

# WP – 8X3X New Release Note

## Overview

The **WP-8X3X** series is released, following in the WP-8X4X series of the next generation PAC. To compare with WP-8x4x, it also equips a PXA270 CPU (520 MHz) running a Windows CE.NET 5.0 operating system, variant connectivity (VGA, USB, Ethernet, RS-232/485) and 1/4/8 slots for high performance parallel I/O modules and serial-type I/O modules.

In addition, **WP-8X3X** series includes hard real-time capability, small core size, fast boot speed, interrupt handling at a deeper level, achievable deterministic control and low cost.

Distinct from WP-8X4X, the **WP-8X3X** provides the high VGA display resolution, 2 USB port, and 63MB built-In Flash disk.

The new versions of software below can be updated to WP-813x /WP-843x/WP-883x series controller.

### ■ Latest Version:

OS	Version 1.1.3.0
Eboot	Version 1.1.0.7
WinPAC utility	Version 2.0.1.3
WinPACSDK	Version 1.0.9.3
WinPACNet	Version 1.2.0.6
.NET CF	Version 2.0.7045.00
SQL CE	Version 3.5.5386.0

## Feature

### Hardware

<b>Models</b>	<b>WP-8x3x</b>	<b>WP-8x4x</b>
<b>CPU</b>	PXA270 or compatible (32bit and 520 MHz)	same
<b>SDRAM</b>	128MB	same
<b>Dual Battery Backup SRAM</b>	512 KB	same
<b>Flash</b>	128 MB	96 MB
<b>EEPROM</b>	16 KB	same
<b>microSD</b>	1 GB microSD card (support up to 16 GB)	same
<b>VGA</b>	1024 x 768, 800 x 600, 640 x 480	800 x 600, 640 x 480
<b>Ethernet</b>	RJ-45 x 2, 10/100 Base-TX	same
<b>USB 1.1 (host)</b>	2	1
<b>RTC (Real Time Clock)</b>	Yes	Same
<b>Dual Watchdog Timers</b>	Yes	Same
<b>Programmable LED Indicator</b>	1	Same
<b>Rotary Switch</b>	Yes (0 ~ 9)	Same
<b>64-bit Hardware Serial Number</b>	Yes	Same
<b>COM Port</b>	WP-813x (2 Ports) WP-843x/WP-883x (4 Ports)	Same
<p><b>Please refer to</b>  <a href="ftp://ftp.icpdas.com/pub/cd/winpac/napdos/wp-8x4x_ce50/document/data_sheet/SPEC_comparison_WP8x4x_WP8x3x.pdf">ftp://ftp.icpdas.com/pub/cd/winpac/napdos/wp-8x4x_ce50/document/data_sheet/SPEC_comparison_WP8x4x_WP8x3x.pdf</a> <b>for more details</b></p>		

## Software

- Windows CE.NET 5.0 Operating System
- Easy Remote Maintenance Via Ethernet
  1. FTP server
  2. VCEP software
- Built-in OPC Server: NAPOPC\_CE5
  1. An OPC Server & SCADA Software
  2. Integrate Local/Remote I/O Modules Via RS-232/485 or Ethernet
  3. Provide Library for eVC, C# or VB.NET
  4. Support Modbus and DCON Protocols
- Development Software
  1. Visual Studio.NET 2003/2005/2008 and eVC
  2. SDK/Demo Programs for C#, VB.NET & eVC
- Upgrade Applications Just Copy and Play
  
- Multi-language user interface for OS with multi-language keyboard layout
  1. Multi-language
    - English/German/Russian/French/Spanish/Italian
  2. Simplified Chinese
    - Add Pocket IME (简中输入法)
  3. Traditional Chinese
    - Add Input Method Editor-Pocket IME (繁中输入法)
    - Add Phonetic Input (Bopomofo) (注音输入法)
- Provide SNMP protocol
- Provide PM (Power management)
  1. Control display on/off by PM
- Provide ActiveSync function to synchronize WinPAC with either a desktop PC
  1. ONLY allow COM4(RS232) connection
- Provide 5 accounts and passwords for FTP/Telnet authentication(Windows CE Authentication Services)
  1. Configuration by WinPAC utility (V2013)
- Add two operation modes determined by the Rotary switch
  1. Rotary Switch 6 -> Run VCEP.exe automatically after booting
  2. Rotary Switch 5 -> Run DCON\_CE.exe automatically after booting

- Provide the configuration settings on WinPAC utility to modify the display resolution/Bpp(bits per pixel)/Frequency of VGA port

## Important Notices

- The folder items below for WP-8x3x are the same as the WP-8x4x.

1. Demo
2. Document\How\_To
3. Document\SDK\_Document
4. PC\_Tools
5. SDK
6. System\_Disk
7. Update

The user can browse those folders on CD\napdos\wp-8x4x\_ce50 or [ftp://ftp.icpdas.com/pub/cd/winpac/napdos/wp-8x4x\\_ce50/](ftp://ftp.icpdas.com/pub/cd/winpac/napdos/wp-8x4x_ce50/)

- **The booting progress bar cannot be seen on the display in this version of WP-8x3x (OS V1130 and Eboot V1107). (It will be available on next version).**

## How to change display resolution/Frequency/ Bpp(bits per pixel) of VGA port

**Step1:** Click the combobox of **Display Resolution/Bpp/Frequency** to select the appropriate items.

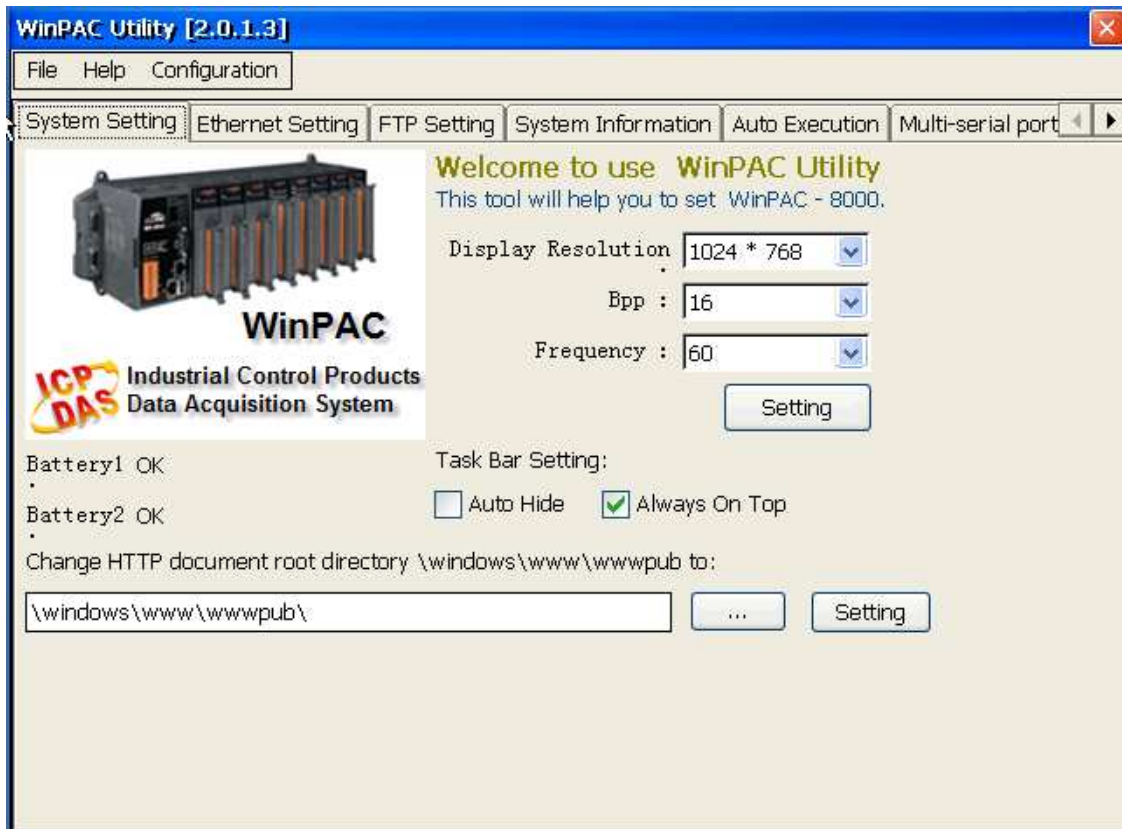
**Display Resolution:** 1024\*768 /800\*600/640\*480/320\*240

**Bpp (bits per pixel):** 16/8/4/2

**Frequency:** 75/70/60/50

**Step2:** Press “ Setting” button to take effect.

**Step3:** Run WinPAC utility and click “Save and Reboot” to save the settings



## How to enable/display Power management to control turn the display On/Off

The OS have 4 different power states that will be the four states of the internal power manager state machine. The four states are On /User Idle/System Idle/Suspend. The transition from On to User Idle and User Idle to Suspend is done after timers expirations.

### Display off (On to System Idle status)

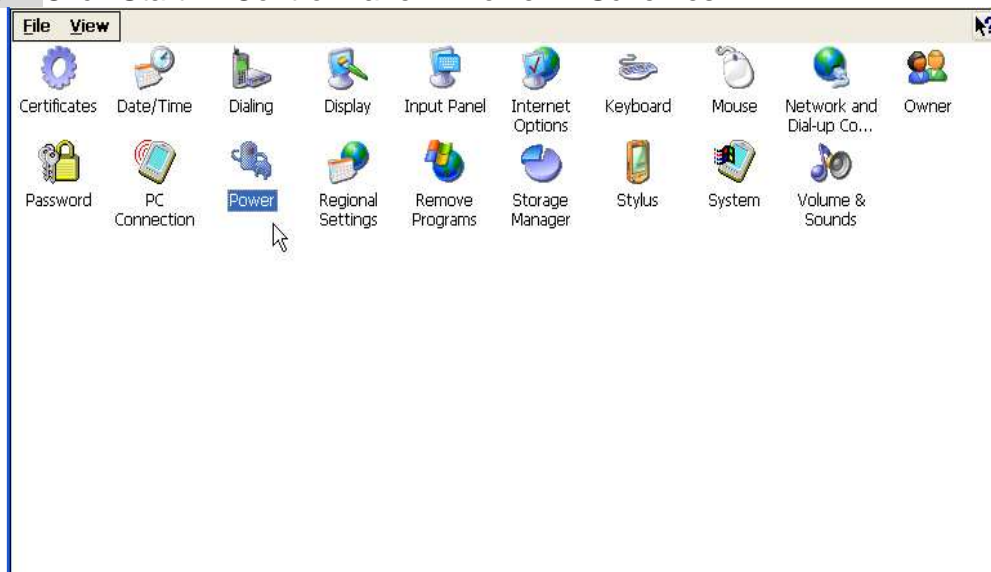
In this version of WinPAC, the display will be turned off automatically, while the system state is system idle.

### Recovery Display (System Idle to On status)

If you do nothing on WinPAC after 6 minutes (1 user idle time + 5 system idle time), the display will turn off. You can move mouse or press the keyboard button to wake up the display (turn the display on).

### Modified the system idle timeout

**Step1:** Click Start -->Control Panel-->Power-->Schemes

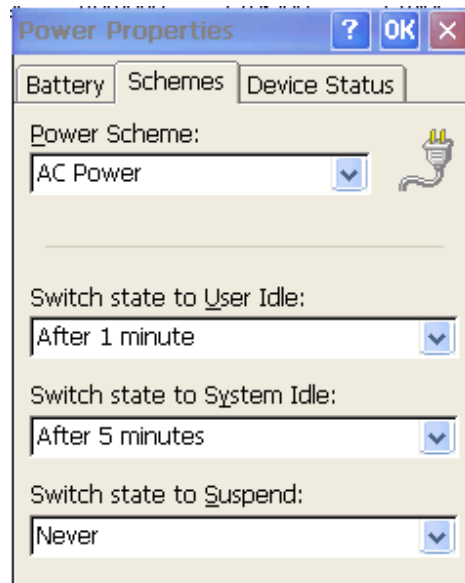


**Step2:** Select AC Power from Power Scheme

**Step3:** Modified the time value from "**Switch state to System Idle**"

**Step4:** Run WinPAC utility and click "Save and Reboot" to save the UI language.

**Note:** The default value for system Idle is 5 minutes



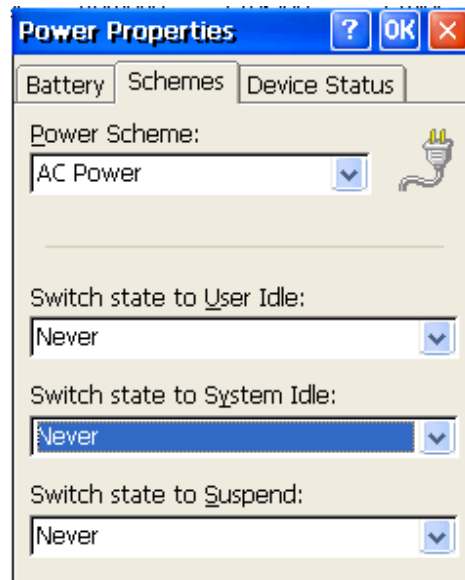
### Disable the display on/off by PM

**Step1:** Click Start -->Control Panel-->Power-->Schemes

**Step2:** Select AC Power from Power Scheme

**Step3:** Set the time value to Never on "**Switch state to System Idle**" and "**Switch state to User Idle**"

**Step4:** Run WinPAC utility and click "Save and Reboot" to save the UI language.

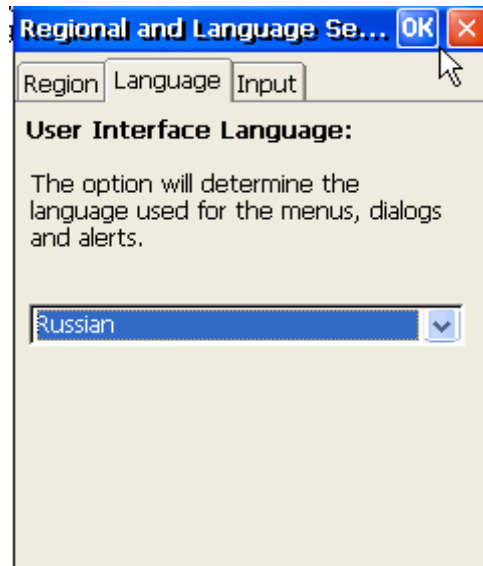


**Note:** The time value 0 of System Idle is to disable this function

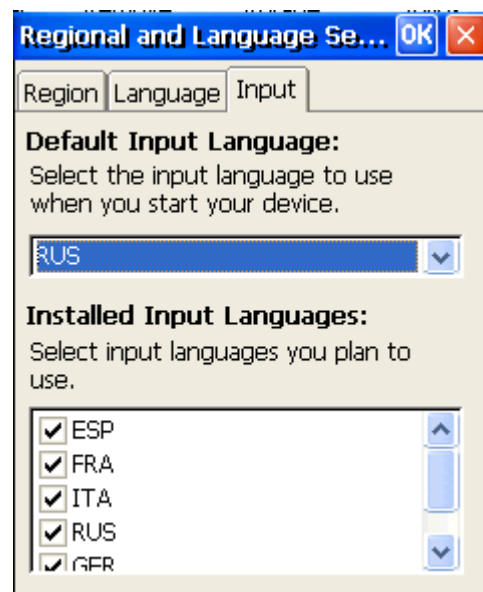
# How to use Multi language OS with Multi language keyboard layout

## Choose Regional multi-language user interface (take Russian as an example)

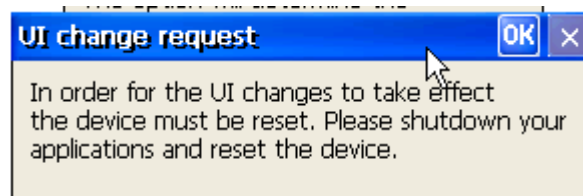
**Step1:** Click “language” tab and choose “Russian” for User interface language.



**Step2:** Click “Input” tab and choose “Russian” for User interface language



**Step3:** Click “OK”

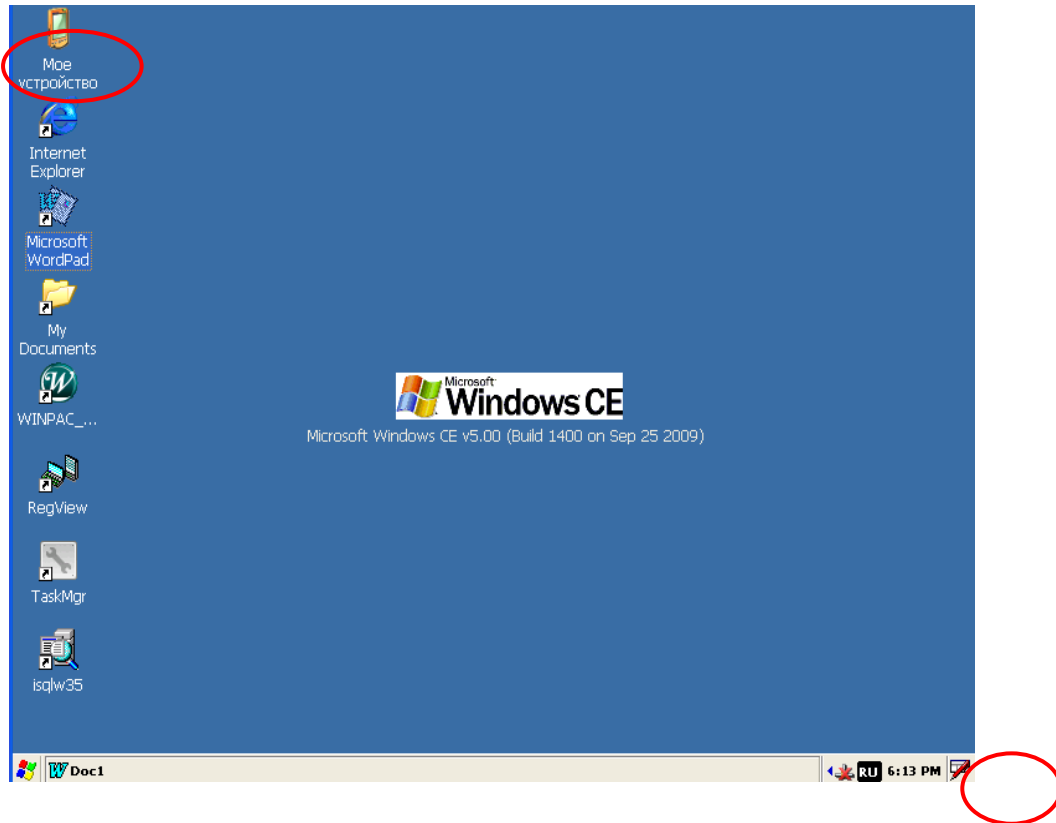


**Step4:** Run WinPAC utility and click “Save and Reboot” to save the UI language.

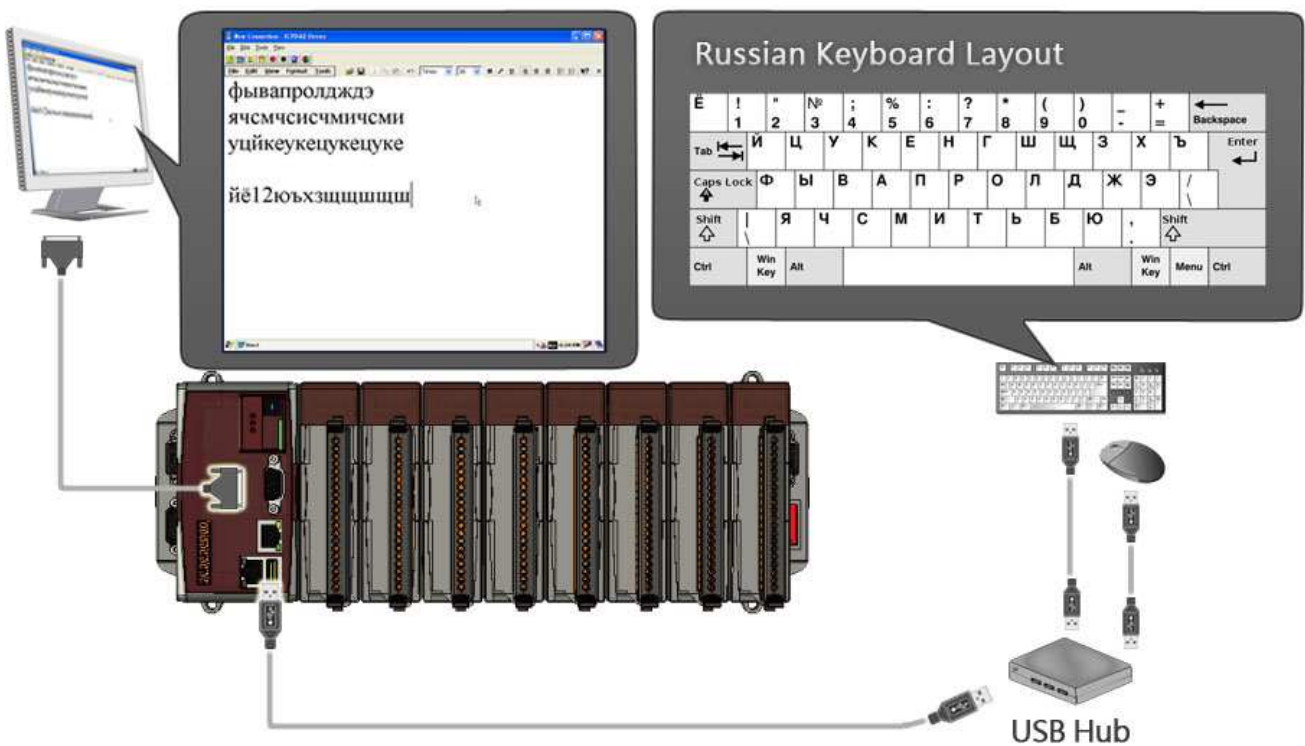
After reboot, the interface language is in Russian and the default input language is also

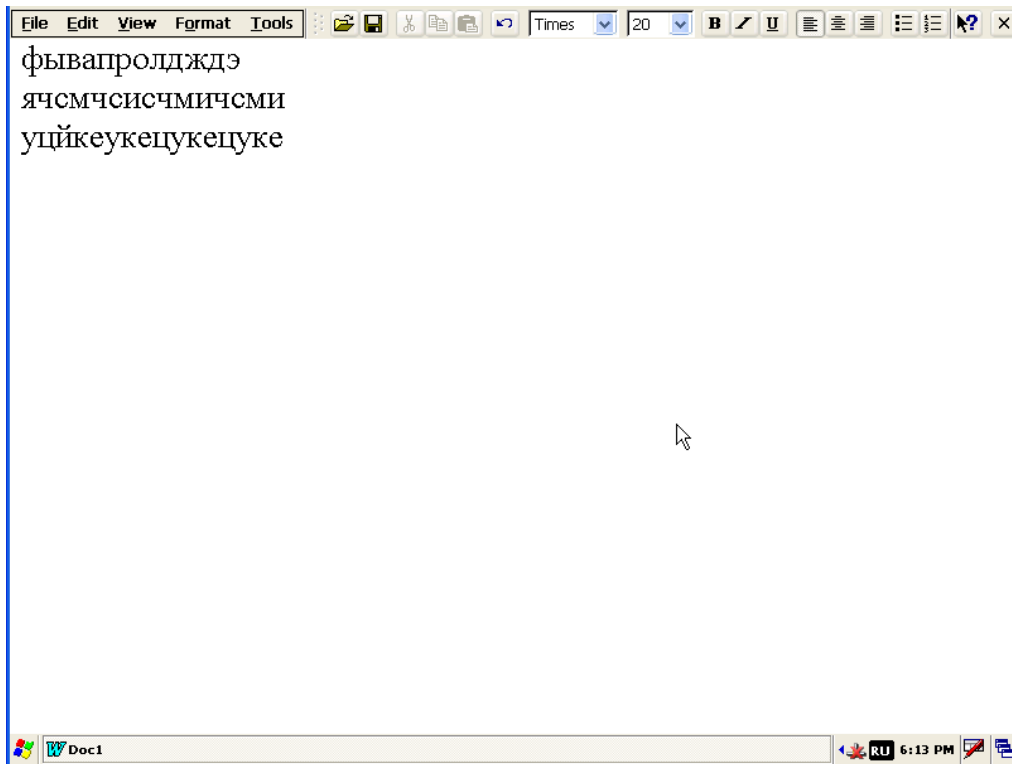


Russian.

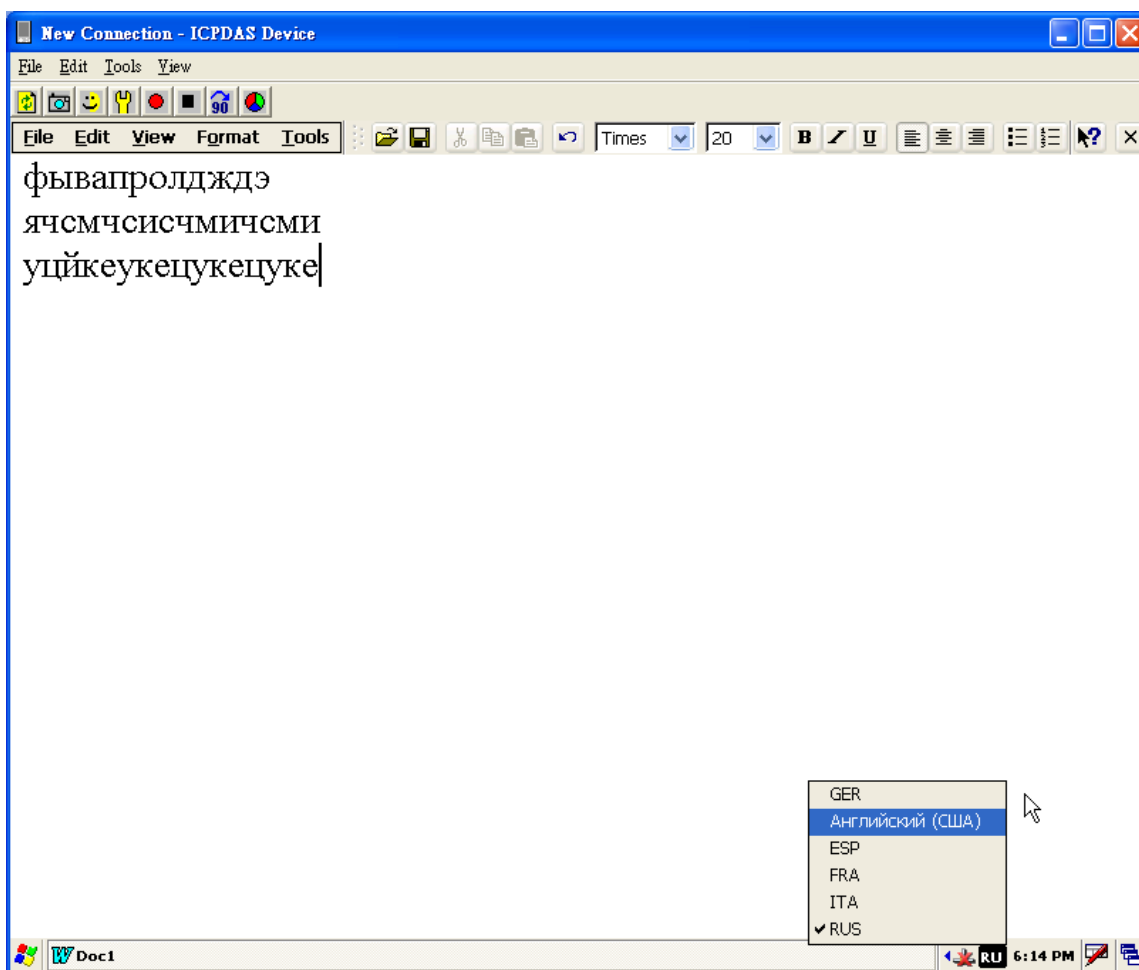


Run "Wordpad" and input any keys from the keyboard, and the Russian fonts will show on the Wordpad.





Click "Ru" icon, and you can change the input to the other language.

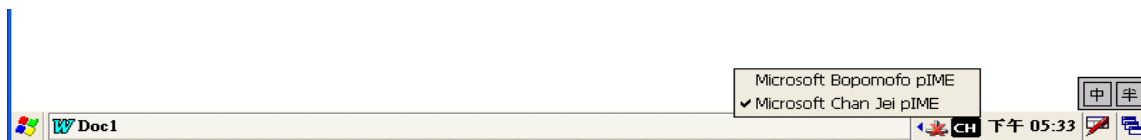


# How to use TC/SC Input method

## Traditional Chinese input method

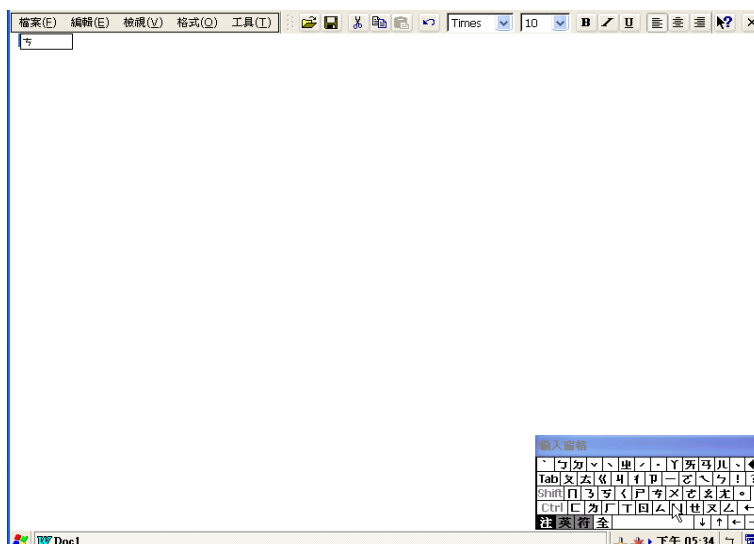
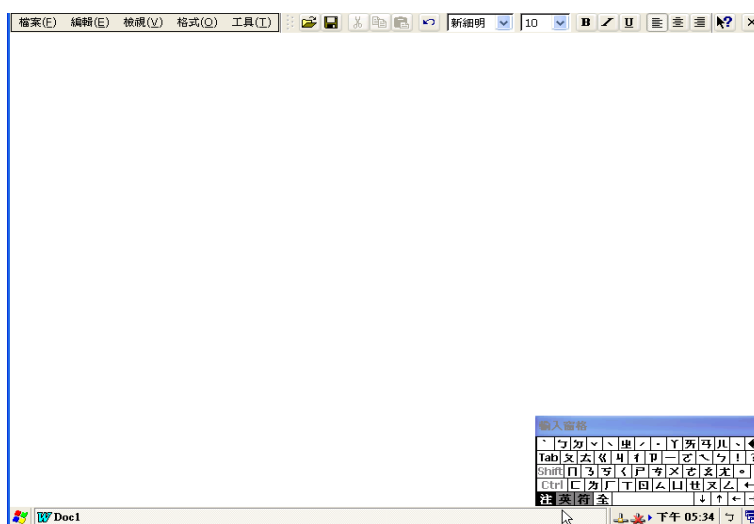
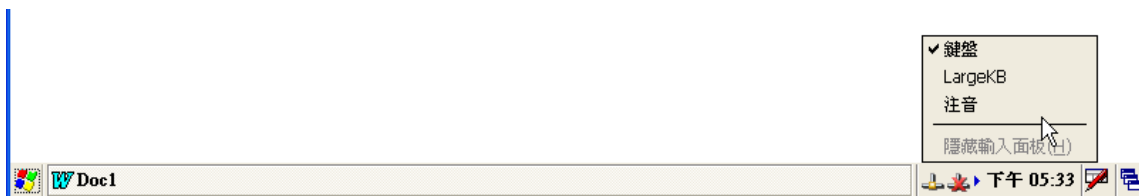
Provide 2 input methods in Traditional Chinese input method

1. Microsoft Bopomofo pIME (注音)
2. Microsoft Chan Jei PIME(倉頡)



And 1 input method editor

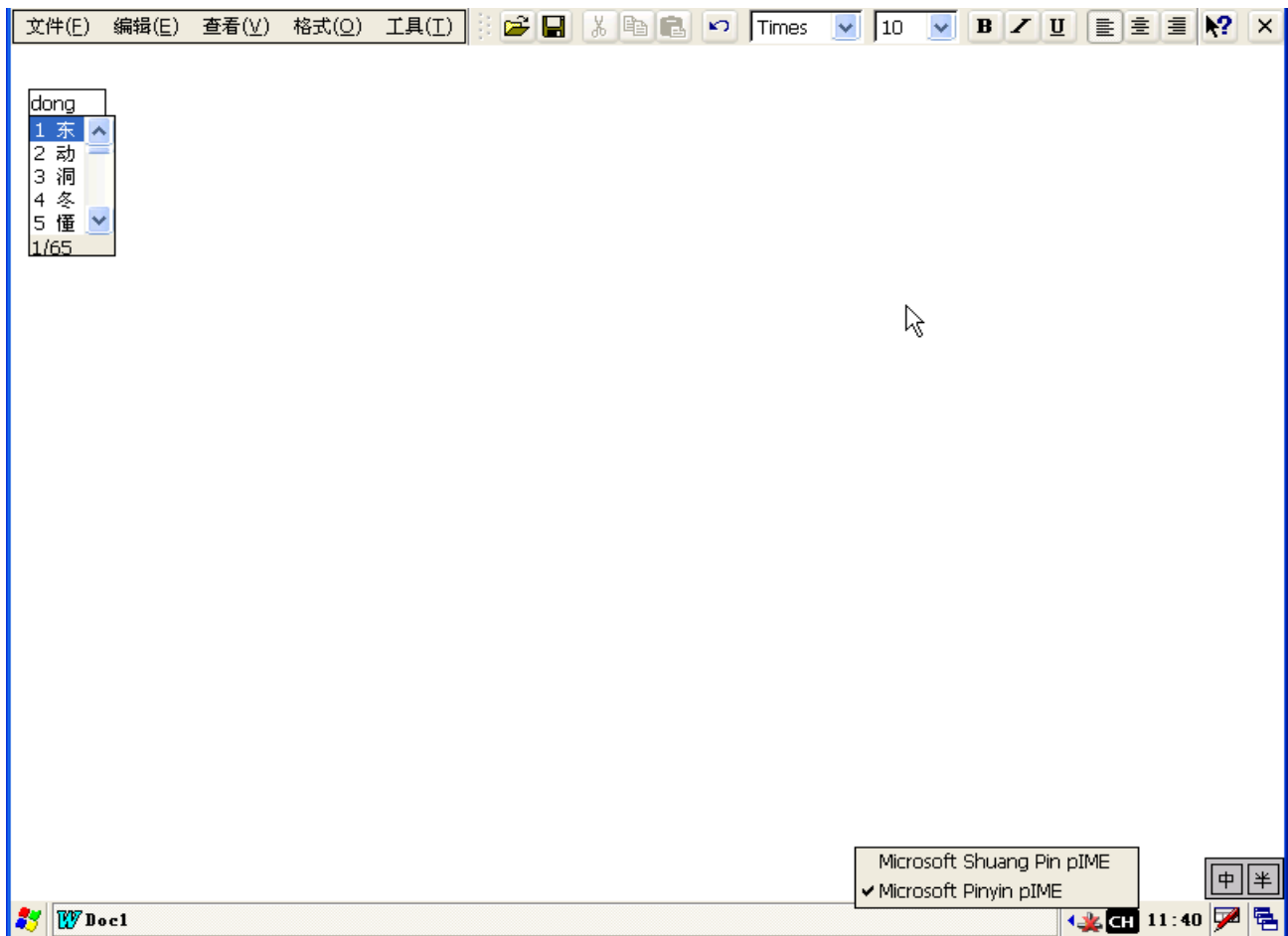
- Pocket IME



## Simplified Chinese input method

Provide 2 input methods in Simplified Chinese input method

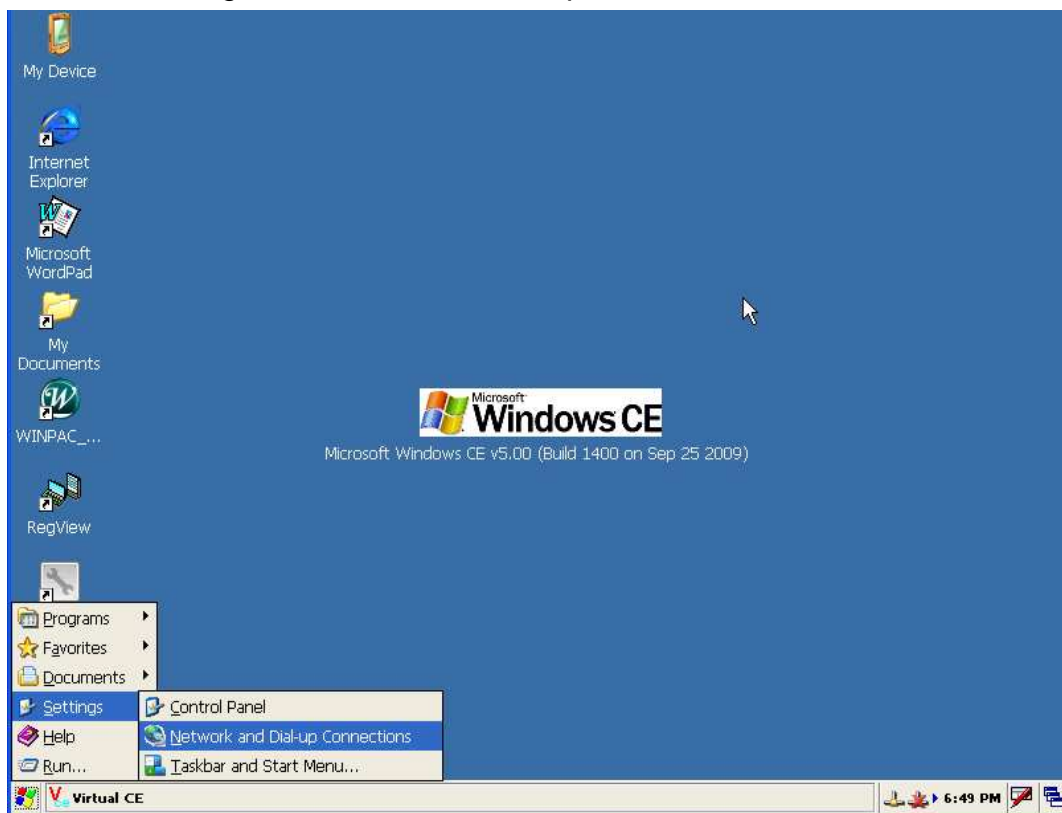
3. Microsoft Shuang Pin pIME (双拼)
4. Microsoft Pinyin pIME(拼音)



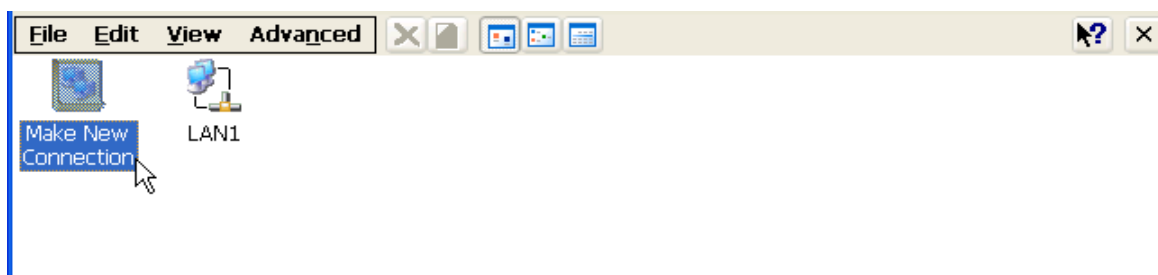
# How to use ActiveSync on WinPAC

## Set ActiveSync on WinPAC site

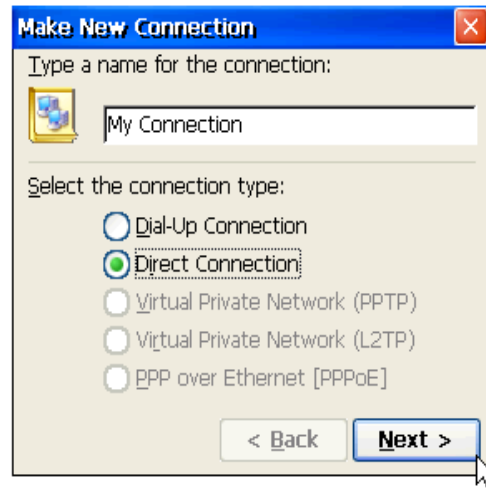
**Step1:** Run Start-->Settings-->Network and Dial-up Connections



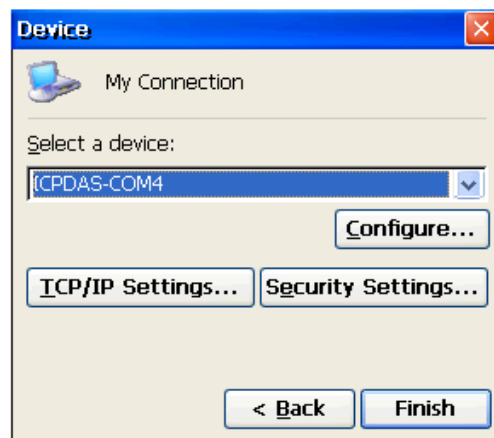
**Step2:** Click “Make New Connection”



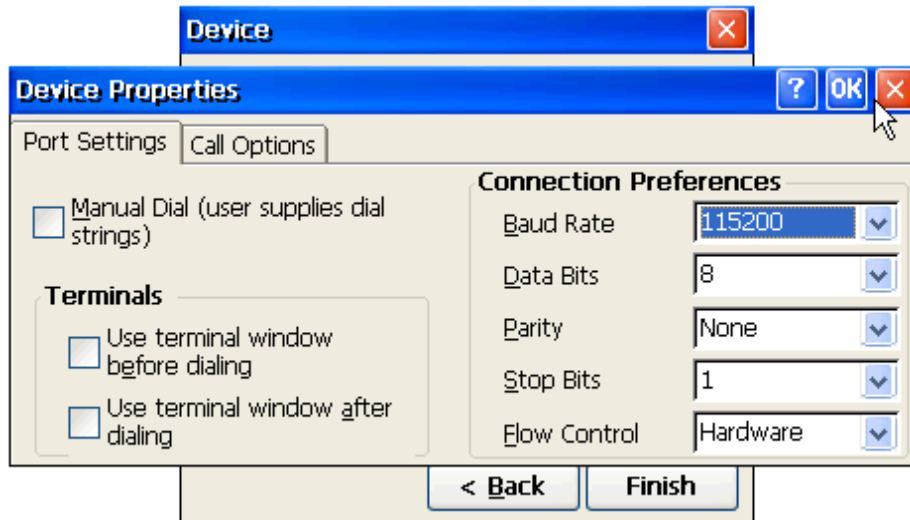
**Step3:** Choose “Direct Connection” radio button and Click Next button



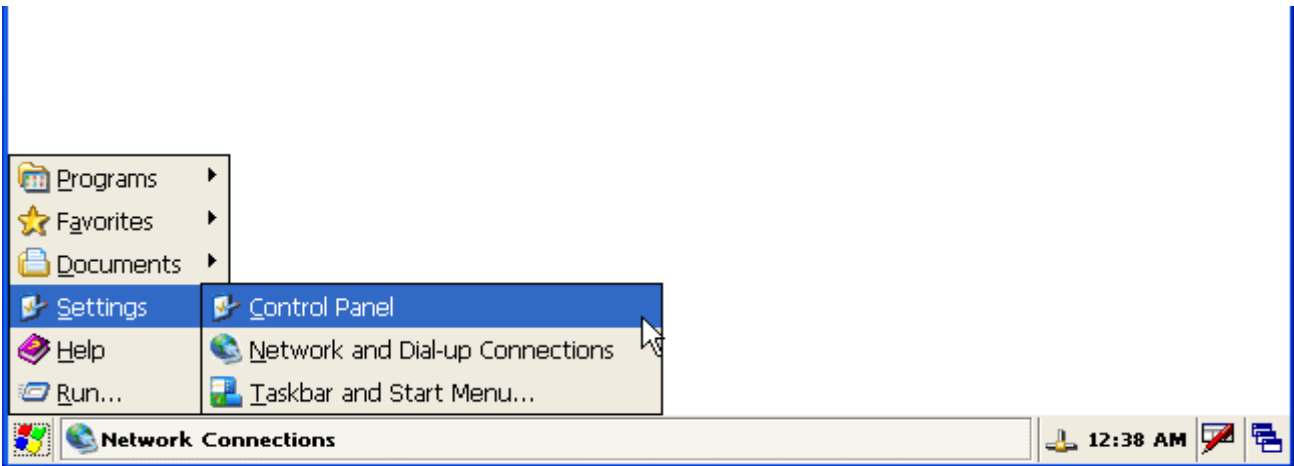
**Step4:** Choose ICPDAS-COM4 from “Select a device” combobox and Click “Configure” button



**Step5:** Choose Baud rate and Click OK



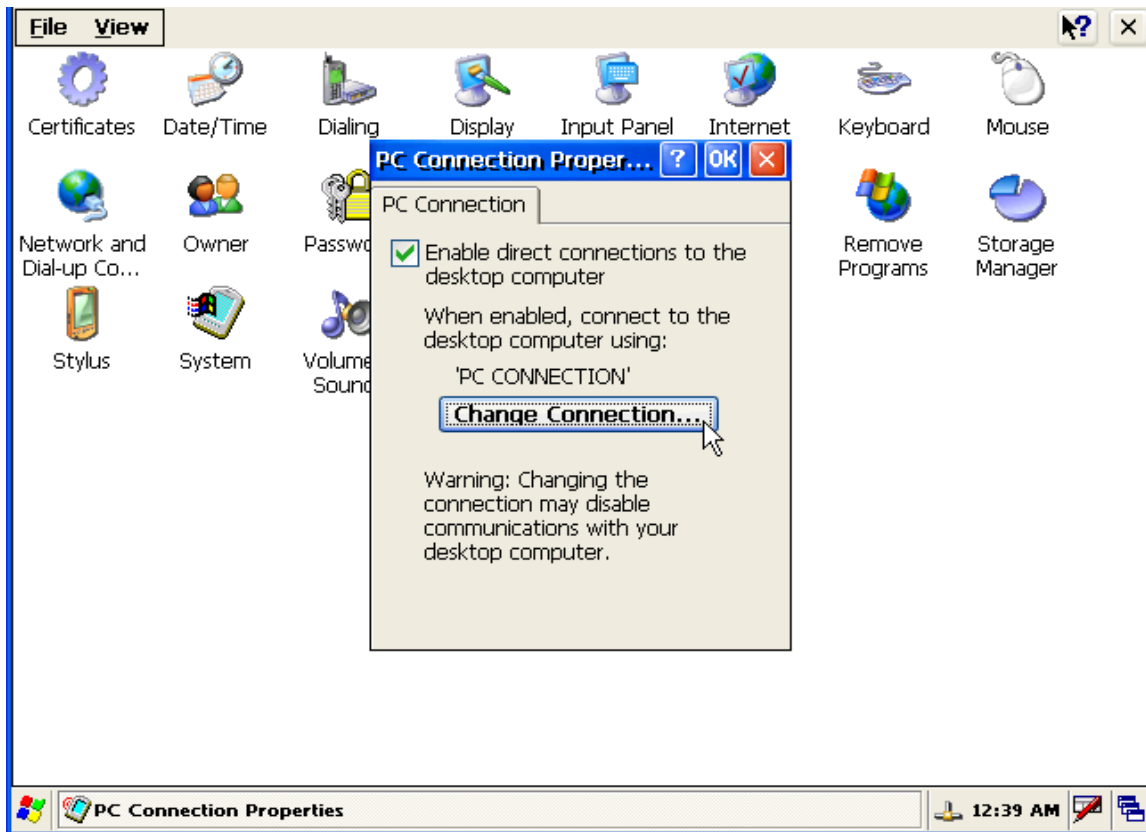
**Step6:** Run Start-->Settings-->Control Panel



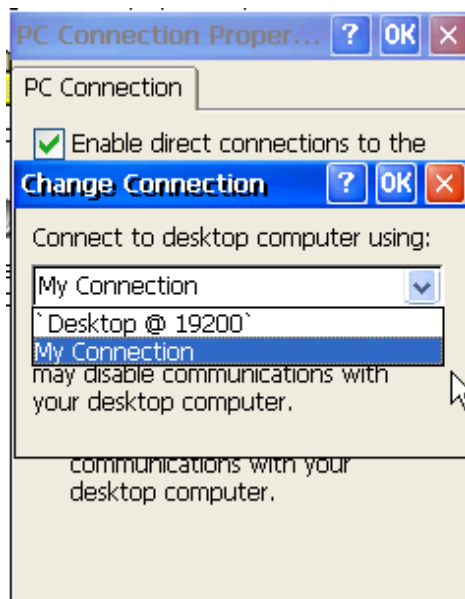
**Step7:** Click “PC connection” icon



**Step8:** Check “Enable direct connections to the desktop computer” and Click Change connection



**Step9:** Change to new connection “My Connection”



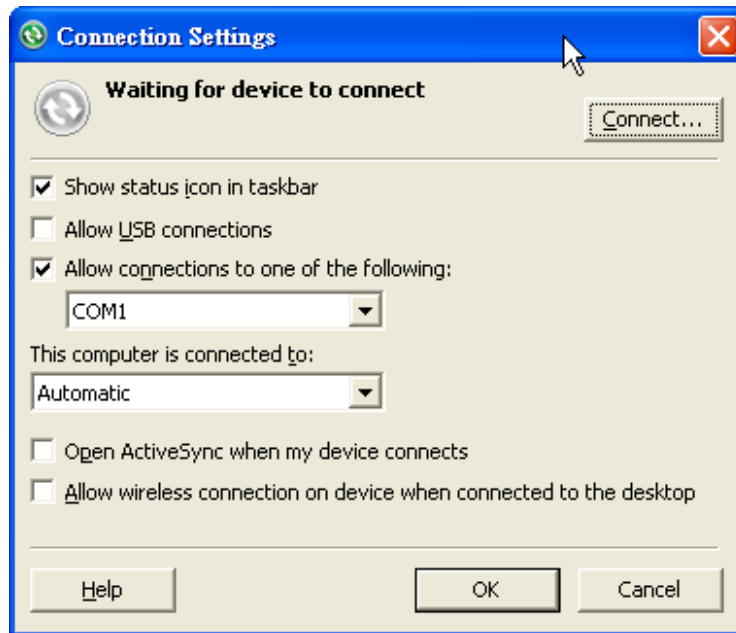
### Set ActiveSync on PC site

**Step1:** Install Microsoft ActiveSync software on PC [Please adopts version 3.7 or later]. (Using ActiveSync 4.5 as an example)

**Step2:** Run ActiveSync

**Step3:** Check “Allow connections to one of the following:” and click connect button

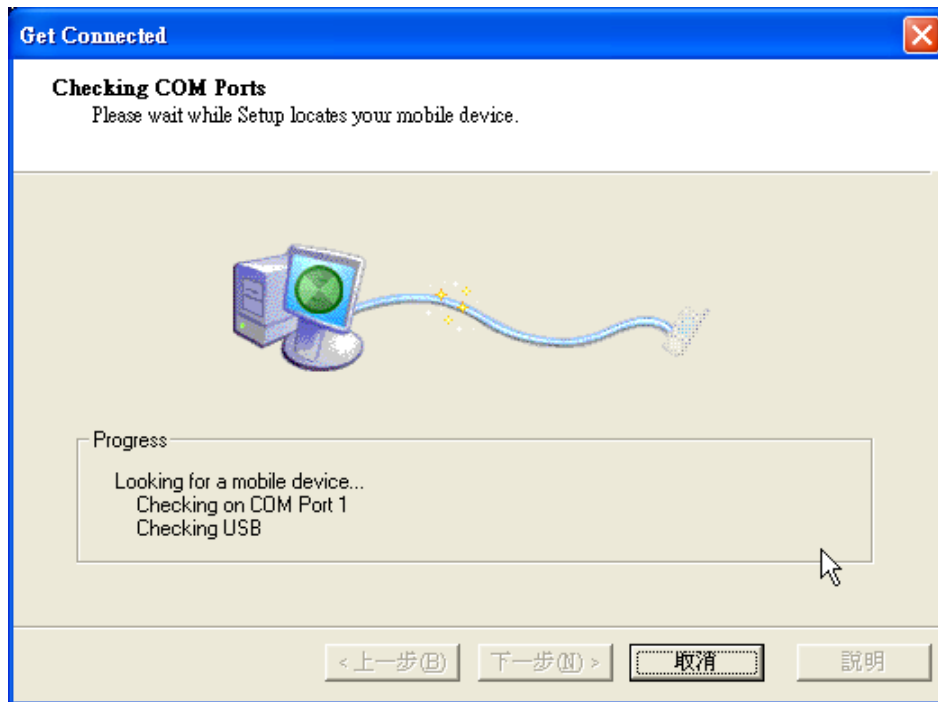




**Step4:** Click Next button



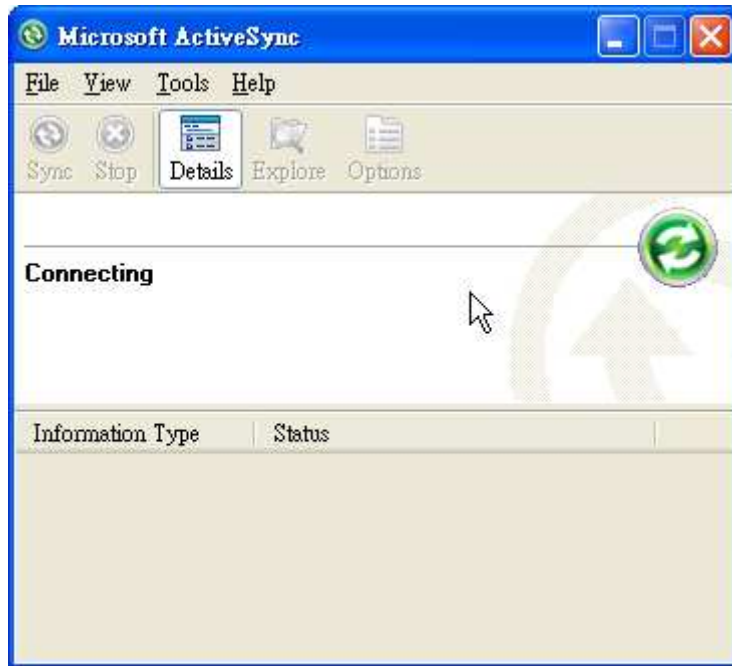
**Step5:** Start to check COM port



**Step6:** After Active Sync building up, Active Sync ICON will turn to green. 

**Step7:** On the PC, ActiveSync will request the Partnership type, Select Yes to set up a partnership.





# How to Use FTP/Telnet authentication

## Add a User for FTP and Telnet

**Step1:** Run WinPAC utility and Click “FTP Setting”-> Login Tab

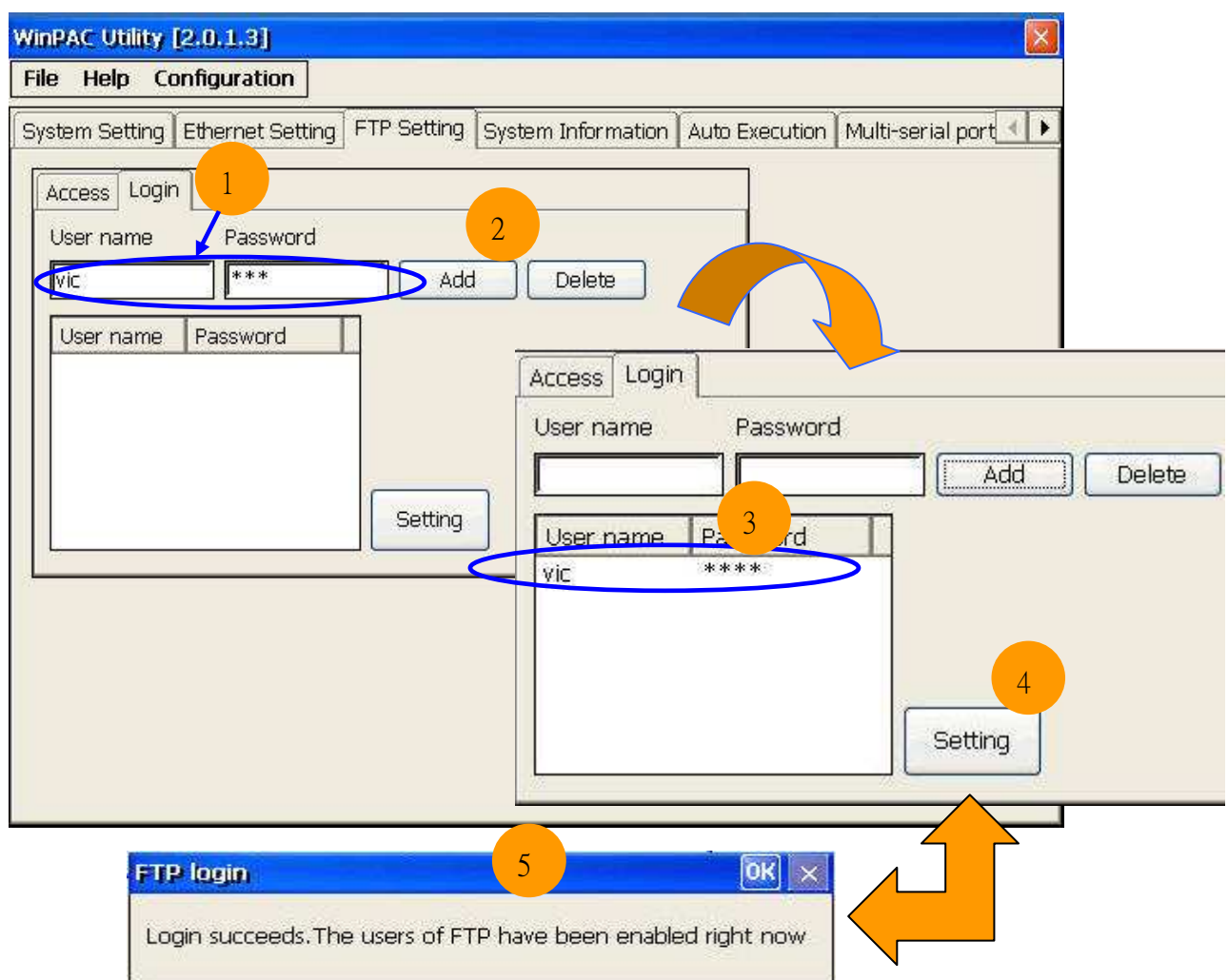
**Step2:** Type the user name and password. (The length of input characters must be less than 20.)

**Step3:** Press “Add” button.

**Step4:** The new user name and password will be added in.

**Step5:** Press “Setting” button to store and set.

**Step6:** Show a dialog box to tell login succeeds



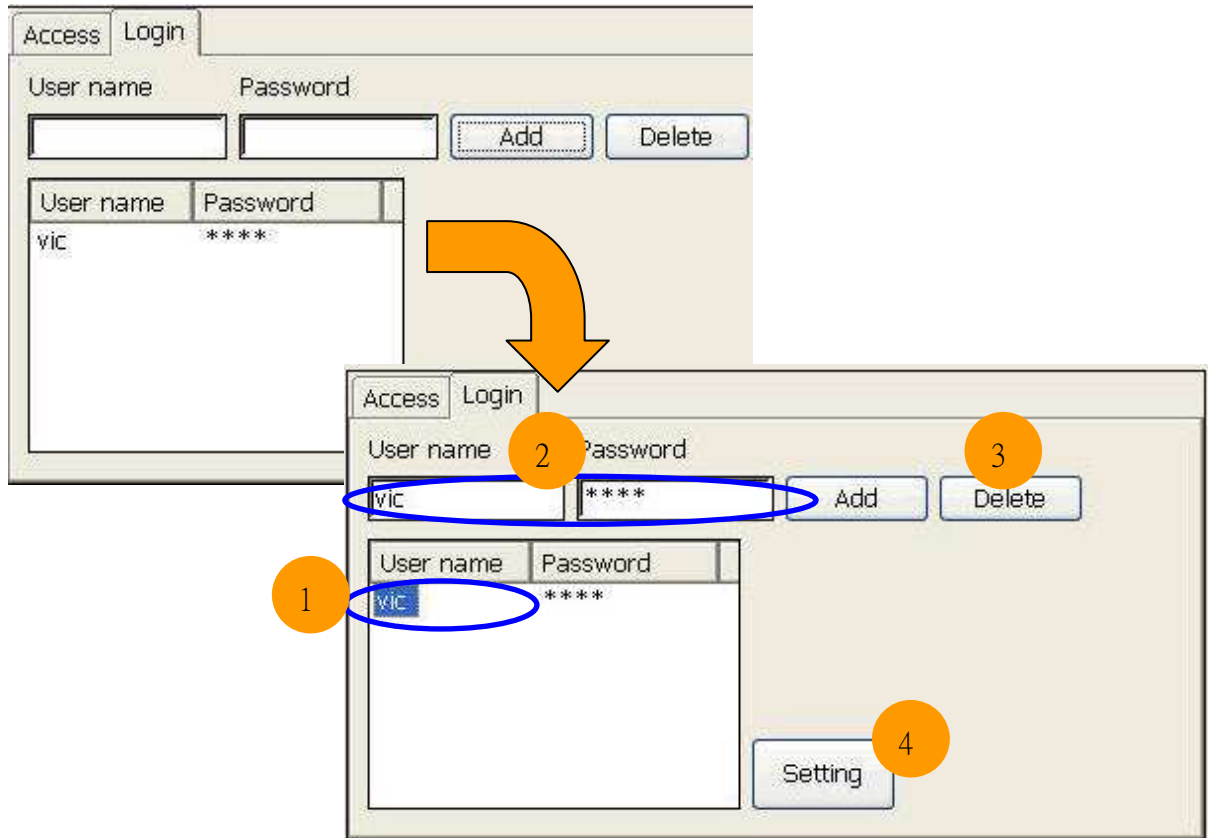
## Delete a User for FTP and Telnet

**Step1:** Click any user in the “User name” field.

**Step2:** Display the user name that is chosen.

**Step3:** Press “Delete” button to delete the user name.

**Step4:** Store the setting.



## Use Telnet to Login WinPAC from PC

**Step1:** Start → Run on PC.

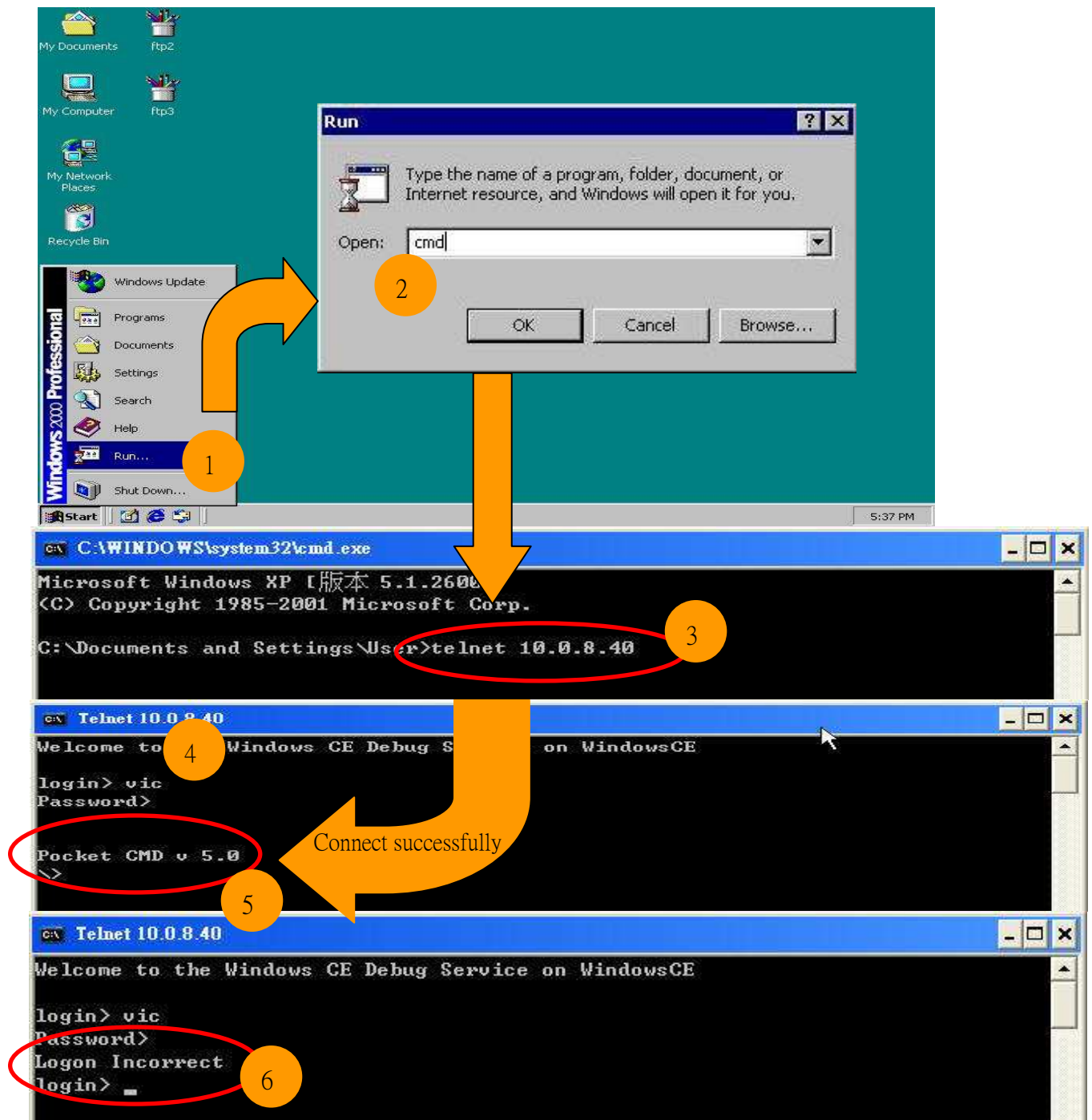
**Step2:** Type "cmd" to call a console window.

**Step3:** Type "telnet (IP address)" to connect to WinPAC.

**Step4:** If connection operation succeeds, type user name and password to login.

**Step5:** Login successfully.

**Step6:** Login unsuccessfully.



## Use FTP to Login WinPAC from PC

On WinPAC side:

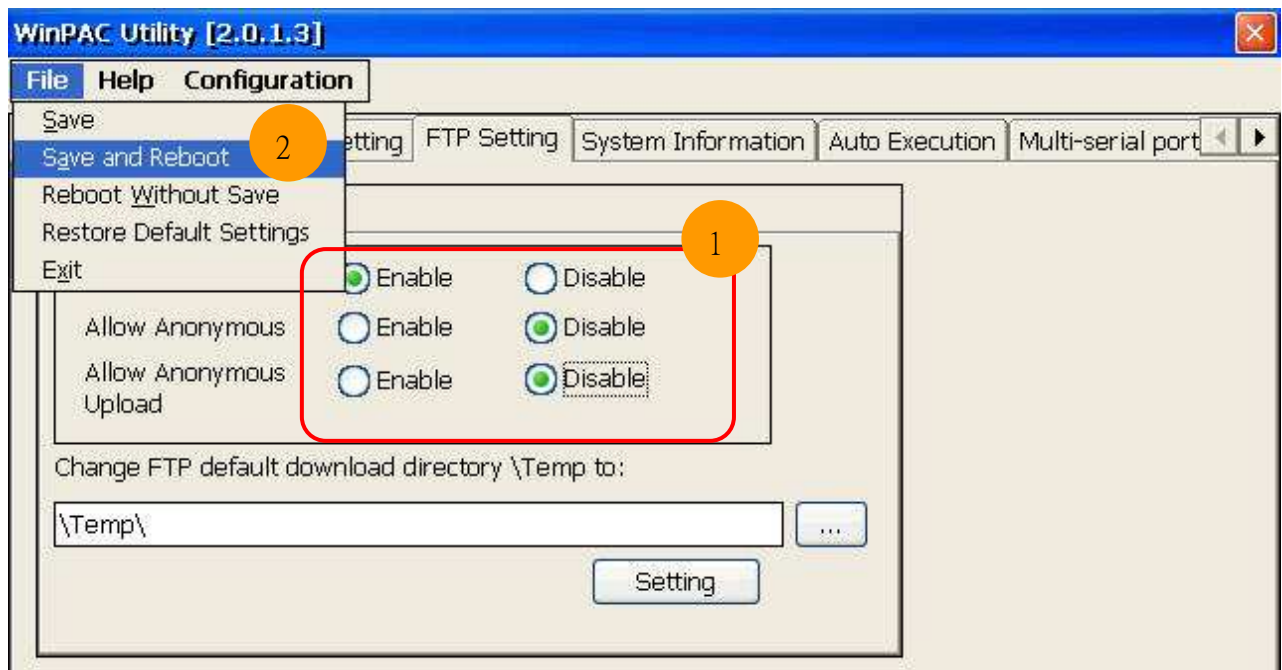
**Step1:** Set FTP in the WinPAC Utility.

FTP: Enable.

Allow Anonymous: Disable.

Allow Anonymous Upload: Disable.

**Step2:** File → Save and Reboot.

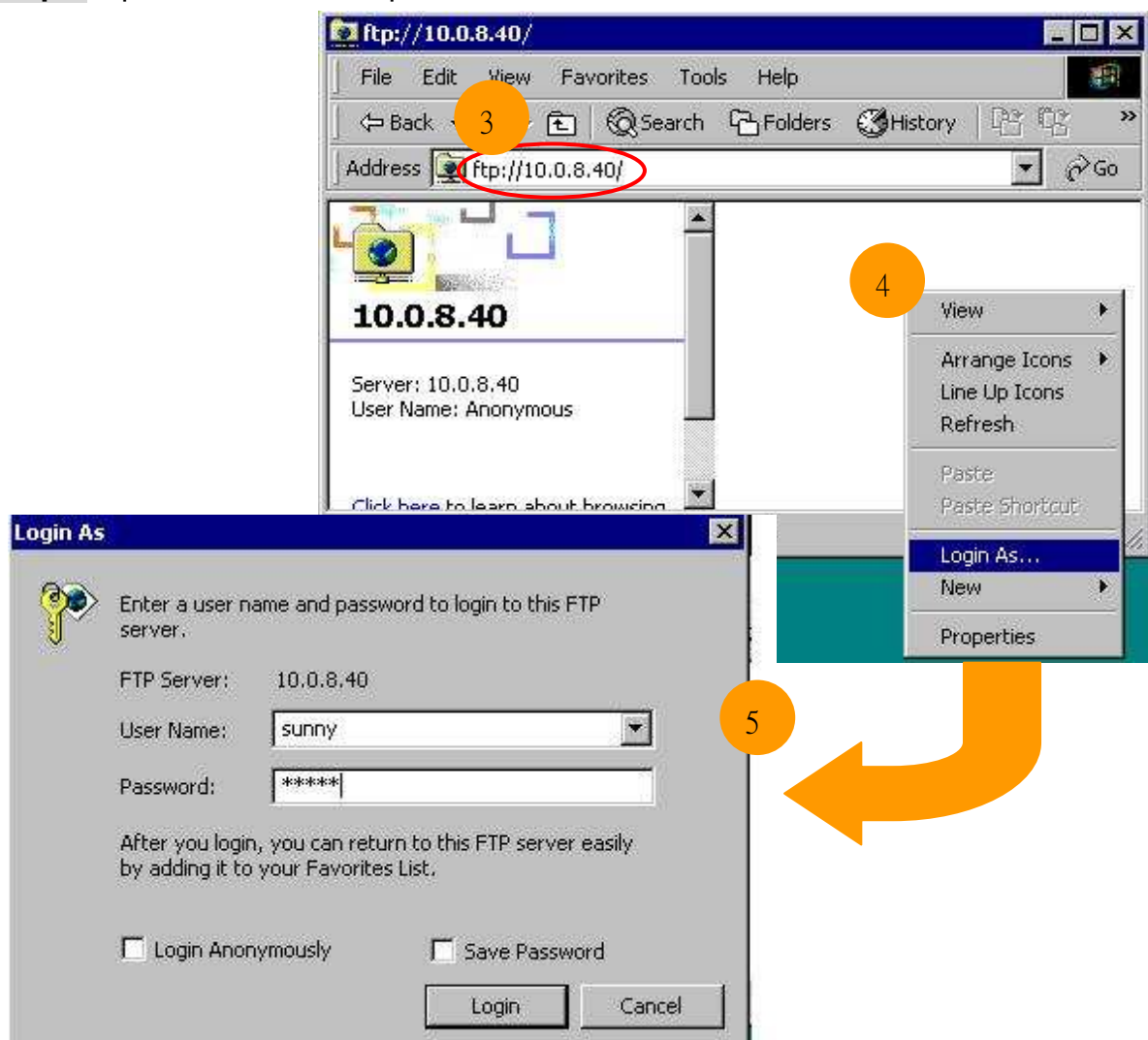


**On PC side:**

**Step3:** On PC, open a windows and type “ftp:// (IP address)” and press “Enter”.

**Step4:** Click right mouse button and select “Login As...”.

**Step5:** Input user name and password.





## How to update Eboot and OS

Refer to [E.1. How to upgrade for WinPAC-8000 on WinPAC\\_8000\\_user\\_manual\\_v1.x.pdf](#) for more detail to updating the Eboot and OS.

### Important Notes

- We recommend that you use E.1.1 How to update the Boot Loader and the WinPAC-8000 OS image from files method for quick and easy to update the WinPAC-8000 OS image
- Use E.1.2. How to update the WinPAC-8000 OS image from eshell to update the OS image. Please follow the manual to update the OS step by step (Don't forget to run the step 7)

### OS image file updated

- New OS image file for **Updating the Boot Loader and the WinPAC-8000 OS image from files**

**WP** **pppp** - **YYYYMMDD** - **Ver** **X.X.X.X** - **XX** .exe

Product Name	Release Date	Software	Language
Product Series	YYYY- Years	Major Version	en- English
I/O Slot	MM- Month	Minor Version	tc- Traditional Chinese
Hardware	DD- Day	Build Number	sc- Simplified Chinese
Software		Reversion	

Example: WP8441\_20090709\_Ver 1.0.0.0\_en.exe

- New OS image file for **updating the WinPAC-8000 OS image from Eshell**

**WP** **pppp** - **YYYYMMDD** - **Ver** **X.X.X.X** - **XX** .bin

Product Name	Release Date	Software	Language
Product Series	YYYY- Years	Major Version	en- English
I/O Slot	MM- Month	Minor Version	tc- Traditional Chinese
Hardware	DD- Day	Build Number	sc- Simplified Chinese
Software		Reversion	

Example: WP8441\_20090709\_Ver 1.0.0.0\_en.bin