Atid
All that Identification

AT880

Guide for Customer

ATID Co., Ltd

Disclaimer

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Before using manual for AT880

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There are some differences between user guide and actual function of device.
User guide can be adjusted by ATID CO.LTD without consent of user discretionally.

User guide is written for users who want to use and maintain the AT880. Please read and understand these instruction prior to operating this unit.

Safety information

Your safety is extremely important. Read and follow all warnings and cautions in this document before you handle and operate ATID equipment. If you do not follow the safety warnings and cautions, you might be seriously injured, and the equipment and data also might be damaged.

- ■ WARNIING

  A warning requires you must pay attention to the operating procedure practice, condition, and statement strictly, or might be injured seriously.

- ◆ CAUTION

  A caution alerts you that you must be observe strictly when you operating procedure, practicing, configuring, for preventing from damage and destruction of equipment, and loss of data.

- ● NOTICE

  A notice provide you the information which you must needs while you using AT880.

Caution when using AT880

Please aware of the manual contents in advance before you handle and operate your AT880 and other ATID Products.

How to use battery correctly

· In case that you dropped the main body or battery in water, please do not put into the stove or heater for drying. Just keep it in natural drying or contact purchase place.
· Please note that the battery terminal doesn't have to be contacted to metallic object.
· If you do not use the battery for a long time, please keep it at room temperature after charging.
· Operating time of battery can be shorter than usual in accordance with loss of battery and use time. In this case, please contact us.
· You have to use provided adaptor when charging the device.
· Turn off the device properly then detach or replace the battery.

Caution when using AT880

· User careless or products repair would damage the stored data. Manufacturer is not responsible for this damage, so please do back-up the important data separately.
· If you have a problem on product, do not try to repair or disassemble it by yourself, please contact our customer service center.
· Do not use your product at the specific places such as hospital, plane and so on where electromagnetic wave or the risk may occur.
· Please note that using the device in environment of high temperature and humidity for long hours can make a malfunction of device.
· In case of that noise, smoke and odor occur at the device while using product, please disconnect the charger with device and off the power immediately, then please contact our customer service center.
· If you have any other questions on use of device, please contact our customer service center.

Product Composition

mobile computer is a small, ergonomically designed PDA, which built on the Microsoft window CE 5.0 Operating System.
The PDA could equip with Barcode Scanner, RFID Tag Reader, MSR Card Reader, Printer, Smart Card Reader, Wireless Modem, Camera and so on devices as optional items.
Its various function applied to Industry, Enterprise, Logistics and so on, can be used extensively in many fields.

Product composition

Open the packing box and confirm the items as below.

1. AT880 main body

2. Power Adapter and AC cable

3. Standard battery

4. USB sync cable

5. Protect film

6. Hand strap

7. Stylus pen

* Please contact our customer service in defect of product composition and need to be changed.

Name of each part

Camera (option)

1D/2D Scanner (option)

Camera flash (option)

Earphone jack

Charger jack

Sync cable connector

Cradle connector

Phone receiver

WLAN LED (option)

Internal HF

Hand strap hole

UHF

Charge LED

Touch Screen

Speaker

UHF Connecting port

Volume button

Scan button

Scan key

Battery

Keypad

Reset button

Microphone

Battery latch

Gun handle
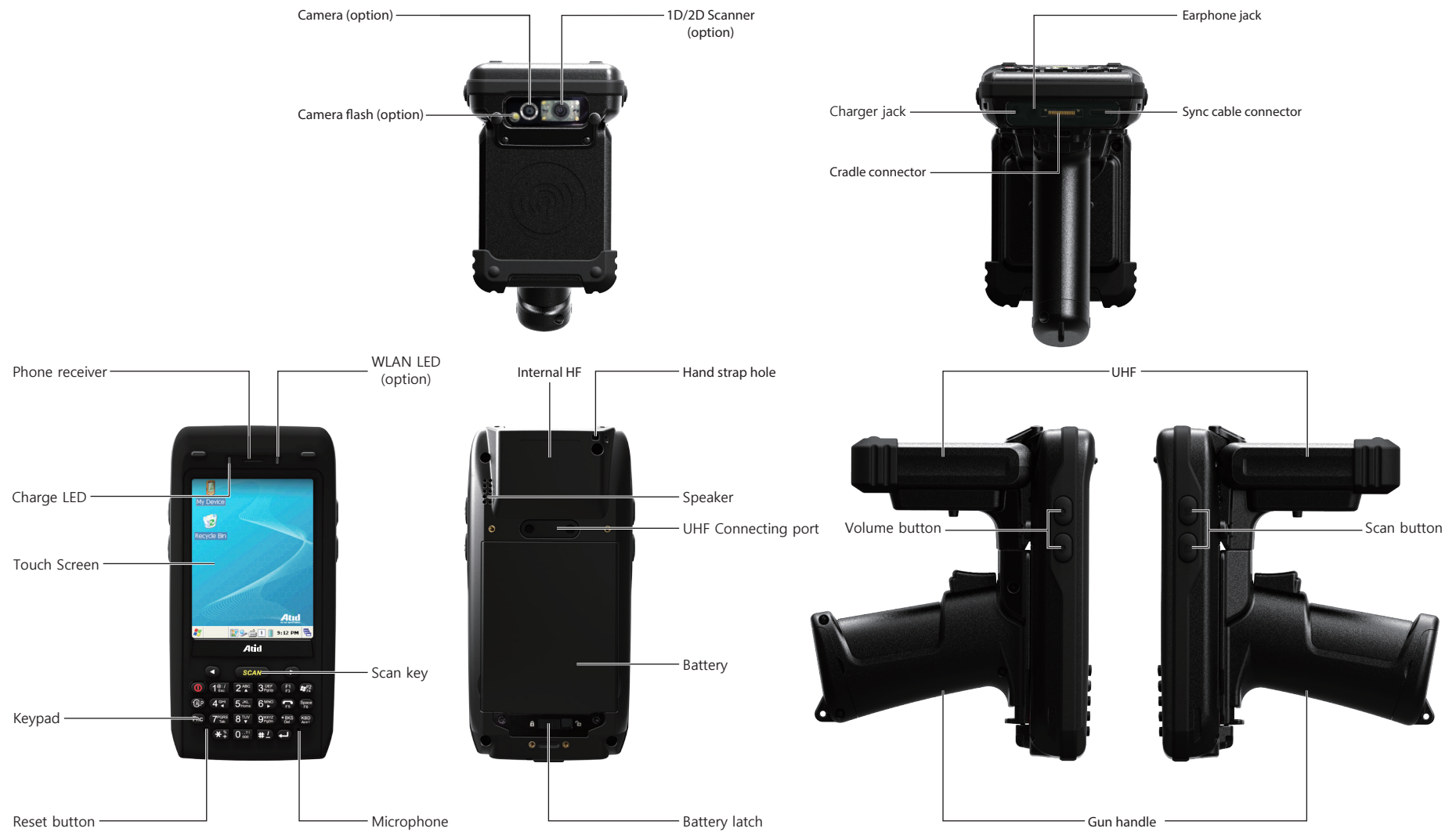
Function of each part

NAME	FUNCTION
Camera (option)	It is possible to image capture and save.
Camera flash (option)	You can use the camera with flash
1D/2D Scanner (option)	Laser beam emitted through this window. Please be careful the foreign substances and preventing from the damage. ◆Warning! Do not look at the laser beam directly.
Charger jack	Enable you to connect to adaptor which provided from factory.
Cradle connector	Enable you to connect to PC or charging the battery while using cradle.
Earphone jack	Enable you to connect to earphone.
Sync cable connector	Enable you to connect and send data to PC via USB sync cable.
Charger LED	Charger LED will be Red when the battery is charging, or will be green when it is charged completely.
Touch screen	Display running programs, and could execute, use, and exit programs via to touch the screen.
Keypad	Enable you to input key value (number, alphabets, symbol), or executing assigned programs.
Reset button	Enable you to perform a warm Reset, Press <Power>button simultaneously, Enable you to perform a hard Reset
WLAN LED (option)	Displays whether the wireless WLAN power supply
Scan key	It is possible to scan barcode or RFID tag
Microphone	Enable you to conduct communication
Internal HF	HF 13.56MHz Embedded module mounting location.
Hand strap hole	Enable you to attach a hand strap or a stylus for the convenience of using, while need to use the device for a long period time.
Speaker	Build-in speaker, which could emit various sound effects.
UHF Connecting port	Enable you to install a UHF 900MHz tag reader module.
Battery	Enable to supply the power to the product.
Battery latch	Enable you to detaching and attaching the main battery.
Scan button (F7, F8)	It is possible to scan barcode or RFID tag

Basic Function

PDA battery is composed of main battery and backup battery. A main battery supplies the power to the system and RAM which could keep save the data. A backup battery could keep save the data of RAM when the main battery discharged completely.

Main Battery: 3.7V 2,970mAh Lithium – polymer
Backup Battery: 3.7V 80mAh Lithium – polymer

◆   Note:
> Switch on the backup battery at first beginning of using PDA, and then install the main battery, charge it completely.

Switch On Backup Battery

The image as blow shows the battery compartment, which already removed the main battery.
Slide the lever to right to start to supplying power to the system.

Backup Battery Switch —
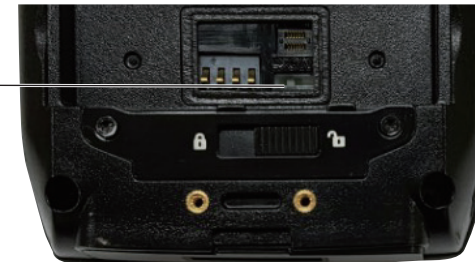
To attaching main battery to the back battery compartment of the PDA.

To confirm the battery latch locked firmly.
"Refer to 1.2 Battery attaching and detaching"

Connecting adaptor to the PDA adaptor connecting jack, and check if the "Power LED" is Red, and then charging the power completely until it get into Green.

◆   Note:
> If the window wallpaper has shown on the screen, press the <power> button for a couple of seconds, so that could shorten the charging times.

Attaching and Detaching the battery

▶ Battery detachment

These images as below, shows the back bottom of the PDA.
Slide the battery latch to the right (UNLOCK side), and then lift the main battery out of the compartment along both sides of groove.

Battery latch

Both sides of groove

▶ Battery attachment

Put the top part of battery into the upward groove, and then press down the bottom of battery into the battery compartment, slide battery latch to the left (LOCK side) to attach battery firmly.

R/L Battery Attaching Groove

Charging battery

You have to charge the battery via dedicated adapter, which provided from the factory.
"Power LED" is Red while charging or is Green when charged completely.

▶ Connecting Adapter

1. Plug the adapter cable to 220V socket.
2. Connect adapter DC cable to the "Power connecting jack" of the main body.

3. "Power LED" is Red while charging.

◆ Caution:
You must to charge the battery by using dedicated adapter, which provided from factory, or your device might get damage.

Power On and Off

Press <Power> button one time, the device will enter low-Power mode (Sleep Mode) under the system is started and the following window is displayed on the desktop or other programs is running in the system. Press <Power> button once again could activate the system.

Taskbar
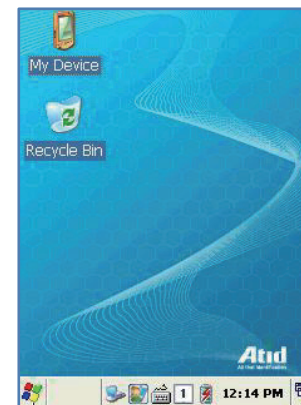
Start button

Taskbar: Display the currently running programs.
Start button: Activates the start menu and then execute a program.

▶ Power On and Off via <Power> Button

Power Off :

1. When the system is in booting status, press <Power> button for a couple of seconds, then the backlight will be turned off and enter the low-power mode (sleep mode).

2. You can also press <Start Button> -> <Suspend> button to turn the device off.

Power On :

1. When the system power is in the off status, press <Power> button quickly, then backlight will be turned on and start the system.

2. Connect to the ActiveSync USB cable; the power will be turned on automatically.

Power Button

● Note:

Even though the power is in off state, if there was a tiny battery gauge remained, the data of RAM will be saved, and those programs which have been running for sometime before the power turned off, will be recover rapidly. If the main battery and backup battery are both in the discharge state, the RAM data will disappear, and the system will be starting if the power is charged again.

▶ Automatic Power OFF

The device has been powered but has not been used for a period of time, then the system will enter low-power mode (sleep mode) automatically. You could set the sleep mode time at the power management so that could save power and prolog the battery life.

[Start Button] -> [Setting] -> [Control Panel] -> [Power Management] -> [Power Off]
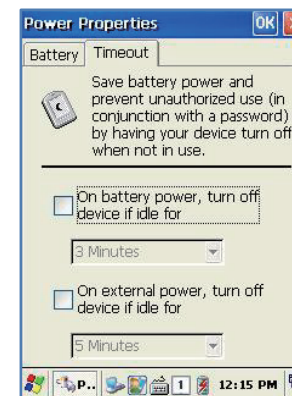
You can also double click <Power> Icon to enter this interface.
You can also press the <Power> button to activate the system, when the device turned off cause get into the sleep mode.

Power Icon

▶ Battery Discharging

If the main battery discharge completely, the system will not turned on, the device will get into low-power mode (sleep mode) automatically, and even press the <Power> button, the system will not be turned on. In this case, you should charge the main battery or connect the adaptor to the adaptor connecting jack of main body, then press the <Power> button to turn on the system.
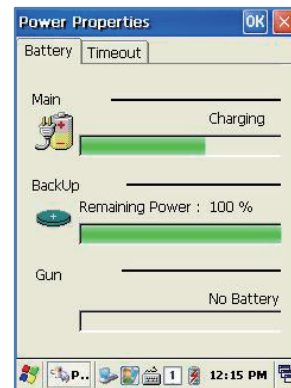
Checking Battery Gauge

● Note :
Battery life is largely affected from the user using method and surrounding environments.
A 2,970mAh battery is usually needs 6 ~ 12 hours to get charged completely.

▶ Checking Battery Gauge

[Start Button] -> [Setting] -> [Control Panel] -> [Power Management]
-> [Battery]

▶ Low Power Warning

If the remaining battery gauge cannot support the system running any more, a low power warning message window will be popped up on the screen.
In this case, you need to press the <Power> button to turn off the power, and to charge the battery as soon as possible.
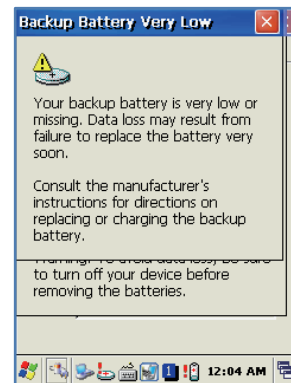
Backup Battery

A backup battery could safely keep the RAM data, even the main battery discharged completely.

◆ Caution :
If the main battery and the backup battery are both discharged, the RAM date will disappear.
Among the running programs, the RAM data will disappear in which are using, and the system will not be restore to previous state, but rebooting system after start charging.

Battery replacement

You need to purchase a new one if the battery damaged or reached its end of life.

■ Warning!
Please dispose the used batteries in a designated place.

If there is no response from the system or an application is locked up and stops responding, and when you want to upgrade the firmware, reset the system is maybe necessary.

Soft Reset

When do you need to perform Soft Reset?

If there is no response for your command from the system, it calls (Hang-up). In this case, you need to perform a soft reset. Soft reset will end programs and the user memory region will be deleted, but installed programs and data, and so on, are not affected.

[Process of Soft Reset]

Using the stylus pen to press <Reset> button briefly, the system will restarting again, after the screen turns off shortly.

Power Button

[Result of Soft Reset]

Reset Button

- System will be restarting.
- Operating System will be restarting (Windows CE).
- Desktop will appear in about ten seconds.
- User's changed registry information, copied files and Installed programs will be restored.

Hard reset

When do you need to perform Hard Reset?

Hard Reset, which is also called Cold Reset, enables to initialize hardware completely. Users installed programs, copied files and registry values will keep remained even performed Hard Reset, but the real time and date will be initialized. So you need to reset the time and date after performed Hard Reset. You need perform Hard Reset when the Soft Reset cannot restore the system.

[Process of hard reset]

Using stylus pen to Press <Power> Button and <Reset> Button simultaneously, the system will restarting again after the screen turns off shortly.

[Result of Hard Reset]

- System will be restarting.
- Operating System (Windows CE) will be loading and restarting.
- Desktop will appear in about ten seconds.
- Time and date window will be popped up and need to reset it.

Initializing System

Enter [Boot Menu] and do what you want, when in the situations as below :

1. When you need to restore the original registry information, which has been changed.
2. When you need to initialize "My device" storage spaces.
3. When you need to initialize "Flash Disk" storage spaces.
4. When you need to initialize system to factory default settings.

You can also press <Power> button and <Fun> button simultaneously,
and then press <Reset> button to perform Hard Reset.

Power Button

Fun Button

Reset Button

[Boot Menu] window would appear in a couple of seconds.

■ Warning!
Except for [Clean System], please do not use other functions.
The system might be work not properly if you use other functions on the [Boot Menu].

[Boot Menu]
[System Information]
[Firmware Upgrade]
[Clean System]
[Configurat ion Setting]
[Exit Boot Menu]
Move : 2(Up)/8(Down)
Select : Enter

[Boot Menu] Start-up Screen

[Boot Menu]
[System Informat ion]
[Firmware Upgrade]
[Clean System]
[Configuration Setting]
[Exit Boot Menu]
Move : 2(Up)/8(Down)
Select : Enter

Using<2▲>, <8▼> buttons to select
Clean System, then press <Enter> button.

```
          [Boot Menu]

[Clean System]


Clean Registry
Clean OS Root
Clean Flash Disk
Factory Reset



Move : 2(Up)/8(Down)

Preview : <- BKS

Select : Enter
```

Using<2▲>, <8▼> button to select
your need command.
Press <BKS> button to return to
main menu.

```
          [Boot Menu]

[System Information]

[Firmware Upgrade]

[Clean System]

[Configuration Setting]

[Exit Boot Menu]

Move : 2(Up)/8(Down)

Select : Enter
```

Using<2▲>, <8▼> buttons to select
[Exit Boot Menu], then press [Enter]
button to exit [Boot Menu].

Clean Registry – Initializing registry.

Clean OS Root – Initializing "Mydevice" region.

Clean Flash Disk – Initializing "Flash Disk" region.

Factory Reset – Initializing to factory default settings.

The image as below is battery compartment of , and there are 1EA SIM Card Slot, 1EA SAM Card Slot and 1EA Micro SD Card Slot.

Micro SD card slot

SAM card slot

SIM card slot
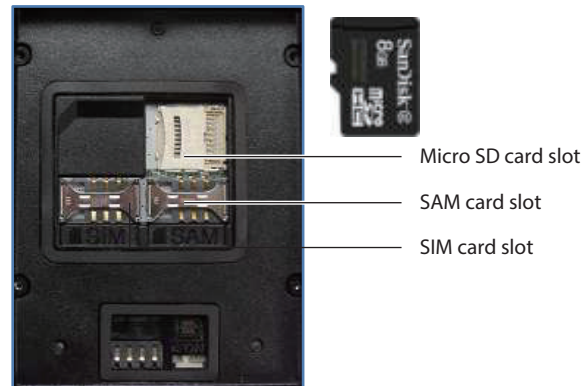
Attaching Micro SD card

Push the cover to the right along arrow direction to open it.

lift the cover up along arrow direction.

Put Micro SD card into Slot and press down the cover as arrow direction.

Push the cover up as arrow direction to lock it, and attach the main battery and turn on the power.

You can find the Micro SD Memory Card icon when executing the file explorer, after inserted the Micro SD card.
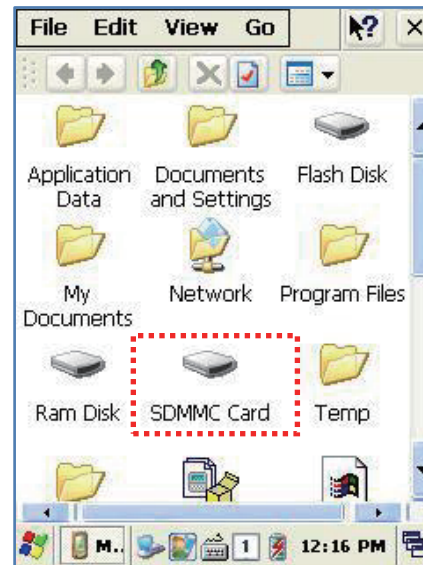
Attaching SIM Card and SAM Card

SIM Card and SAM Card can easily insert and pull out along arrow direction.

Screen brightness setting

Brightness is already set 80% at the factory, and brightness is the biggest consume part of the power, so you might need to adjust it to your actual need.

[Setting the screen brightness]

1. [Start Button] -> [Setting] -> [Control Panel] -> [Backlight]
2. [MyDevice] -> [Control Panel] -> [Brightness]

Brightness: Enable you to adjust brightness.
Timeout: Enable you to adjust the timing of turning off brightness.
Key Light: Enable you to adjust the timing of turning off key lamp.
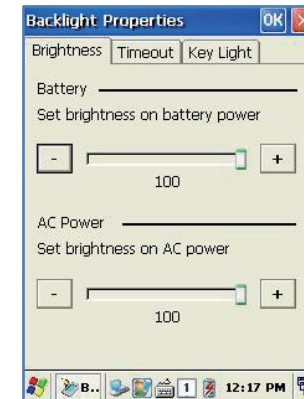
Screen adjustment

At first beginning of using the device after purchasing or need to use the device for a long period time, if you cannot select the place where you touched with stylus, you need to reset the coordinate calibration values.

Touch screen calibration
[Start Button] -> [Setting] -> [Control Panel] -> [Stylus] -> [Calibration] -> [Recalibration]
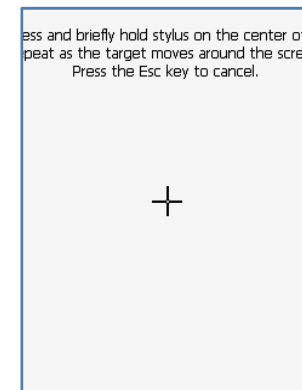
Press and hold stylus pen briefly on the center of cross symbol, and repeat 5 times as it moves around the screen. The screen counts 30 seconds after calibrating, and you can finish the recalibration to touch screen wherever you want, if you do not any action, the screen will automatically finish the recalibration of itself.

Volume and sounds setting

Volumes is already set 80% at the factory, and you can readjust you need volume at control panel ->"Volume and Sounds"

Setting Volume and Sounds
[Start Button] –> [Setting] -> [Control Panel] -> [Volume and Sounds]
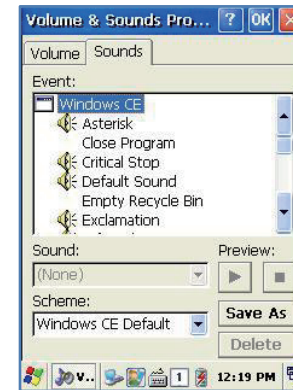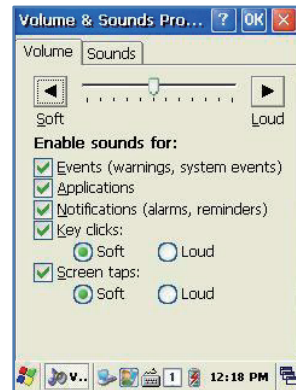
Data and time setting

[Start Button] -> [Setting] -> [Control Panel] -> [Date and Time]

Setting Year :
Double Click the year, and click the up and down arrow button to set year.

Setting Month :
Double Click the Month or
Click L/R arrow button to set Month.
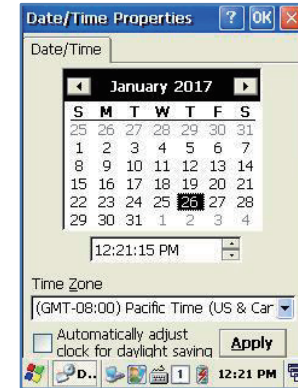
Setting Day :
Click the day directly to set day.

Setting Time :
Click AM/PM, Time area directly,
using up and down arrow button
to set Time.

Setting Time Zone :
Click up and down arrow
direction to select time zone
and click apply button.

Keypad enables you to input numbers, alphabets and special symbols. And can also execute other set function with <Fun> button.

Using keypad

if you'd like to change the current input language, can press <1 ALP> button as below steps :

[Numeric] -> [Lowercase] –> [Uppercase]
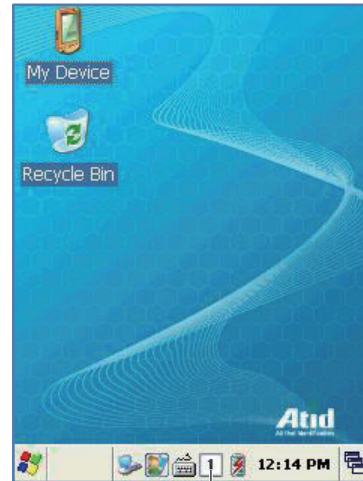
Click the input language icon
on the taskbar is also can change
the input language.

Inputting Data

Numeric Keypad Mode : Press<1 ALP > button or keypad icon on the taskbar to change to the numeric mode and directly press number on the keypad.

Alphabet Keypad Mode : Press <1 ALP > button or keypad icon on the taskbar to change to the Lowercase or Uppercase and directly press alphabets or special symbols on the keypad. Each button has 2 ~ 3 letters or symbols. Press the button once, the first letter or symbol will be inputted, press twice continuously, then the second letter or symbol will be inputted, and the third letter or symbol need to press button three times continuously.

Using <Fun> Button

Press <Fun> button and other buttons simultaneously can activate functions as below :

Fun + button	Function description
<Esc>	Enable you to cancel the selected command or the programs operating or state.
Volume button <Up>, <Down>	Enable you to increase or decrease the sound.
<3>,<9>	Enable you to perform page Up or page Down.
<2>,<4>,<5>,<6>,<8>	Enable you to move the cursor to the L/R, UP/DOWN and HOME.
<Del>	Enable you to delete a letter which located after the cursor.
<7>	Enable it has Tab button function.
<*>,<0>,<#>	Enable you to input <+> <000> <–> symbols.
<F3>,<F4>	Enable you to use as like function buttons.

Use of stylus

You can tie the stylus to the hand strap hole, so that enable you to use the stylus as like a mouse on a PC

Use of stylus:

● Select a letter on the soft keypad.

● Select a program on the desktop or taskbar.

● Select button, zone or tab bar in a window box or program.

◆ Caution:
Please do not use sharp objects on the touch screen. Use only supplied stylus, otherwise would bring seriously damage to the touch screen.

ActiveSync program could synchronize between the PC and PDA device, so that enable you to perform program installing, copy, transition, delete and so on operations.

Connecting PDA to PC

Download the latest version of ActiveSync program from Microsoft Windows CE. Website, and install it to your PC.

ActiveSync : Windows Xp

Download Address : http://www.microsoft.com/downloads/.

◆ Caution :

You must use ActiveSync v3.7 version or above.
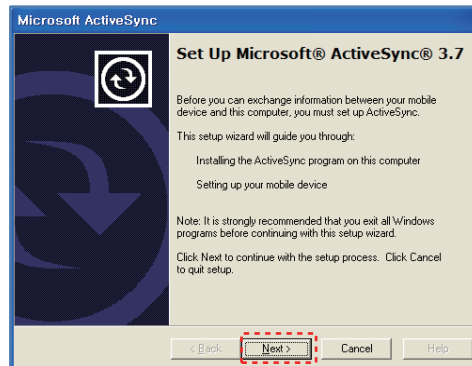
Click [Next] Button.
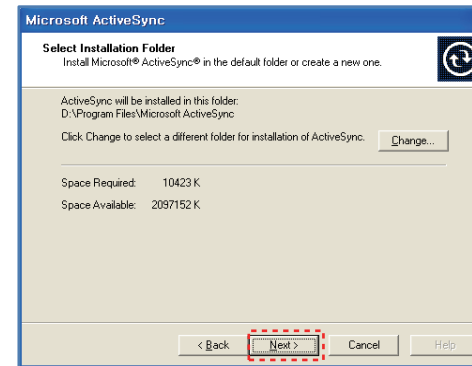
Designate installation folder, then click <Next> button.

The installation was finished, and then uses the USB cable to connect to the USB port on the computer; ActiveSync will automatically detect the device connection.

Setting PDA

[Start Button] -> [Setting] -> [Control Panel] -> [PC Connection]

< Windows XP >
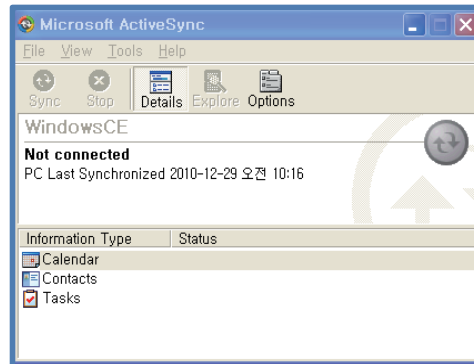
Executing Microsoft ActiveSync program
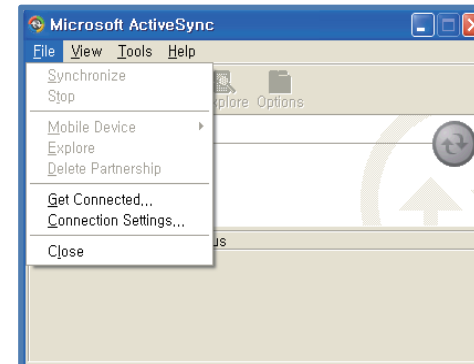
Click [File], Click [Get Connected].
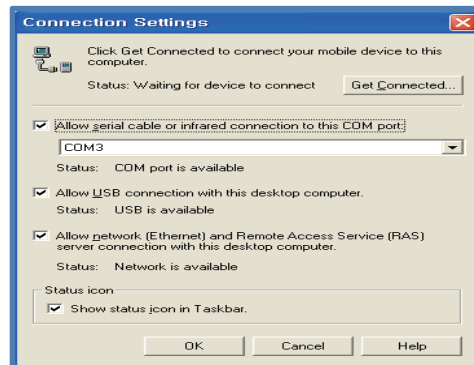
Select <Allow USB connection with this desktop computer>, press OK button.
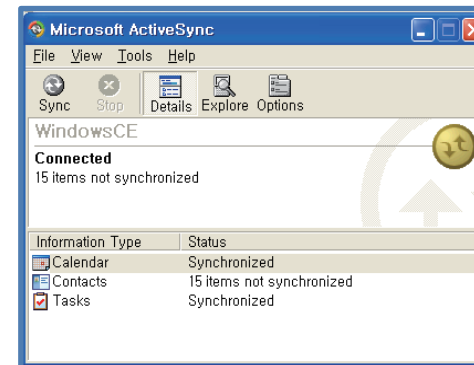
ActiveSync connected to PDA

Setting PDA

[Start Button] -> [Setting] -> [Control Panel] -> [PC Connection]
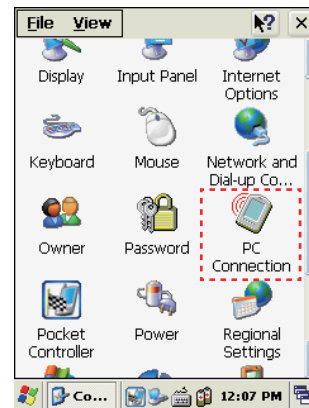
Double click PC Connection icon
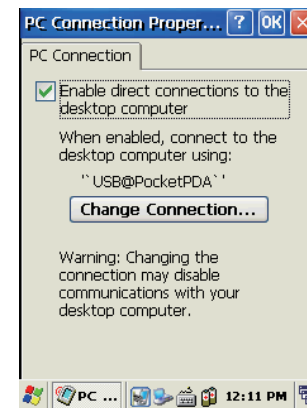
To check if set to connected to
USB Sync cable

Data transfer

Using the USB cable to connect PC and the device.

Connecting state

Disconnecting state

You can check the ActiveSync connecting state on the taskbar.

< Windows XP >
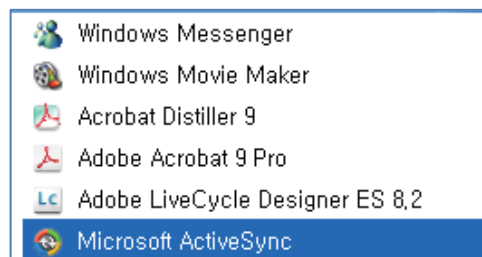
Start button/Programs/Microsoft ActiveSync
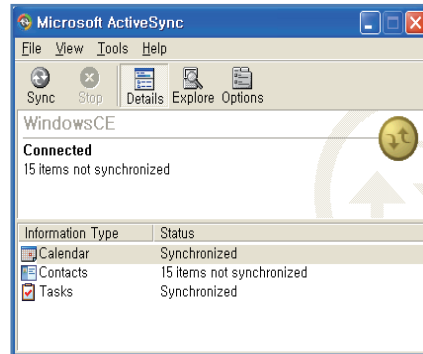
After ActiveSync connected, click Explore button.
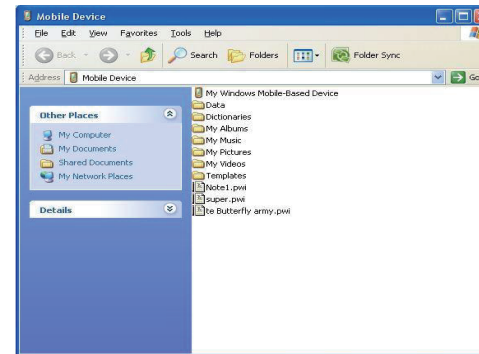
Designate transmitting file path.
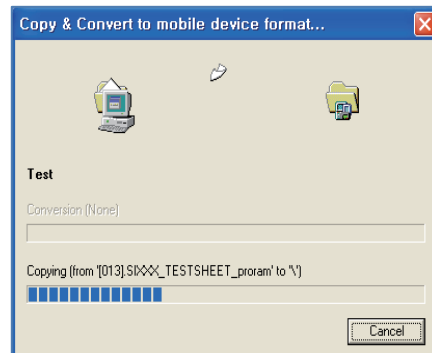
Transmitting files.

Firmware upgrading

[Start Button] -> [Setting] -> [Control Panel] -> [Firmware Upgrade]
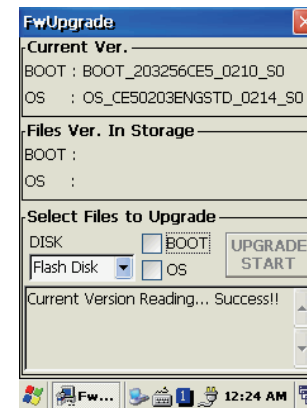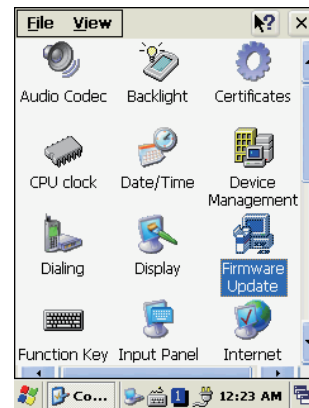
Optional module

provided variety of optional modules and in this chapter will provide you the information of each module.

Various optional modules for AT880

1) Barcode reader
   -. 1D Laser Barcode Scanner
   -. 2D Imager Barcode Scanner (2D Long Range Barcode Option)
2) Wireless LAN – IEEE 802.11 a/b/g/n (Option)
3) Bluetooth
4) UHF 900MHz – GEN2, ISO/IEC 18000-6C
5) HF 13.56MHz – ISO15693, MIFARE, ISO14443 A/B (Option)
6) GPS Module
7) Phone
8) Camera

Enable to equip with a compact image engine, which could recognize all the 1D and 2D barcodes.

Using 1D or 2D barcode scanner
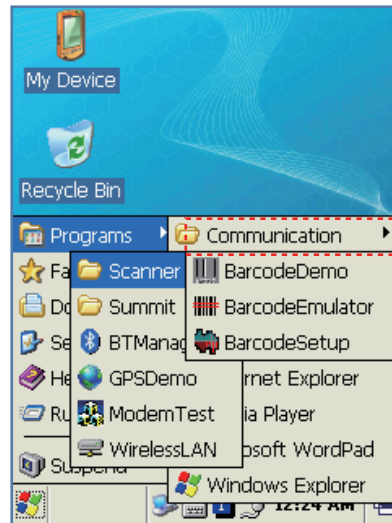
Start Button/Programs/Demo Apps/
Scanner/BarcodeDemo
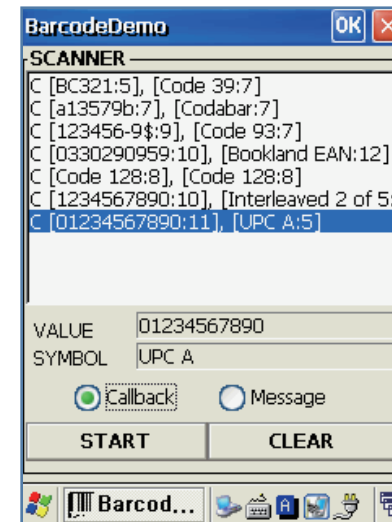
Press Scan Buttons to Read Barcode.

Barcode emulator setting

Barcode Emulator program enables you to set the barcode value input type, scan button, scan sound and so on.

Executing Barcode Emulator
[Start Button] -> [Programs] -> [Scanner] -> [BarcodeEmulator]
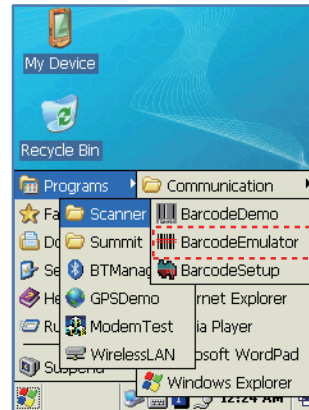
Run the Barcode Emulator

Barcode Emulator Icon
will be showed on the taskbar.

Run WordPad Program,
then click the Emulator Icon
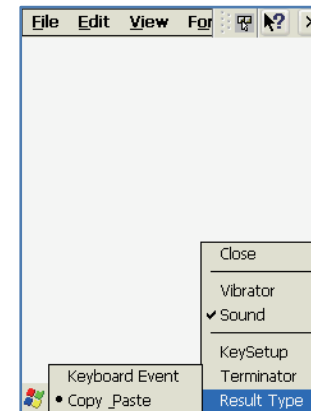
Result Type

Keyboard Event : Barcode inputted
one by one.
Copy Paste : Barcode will be stored
be stored in clipboard
and shown at paste way.
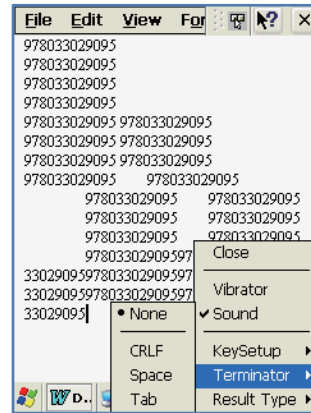
Terminator

None : Not input terminal barcode value.
CRLF : Barcode value will include an "Enter"
Space : Barcode value will include a "Space"
Tab : Inputting type as same as Tab Key Function.
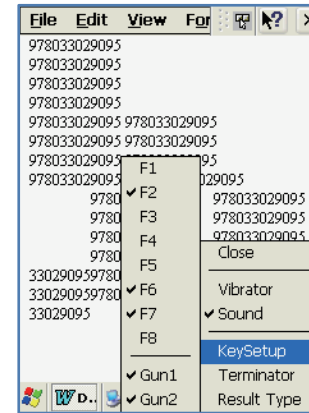
Key Setup

F1-F8 Key : Hardware Keypad
Gun1, Gun2 : Gun Trigger
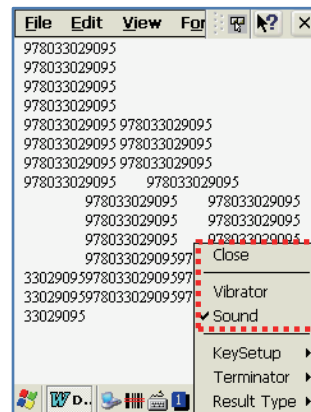
Sound : Set sound ON/OFF after scanned barcode
Vibrator : Set vibrator ON/OFF after scanned barcode
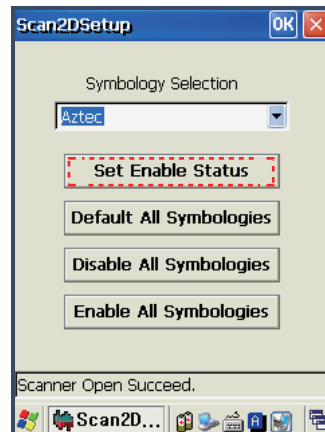Close : Exit Emulator Program

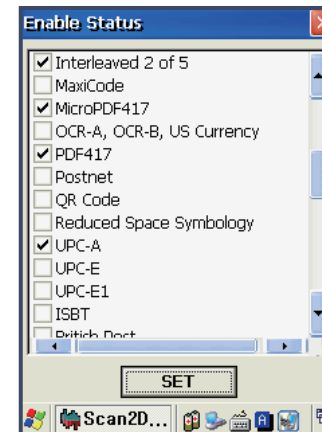# Barcode symbology setting

[Start Button] -> [Program] -> [Scanner] -> [BarcodeSetup]
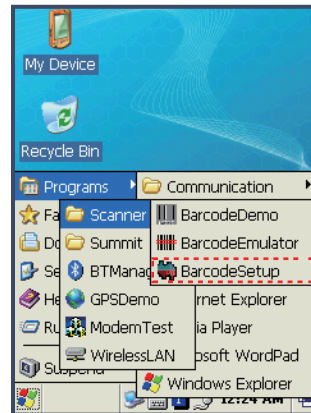
Run BarcodeSetup Program.
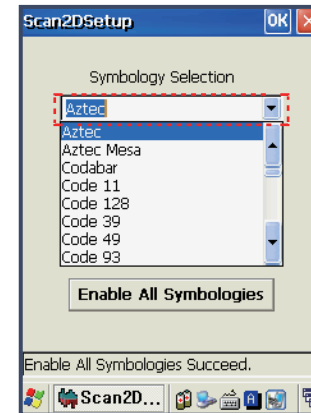
Set Barcode Type in detail.

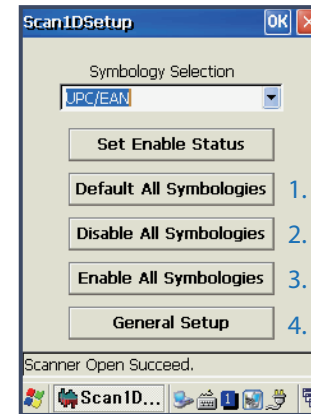Click Set Enable Status button

Make a check mark on the barcode which you want to use, and then click <SET> button.
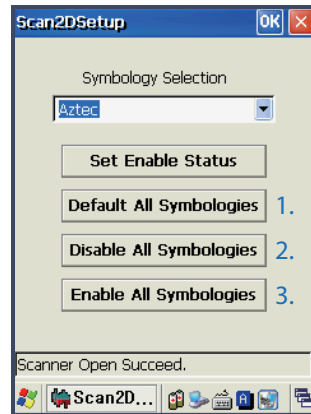
2D Symbology Selection:
1. Initialize all the symbologies to factory default value.
2. Unable to read all the symbologies.
3. Enable to read all the symbologies.

1D Symbology selection:
1. Initialize all the symbologies to factory default value.
2. Unable to read all the symbologies.
3. Enable to read all the symbologies.
4. Set a level that enable to read more than two symbologies simultaneously.

◆ Warning!
Please do not look directly into the laser beam of barcode, or it may do harm to your vision.

Barcode scanning

1. Remove the protective film from the window of barcode.
2. Executing the BarcodeDemo program.
3. Emit laser beam to the barcode.
   - Adjust the distance according to the size of barcode.
   - Barcode will stop automatically in five minutes if out of the Barcode reading range.

[Correct barcode reading]
1. The more small size of barcode, needs the more close to barcode. The effective scanning rang of is from 40 ~ 300mm. if failed to scan barcode, please try to adjust scan angle and distance.
2. The laser beam is a red thick line, when scanning a barcode.

Correct Scanning Positions

Ideal positioning   A bit high, will read correctly   A bit angled, will read correctly
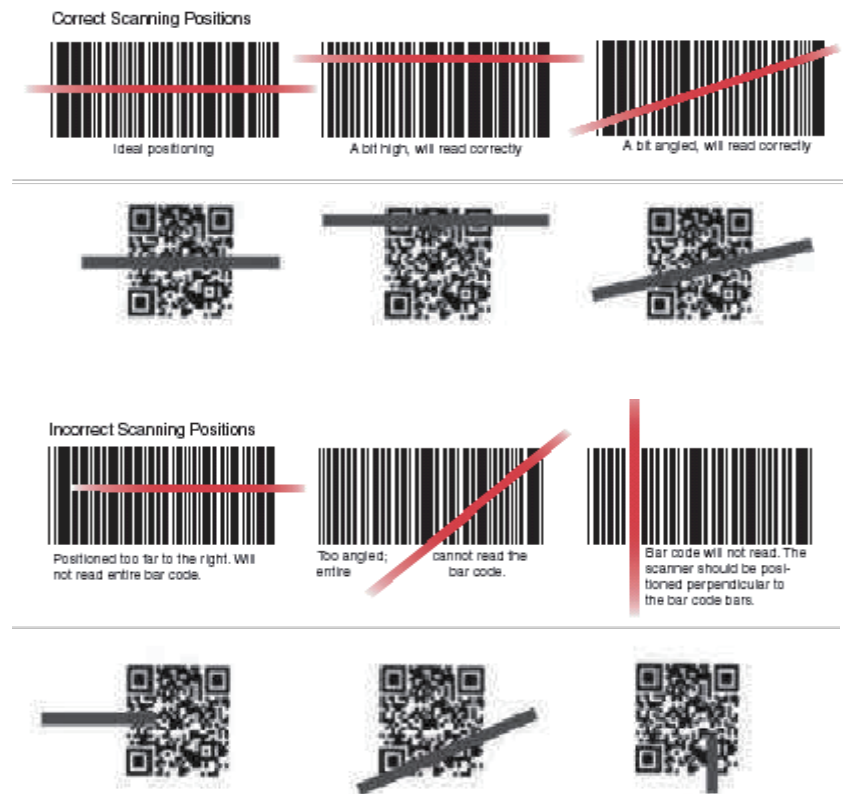
[Incorrect barcode reading]
1. The laser beam must across the barcode.
2. It will couldn't scan barcode if the laser beam across only a fraction of barcode.

Incorrect Scanning Positions

Positioned too far to the right. Will not read entire bar code.   Too angled; cannot read the entire bar code.   Bar code will not read. The scanner should be positioned perpendicular to the bar code bars.

enable to equip an internal 802.11 radio module to transfer data and do wireless communication. supports TCP/IP network protocol, and communicate with a host computer directly.
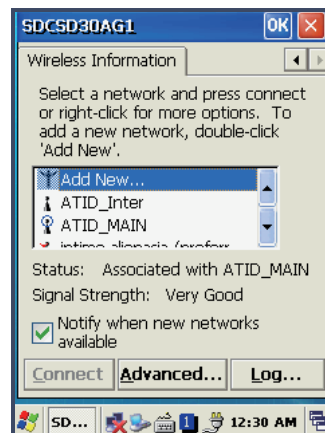
WLAN connection and termination

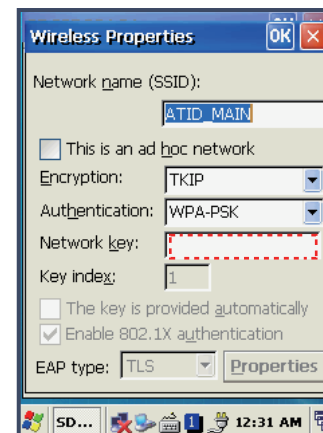[Start Button] -> [Programs] -> [Demo Apps] -> [Wireless Lan]
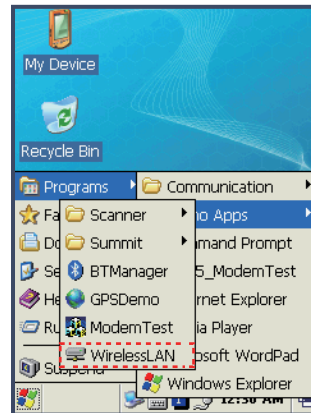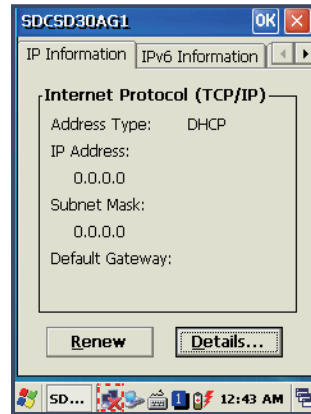

Run the Wireless LAN program.

Select <ON>, and then click Ok button.

Double click a suitable device from the list of AP.

Input Key Password, and then click OK button.

Double click WLAN icon
on the taskbar to check
Wlan information.

Start Button/Programs/
ATID App/Wireless Lan,
and then select <OFF> to stop
Wlan communication.

◆ Warning!
The Wlan LED will changed to green and the Wlan icon on the taskbar will be lighted on if failed the Wlan icon will be light off

This User Guide is only applied to the AT880x PDA which installed "MD6RF" module.

AT880X PDA not only supports to the SPP printer device like as AT870, but also supports Bluetooth Stack Service of Windows CE. This User Guide described how to Pairing and Disconnecting between AT880x and Bluetooth devices, and also described basic testing method of Mobile Printer SPR-R203, which launched by Bixolon, as a sample device.

** AT880x could pairing with maximum 6ea devices, but assign COM Port only to COM2 and COM4.

Bluetooth connection and termination

[WinCE Start] -> [Programs] -> [Demo Apps] -> [Bluetooth]

1. Start Bluetooth function
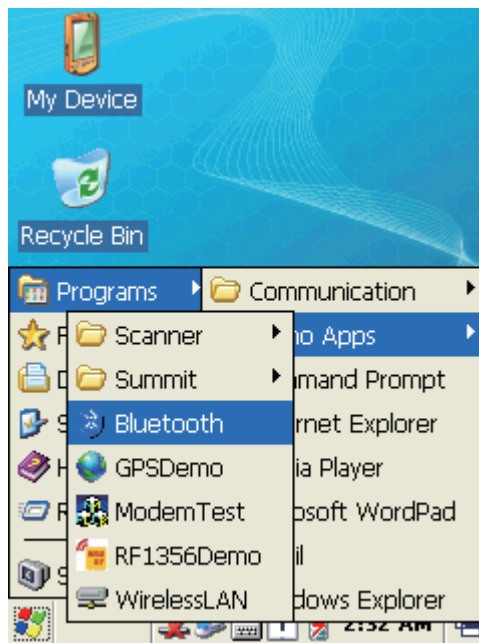
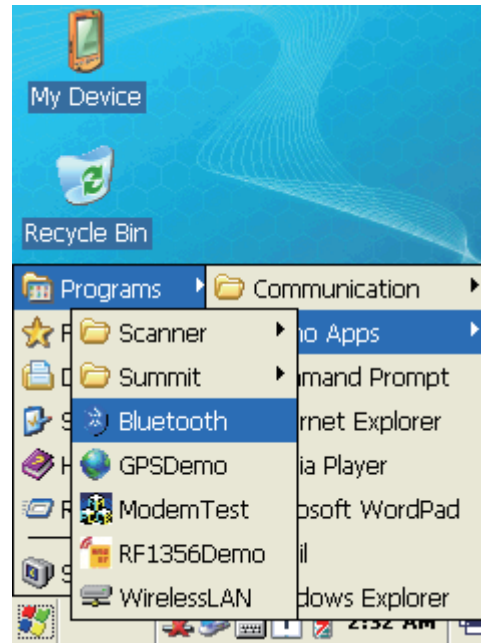Executing the "Bluetooth" demo program.

Select "Bluetooth ON" item, then press OK button.
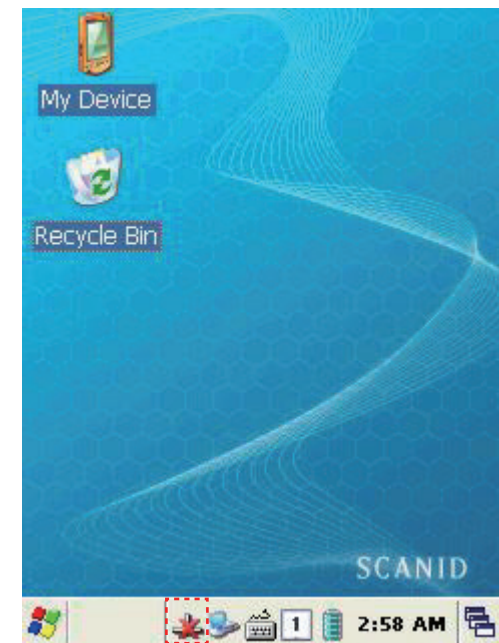
After Bluetooth executed, the Bluetooth BTPAN1 icon will be appeared on the bottom of Windows Taskbar, and the red cross mark on it shows that you access is available and prepared to be accessed.

[WinCE Start] -> [Programs] -> [Demo Apps] -> [Bluetooth]

2. End Bluetooth function

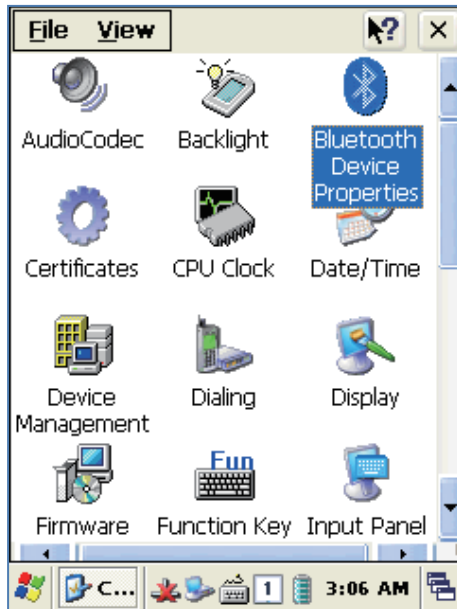

Executing "Bluetooth" demo App from Windows CE Menu.

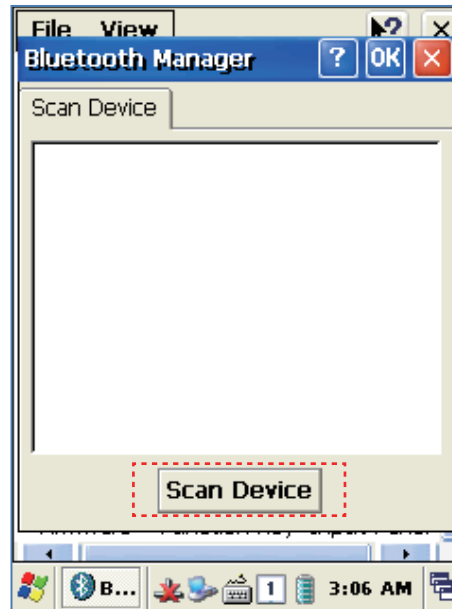Select "Bluetooth OFF", then to press OK button to off the Bluetooth power.

Bluetooth Pairing

After connecting each other through pairing way, Bluetooth devices could do its function properly.
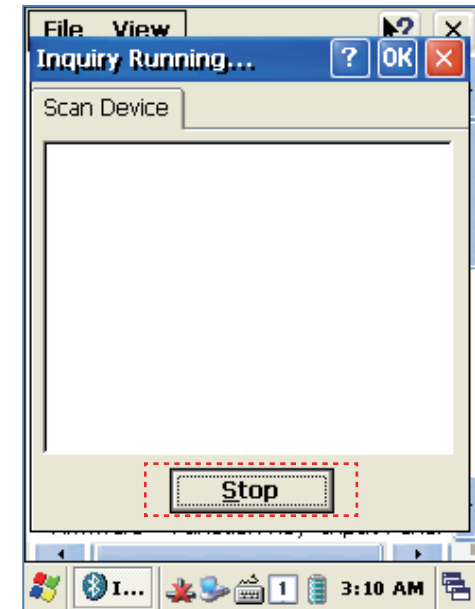
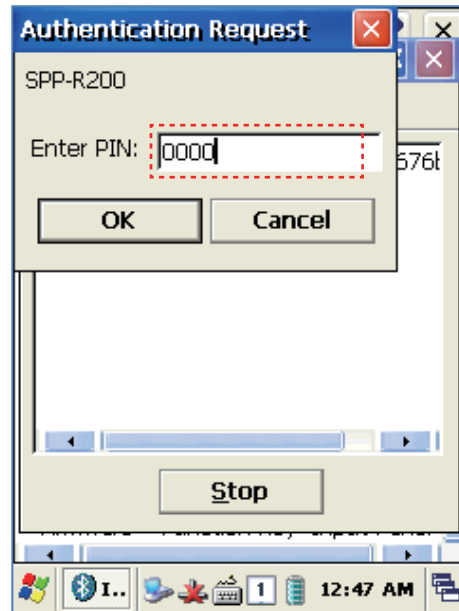[WinCE Start] -> [Settings] -> [Control Panel] -> [Bluetooth Device Properties]
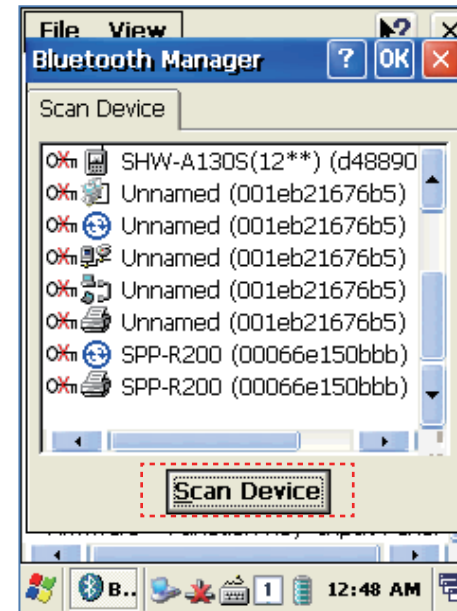

Executing Bluetooth program as below path.

Press "Scan Device" button to searching devices which could pairing.

Depending on the situation, maybe need to input password for some devices, then could search devices continually.

** According to the devices need, some devices have to input Pin Code (password) firstly.

** SPP-R200 printer factory setting Pin Code is "0000".

The devices which can connect will be listed, after finished searching.

** If cannot find your need device, please press "Scan Device" button to searching your device again.

Double click your device name, click "Trusted" Tab to add the device to the pairing items, then click "Yes" button to ending the Bluetooth Manager.
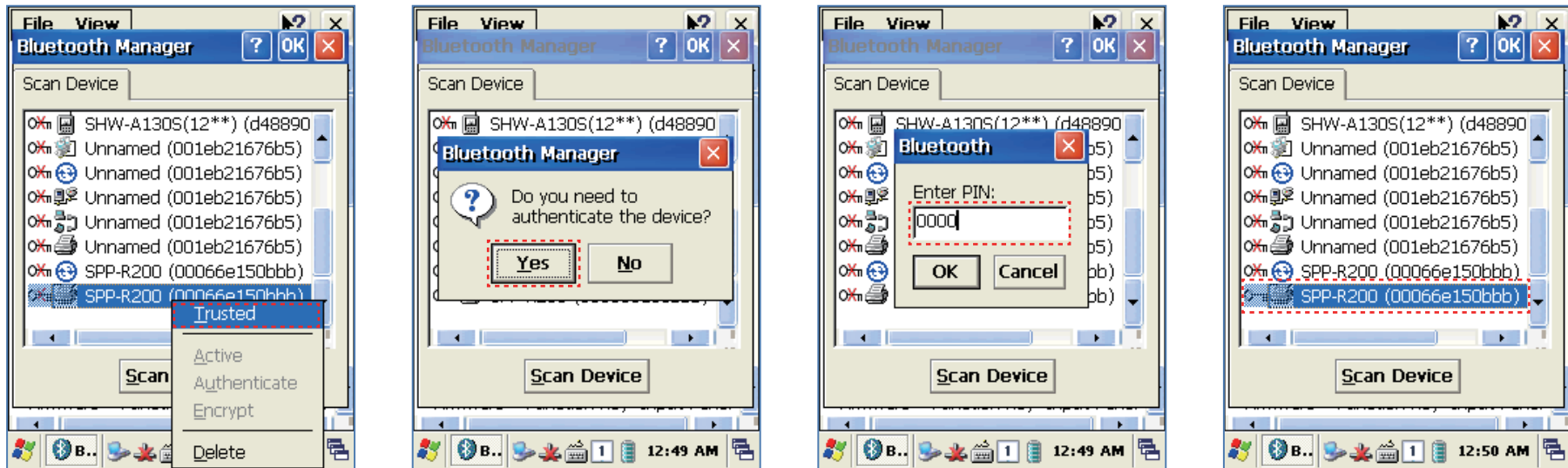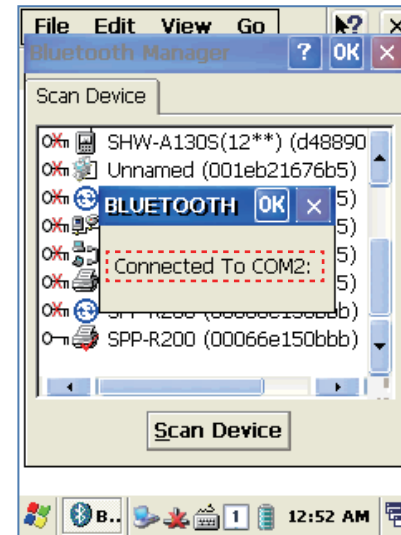

* You can set the Password (Authentication code) according to the each device.
* The Red Cross mark(X) on the Key icon will disappear if finished to registration.
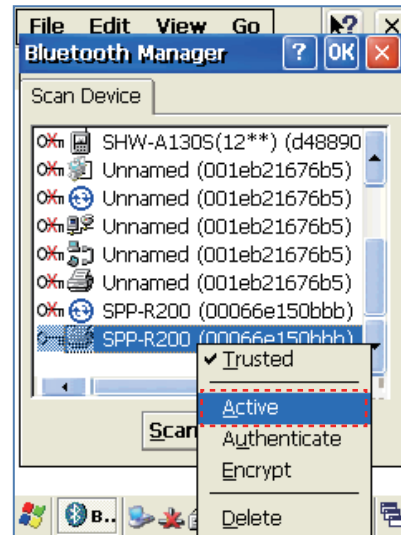
Click "Active" button to active
the paired device.

Then, you can perform the data
communication through COM2 Port.

After pairing and active the Bluetooth device, you can use the Device driver, S/W, and SDK, which provided from the Bluetooth device manufacturer,
to perform the relevant Bluetooth function.

Bixolon SPP-R200 Printer Demo

SPP-R200 is typical Mobile Printer of the Bixolon, you can using its App which get from Bixolon website to perform print through Bluetooth.
**the Printer program and SDK, which described in this User Guide is based on the 5th Aug, 2011, and it's would be a little different from homepage contents according to the Bixolon policy.

1. Download "SPP-R200 Windows SDK" from the Bixolon homepage (www.bixolon.com) to a suitable directory and unzip the file.
2. Bluetooth Power ON.
3. Executing "Bluetooth Device Properties" programs which located in Control Panel.
4. SPP-R200 printer power ON.
5. Setting the SPP-R200 printer to be in the status of pairing. (Please refer to the User Guide of SPP-R200 Printer)
6. Press "Scan Device" button to searching printer device nearby.
7. In the status of pairing, the factory setting password is "0000" usually.
8. If connected successfully, "COM2 port connected" message will be confirmed. (If had connected one time, maybe not show the message.)
9. Copy and paste the DLL and executable file, which located at bin\ce5\MobileCompia_M3Plus\ within the printer SDK, to AT880x Flash Disk.
10. Executing the Sample.exe program in the AT880X Flash Disk.
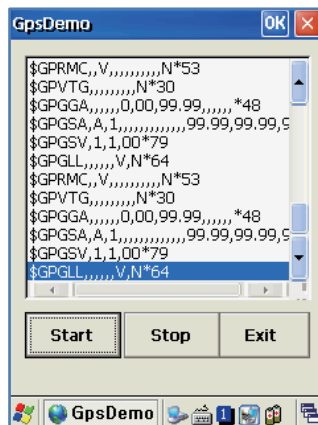11. Change the COM8 to COM2, then press "Open" button to testing printer.

GPS Module designed to be installed on the back top of the AT880.
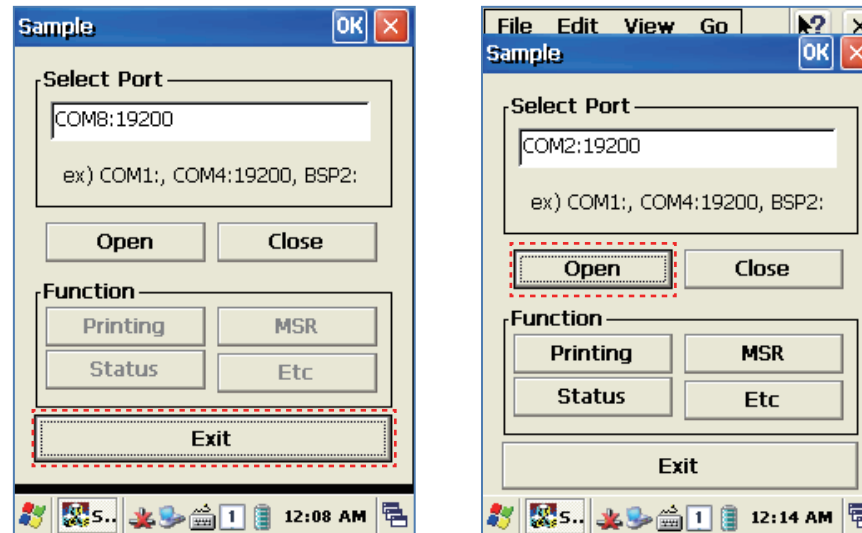
COM : 6 Baud rate : 9600

GPS demo program execution

[Start Button] -> [Program] -> [DEMO Apps] ->[GPS-Demo]
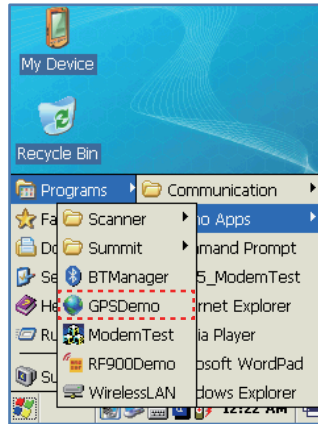
Execute GPSDemo Program.

Confirm GPS receiving Data :

1. Finding an open place to check your GPS signals.

2. According to the actual environment, the time to receive data is different (about 3~10min) , After receiving GPS data once, it is faster to receive GPS data than the first attempt.
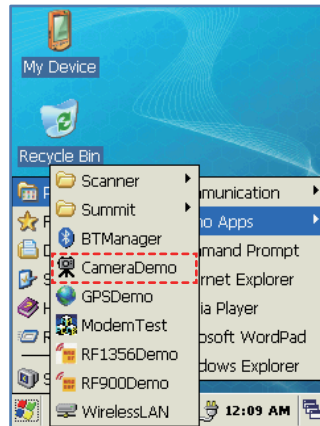
Start : Start to receiving GPS data
Stop : Stop to receiving GPS Data
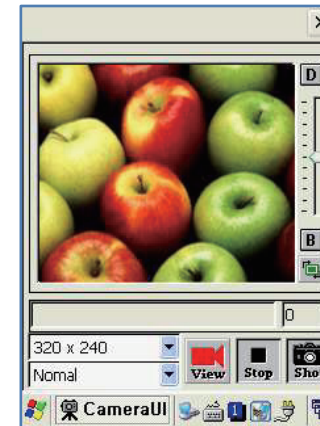**Exit :** Exit the GPS Demo program

AT880 can equip with a 3.0 megapixel camera which could fixes screen brightness, adjust the video resolution, screen capture, etc.
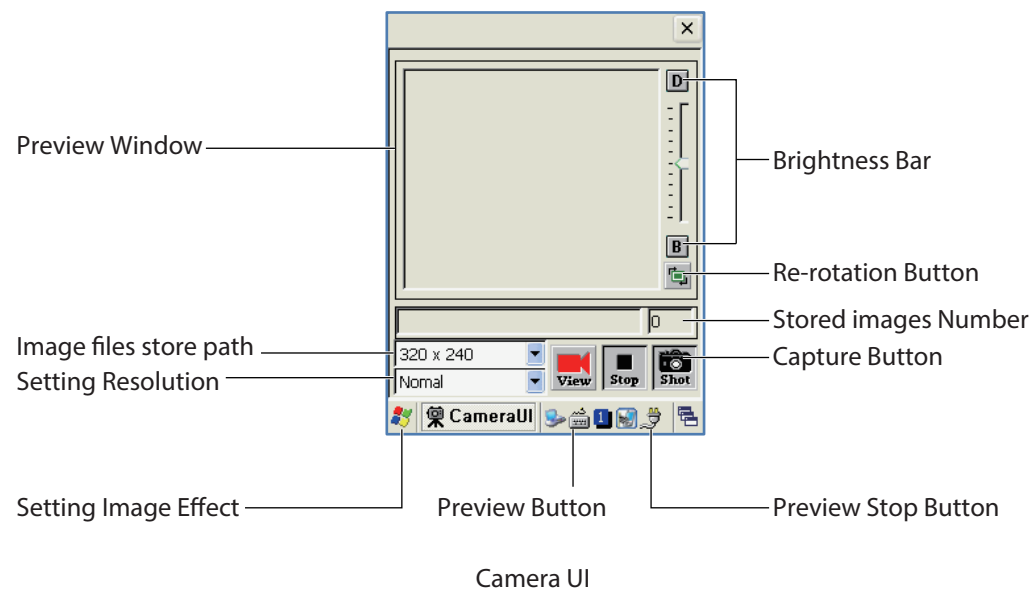
Use of camera

[Start Button] -> [Program] -> [DEMO Apps] -> [CameraDemo]


Execute Camera Program.

Camera's Main Screen.

Preview Window

Brightness Bar

Re-rotation Button

Stored images Number

Image files store path

Capture Button

Setting Resolution

Setting Image Effect
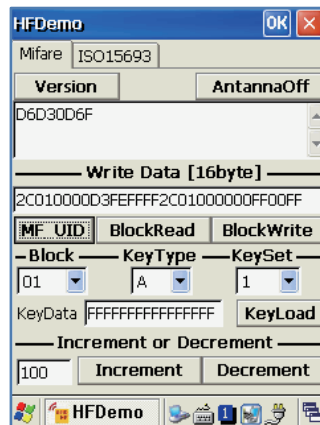
Preview Button

Preview Stop Button

Camera UI

AT880 PDA enable to equip a HF13.56MHz module as a option, and the recognition distance is 3-8.5cm according to the standard of ISO, in the case of Mifare Tag, it's will be 1~3.5cm. it's will be 1~3.5cm.

HF13.56 demo program execution

[Start Button] -> [Program] -> [DEMO Apps] -> [RF13.56Demo]
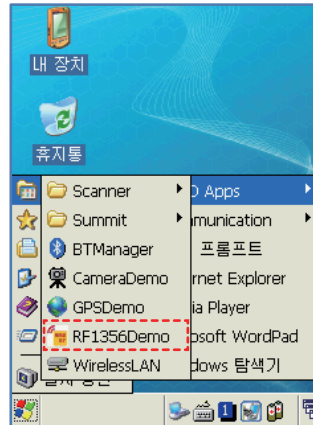
Mifare tag recognition

Click MF_UID button to read a Mifare Tag

Mifare:

Version : Read firmware version of ISO15693.
AntennaOff : Stop the Antenna.
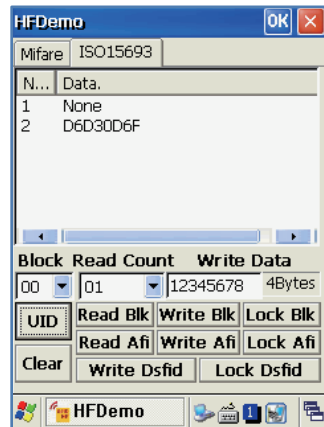MF_UID : Read Mifare Tag ID.
Block Read : Read Block Data..
Block Write : Write Block Data.
Keyload : Register authorization key to the R/W while to access Mifare
Increment : Increase the values to data block.
Decrement : Decrease the values to data block.

ISO15693 tag recognition

Click UID button to read
ISO 15693 Tag

ISO15693:

UID : Read ISO15693 Tag ID.
Read Blk : Read ISO15693 Block data.
Write Blk : Write ISO15693 Block data.
Clear : Clear data information.
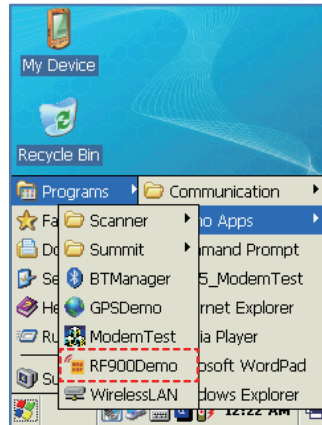Close : Close this window

Enable to equip a UHF 900MHz Tag Reader. Enable to read and write RFID Tag which supported protocol of GEN2, ISO/IEC 18000-6C. The Frequency range is CE 865MHz ~ 868MHz, FCC 902MHz ~ 928MHz.
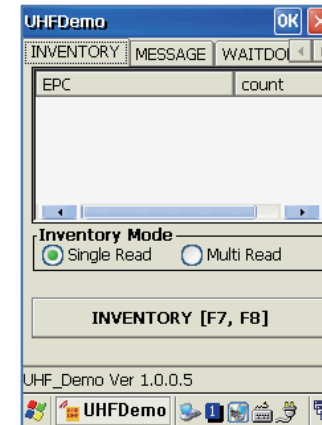

UHF Reader

UHF 900MHz Program

[Start button] -> [Program] -> [DEMO Apps] -> [RF900Demo]

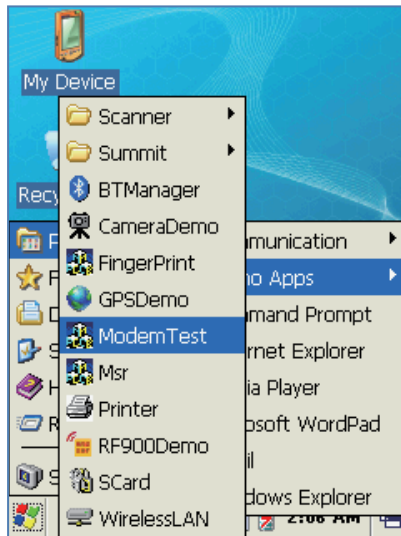

Run RF900Demo Program

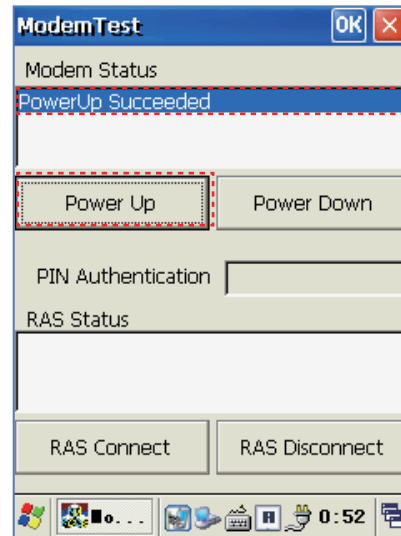INVENTORY Mode :

Single Read : Read one Tag each time.
Multi Read : Read multi Tag each time (Anti Collision).
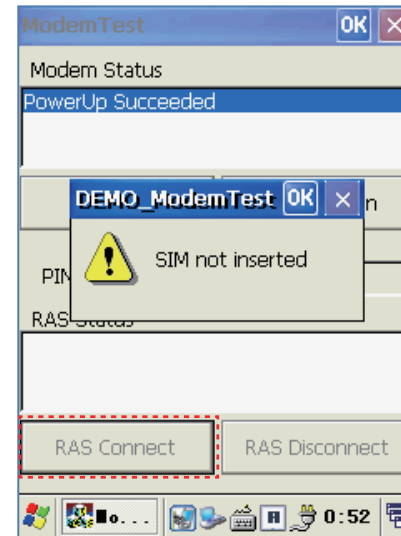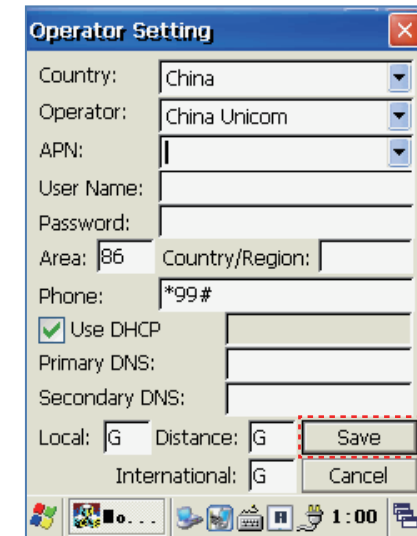INVENTORY : Press <Inventory> button to read tags.

Modem ON/OFF

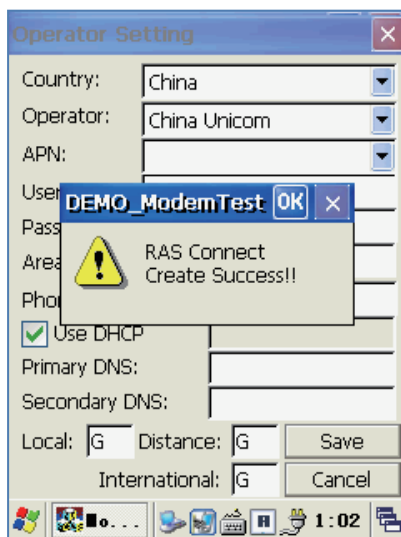Click Start->Demo Apps -> ModemTest

Press <Power Up> button, wait tillpowerup succeed.

Press <RAS Connect> button, if there is no SIM card, the prompt messege window will pop up.
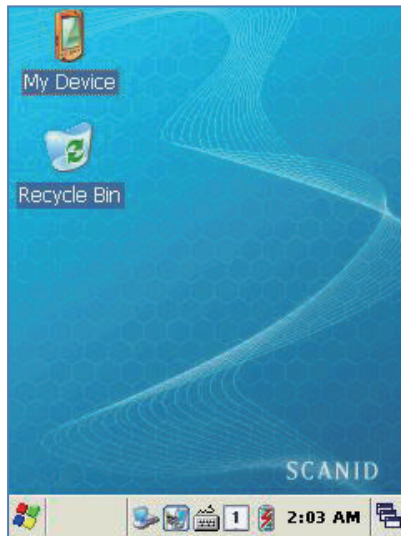

If there is the SIM card, then setting each item on the Operator Setting interface, and press <Save> button
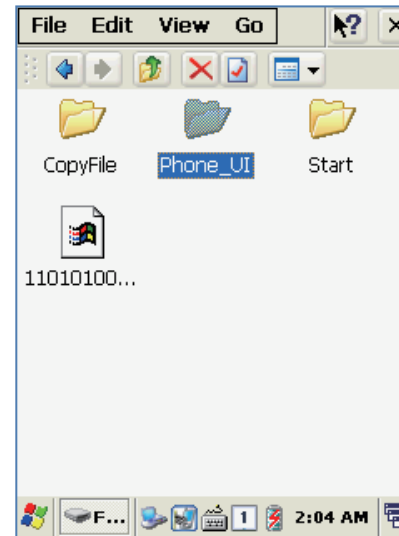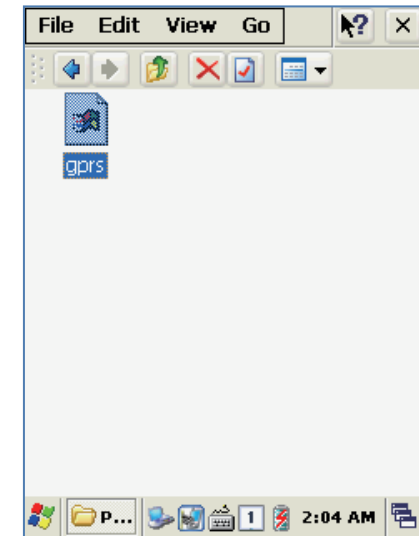

Then, RAS Connecting success
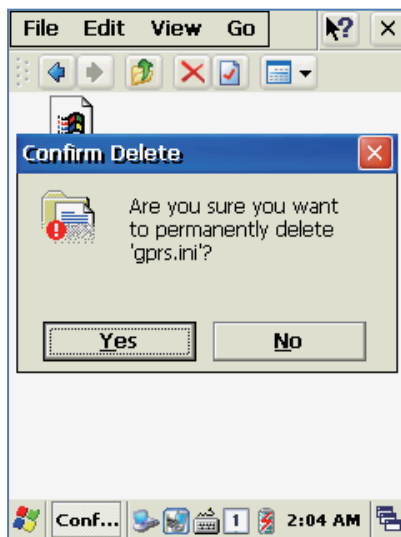
Modem Resetting

Double click Mydevice icon

Double click <Flash Disk>

Double click <Phone UI>

Delete <Gprs.ini> file

Press <Yes> button, then to resetting

Appendix

Product specification

PHYSICAL CHARACTERISTICS	
Dimensions (L x W x H)	159 x 79 x 27.7 (35.2) mm
Weight	280g (PDA only, without battery)
Operating Temp.	-20℃ ~ 60℃
Storage Temp.	-30℃ ~ 70℃
Humidity	95% non-condensing
Drop Spec.	1.5M Drop to concrete
Dust & Water Proof	IP65
PERFORMANCE CHARACTERISTICS	
Processor	Marvell™ PXA320 806MHz
Operating System	Windows CE 5.0 / Windows Embedded handheld 6.5
Memory	256MB (512MB Option) RAM / 512MB ROM
Display	3.5" QVGA with Backlight, TFT LCD, 240 X 320Pixel, 262K Color
Audio	Phone Receiver, Speaker, Ear Jack, Microphone
Standard I/O Port	USB 1.1 Client / USB Host & Serial (RS-232) via gender cable or Cradle
Expansion Slot	1Micro SD Slot (SDHC), 1SIM Slot, 1SAM Slot
Notification	Vibrator and LED, Speaker
BATTERY SUPPLY	
Main Battery	Lithium Polymer 3.7V 2,970mAh (Rechargeable)
Backup Battery	Lithium Polymer 3.7V 80mAh (Rechargeable)
Power Adapter	Input AC100V ~ 240V / Output DC 5V 3A

NETWORK CHARACTERISTICS	
WLAN	IEEE 802.11 a/b/g Compliant (a/b/g/n Option)
Bluetooth	Bluetooth Class II, v2.1 + EDR
Radio	MODEM 3G (GSM / GPRS / EDGE / WCDMA / HSPA+)
GPS	Internal Antenna (GPS + Glonass Option)
DATA CAPTURE & DATA PROCESSING DEVICE	
Barcode Engine	1D Laser or 2D Imager Barcode Scanner (2D Long Range Barcode Option)
Camera	3.0 Mega Pixel Auto Focus with Flash
UHF 900MHZ RFID READER/WRITER	
Frequency	CE 865MHz ~ 868MHz
	FCC 902MHz ~ 928MHz
Reading range	0M ~ 5M (According to Tag & Environment)
Writing range	0M ~ 0.5M (According to Tag & Environment)
RF output	1W (MAX)
Protocol	GEN2, ISO/IEC 18000-6C
Special function	Anti-Collision
HF 13.56MHZ RFID READER/WRITER	
Applied RFID Tag	ISO15693, MIFARE, ISO14443 A/B (Option)
Reading range	According to Tag : 0Cm ~ 5Cm (Internal or External)
ACCESSORIES(OPTION)	
Gun Handle Grip (Pistol Grip)	Body, UHF / HF Available
Gun Handle Battery	Lithium-Ion 3.7V 5,200mAh (Rechargeable) Option

* All Features and specifications described are subject to change without notice.