Virtual CE Pro

Quick Start Manual

[Version 4.2]

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About This Manual

The manual is divided into four parts. The first part, 'Introduction', describes basic function and infrastructure of VCEP. The second part, 'Getting Started', describes installation, registration and running procedures step by step. The third part, 'Function Overview', describes all functions of VCEP. The fourth part, 'Application', describes different VCEP scenario in different application.

1. Introduction

VCEP is designed for managing your WinCon-8000 anywhere. No matter where you are, VCEP provides a convenient environment on the Desktop PC and lets you control your WinCon-8000 remotely.

Virtual CE is composed of two main components: The 'Server' which runs on WinCon-8000 and the 'Client' which runs on a Desktop PC. Once a connection is established between the client and server (initiated by the client), the client will periodically send requests for screen updates and send mouse/key click information to the server to simulate. Each video frame is inter-compressed against the previous frame and then intra-compressed with a modified LZW scheme to minimize the amount of data transmitted from server to client.

HARDWARE REQUIREMENTS

Device	Minimum	Recommended
IBM compatible PC with Pentium processor	Pentium II 350 MHz	Pentium III 500 MHz
System RAM	64 MB	128 MB
Hard disk	100 MB free memory space	

SOFTWARE REQUIREMENTS

Microsoft Windows 2000 SP2 or Windows XP

MAIN FEATURES

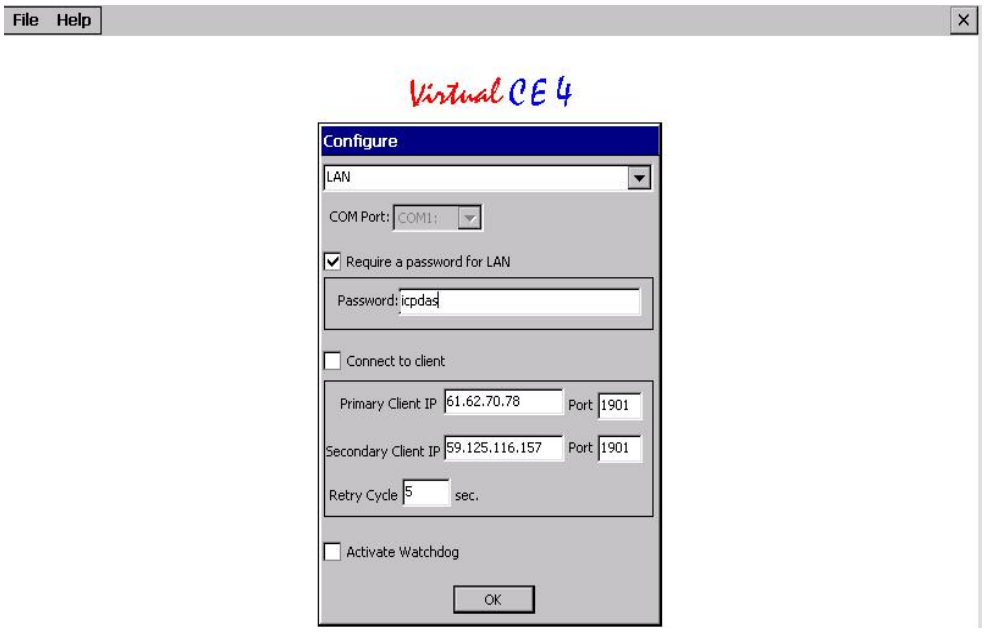
- Save compressed AVI files
- Rotate the display to any angle in 90 degree increments
- Screen captures saved to BMP, GIF or JPG
- Copy clipboard contents to CE and back to PC
- Rapid data entry from your more comfortable PC mouse and keyboard
- 1-18 frames per second capture speed (depending on device and communication conduit)
- Support serial, Ethernet communications
- Minimal impact on target device CPU while capturing
- Auto-discovery of the target device on a LAN
- Works across the internet
- Capture screen shots to a BMP file or the clipboard
- Supports 2 + 4-bit monochrome and 8 + 16-bit color displays
- Scale image 1-4X
- Multiple instances of VCEP can run on the same PC allowing multiple devices to be controlled simultaneously
- One-click capture of screen shots to BMP files with auto-naming
- Capture session to a standard AVI file for distribution
- Capture session keys/clicks for later playback
- Toggle toolbar display
- Toggle 'always-on-top' window feature
- Paste text from the PC clipboard to the CE device
- Actively connect from Server to Client
- Watchdog auditing
- Record/Play script events

2. Getting Started

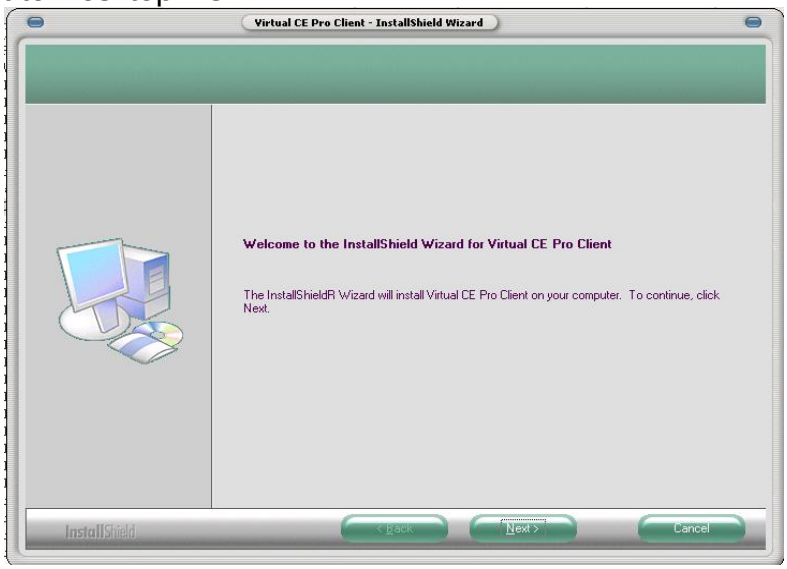
2-1 Installation

Step 1: Copy v_remote.exe and WatchVCEP.exe from CD:\\VCEP_4.2 folder to \CompactFlash\VCE of WinCon-8000.

Step 2: Execute v_remote.exe in WinCon-8000 and configure it as below then click OK. After setting password, don't forget to press 'Save an Reboot' button in WinCon Utility.



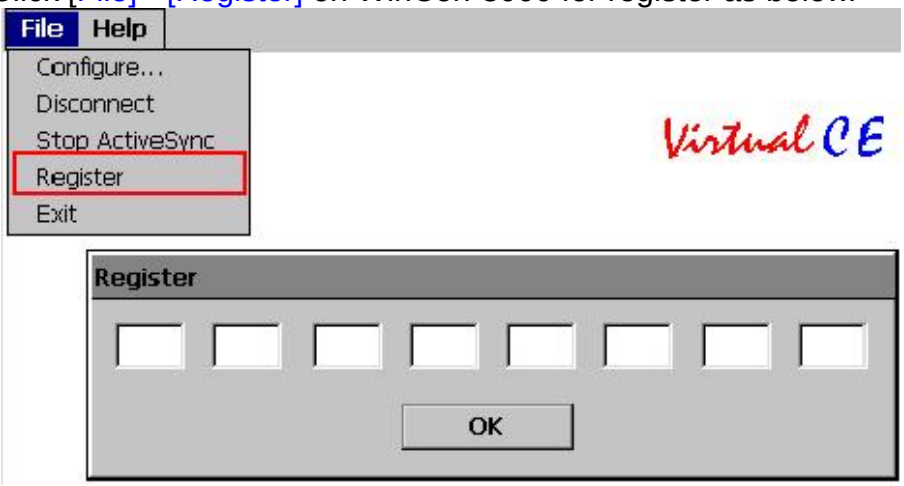
Step 3: Execute VCEP_4.2.exe in CD:\\VCEP_4.2 folder to install Virtual CE Pro Client to Desktop PC.



Step 4: After that, you will find out Virtual CE Pro Client at 'Program File' as below.

2-2 Registration

Step 1: Click [File]->[Register] on WinCon-8000 for register as below.



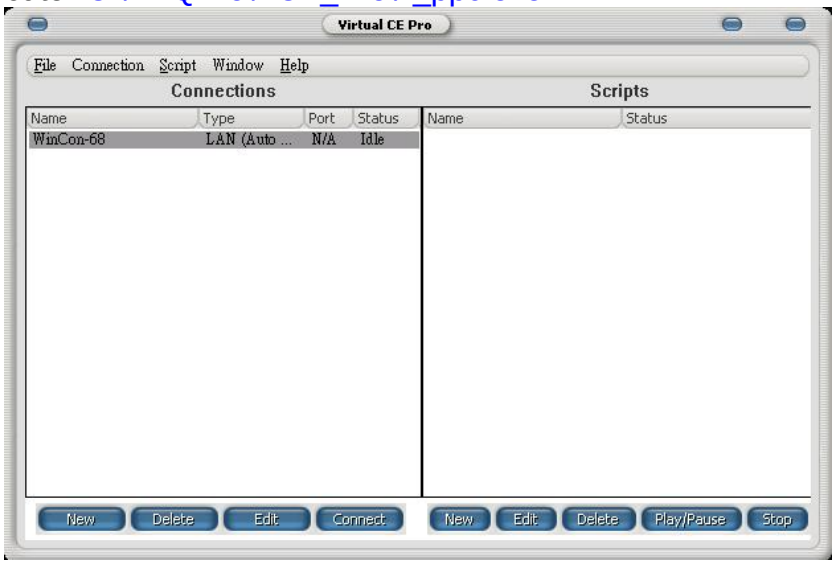
Step2: Enter 'Register Code' of License into Register dialog and press OK.

ATTENTION! One Register Code only can be used in one WinCon-8000

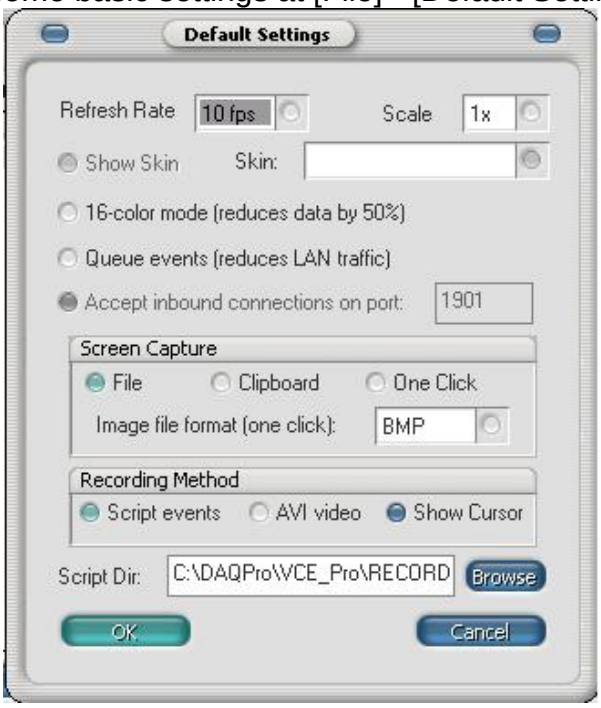
2-3 Running

Step 1: Make sure the v_remote.exe is executed in WinCon-8000

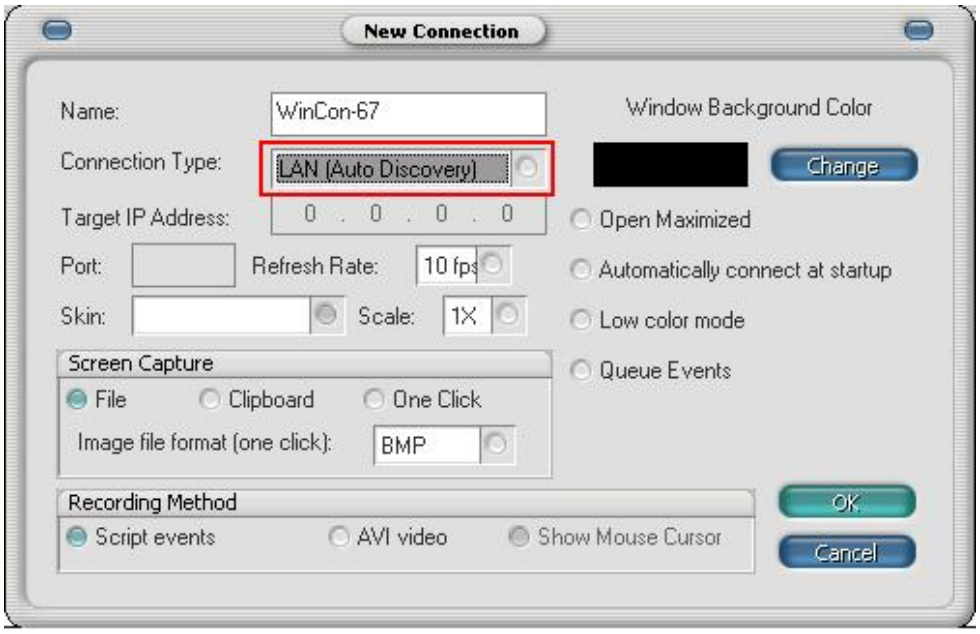
Step 2: Select "Virtual CE Pro Client" from [Start]->[DAQPro]->[VCEP_4.2] or execute "C:\DAQPro\VCE_Pro\v_ppc.exe"



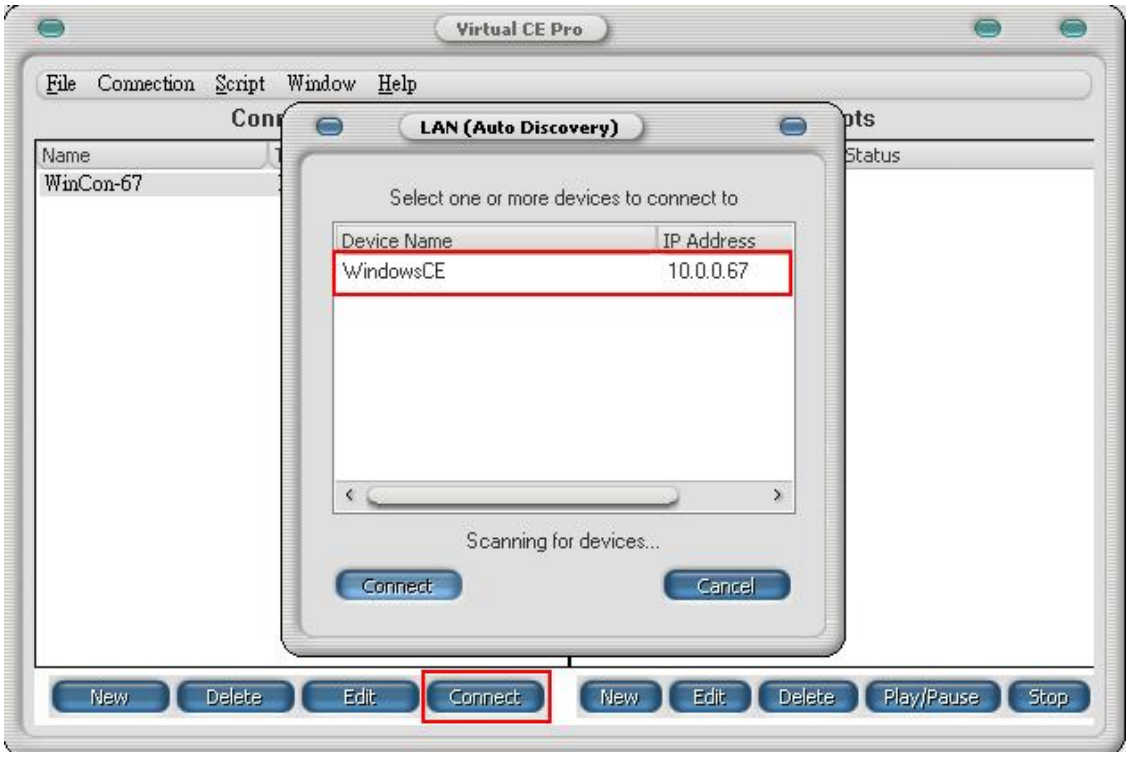
Step 3: Configure some basic settings at [File]->[Default Settings].



Step 4: Create a new connection.

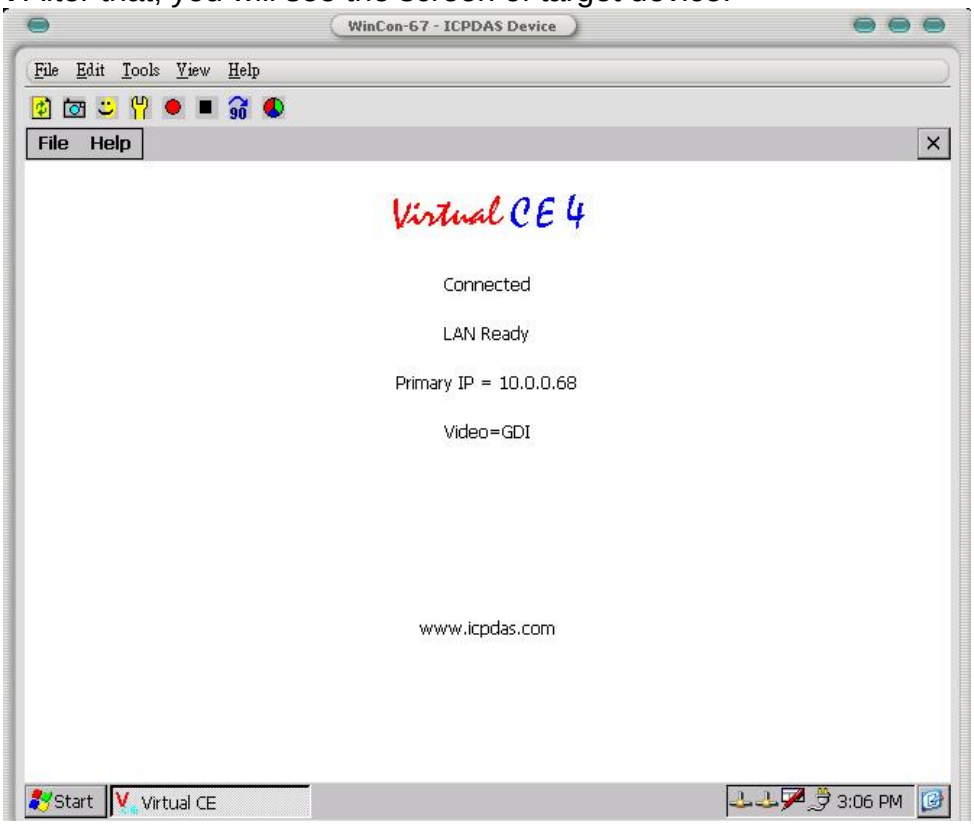


Step 5: Press 'Connect' button. VCEP will automatically scan the available device within LAN.



Step 6: Enter your password and press 'OK' button.

Step 7: After that, you will see the screen of target device.



3. Function Overview

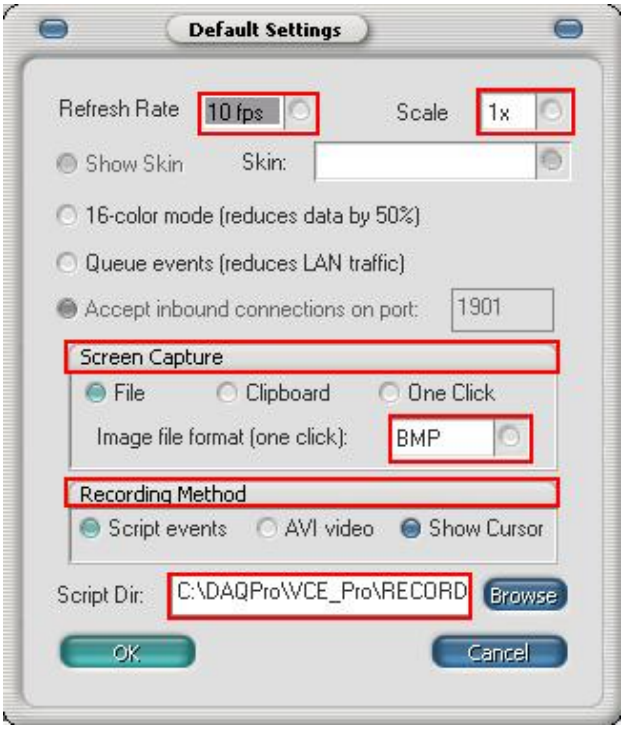
VCEP function is divided into three parts. The first part describes functions on Client site. The second part describes functions on Server site. The third part describes functions when connecting.

3-1 Functions on Client (PC)

All functions and settings at this section are on Client(PC) site.

3-1-1 Default Settings

[File]->[Default Settings]



Refresh Rate: High refresh rate requires high LAN traffic. 1fps ~18fps for option

Scale: Display scale. 1x / 2x / 3x / 4x for option

16-color mode: Choosing this option can reduce data by 50%

Queue events: Choosing this option can reduce LAN traffic

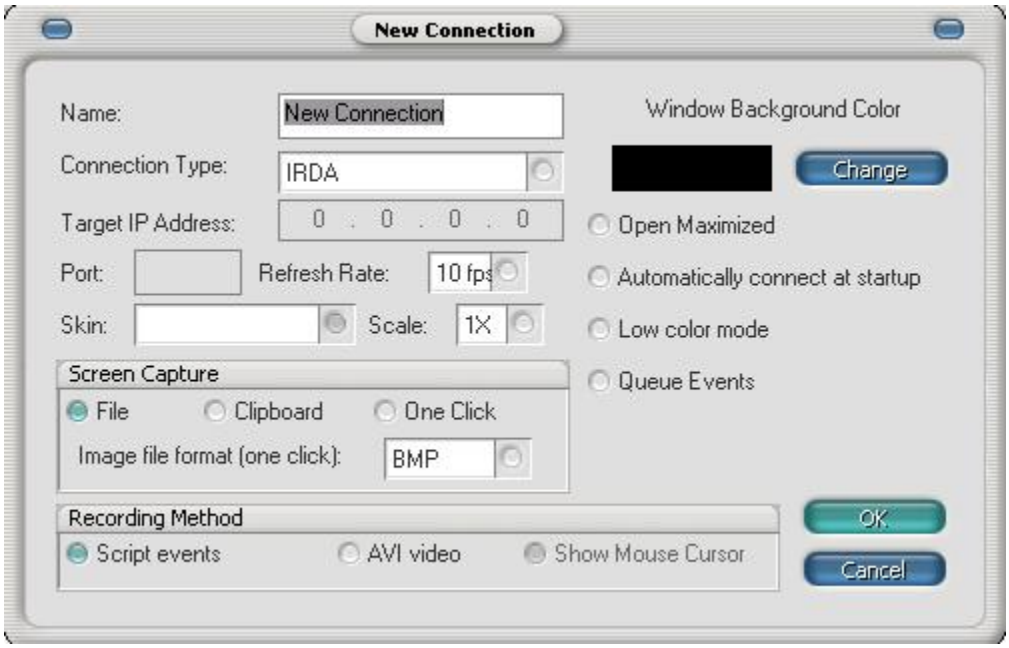
Screen Capture: Choosing the method to capture screen and the format (BMP/BMP24/GIF/JPEG) to store

Recording Method: Choosing the method (Script/AVI) to record and showing cursor or not

Script Dir: The location to save script

3-1-2 New Connection

[Connection]->[New]



Name: Any name

Connection Type: Choosing the type of connection (Serial / WAN / LAN / Connect From Server)

Target Address: The IP address of Server should be entered if choosing the type of 'WAN'

Port: Port means COM port if choosing the type of 'Serial'. Port means IP port which is the same with server if choosing the type of 'Connect From Server'

Refresh Rate: High refresh rate requires high LAN traffic. 1fps ~18fps for option.

Scale: Display scale. 1x / 2x / 3x / 4x for option

Windows Background Color: Windows' background color

Open Maximized: Maximize the display when connecting

Automatically connect at startup: Connect to server automatically when startup

Low color mode: Choosing this option can reduce data by 50%

Queue Events: Choosing this option can reduce LAN traffic

Screen Capture: Choosing the method to capture screen and the format (BMP/BMP24/GIF/JPEG) to store

Recording Method: Choosing the method (Script/AVI) to record and showing cursor or not

3-1-3 Connection Edit

New: See '3-1-2 New Connection'
Delete: Delete the connection in the list
Edit: Edit old connection. See '3-1-2 New Connection'
Connect: Start connecting to WinCon-8000

3-1-4 New Scenario

[Script]->[New]

Scenario Name: Any name
Log Results: Log the results of scenario operating
Scenario Loop Count: The times of playing scenario
Loop Delay: The delay time between scenario and scenario
Add: Add a script
Remove: remove a script
Up: push a script up
Down: pull a script down
Script Loop Count: The times of playing scripts in scenario:
Script Loop Delay: The delay time between script and script in scenario
Disable video update: No update on Client site for reducing traffic load

3-1-5 Script Edit

New: See '3-1-4 New Scenario'
Edit: See '3-1-4 New Scenario'
Delete: Delete the scenario in the list
Play/Pause: Play/Pause the scenario in the list
Stop: Stop playing the scenario in the list

3-1-6 About

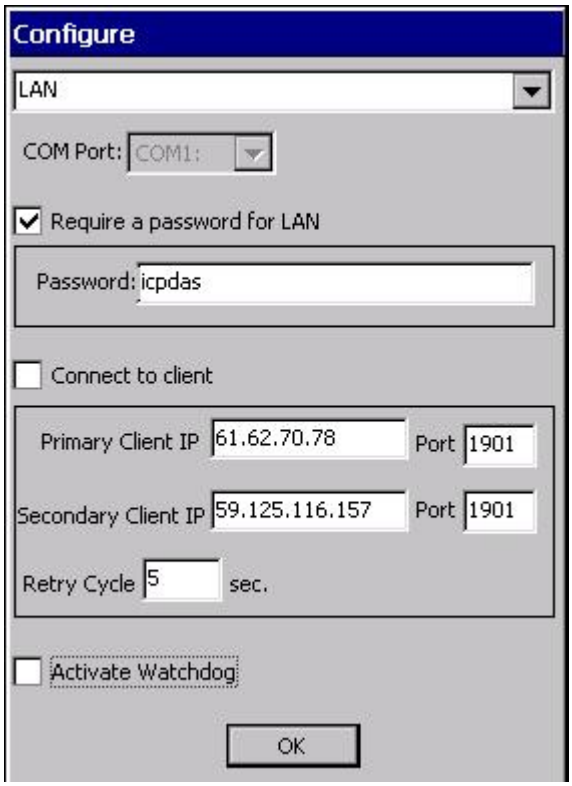
[Help]->[About VCE…] Show version message.

3-2 Functions on Server (WinCon)

All functions and settings at this section are on WinCon-8000.

3-2-1 Configure

[File]->[Configure…]



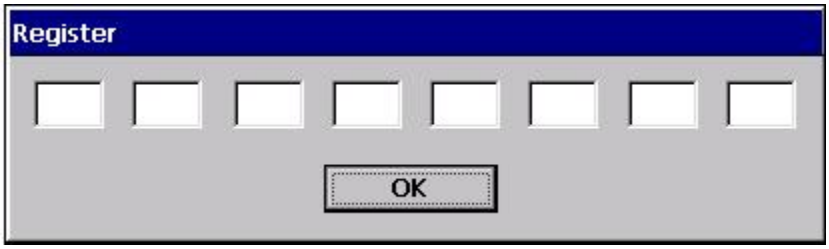
Connection Type: Choosing an appropriate 'Connection Type' (Serial / LAN / WAN) depends on WinCon-8000's real situation
COM Port: COM port number if choosing connection type of 'Serial'
Require a password for LAN: Password for Ethernet connection from Client
Connect to client: When WinCon-8000 is in LAN and Client is in WAN with public IP, you can check this and assign two Client IP for active connection from WinCon-8000. If the first Client IP can not be connected to, VCEP will connect to second Client IP automatically. If the connection of the first Client IP restore, you have to disconnect the second connection manually to connect to the first one. The 'Retry Cycle' means the time between two connections
Active Watchdog: This function can let VCEP restore automatically if VCEP crash for un-known reason

3-2-2 Disconnect

[File]->[Disconnect] Disconnect the connection from server site.

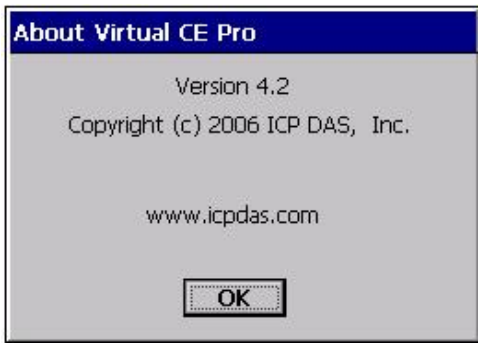
3-2-3 Register

[File]->[Register] Register dialog for registration. If you don't register, VCEP works under trial version of 5 minutes.



3-2-4 About

[Help]->[About…] Show version message.

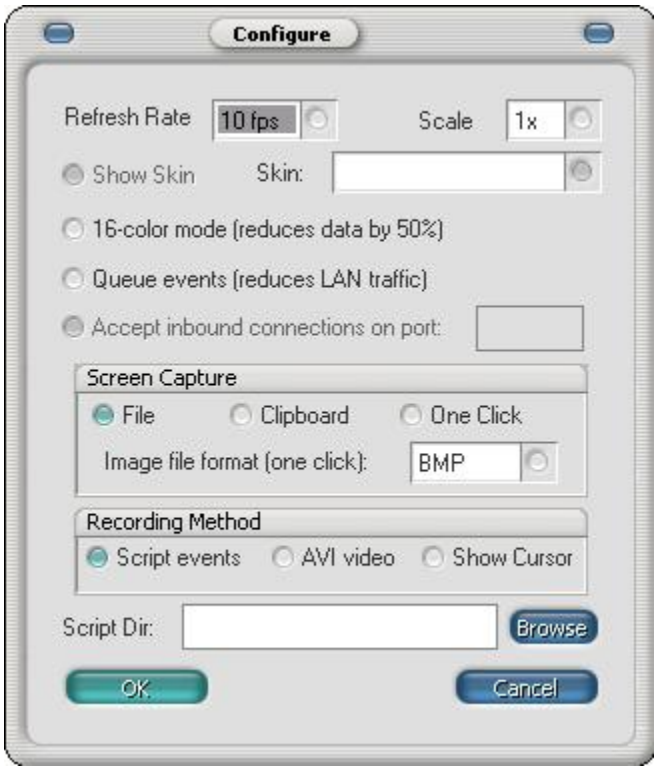


3-3 Functions when Connecting

When connecting, you can see some functions upper the window. These function descriptions are as below.

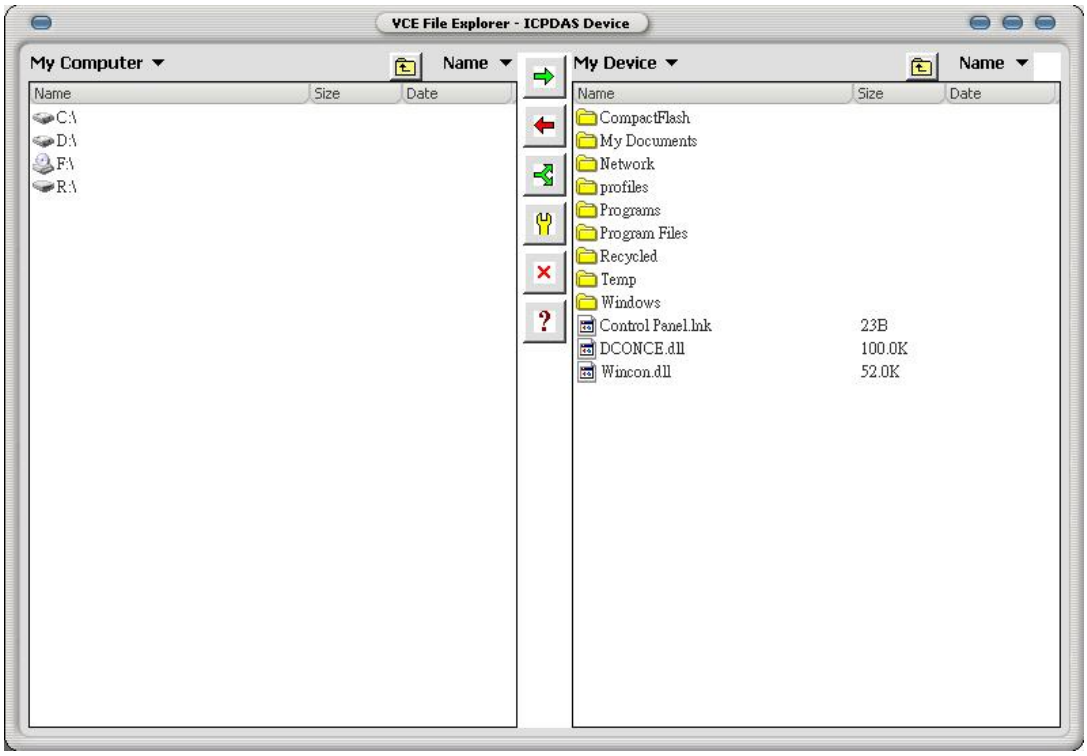
3-3-1 Configure

[File]->[Configure…] See '3-1-1 Default Settings'



3-3-2 File Explorer

[File]->[File Explorer]



Left side of window shows the file tree on PC. Right side of window shows the file tree on WinCon-8000. You can transfer files by clicking the buttons between two windows.

3-3-3 Edit

[Edit]

Paste to device: This function allows you paste text from PC to WinCon-8000

Capture to Clipboard: Capture the screen and save it into clipboard. After capturing to clipboard, you can paste the image to any application program

Capture to File…: Capture the screen and save in file

Capture (One Click): Capture the screen to be file in 'Script Dir' folder

3-3-4 Tools

[Tools]

Start Recording: Start recording according to the settings in '3-1-1 Default Settings'

Stop Recording: Stop recording according to the settings in '3-1-1 Default Settings'

Soft Reset: Soft-reset WinCon-8000

3-3-5 View

[View]

Device Info…: Show WinCon-8000 information

Process Info…: Show process information of WinCon-8000

Refresh Display: Refresh display once when using this function

Scale: Change the display scale (1x / 2x / 3x / 4x)

Rotate: Rotate display (0° / 90° / 180° / 270°)

4. Application

This section describes how to set VCEP in different scenario step by step.

4-1 General Remote Control from Client

Generally speaking, VCEP will be applied when PC and WinCon-8000 are all in LAN (See Figure 1) or in WAN (See Figure 2). This section highlights some important settings and reminds you of functions in common use.

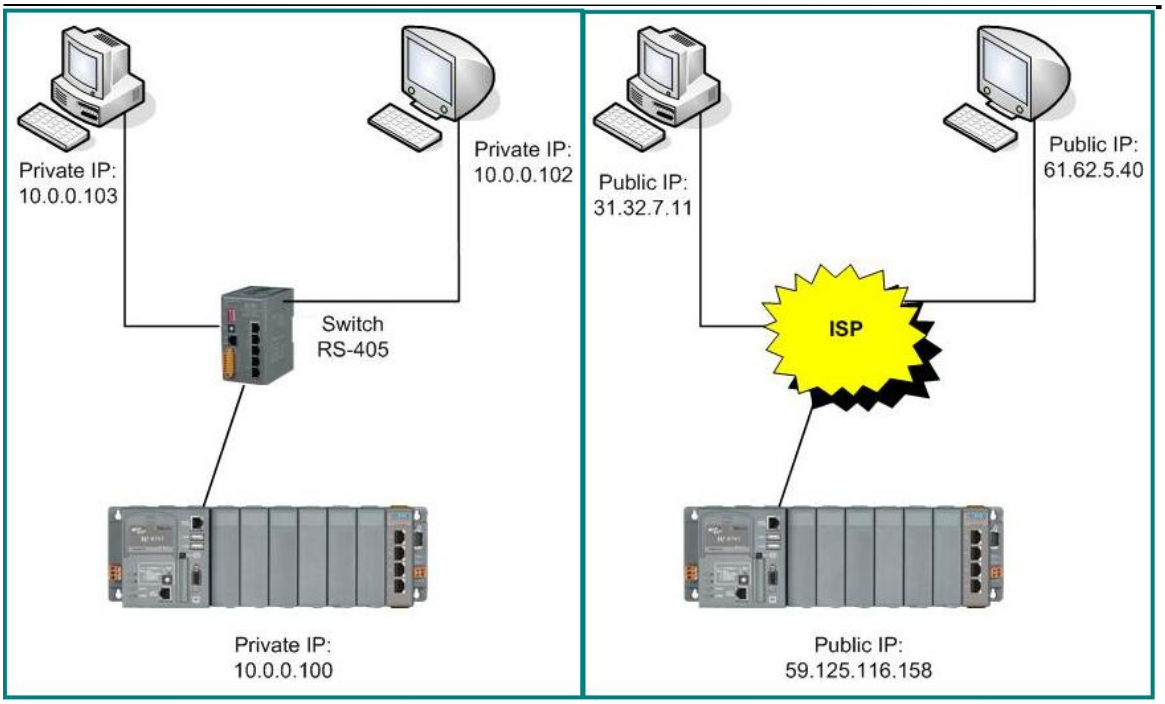


Figure 1 Figure 2

Step 1: Refer to '2-2 Running' and connect PC and WinCon-8000. The setting of 'Connection Type' in '2-2 Running' depends on the real situation. If PC and WinCon-8000 are all in WAN, you have to set IP address

Step 2: You can adjust 'Color Mode', 'Queue Events' and 'Refresh Rate' to reduce traffic load.

Step3: You can check 'Active Watchdog' in '3-2-1 Configure'. This function can let VCEP restore automatically if VCEP crash for un-known reason.

Step4: Though WinCon-8000 supports FTP itself, you can use '3-3-2 File Explorer' function of VCEP to transfer files between PC and WinCon-8000 as well.

Step5: Finally, don't forget these convenient functions of 'Screen Capture' of '3-3-3 Edit' and 'Recording Script/AVI' of '3-3-4 Tools'.

4-2 Active Connection from Server

In some situation, WinCon-8000 only has private IP in LAN, but has to communicate with PC in WAN (See Figure 3). At this kind of situation, you have to use 'Connect to client' in '3-2-1 Configure'. You can check this and assign two 'Client IP' for active connection from WinCon-8000. If the first 'Client IP' can not be connected to, VCEP will connect to second 'Client IP' automatically. If the connection of the first 'Client IP' restore, you have to disconnect the second connection manually to connect to the first one. The 'Retry Cycle' means the time between two connections

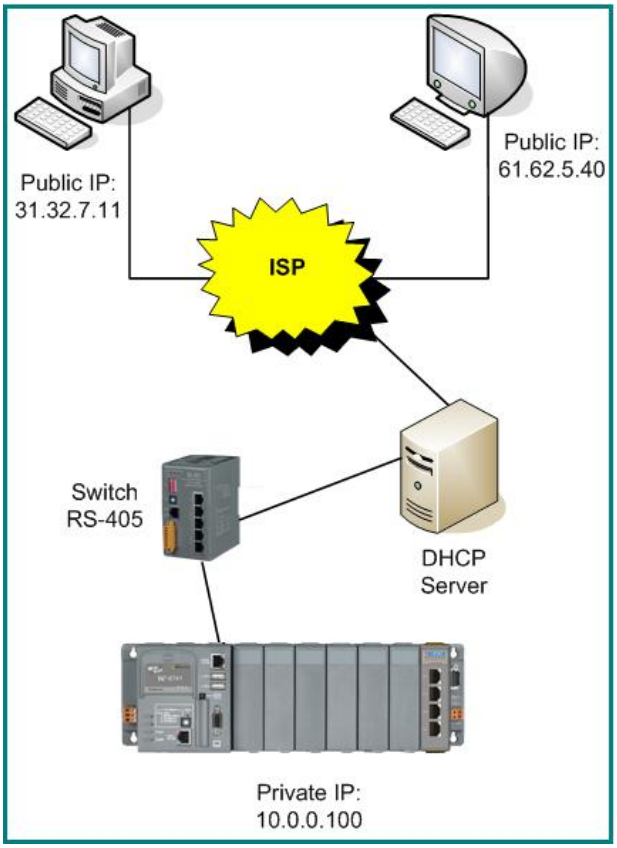


Figure 3

Step 1: Enter appropriate variables in 'Connect to client'.

Step 2: Refer to '3-1-2 New Connection' and create a new connection on PC. Choose 'Connect from server' in 'Connection Type'. The 'Port number' should be the same with the 'Port number' at **Step 1**.

Step 3: Press the 'Connect' button and have patient waiting the connection from WinCon-8000.

Step 4: After successful connection, you can refer to '4-1 General Remote Control from Client' for all activities on WinCon-8000.

4-3 Debugging and Maintaining

VCEP 4.2 allows user recording and playing script. This function is very convenient to debug and maintain WinCon-8000. For example, user can re-play a script to re-generate the problem for debugging. Also, user can record a script for registration which can simplify the procedure of deploying application to different WinCon-8000.

[Recording]

Step 1: Choose 'Script Events' of 'Recording Method' in 'New Connection' dialog

Step 2: Refer to '4-1 General Remote Control from Client' and connect to WinCon-8000

Step 3: Choose [Tools]->[Start Recording] to record all activities when connecting

Step 4: Choose [Tools]->[Stop Recording] to stop recording and save in file

[Playing]

Step 1: Refer to '3-1-4 New Scenario' and create a scenario. If you check 'Log Results', the log file will record all results when playing scenario. If you have several scripts should be played in one scenario, you can add all of them in the list by 'Add' function and set loop for each one. If the activities in scenario do not need to see on PC, remember to check 'Disable Video Update'.

Step 2: Choose one WinCon-8000 to connect

Step 3: After press 'Play' button, you will see a 'Run Script' dialog. Choose the WinCon-8000 and 'Run'. Now, you can find out WinCon-8000 act as you record before