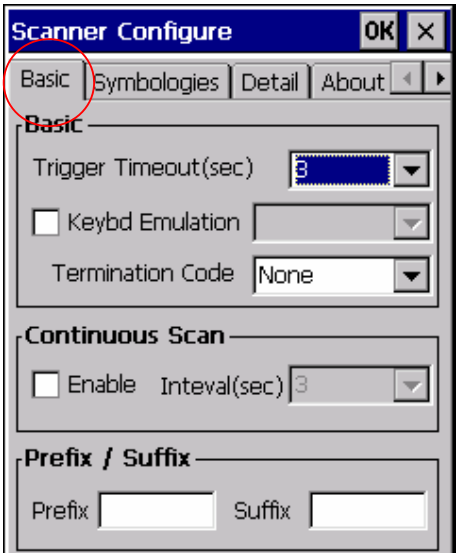




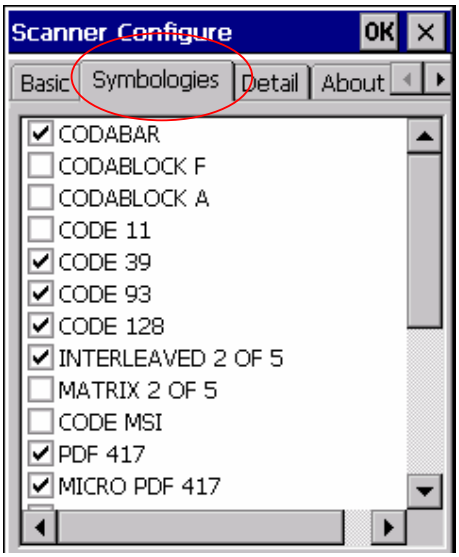
Before you begin

This Application consists of the following 5 Tabs.

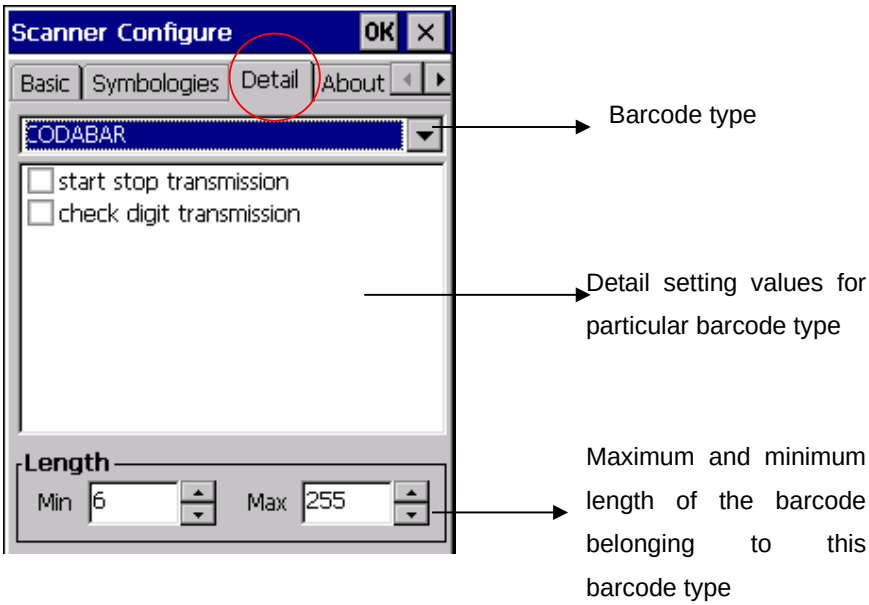
1. Basic -- Changes the default settings of Barcode scanner.
2. Symbologies -- Select the types of Symbologies.
3. Detail -- Changes barcode symbology parameter settings in SmartCompact.
4. Options -- Set the other functions of the scanner like Sound and Scan Key change.
5. About -- Shows the scanner configuration version and scanner firmware version.



Menu option	Function	
Trigger time out	Scanning time in seconds, which is the waiting time to read a barcode exactly.	
Keyboard Emulation (Disabled)	There will be no keyboard event after scanning barcode, scanned data will be transferred directly to the user application	
Keyboard Emulation (Enabled)	Type writing	Shows encrypted barcode as alphanumeric form
	Copy / paste	copy /paste the scanned barcode in editor window
Terminator	Add a automatic text after each bar code , it can be set as None, CRLF, CR, LF, Space, Tab, STX-ETX	
Continuous Scan (Disabled)	No continuous scanning	
Continuous Scan (Enabled)	Scan continuously the barcode with set time interval.	
Prefix	Add code before each barcode e.g. when scanned value is 12345 and prefix is ABC, It will be shown as ABC12345.	
Suffix	Add code after each bar code e.g. when scanned value is 12345 and suffix is ABC, It has shown as 12345ABC.	

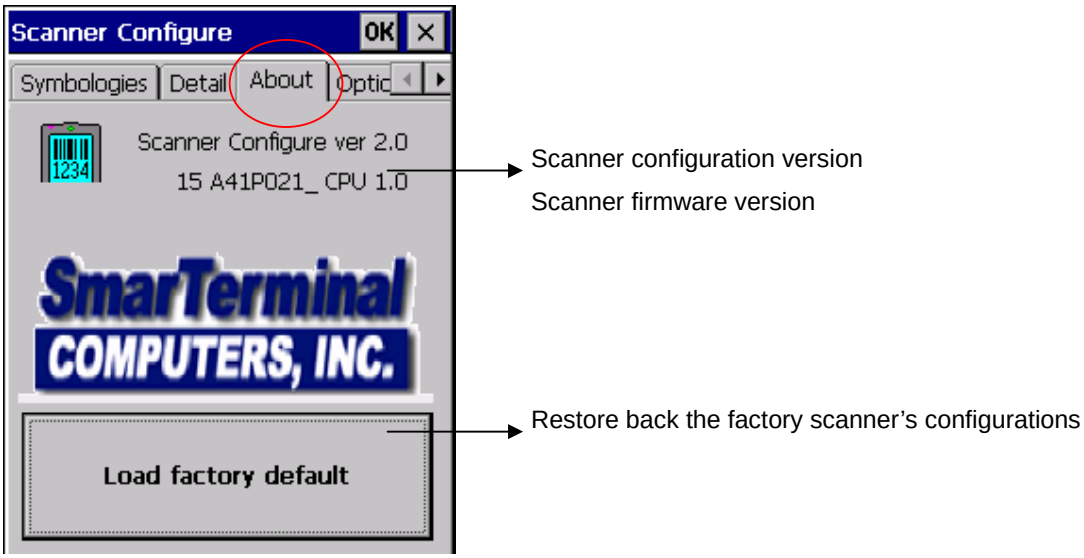


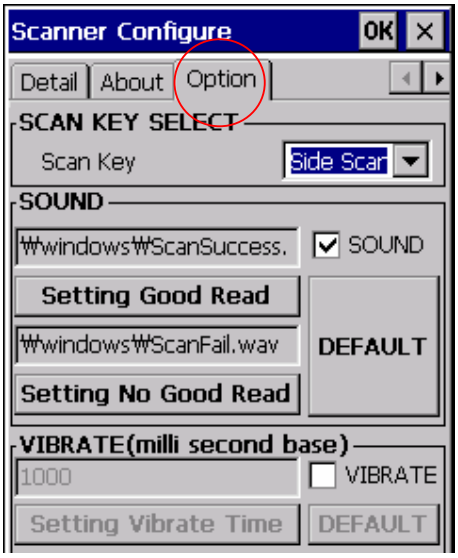
Check mark means select the barcode type for scanning, the unmarked barcodes will not be scanned.



Options

Decoding	0 1	Not active Active (default)
Format	0 1	Standard 43 characters (default) Full ASCII
Start/Stop	0 1	Not transmitted (default) Transmitted
Start/Stop characters *(Not supported when using an imager)*	0 1 2	$ (dollar sign) only * (asterisk) only (default) $ and * (dollar sign and asterisk)
Check digit	0 1 2 3 4 5 6	Not used (default) Mod 43 transmitted Mod 43 not transmitted French CIP transmitted French CIP not transmitted Italian CPI transmitted Italian CPI not transmitted
Bar code length	0 1	Any length (default) Minimum length
Minimum length	001–254	Minimum length 1–254 (default is 6)





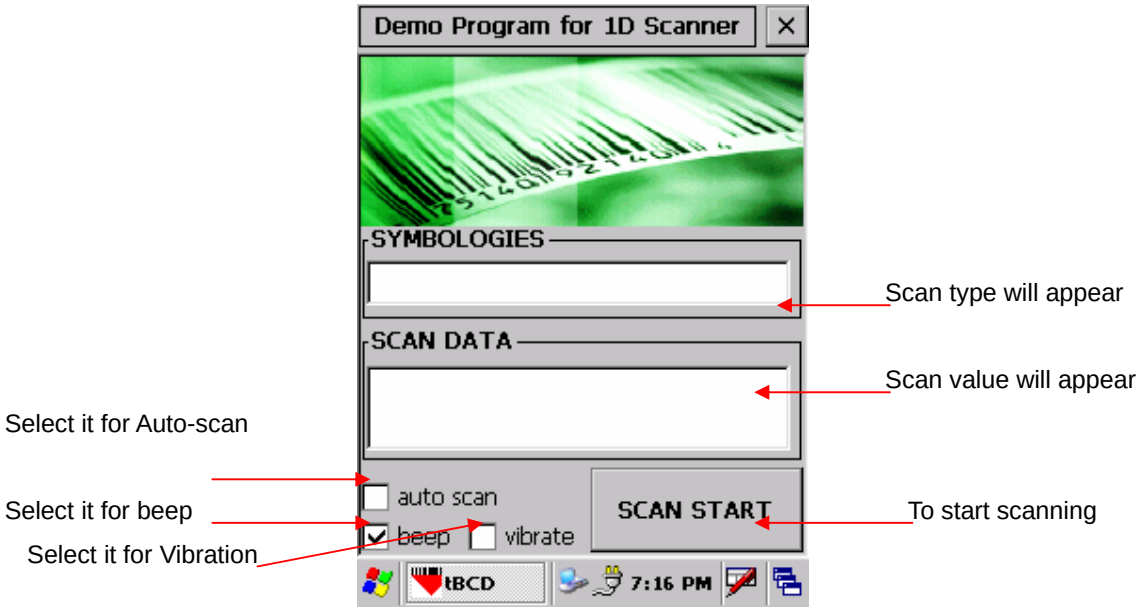
Menu Option	Function
Scan key	To define a scan trigger key (side scan key , HOME key, LEFT key, RIGHT key, UP key, DOWN key, ENTER key)
Sound	To activate beep sound
Setting Good Read	Tap on this button allows to select the (*.wav) sound file for beep "On success of barcode scanning" The selected file name will be displayed in the fill-in above
Setting No Good Read	Tap on this button allows to select the (*.wav) sound file for beep "On failure of barcode scanning" The selected file name will be displayed in the fill-in above
Default	Will restore back the default sound files for both operations

	success and failure
Vibrate	Select to use vibrate mode on scanning (success/failure)
Vibrate (mille second base)	Time interval for vibration
Setting Vibrate time	To save the assigned time interval and test it
Default	To restore back the default vibration settings

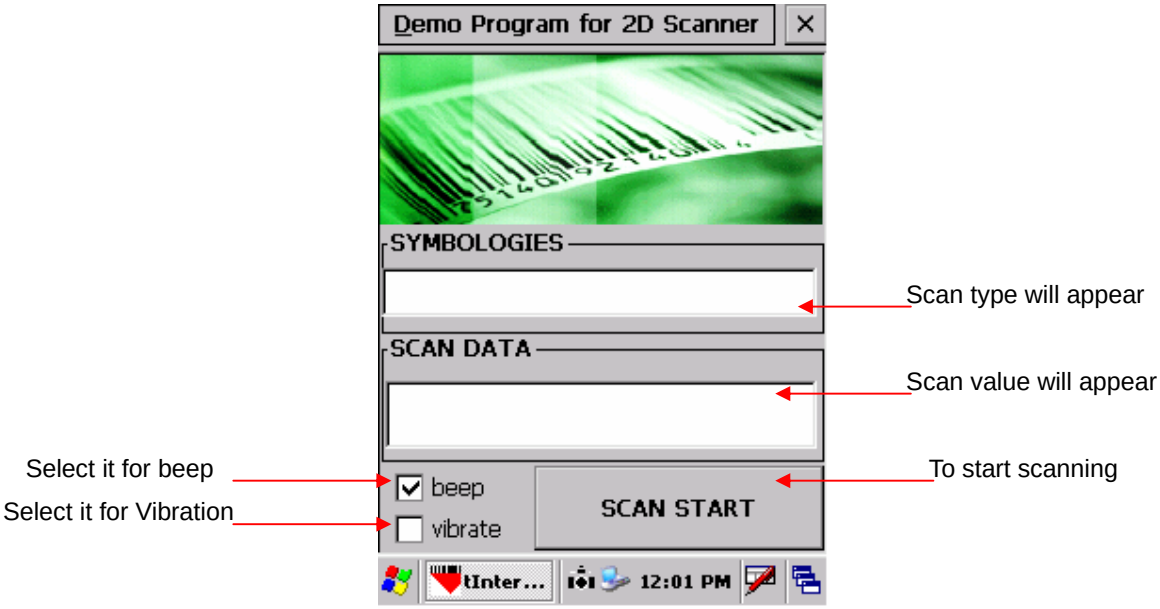
7.3 Demonstration program for 1D / 2D Scanner

To start the demonstration program Start > Programs > Scanner > ScanDemo

Startup screen for 1D Scanner



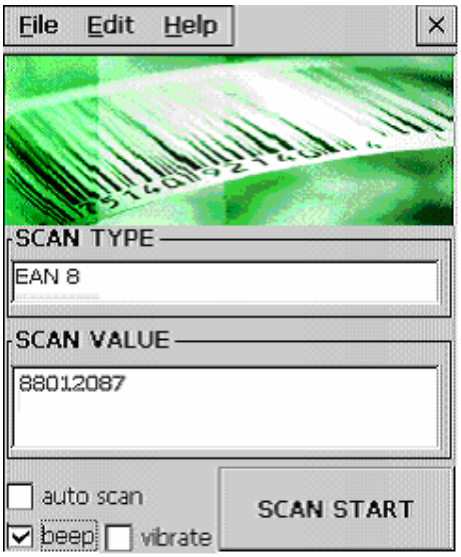
Startup screen for 2D Scanner – Scanner waiting screen

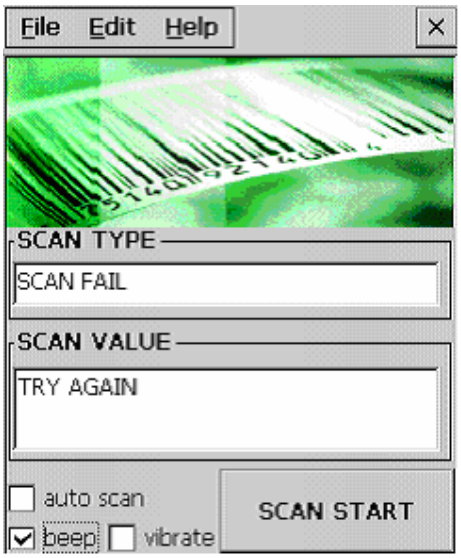


For Scanning bar code user can either press SCAN START button once or one of the hardware buttons on the left/right side of the SmartCompact unit. The result will be same for both procedures.

After **successful** barcode scanning the scan type and value will be displayed in respective fill-ins

On **failure** of barcode scanning Scan fail and try again messages will appear



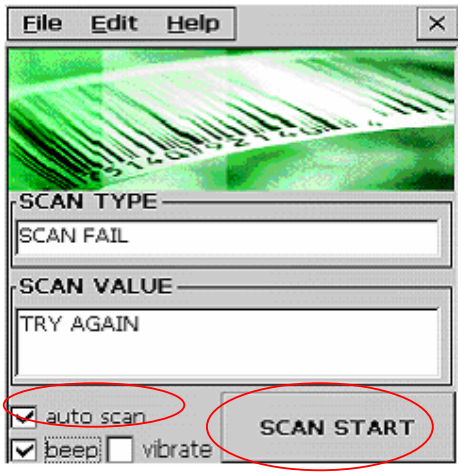


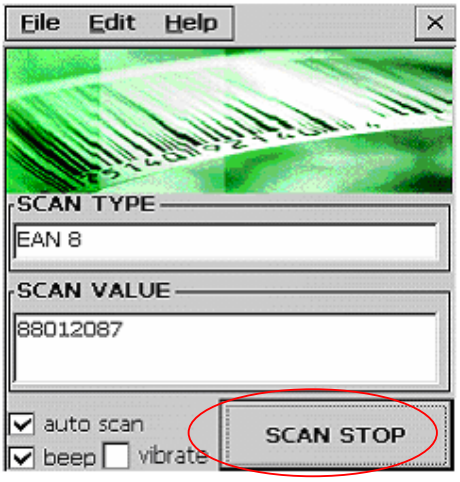
For Beep select Beep checkbox, the specific beep sound can be selected through control panel settings.

For Vibration on success or failure select vibrate checkbox.

For Auto scan select the auto scan check box. Unless deselected the auto-scan mode will be activated whenever user starts the program.

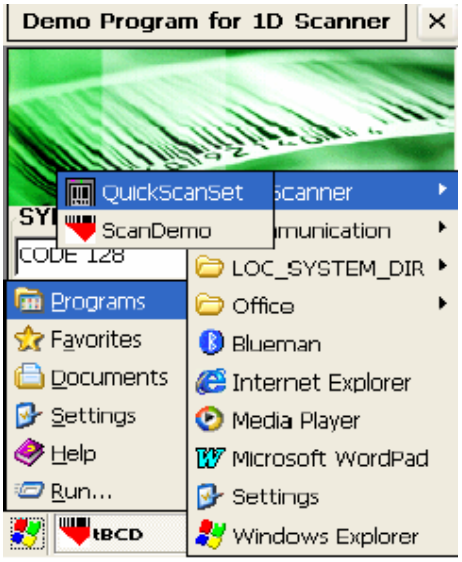
In auto scan mode, once the < Scan start > button is pressed, the scanning beam will continuously come till <Scan stop> button is pressed.



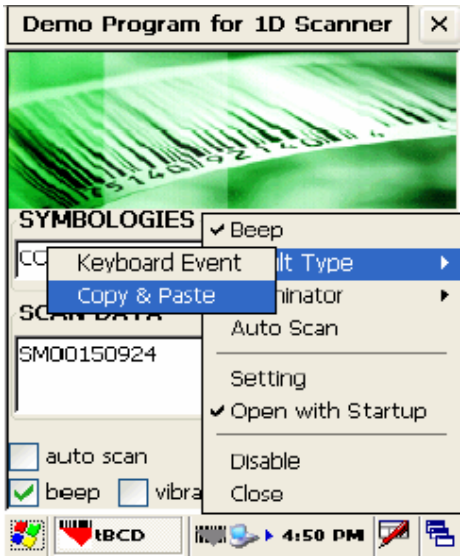


Copy data captured by QuickScanSet to wordpad

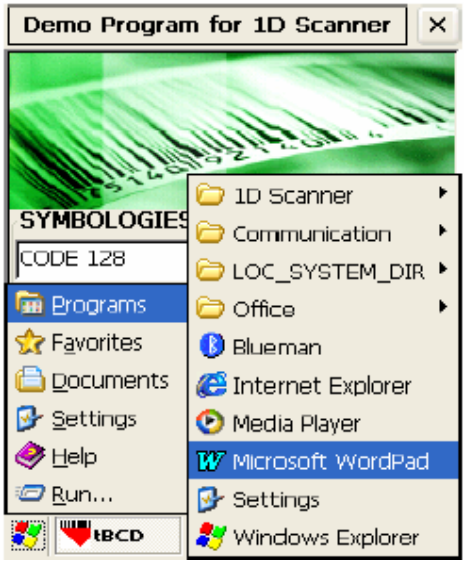
Start > Program > Click QuickScanSet



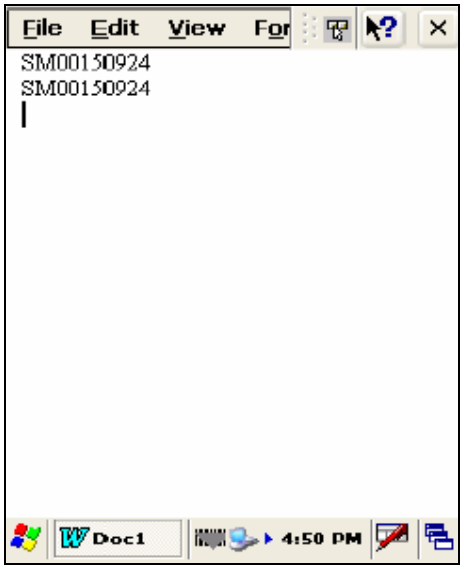
Double click QuickScanSet in task bar and select **Copy and Paste**



Start > Program > Run wordpad



Scan start > Scanned barcode data will get copied to wordpad



7.4 Blueman application program

Blueman supports Bluetooth 1/2 and Blueclass 2 (10 mW) specifications.

Note :

- Maximum only two services can be connected (SPP and FTP, ActiveSync and FTP)
- SPP and ActiveSync can not be connected simultaneously since they use the same outbound port
- While both SPP and FTP are in use the service search might not be available.
- Whereas the part which is saved automatically in setting is shown in red and others are saved by closing the setting form.
- The class of device of PDA which installs Blueman is applied to Handheld PDA in service on.

7.4.1 Bluetooth application status

- There are 3 types of Bluetooth status; Off, On, Connection
- You can check the current status of Bluetooth in the tray icon as shown below

User interface	Status
	Bluetooth Radio Off : Inactive Gray color
	Bluetooth Radio On : Active **Blue color**
	Bluetooth connection: In use **Green color**

Blueman tray icon popup menu

By double clicking on Blueman tray icon user can get popup menu as shown in following screenshot

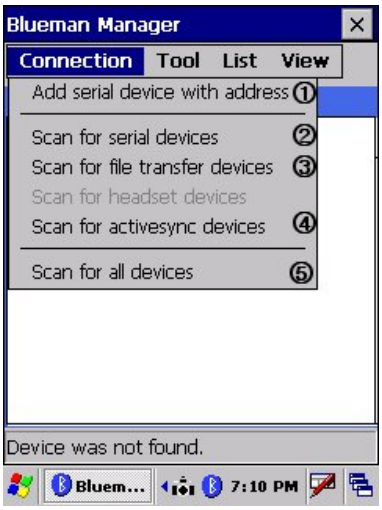
Menu name	Description
Turn off Bluetooth	To activate / deactivate Bluetooth
Can discover me	Allow other devices to access PDA using Bluetooth
Bluetooth manager	To manage Bluetooth
Bluetooth setting	To configure Bluetooth settings
Exit	To exit Blueman application

7.4.2 Bluetooth Manager

Bluetooth manager is used to manage Bluetooth. It has four menus

Connection, tool, list and view

Connection : Allows PDA to access and connect to other devices which support the same services e.g. serial, file transfer and AciveSync service.

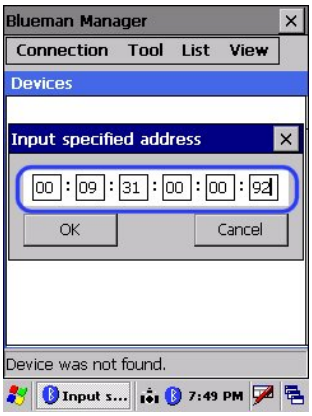


Menu	Function
1 Add serial device with address	To add a shortcut to search and connect serial device using its Bluetooth address
2 Scan for serial devices	To search the device with the serial service.
3 Scan for file transfer devices	To search the device with file transfer service
4 Scan for ActiveSync devices	To search the device with ActiveSync service
5 Scan for all devices	To find out all Bluetooth devices

Add serial device with address

This section will enable PDA to search and connect the device with serial service using a specific address. Follow the steps given to search the Bluetooth device:

Enter Specific address **Shortcut icon will appear** **Double click on icon for popup menu**



Select “Connect”, the serial service will start with the message “COM8 port was created for SPP client”.

Double click same icon for the following popup menu.

Disconnect – To stop the service

Delete – To delete the icon

Properties – To show properties of the service

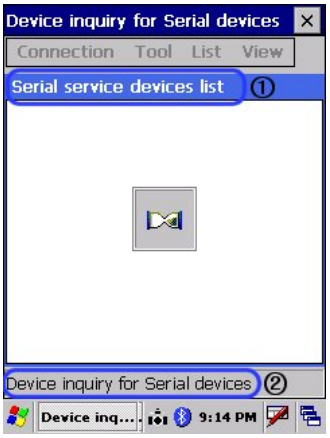
Refresh – To refresh the current connection or setting information

Scan for serial devices

This is used to create shortcut to find and connect all the devices with serial service.

When Bluetooth address is not known, **Scan for serial devices** option can be used to search serial devices.

System will automatically Search Bluetooth devices with serial service.

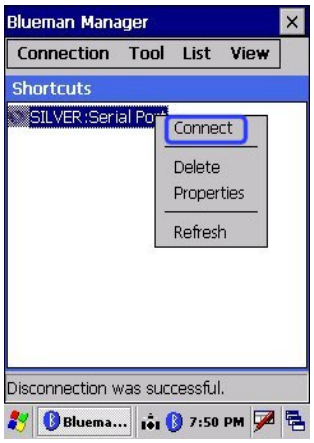


Service query screen

Query is finished and serial service list is displayed as follows

Select specific service &
Select <Create shortcut>

Double click for popup menu
Select <Connect >



Select “Connect”, the serial service will start with the message “COM8 port was created for SPP client”.

Double click same icon for the following popup menu.

Disconnect – To stop the service

Delete – To delete the icon

Properties – To show properties of the service

Refresh – To refresh the current connection or setting information

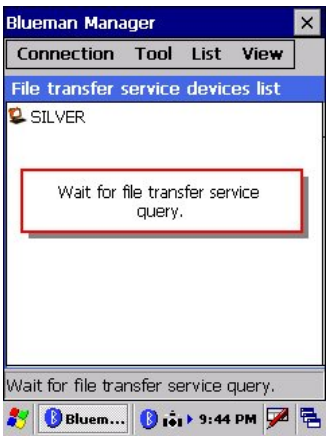
Scan for file transfer devices

Use this section to enable your unit to receive files from another Bluetooth device, or from any

device that supports this function (FTP).

Search Bluetooth device: The system automatically searches for a list of Bluetooth devices in the screen that will support a FTP service.

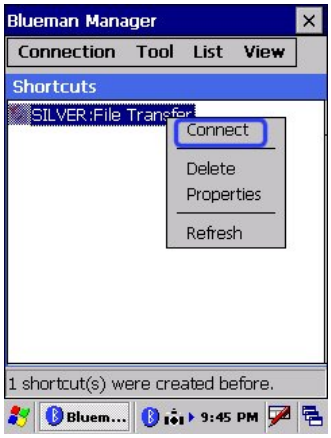
<Device searching screen> **< Service query Screen >** **< List complete Screen >**

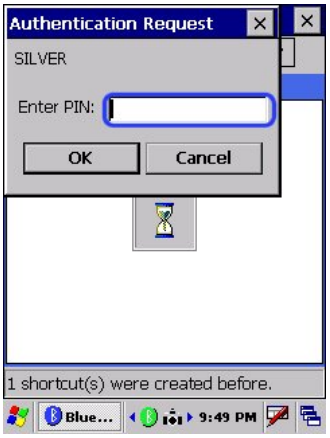


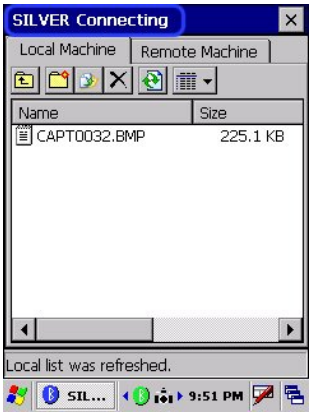
Select device & click create Shortcut

Double click on device icon to get popup menu, select Connect

For security authentification Enter PIN of the device







To go to the upper folder (You cannot go from default folder to the upper folder to prohibit from deleting the system folder.)

- To Make a new folder

- To Send or receive file

(You cannot download a folder)

- To delete a file

(You cannot delete a folder)

- Refresh

Large Icons : The icons in the current screen are seen large

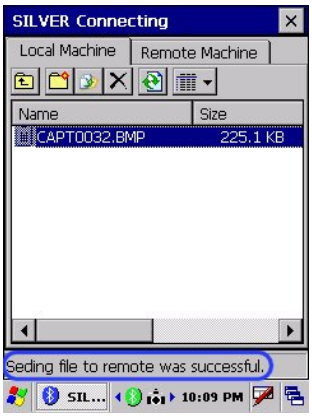
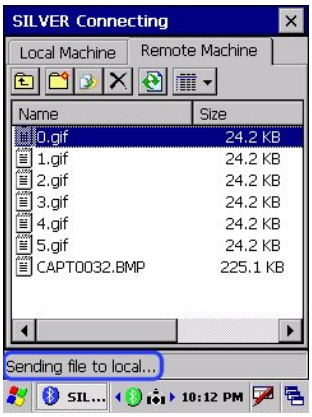
Small Icons : The icons in the current screen are seen small

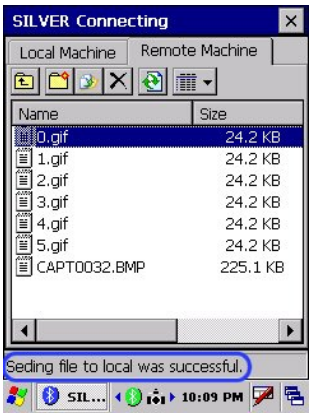
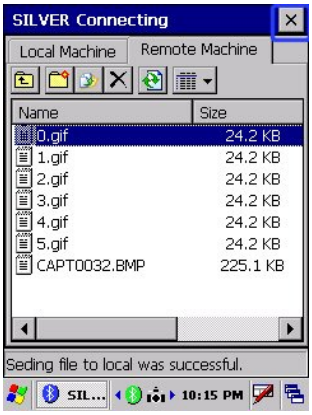
To send a file from remote device to local device

- Click the Local Machine tab, which is defined as the default.

- Select the file and then click transfer icon. When the message of “send to remote” pops up. Click “yes”.

Status message “Sending file to remote” is displayed during file transfer.

	When file transfer is done, you can see the message of “sending file to remote was successful” on the status bar, located at the bottom of the screen.
	To send a file from Remote device to Local device - Click the Remote Machine tab. **-** Select the file and click “send to.. icon”. When the message of “send to remote” pops up. Click “yes”.
	- The message of “sending file to local” is shown in the status bar of screen.

	- When the file transfer is done, you can see the message of “sending file to remote was successful” on the status bar, located at the bottom of the screen.
	**To close FTP Program** - Tap the close icon(X) in the top-right corner to exit and disconnect the service connection.

< file transfer service Function>

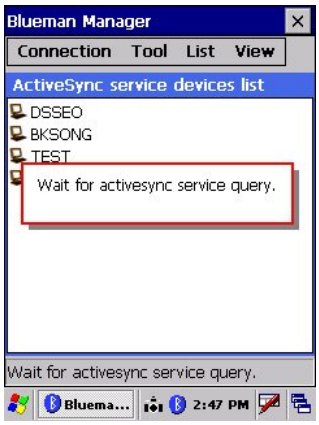
**** Regarding FTP Host function, enter the agreed pin number for both PDA and other Bluetooth device to make a connection.**

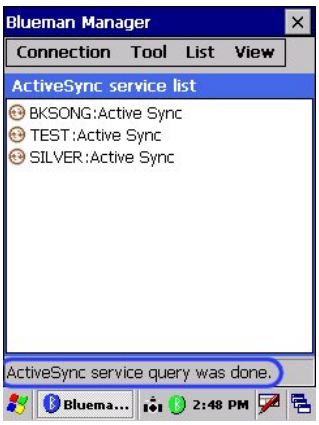
Scan for ActiveSync devices

- This section describes how to make a shortcut to search and connect all Bluetooth devices with ActiveSync service.

Search Bluetooth devices which support ActiveSync service

<Device searching screen> **< Service query Screen >** **< List complete Screen >**

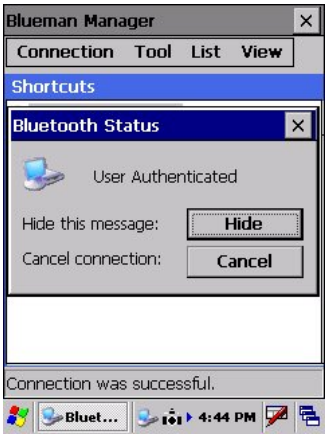




Select device & click create Shortcut

Double click on device icon to get popup menu, select Connect

Message after successful connection



To disconnect the service

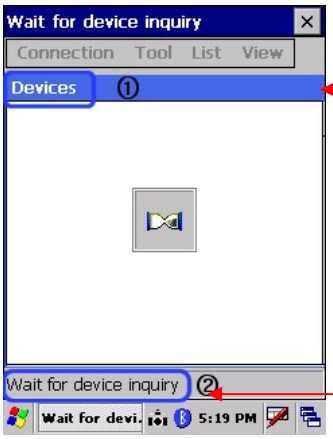
Scan for all devices

This section describes to search and query all Bluetooth devices respective services. User can make a connection if required.

All Bluetooth devices

When you select this function, you can search and list up all Bluetooth devices with the following procedure.

To search Bluetooth devices

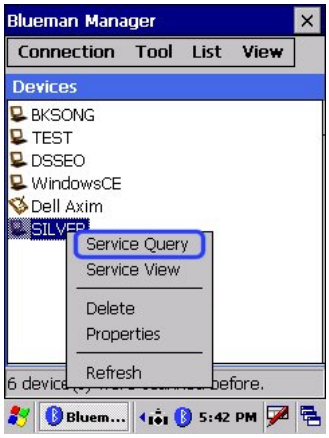


The service type to scan is shown in the title bar

The status of blueman manager is displayed in the status bar below.

List of devices which support Bluetooth service

Press and hold your stylus in the device icon for a pop-up menu, then select “Service Query”



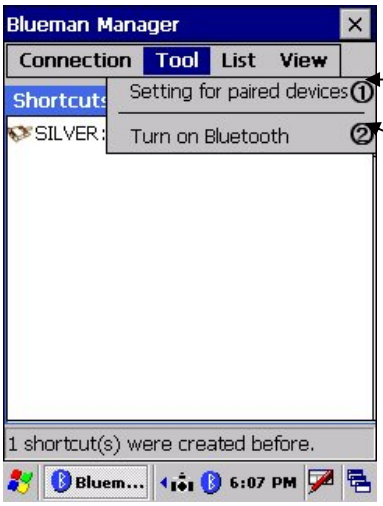
Once the service query is Complete, list of services which device supports will be displayed as follows

To create shortcut, hold stylus on service icon to display popup menu and select **Create shortcut**

Use popup menu to connect and disconnect the service

Tool

This tab enables the device to set the paired status with other device or activate/deactivate the Bluetooth radio.

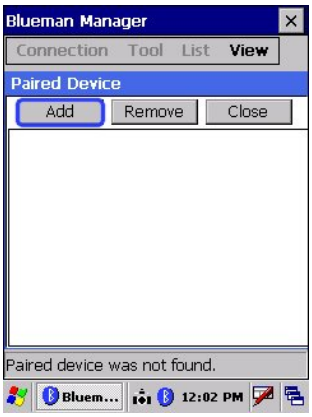


To save the settings which were used to connect to other specific devices

To turn Bluetooth service on and off alternatively

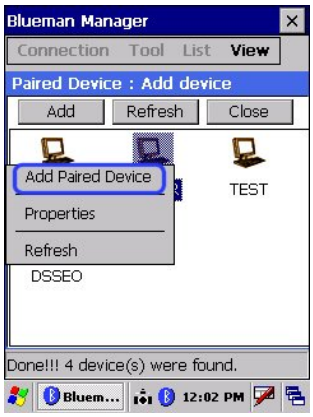
Setting for paired devices: Follow the steps below to add paired devices

Select **Add** to scan the Device to be paired



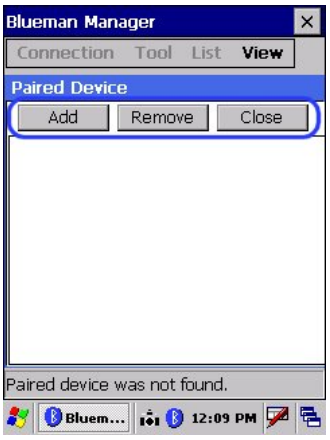
Wait till the list is complete

On specific device popup menu select **Add paired device** to select the device



Enter the PIN

Enter the promised authenticated key in both your device and the relevant device to complete the connection.



Add: To scan the device to connect

Remove: To remove the paired device

Close: To exit

Double-click a device to see a pop-up menu containing a list of actions you can perform like below.

① **Add Paired Device :** to make the device paired.

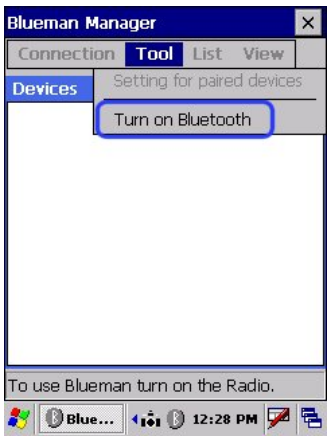
② **Properties :** to see the information on the device.

③ **Refresh :** to renew the window(N/A)

② **Properties :** to see the information on the device.

Turn on/off Bluetooth

This function allows the radio service of the device to turn on or off.



List

This tab enables user to check the scanned device / service, or shortcuts which have been created earlier options.

① **Shortcuts:** to list up the shortcuts to connect to the device service, which have been created in “Connection”
② **Devices:** to list up the devices which have been scanned in “Scan for all devices”
③ **Services:** to show the device services which the service query has been done in “Scan for all devices”
④ **Refresh:** to renew the current page.

Shortcuts

This function shows the shortcut list of device services, which has been created in. <**Connection>**. This is available only after you create the shortcut in a connection tab. If not, the message of “?“ will appear.

Screen	Pop-up Menu	Action & Description
		① **Connect :** to connect to the service
		② **Delete :** to delete the shortcut
		③ **Properties :** to show the device information
		④ **Refresh :** to renew the current window

Devices

This function enables user to review the information on the device service or the other detailed information. This is available only after you have searched the devices in a connection tab.

Screen	Pop-up menu	Action & Description
		① **Service Query:** to scan the service of the device.
		② **Service View:** to show the service , which was saved.
		③ **Delete:** to delete the device.
		④ **Properties:** to see the information of the device.
		⑤**Refresh**: to renew the device.

Services

This function enables user to view the device service which has a step of service query in “Scan for all devices”

User can create a shortcut of scanned service.

Screen	Pop-up menu	Action & Description
		① **Create Shortcut :** to make a Shortcut
		② **Refresh:** to scan the device again.

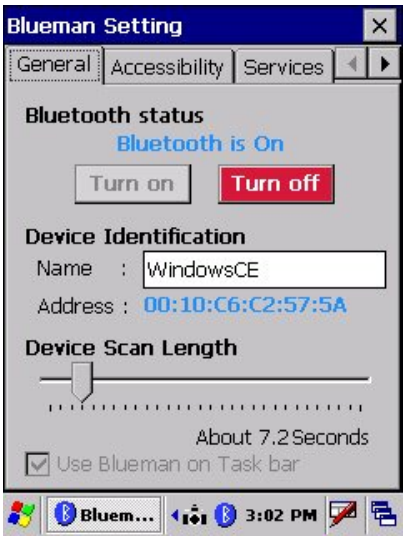
View

- This tab enables user to control the shortcut display of either large icons or small icons.
  - Large Icons: The shortcut icons in the current page become large.
  - Small Icons: The shortcut icons in the current page become small.

7.4.3 Bluetooth settings

This has four submenus General, Accessibility, Services, and About

General



1) Bluetooth status

- To turn Bluetooth radio on / off

(This is same as on/off in a tray icon or Bluetooth manager)

2) Device Identification

A. Name: To change the device name

B. Address: To show the BT address of the device. The device must be on.

3) Device Scan Length

- To control the device (or device name) scanning time.

Accessibility

1) Blueman setting manager

A. Load setting: To load the saved blueman registration value.

B. Save setting: To save the current blueman registration value

2) Startup List

A. Shortcut List: To establish the shortcut list as a default screen in opening the program.

B. Device List: To establish the device list as a default screen in opening the program

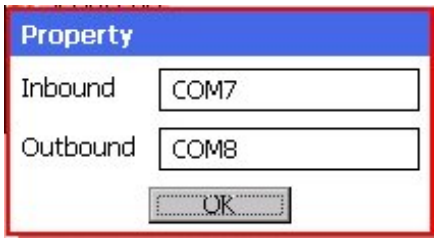
3) Accessibility

A. Allow other devices to connect: To allow the service query for your device from other devices

B. Other devices can discover me: If you don't check this, other devices cannot scan your device.

Services

This menu enables you to change the setting values of the Bluetooth service.

Screen	Description
	1) Serial Port -To enable or disable SPP Service (Both Authorization and Authentication are inactivated because WinCE5.0 doesn't support them.) **<<More>>** You can check the settings of SPP Inbound &Outbound Port here. (unchangeable) 

2) File Transfer Server

- In FTP service, all settings in File Transfer Server are inactivated because it's controlled by OS itself.

<<More>>

(Default folder :My documents\File Transfer)

3) Audio Gateway

- This is supported in MS Stack. However, all settings are inactivated because the service is unavailable currently.

(Only possible to scan the service for other BT)

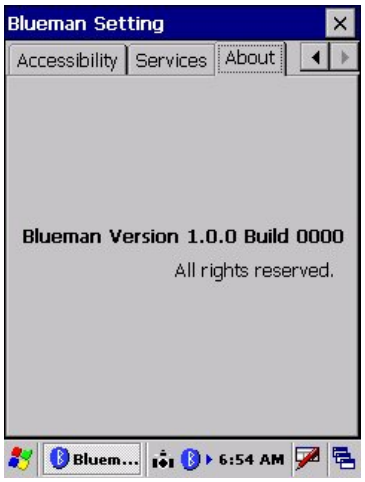
4) Information Exchange

- to switch files of PIM, calendar, and etc.

(Default folder: My documents\Default\Inbox)

About

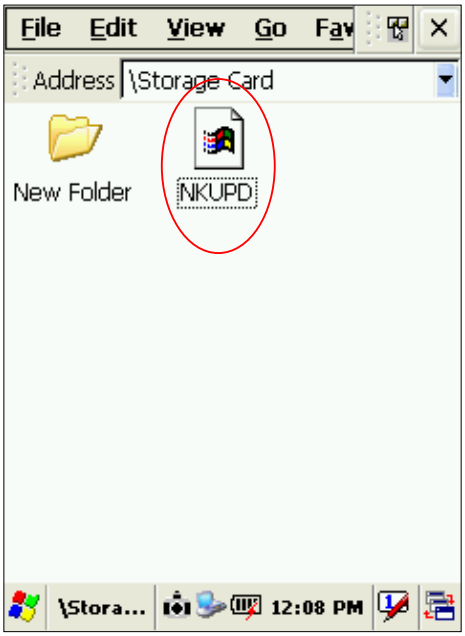
User can view the latest software build version by accessing this tab. Tap ok(x) to exit this information.



7.5 Operating System upgrade manual

Please follow the steps below to upgrade the operating system on SmartCompact.

1 Copy the OS file of “nkupd.bin" to CF card.



2 Remove CF cover from PAD by removing two screws on rear panel and insert CF card

3 Press Fn key + Reset button for cold reset

4 PDA will automatically search for OS to update in CF Card or SD Card. If there's OS file to update, move to (No.6)

5 If there's no OS file to update, move to (No.9)

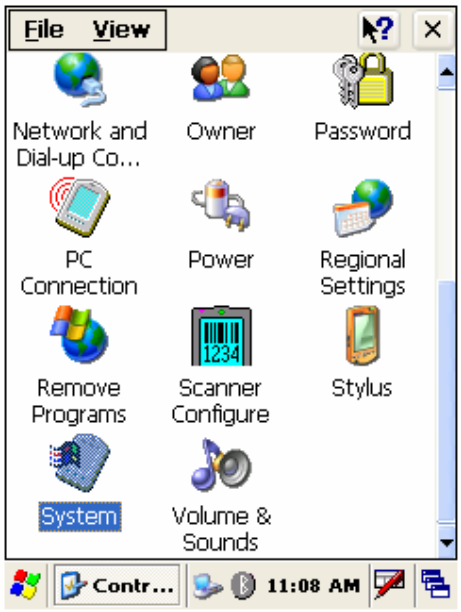
7 Reads CF Card from OS File

8 Old version OS will be removed and updated to New OS

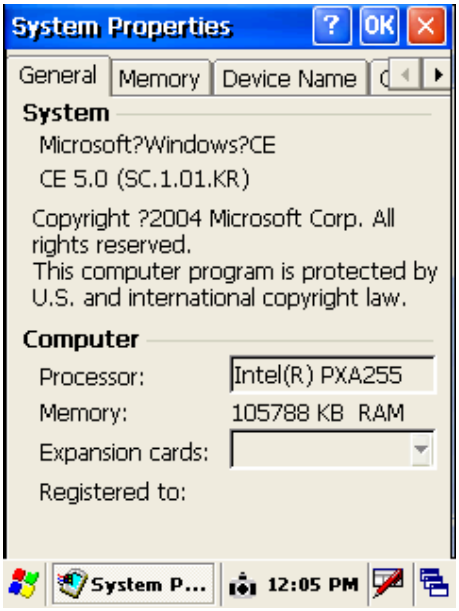
9 Remove CF card when update completed, press FN KEY + Reset for Cold reset

10 Image booting after cold reset

11 Check the OS version in Control Panel > System



12 double click System to check OS Version



Chapter 8. Accessories and peripheral devices

8.1 Using Stylus pen

The stylus on the PDA is same as mouse on a PC.

Usage of stylus

1 Navigate the touch screen display

2 Select characters in soft input panel

3 Select applications from the desktop or system tray

4 Select buttons, tabs, fields and text within applications and editors

8.2 Using Compact flash (CF) slot

Compact flash slot available on SmartCompact has possibility to insert CF peripherals (50 pin). The digital platform supports 3.0 V type I/II cards but it can be upgraded to support 3.3 V CF cards. After inserting the CF card it is possible to close the slot with CF close cover. The cover can be changed by removing screws located at the top side of SmartCompact as shown in figure 1.2.3 top side using a small Phillips head screwdriver.

To install CF peripherals

- Before installation, in order to pull CF cards easily out of a CF card slot, a pull-out sticker comes with the CF card package. If an equivalent sticker doesn't come with your card, or your PDA doesn't have an eject button, stick pull-out sticker to pull CF cards e asily.
- In case of closed covers user should remove screws and cover, insert CF cards, close cover and fix the screws.
- There are different types of CF peripherals available in market which can be connected to SmartCompact e.g. CF camera, CF CDMA, CF Bluetooth, CF memory card, GPRS CF card etc.
- For installing drivers for CF peripherals please refer the installation manuals provided with the equipments.

8.3 Using SD (secure digital) peripherals

On the left side of the SmartCompact SD slot is available for SD peripherals insertion.

For Installation open the cover by removing the screws on the left side of the unit.

Insert the SD card in the slot. System should automatically detect the SD peripheral.

To remove the SD card, press back the card and it will automatically come out.

8.4 Using CDMA (Code Division Multiple Access) module (Optional)

CDMA1-X1 (class B) can be used with SmartCompact through compact flash slot which is available on rear side.

8.5 Using IrDA port (Infra Red Data Association)

SmartCompact is provided with standard IrDA 1.1 compliant SIR. It can communicate with another device with IrDA port; the distance in which it can operate is 7.8” – 11.8”. Microsoft ActiveSync is software which can be used for communication.

8.6 Using MSR printer (Magnetic Stripe Reader / Thermal Printer Module)

It is possible to connect MSR printer to SmartCompact through I/O port. For more details please refer MSR printer user manual.

Chapter 9. PC Interface

9.1 Ms ActiveSync Installation

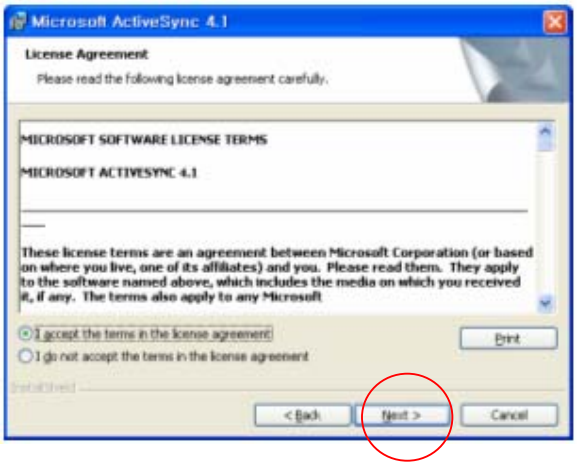
It is possible to connect SmartCompact to Host Pc using synchronization cable.

Attach one end of synchronization cable to Sync port which is on bottom side of SmartCompact and USB end to host Pc. It is necessary to install Microsoft ActiveSync program.

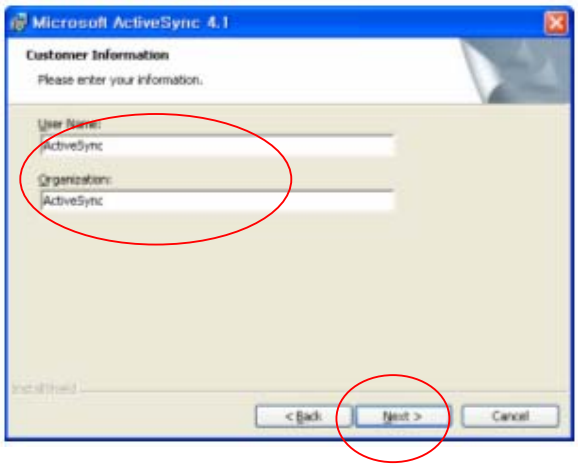
Following is a procedure to install Ms ActiveSync program on PC.

Select "**Next**"

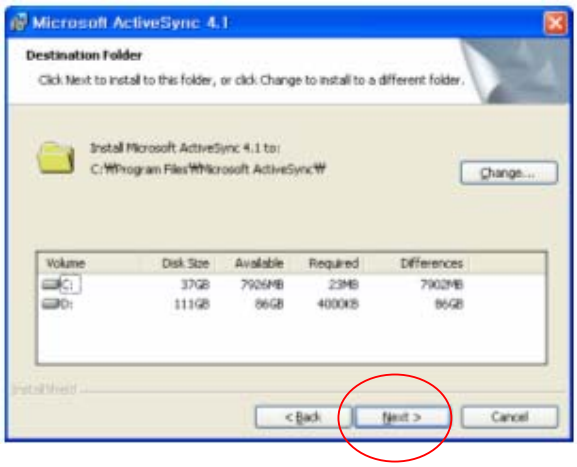
Select "**I accept the terms in the license agreement**" and then "**Next**".



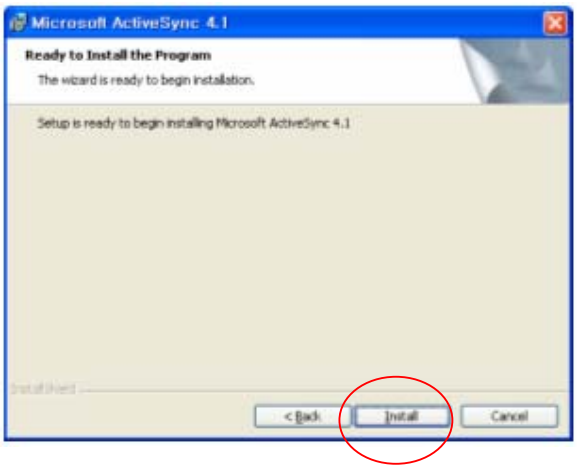
Input **Username** and **Organization name** and select "**Next**".



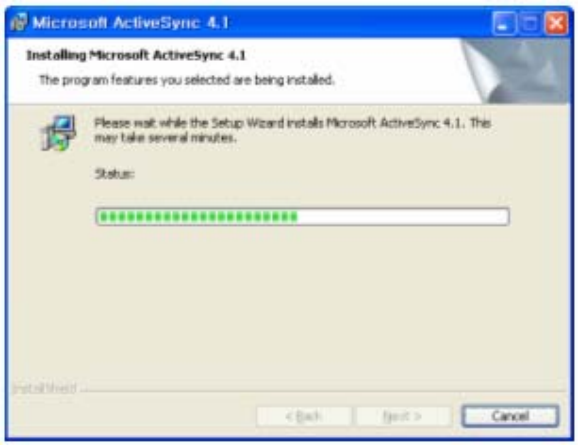
Detect the directory for installation and select "**Next".**



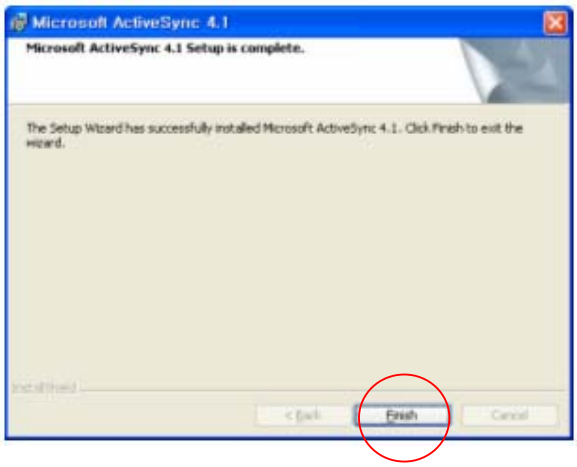
Select "**Install**".



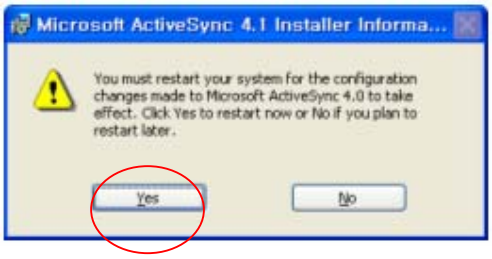
Installing



Select "**Finish**" to complete the installation.



Select "**Yes**" to reboot the Pc.



9.2 USB / Serial / IrDA ActiveSync

To operate ActiveSync program in PC

Start > Program > Microsoft ActiveSync

For PC ActiveSync settings **File > Connection Settings >**

Select between **USB ActiveSync Connections / Serial ActiveSync Connections / IrDA ActiveSync Connections** as per requirement.

In **USB ActiveSync connections**, check "**Allow USB connections**" and Select "**Ok".**

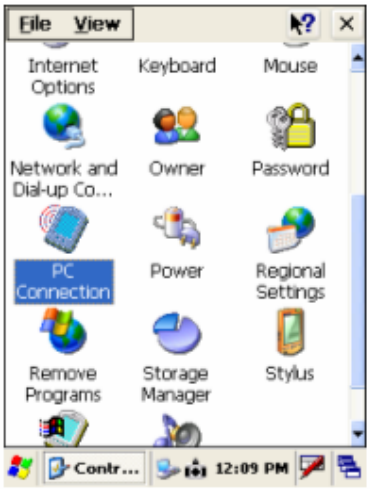
In **Serial ActiveSync Connections**

Allow connections to one of the following, select **COM1**

In **IrDA ActiveSync Connections**

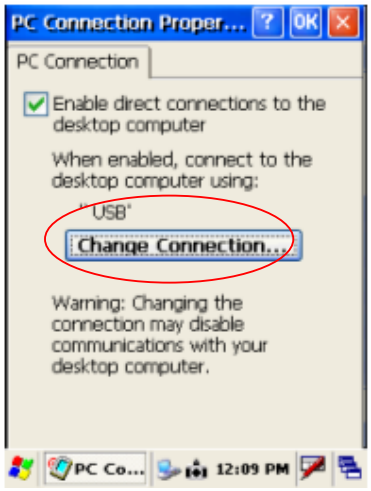
Allow connections to one of the following, select **Infrared port IR**

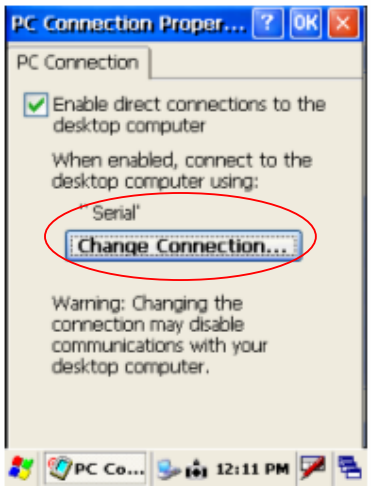
To set PDA ActiveSync **Control Panel > PC Connection** double click



PC Connection has to be

USB for **USB ActiveSync Connections ,Serial** for **Serial ActiveSync Connections** and **IrDA** for **IrDA ActiveSync Connections,** else select "**Change Connection**"



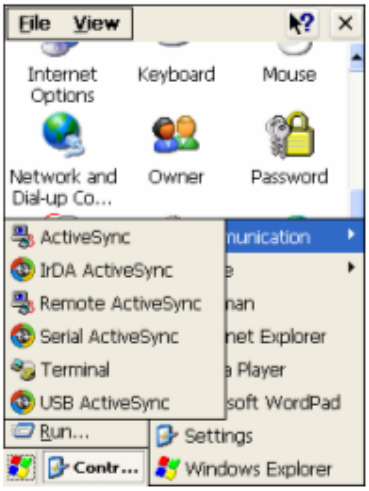


Connect ActiveSync cable to PDA and PC for USB and Serial connections

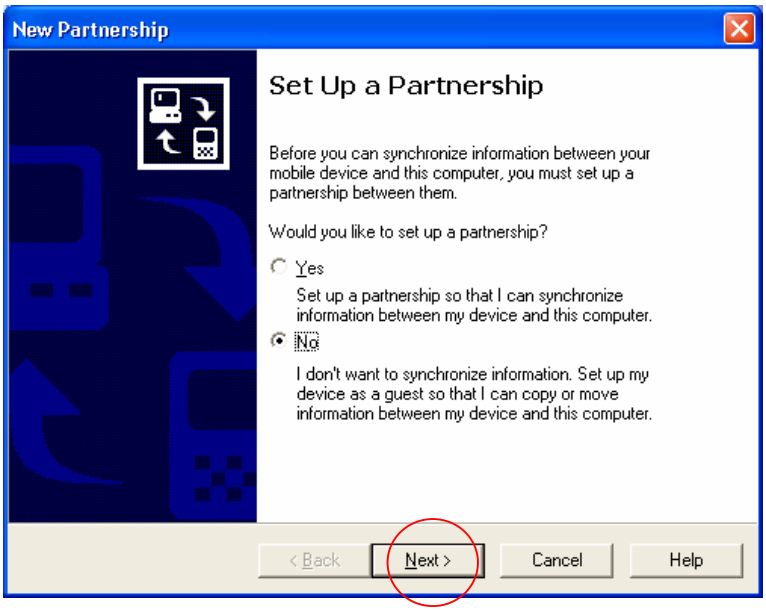
Use IrDA ports on rear side of PDA and PC for IrDA connections

Sync cable **IrDA ports**

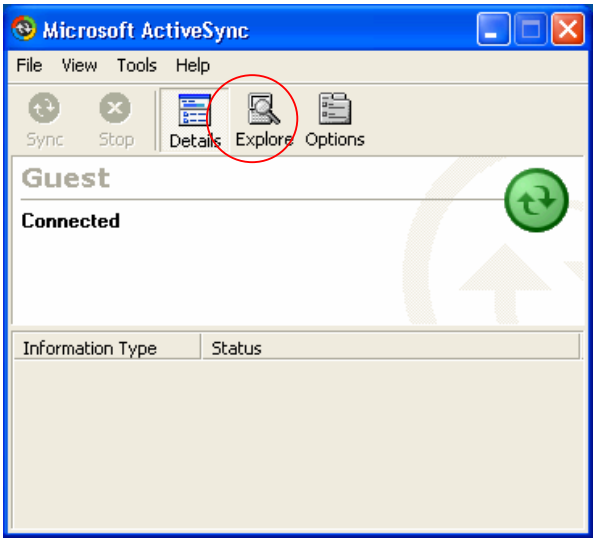
Program > Communication > USB ActiveSync / Serial ActiveSync / IrDA ActiveSync



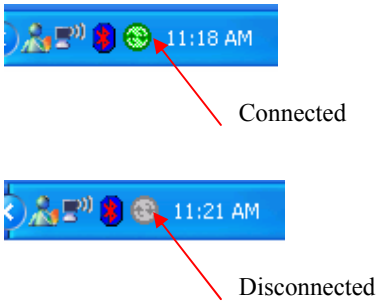
Connecting



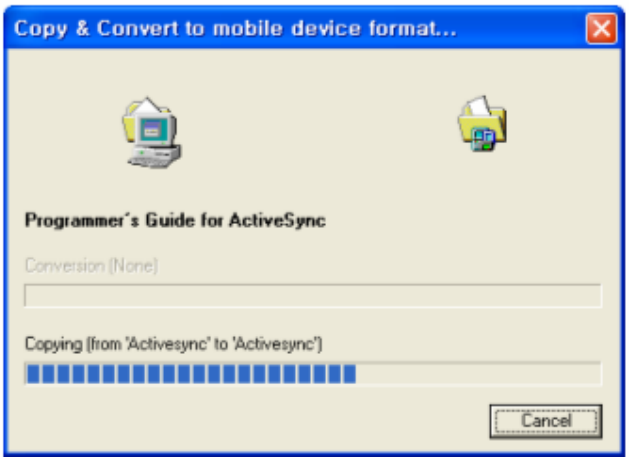
As soon as the connection is successful following dialog box will be displayed on host PC. To see the files on SmartCompact , click on explorer .



Also there will be status icon in system tray to show the status of connection between SmartCompact and Host PC. User can open ActiveSync program by clicking on the icon.

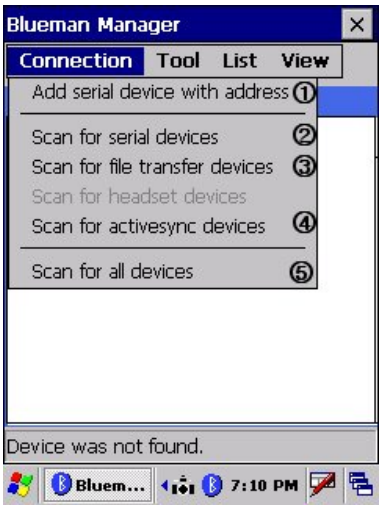


Data Transfer



9.3 Blueman ActiveSync

Select Blueman Manager > Connection > Scan for ActiveSync devices

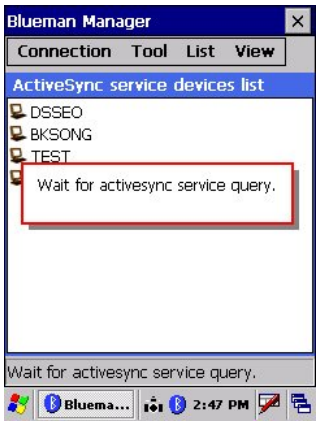


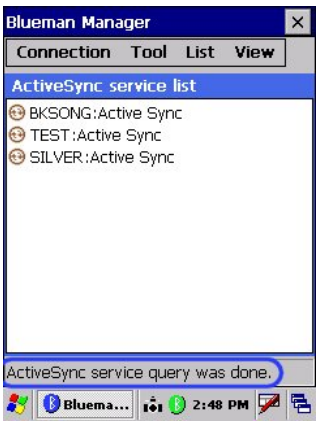
Scan for ActiveSync devices

- This section describes how to make a shortcut to search and connect all Bluetooth devices with ActiveSync service.

Search Bluetooth devices which support ActiveSync service

<Device searching screen> **< Service query Screen >** **< List complete Screen >**

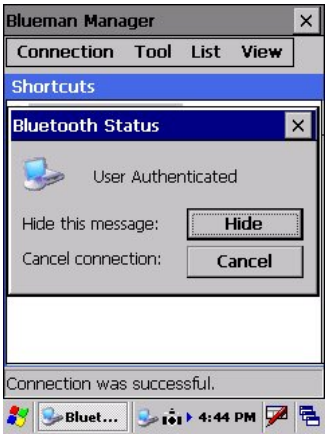




Select device & click create Shortcut

Double click on device icon to get popup menu, select Connect

Message after successful connection



To disconnect the service

Blueman Manager
Connection
Tool
List
View
Shortcuts
SILVER:Active S
Disconnect
Delete
Properties
Refresh
Connection was successful.
Bluem...
3:06 PM

Appendix A

SmartCompact Specification Highlights

Physical and Environmental Characteristics	
Dimensions:	6.6” L x 3.0” W x 1.2 ” D (168 mm L x 78 mm W x 33 mm D), 500 g
Display Diagonal:	3.5” (89 mm) diagonal, 2.2” W x 2.9” L (56 mm W x 74 mm L)
Sealing:	IP 54 compatible
Operating Temperature:	+14° F to +122° F (-10° C to +50° C)
Storage Temperature:	-4° F to +140° F (-20° C to +60° C)
Humidity:	5% - 95% non-condensing
Drop Survival:	Withstands multiple 4 ft (1.2 meter) drops to concrete
Performance Characteristics	
Processor:	32bit RISC Microprocessor
System Memory:	128 MB SDRAM / 128MB Flash ROM
Display:	240 (W) x 320 (L) (QVGA) transflective TFT 256K Color LCD, 80 NIT with resistive touch screen, Sunlight Readable
Keyboard:	16 + 1 alphanumeric keyboard, 2 scanner buttons, navigation, power button, software reset button
Operating System / Software	Microsoft® WinCE .NET 5.0, Internet Explorer, InBox, Async, etc., s/w update from Compact Flash
System Expansion:	1 Compact Flash Type II Slot (external access, supports 3.3V) 1 SD Card Slot (external access)
Application Development	Microsoft Embedded Visual C++®, Microsoft Visual Studio .NET®, to build web services and applications for the Microsoft .NET Compact Framework.
IrDA:	Standard IrDA 1.2 compliant SIR Support, in – in (20cm – 30cm) distance
Bar-code Scanning:	For SmartCompact-1D -- 1 D, CCD type scanner For SmartCompact-2D -- 21 D, CCD type scanner
LED	One triple-color LED for alarm notification(R) / charger indicator (G/B). One duo color LED for scanner indicator, One duo color LED for wireless
Audio & vibrator	One mono speaker and one coin type vibrator
USB	Support USB 1.1 Compliant Function

Data Capture Characteristics	
Light source:	617 nm Highly visible LED
Scan rate	Decoded operation 500 scans/s auto-adaptive Un-coded operation 200 operation 200 scans/s
Scan angle	40°
Reading distance	Up to 90 cm (35 in)
Ambient light	Works in any lighting conditions
Print contrast	Down to 25%
Decode software suites and symbologies supported	**For SmartCompact-1D** Codabar, Codablock A & F. Code 11, Code 39, Code 93/93I, Code 128, EAN, Industrial and Standard 2 of 5, interleaved 2 of 5, ISBT 128, Matrix, MacroPDF 417 (unbuffered mode), MicroPDF417, MSI, PDF417, Plessey, RSS, Telepen, UCC EAN 128, UPC-A and UPC-E
	For SmartCompact-2D 2 Dimensional : PDF417, MicroPDF417, MaxiCode, Data Matrix, QR code, Aztec, Aztec Mesas, Code 49, EAN-UCC Composite, Snowflake, Dataglyphs Linear : Code 39, Code 128, Codabar, UPC, EAN, Interleaved 2 of 5, Reduced space Symbology, Code 93, Codablock F, BC412 Postal : Postnet, Planet code, British Post, Canadian Post, Japanese Post, KIX (Netherlands) post OCR Fonts: OCR-A and OCR-B
Network Characteristics	
Wireless:	802.11b/g 2.4 GHz (Optional) Internal Bluetooth Module (Serial interface) : 10mW (Class 2) 1.1/1.2 (Optional)
Remote Modem (WAN):	CDMA1-X1 (Class B), GPRS(GSM) (optional) through Compact Flash Slot
GPS:	GPS Module (optional) through Compact Flash Slot
Regulatory Approvals	
FCC Class B , MIC, CE	
Power Supply	
Power and Battery System	2000 mAH Li-ion removable battery (10 operation and 100 standby hours), 5 hour recharge time 110 mAh rechargeable built in backup battery, holding system data for 2.7 hours

	without main battery 1 DC IN jack, power adapter with 100-240Vac, input and 5V/3A DC output Power Management: Support for Xscale application modes, including Turbo (Maximum power 400MHz) , Normal, Idle, and Sleep (Less power 200MHz) Hot swappable battery – Main battery can be changed without switching off the unit. Optional : 3000 m AH battery

Appendix B

Version Table

Version: 1	**Release Date:** 06/07/2006

Additional page

Regulatory Information

FCC compliance Information

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

Information to User

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 or more of the following measures:

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

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

Body-worn Operation

This device was tested for typical body-worn operations with the back of the PDA kept 0 cm from the body .To maintain compliance with FCC RF exposure compliance requirements, use only belt-clips, holsters or similar accessories that maintain a 0 cm separation distance between the user’s body and the back of the PDA, including the antenna, whether extended or retracted. The use of third-party belt-clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure composure compliance requirements, and should be avoided.