

User Manual

SmartDVR Formula v2.0



Intotech Inc.

Safety Notice:

- Make sure switching the power off before you install the DVR board
- There is possibility of electric shock inside of the DVR, please avoid opening the unit if you are not qualified service personnel
- While the DVR is under removing, storing or using, please avoid any vibration or strike
- Do not store under the direct sunlight or near by heating
- Avoid humid, dusty or smoky environments
- Avoid extremely hot or cold areas
- This equipment should not be exposed to water or other liquids
- Install the DVR in a well-ventilated area
- Avoid excessive electronic or magnetic fields

Limited Warranty

This product is warranted against manufacturing defects for the period of one year.

The warranty period commences on the date of purchase from the authorized reseller/retailer.

Your original purchase invoice, showing the date of purchase of the product is your proof of the date of purchase.

During the warranty period, defective parts will be repaired or replaced. There will be no charge for labor or parts during the one-year warranty period from the date of purchase. Any shipping or other cost such as customs incurred costs, etc.... is customers' responsibility.

This warranty does not cover any failure resulting in loss to SW, data, lost profits, lost savings, any incidental damages or other economic consequential damages due to accident, abuse, misuse, and negligence.

Technical Support and Service

For warranty service and assistance, it is recommended that you contact the place of purchase to arrange for return and/or repair the product.

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Chapter 3 User Manual for DVR Server

※ Preview of DVR Server v2.0 Screen Mode

Monitoring screen Mode of DVR Server

Search screen mode of DVR Server

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Chapter 1: Introduction

Chapter 1

Thank you for purchasing DVR. This manual will provide detailed instructions on how to install and program DVR to your specific application. Please read this manual carefully prior to install and programming the DVR.

1-1. General Guidelines

- Chapter 1: System Requirements and Compatible H/W information
- Chapter 2: DVR Hardware, Software Installation
- Chapter 3: How to use DVR Server program
- Chapter 4: Warranty

1-2. DVR System Requirements

PC

- OS : Windows 2000 (Require DirectX 8.1 or higher) and Windows XP
Please install 8.1 version of DirectX before install DVR Server Program on Server PC for Windows 2000 Only
- CPU : Intel Pentium 4 2.4/ Cel 1.7 or higher
- RAM : 256MB or higher
- Network : 10 /100Mbps LAN, Modem, xDSL

System Description

Digital Surveillance System is a PC based monitoring system. It exceeds the capabilities of the traditional analog switchers, multiplexers, and time-lapse VCRs. The system is able to connect up to 16 cameras with each at the high frame rate, records high-quality digital video based on motions. The system offers digital recording, remote camera viewing access, video archiving, and multi-camera display. The system supports PTZ camera.

1-3. Compatible HW Device

Compatible

	Compatible	Incompatible
CPU	Intel Pentium Process (x86, 1.7GHz or higher) - Intel Celeron 1.7GHz or higher - Intel Pentium IV	- Lower than Intel Pentium Process 1.7GHZ - Other than x86
Main Board	With one or more PCI slot, supporting Intel Pentium processor - Intel 84x Chipset - Intel 85x Chipset	- Other than Intel Chipset Boards
Graphic Card	With 8MB or higher memory, Supporting 16Bit Color and YuY2 DirectX Mode (8.0 or higher) - ATI Expert 2000 32MB SDRAM - ATI Radeon System - nVidia Riva TNT2 System - nVidia Geforce System - Intel 845G/GL Graphics controller (OnBoard).	- Intel 81x Graphics controller(OnBoard) or Intel i740 - VIA Chipset(OnBoard) Graphics controller. - SIS Chipset(OnBoard) Graphics controller.
Sound Card	All PCI & OnBoard Type	
HDD	HDD 5400RPM or higher	

Chapter 2: Installation

Chapter 2

2-1 Hardware Installation

Caution: *Static electricity can damage electronic circuitry. To avoid static discharge, touch a grounded metal object (i.e. your PC case) or wear a grounding strap connected to a ground source.*

Make sure Power and cables are connected properly otherwise it may cause damage to the equipment (not cover under warranty). Always turn off the PC power before connecting or disconnecting any jumper or cable on the drive.

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2-1-1. DVR Board Installation

1. Prepare your computer for installation.

: Before working on your computer, make sure all electrical cords are unplugged.

2. Remove the system unit cover.

: You can easily find how to remove the system unit cover if you look carefully at the back of the system.

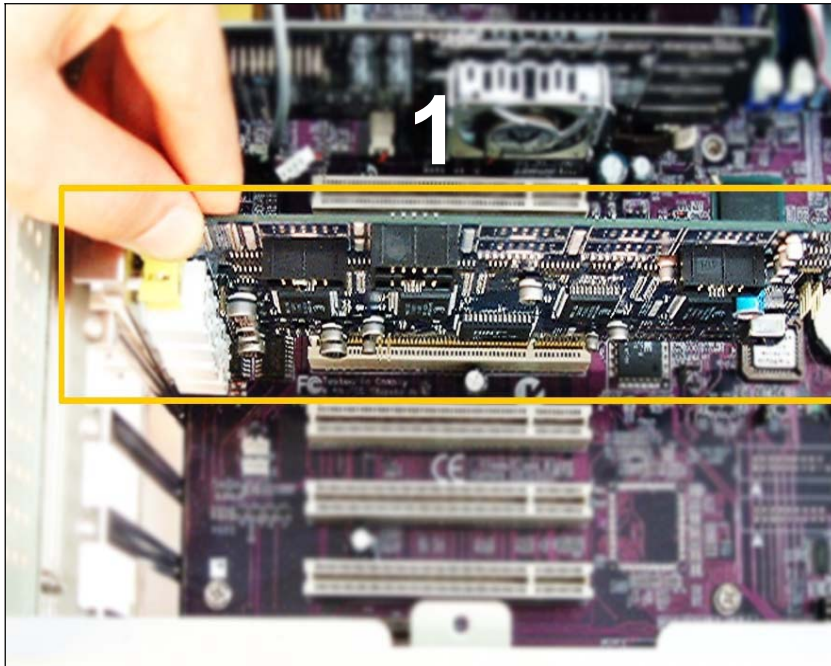
3. Locate the PCI bus slot. Make sure this slot is unobstructed.

: You need empty PCI slot as many as the boards including DVR and channel boards.



① PCI slot

4. Place the board directly over PCI slot and insert one end of the card down into the slot firmly but gently. Make sure that the metal contacts on the bottom of the host adapter are securely seated in the slot.



① DVR board

5. Fasten the bracket screw.

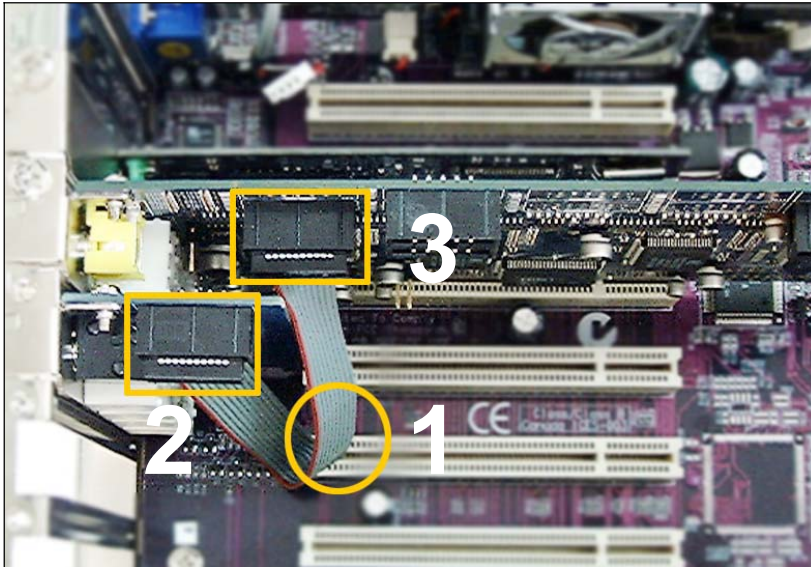
6. Connect channel board to 5~8ch parallel connector on DVR board

Position of 'channel parallel connector' might be different up to DVR model.

Please refer to '2.1 DVR board is drawing' for parallel connector position.

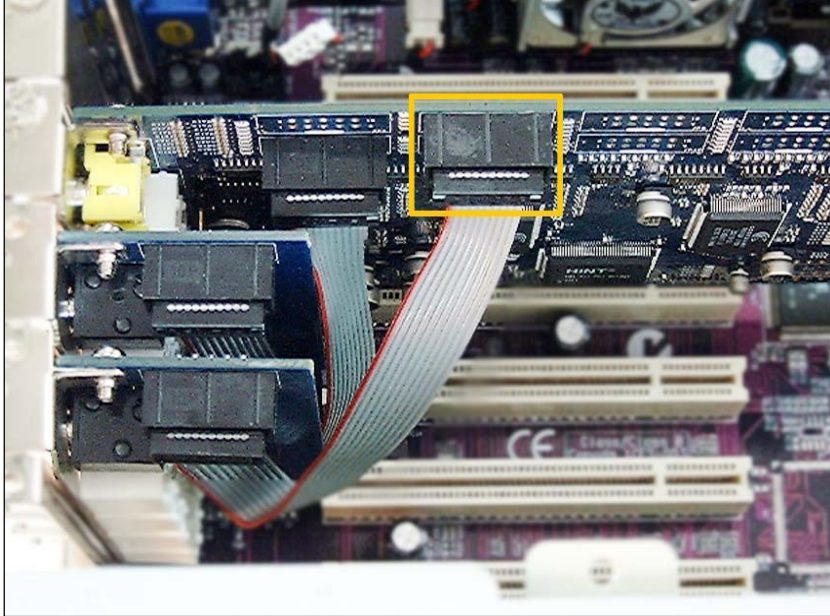
All the optional channel boards and channel board cables are same and alternative.

2-1-2. Extension board Installation



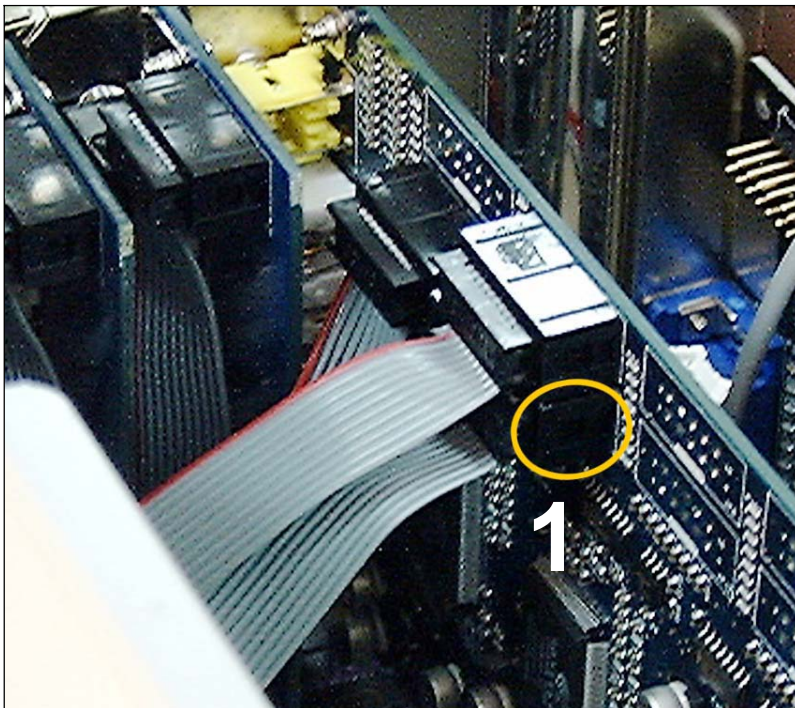
- 1: Channel Cable
- 2: Parallel Connector on channel board
- 3: 5~8ch Parallel Connector on DVR board.

7. Connect channel board to '9~12ch parallel connector on DVR board' and insert the channel into the PCI slot.



1: 9~12ch parallel connector on DVR board

8. Connect channel board to '13~16ch parallel connector on DVR board' and insert the channel into the PCI slot.



2-1-3. PTZ installation

1: 13~16ch parallel connector on DVR

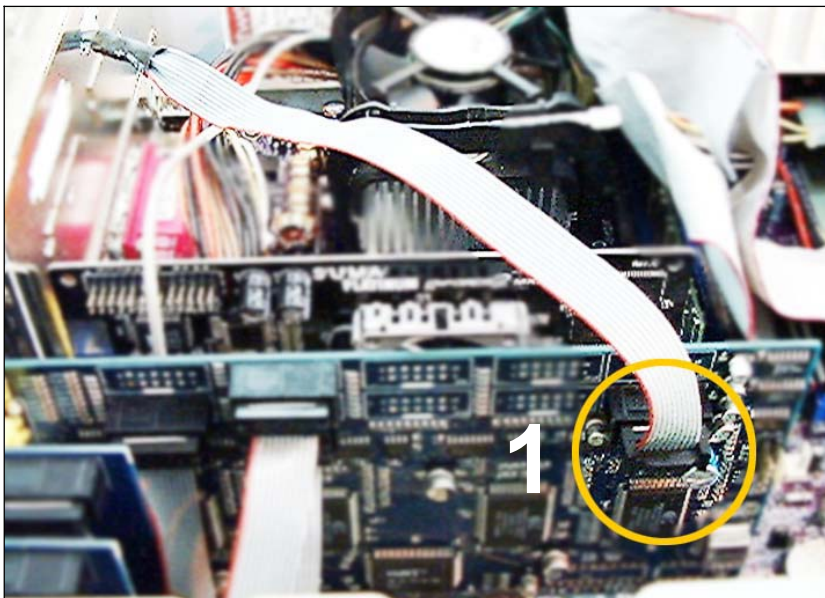
1. Insert the plug of PTC cable into the PC case through proper hole.



- ① Plug of PTZ cable
- ② 485 cable of PTZ cable
- ③ Serial Port of PTZ cable

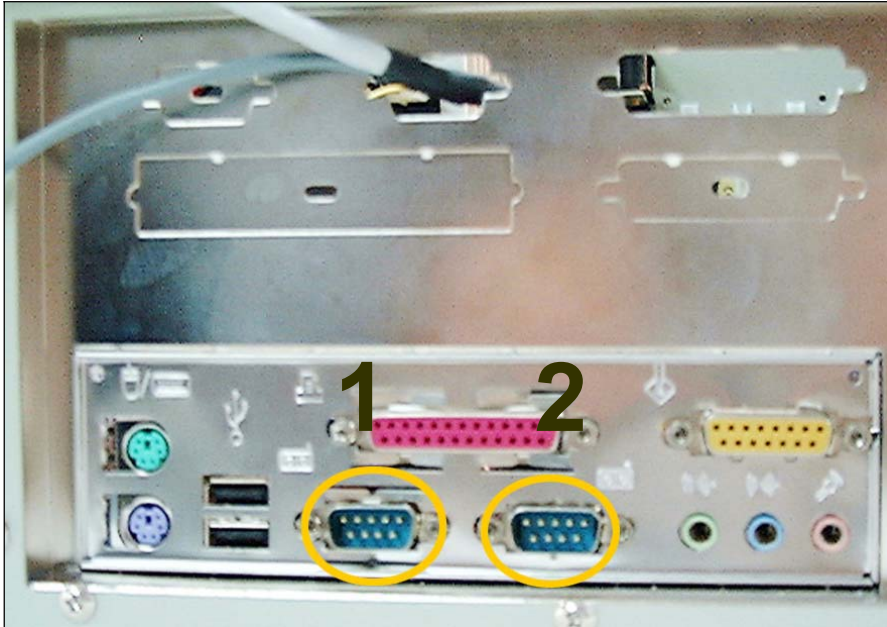
2. Insert the plug of PTC cable into the 'PTZ parallel connector on DVR board'.

Position of 'PTZ parallel connector' might be different up to DVR model. Please refer to '2.1 DVR board drawing' for parallel connector position.



1: PTZ parallel connector on DVR board

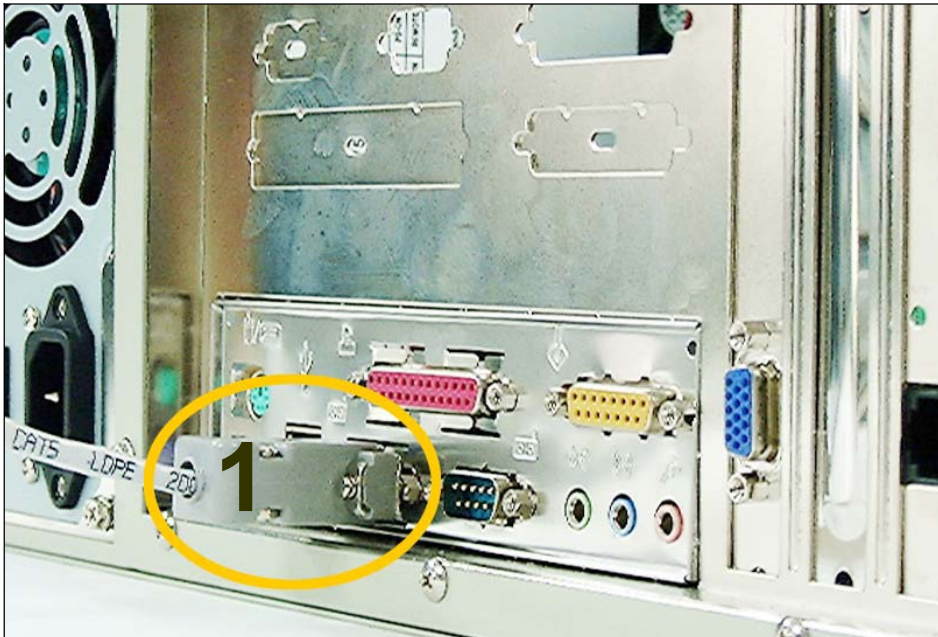
3. Locate the empty serial comport on rear side of PC.



1: Serial Comport 1 or 3

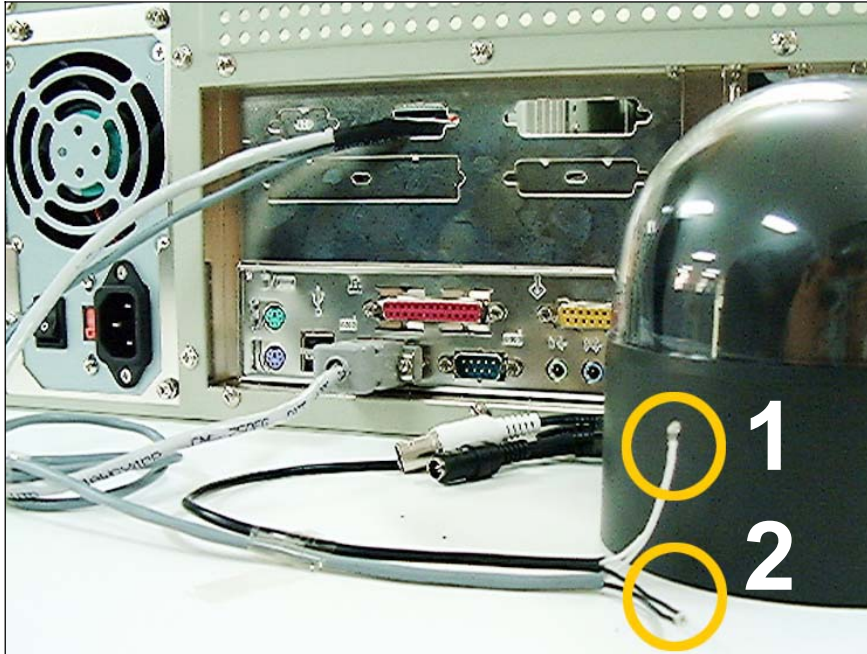
2: Serial Comport 2 or 4

4. Insert the serial port of PTZ cable into empty serial port of PC.



1: Serial port of PTZ cable

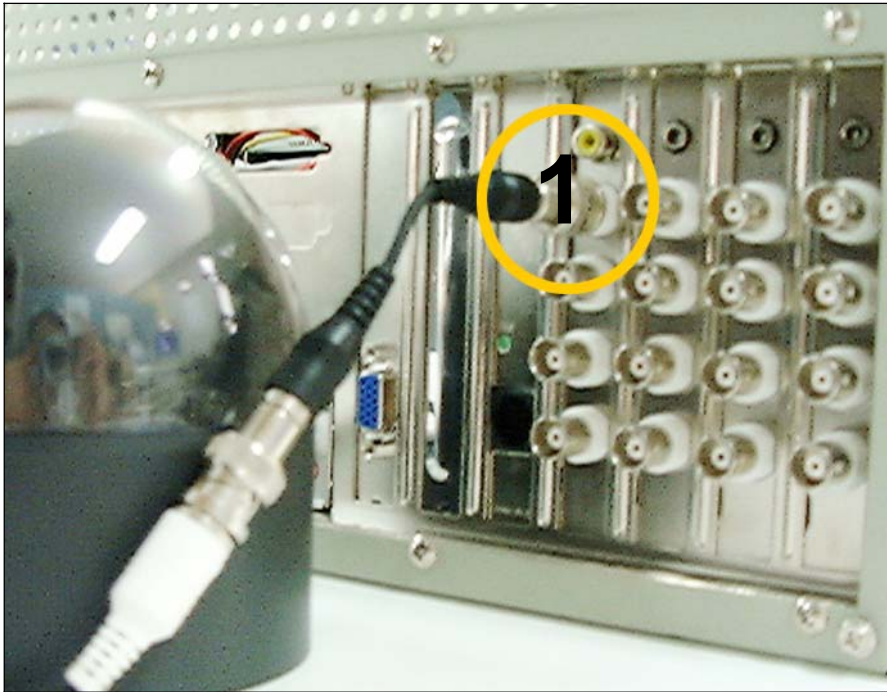
5. Connect 485+ cable of PTZ cable with 485+ cable of PTZ camera and 485- cable of PTZ cable with 485- cable of PTZ camera. And, insulate them with insulating tape.



1 : 485+ cable connection
2 : 485- cable connection

6. Connect video signal cable of PTZ camera with BNC jack on DVR.
7. Address of PTZ camera should be identical to DVR channel. In the Fig 4.11, the address of PTZ camera should be set as '1', because camera is connected to No.1 channel.

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1: BNC Jack of Channel

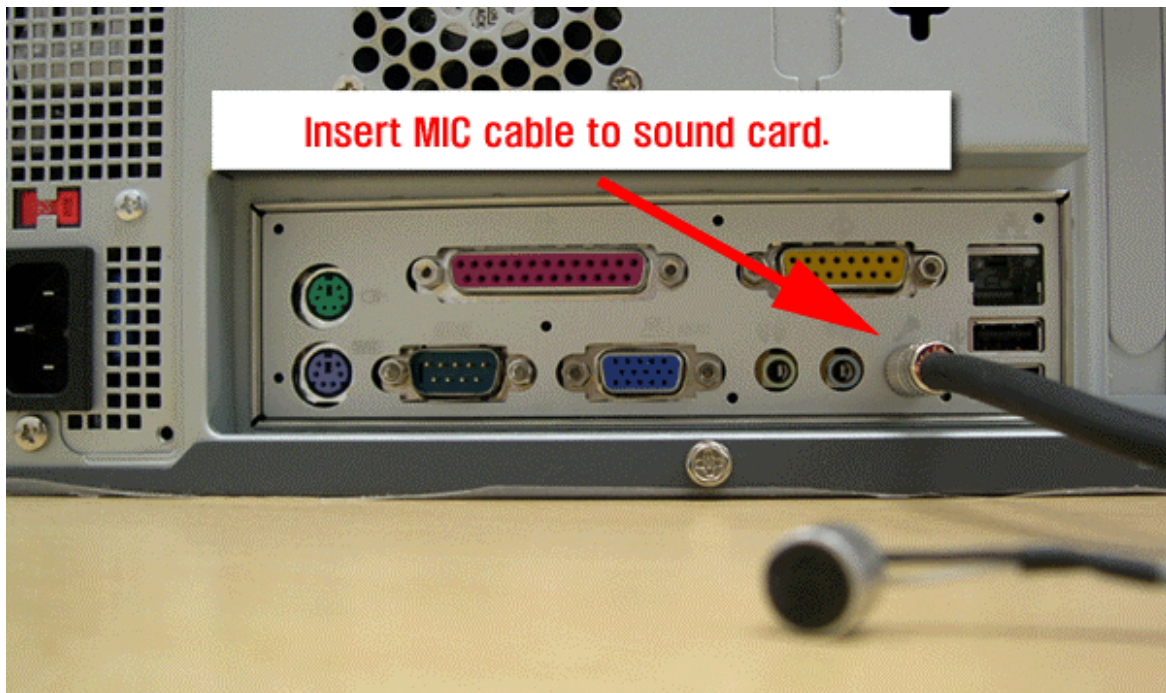
8. Connect the adaptor with PTZ camera.

2-1-4. Audio installation

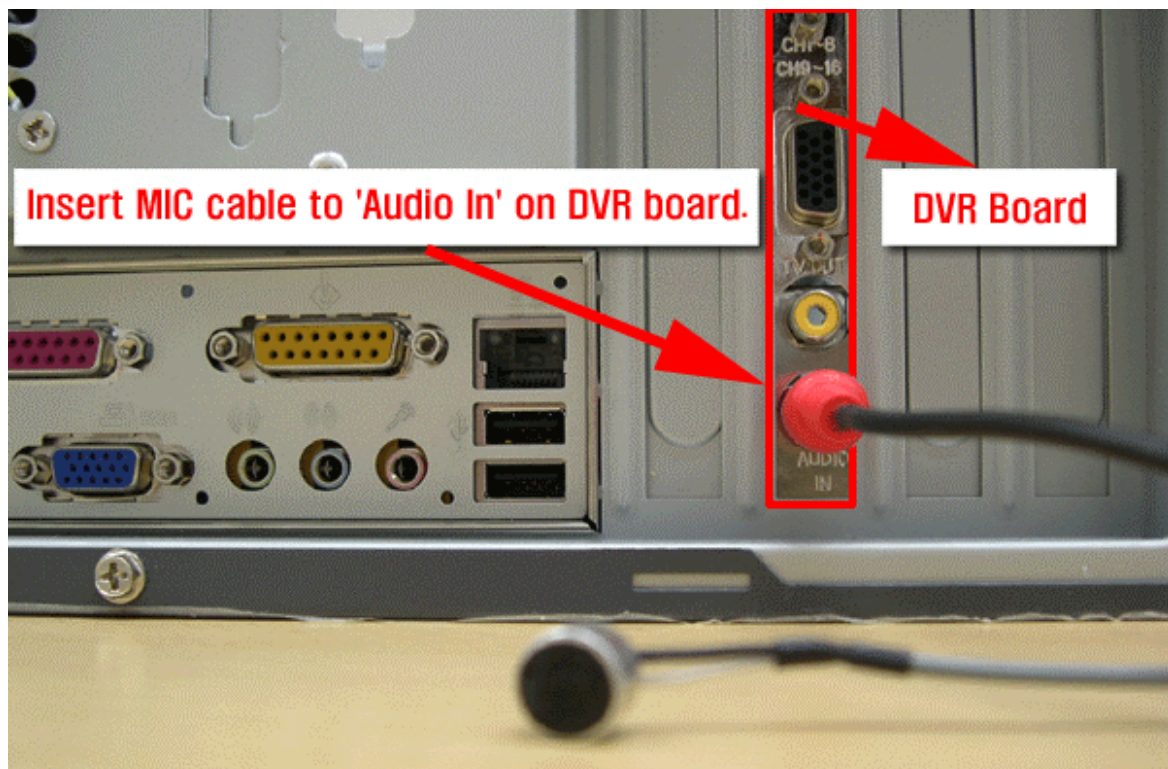
1. Insert MIC to sound card OR DVR board.

<The following description is of 1CH Audio example.>

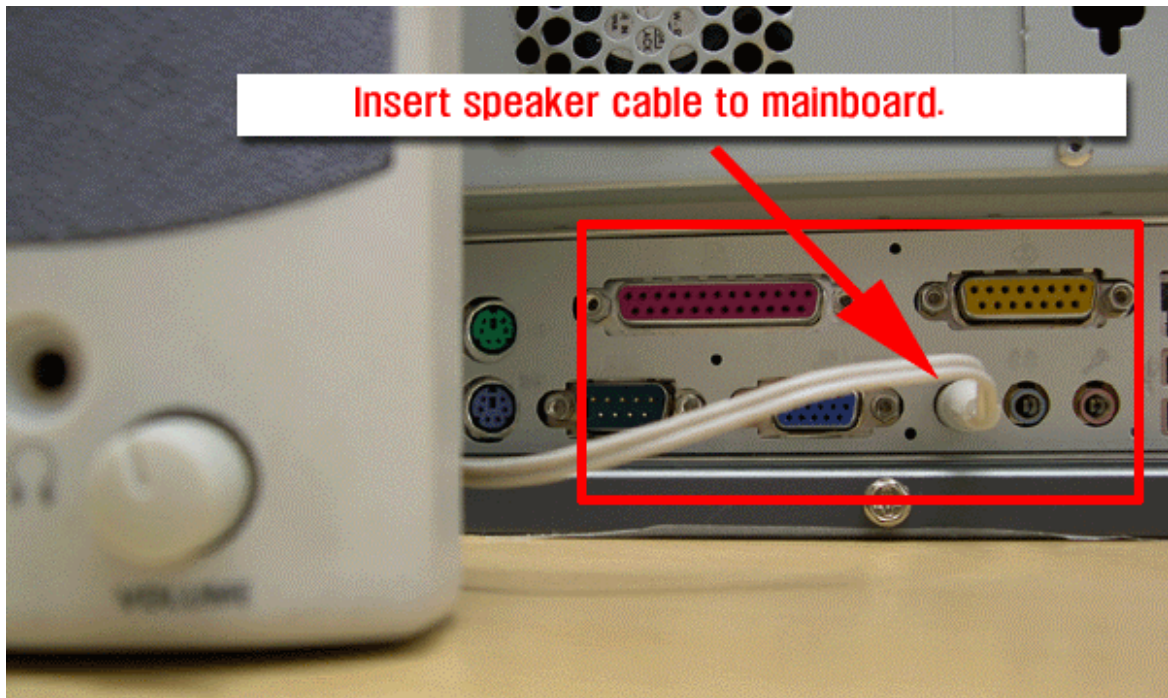
MIC is inserted to PC Mainboard. (Standard color red hole)



OR Insert MIC to DVR Board.



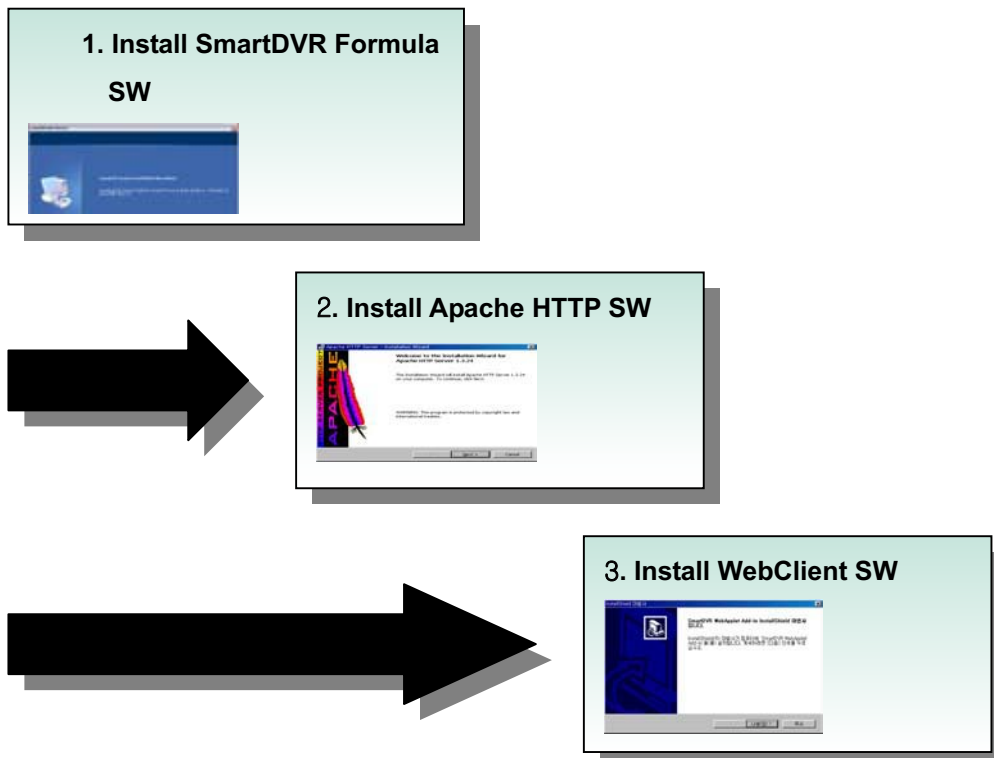
2. Insert Speaker to Sound Card of motherboard. (standard Green color hole)



2-2 DVR Server Software Installation

Select one application to install at a time

2-2-1. Preview Installation Procedure



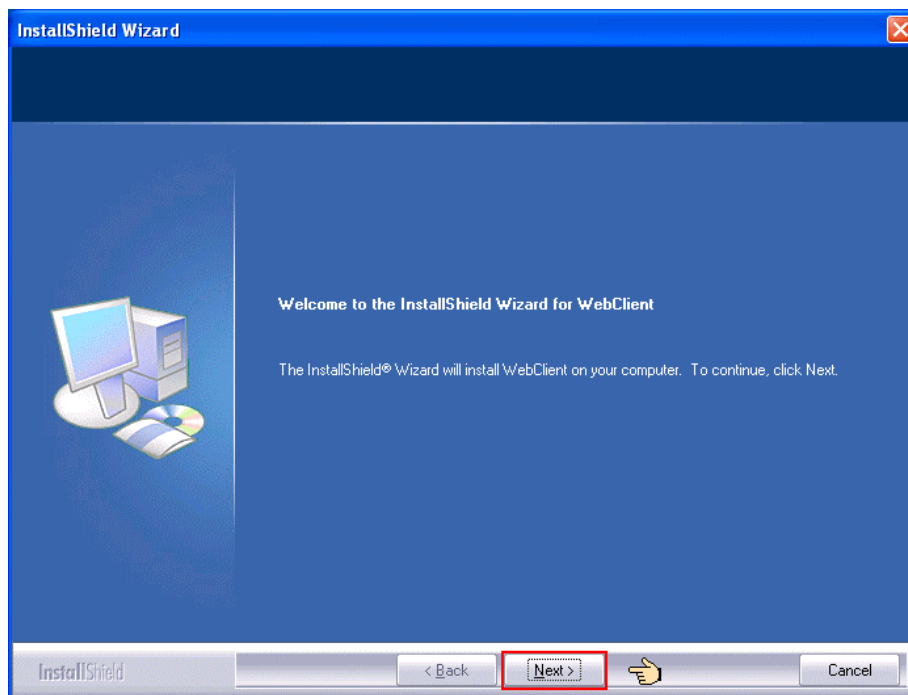
Attention: If an older version of SW has been already installed on your computer, you should uninstall the older version first.

2-2-2. Install DVR Server Software (**Important**)

Installation Procedure

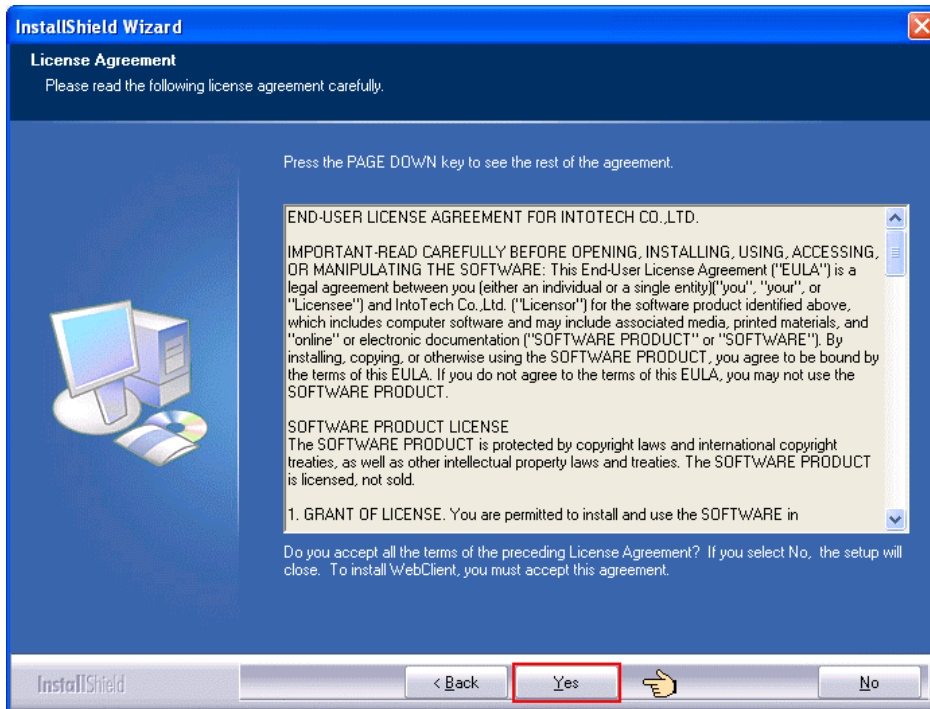
1. Install SmartDVR Formula SW
2. Install Apache HTTP SW
3. Install WebClient Formula SW

Run the Setup.exe () file.

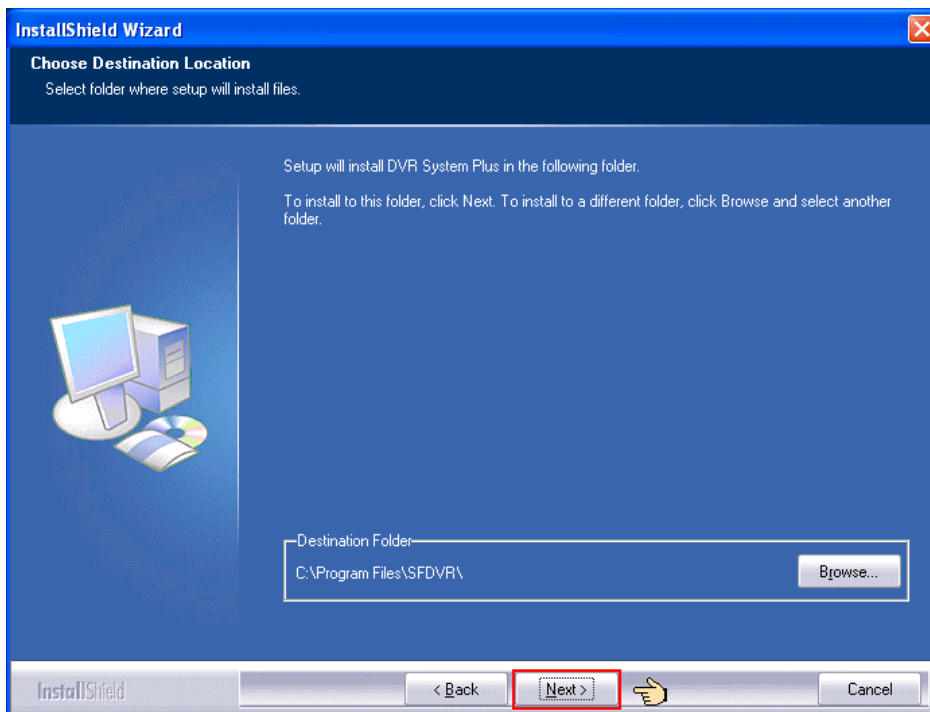


InstallShield Wizard is executed. Press the [Next] button

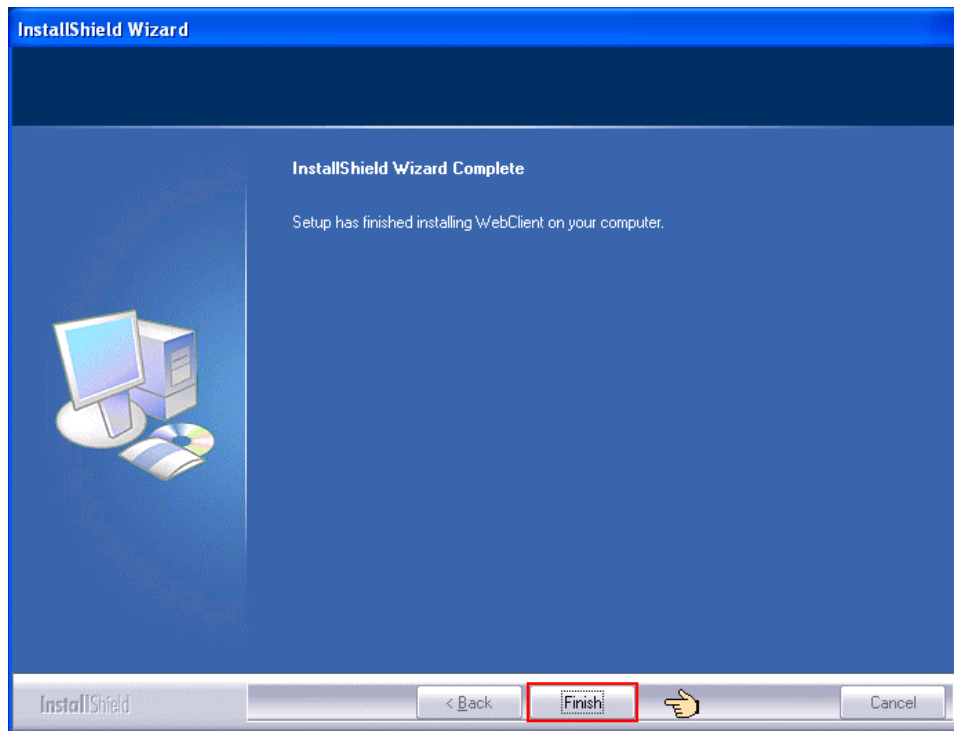
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3. If you accept all the terms of the License Agreement, Press the [Yes] button

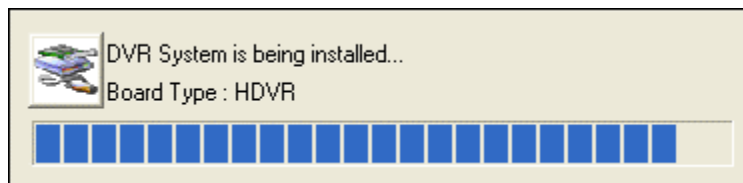


4. Select the folder of destination and Press the [Next] button.

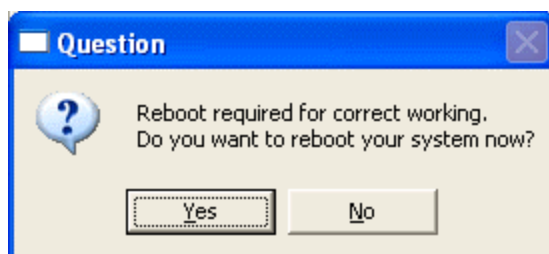


5. Press the [Finish] button to complete installation.

6. Driver Auto installer for Windows XP.



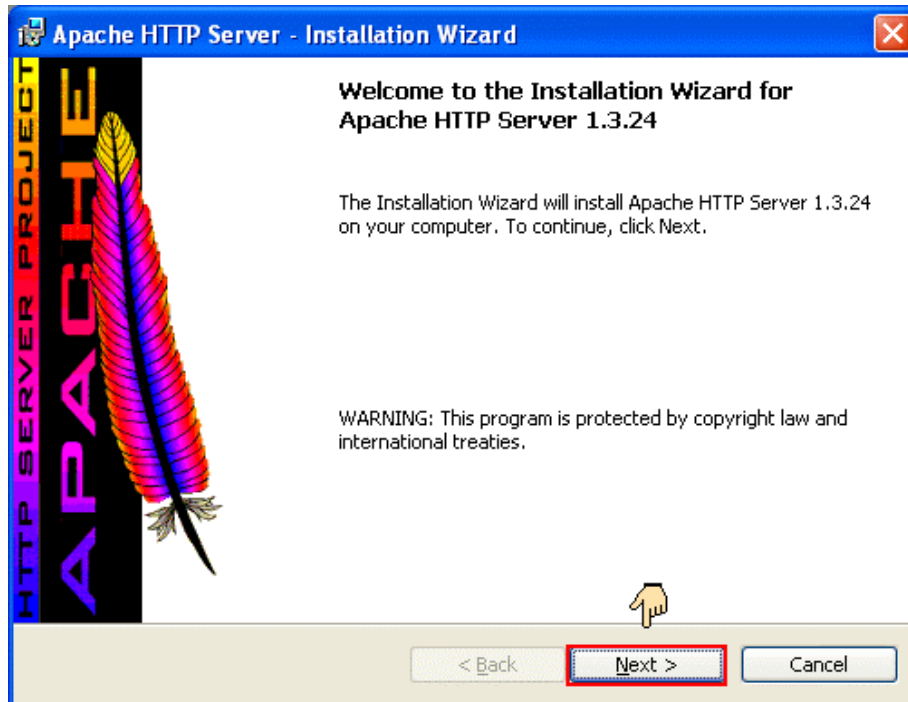
7. Press the [Yes] button to complete Auto Driver Installation



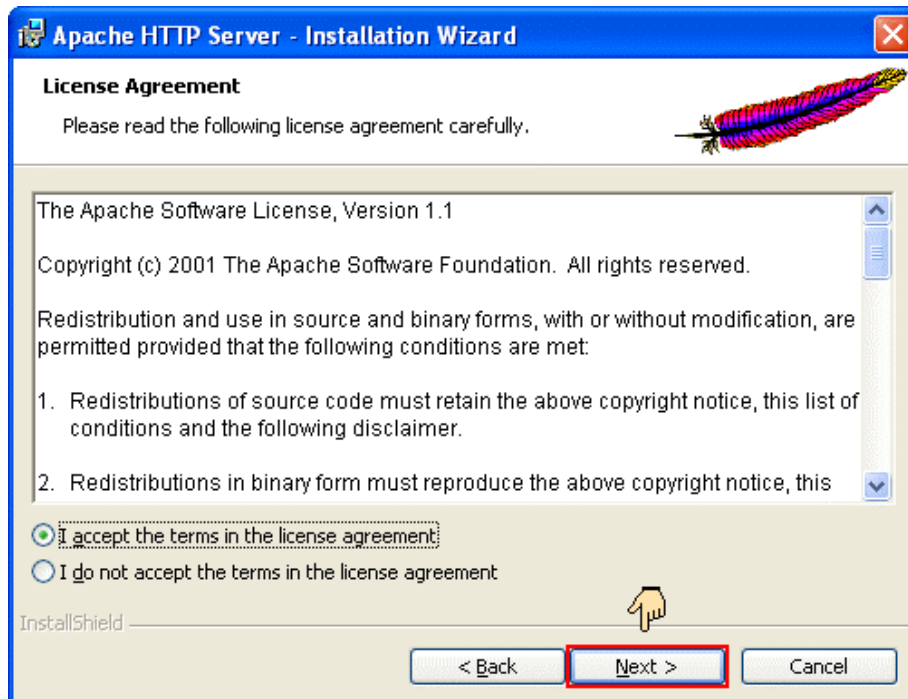
Reboot system for stable operation

2-2-3. Apache Web Server Installation

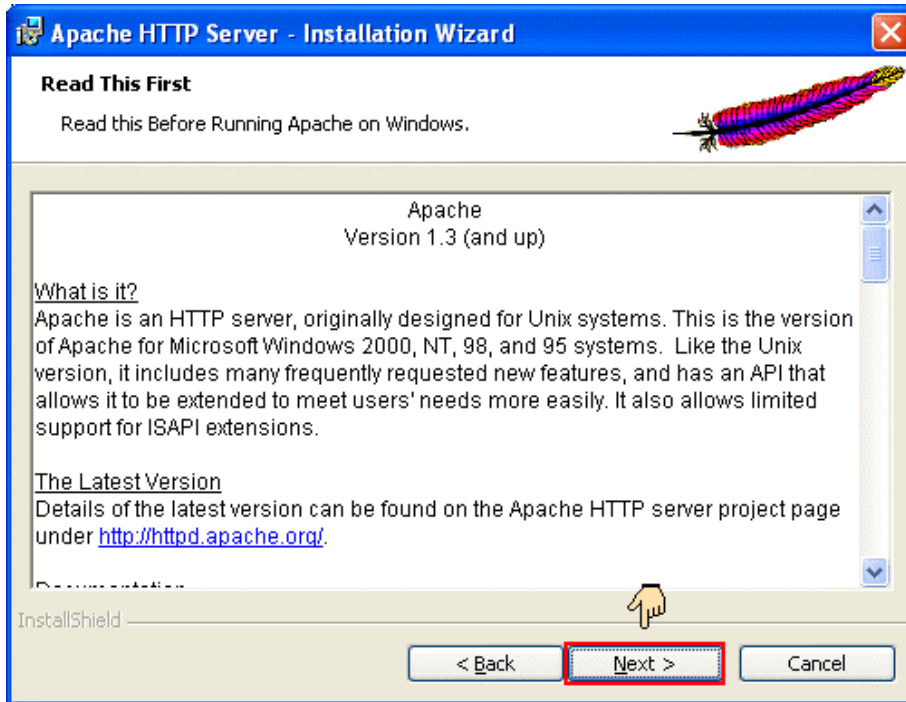
1. Run Apache Web Server[] program.
2. The screen will display as following: Click [Next] button.



3. Read the license agreement. If you agree click [I accept...] and click [Next] button.



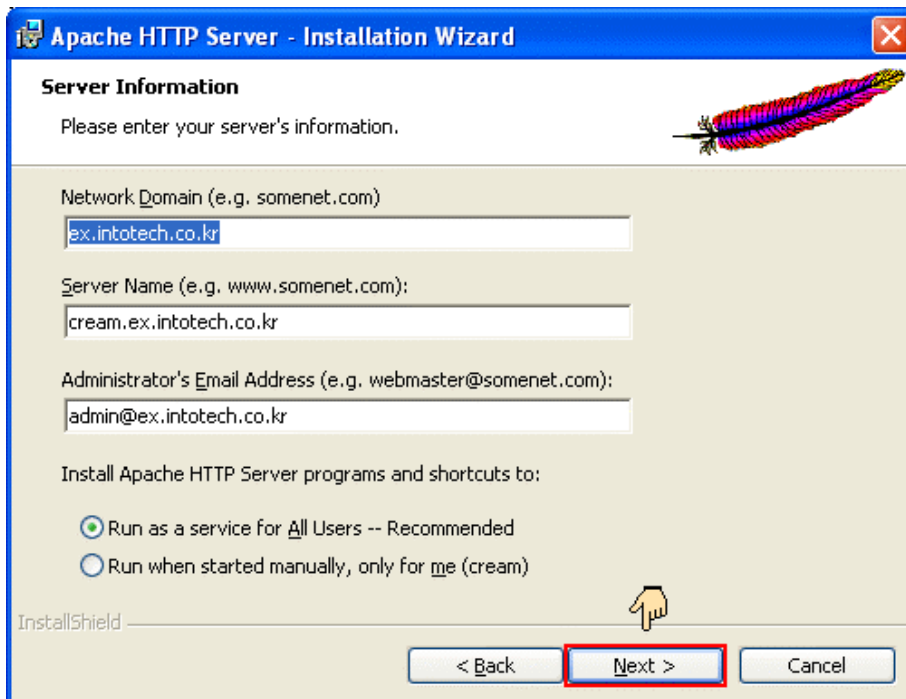
4. Confirm Apache Server information and click [Next] button.



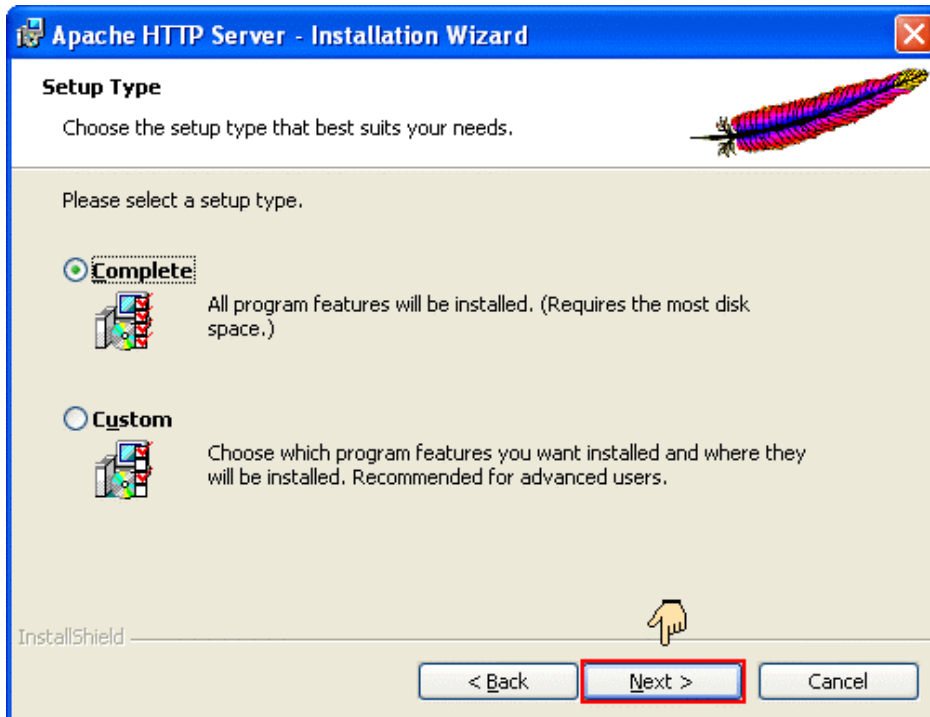
5. Insert Network Domain, Server Name, Administrator's Email Address.

(For formality purpose only. Insert any address.)

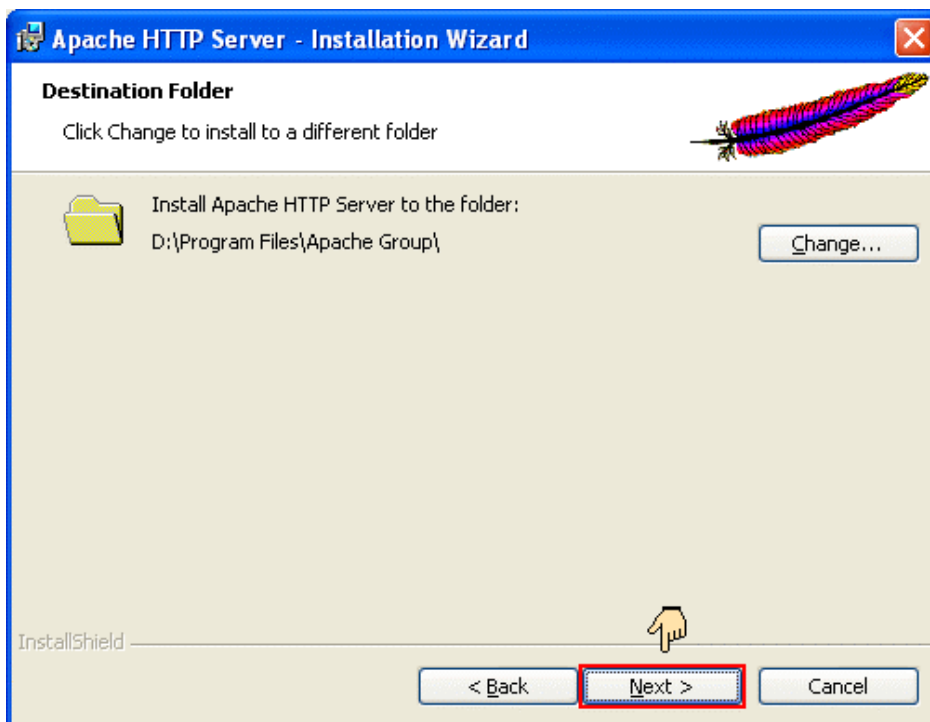
Select [Run as a service for All Users – Recommended]. Click [Next] button.



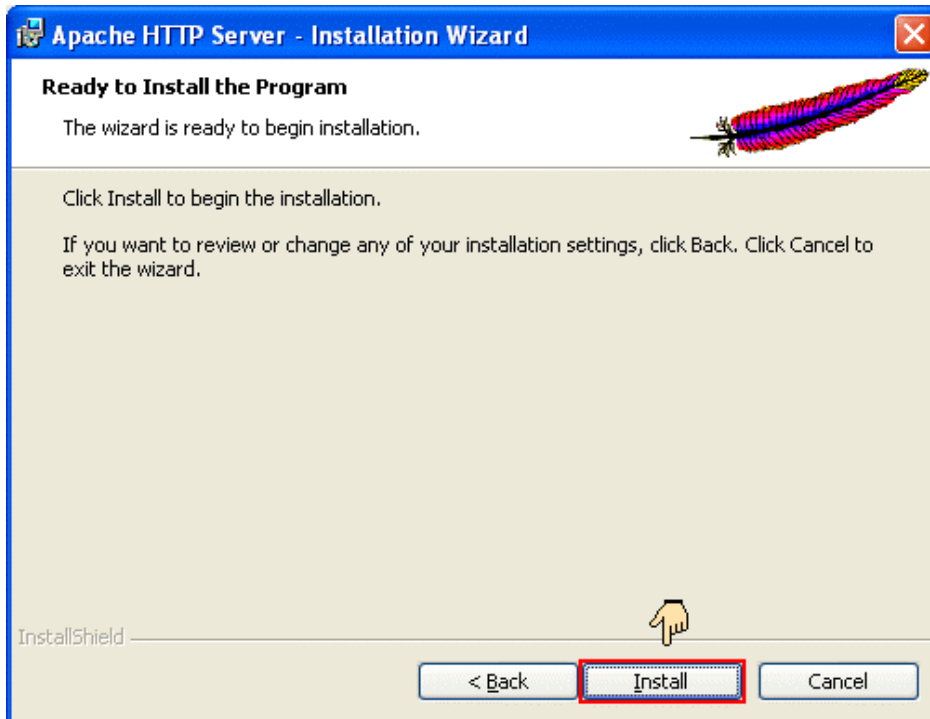
6. Select [Complete] for Setup Type. Click [Next] button.



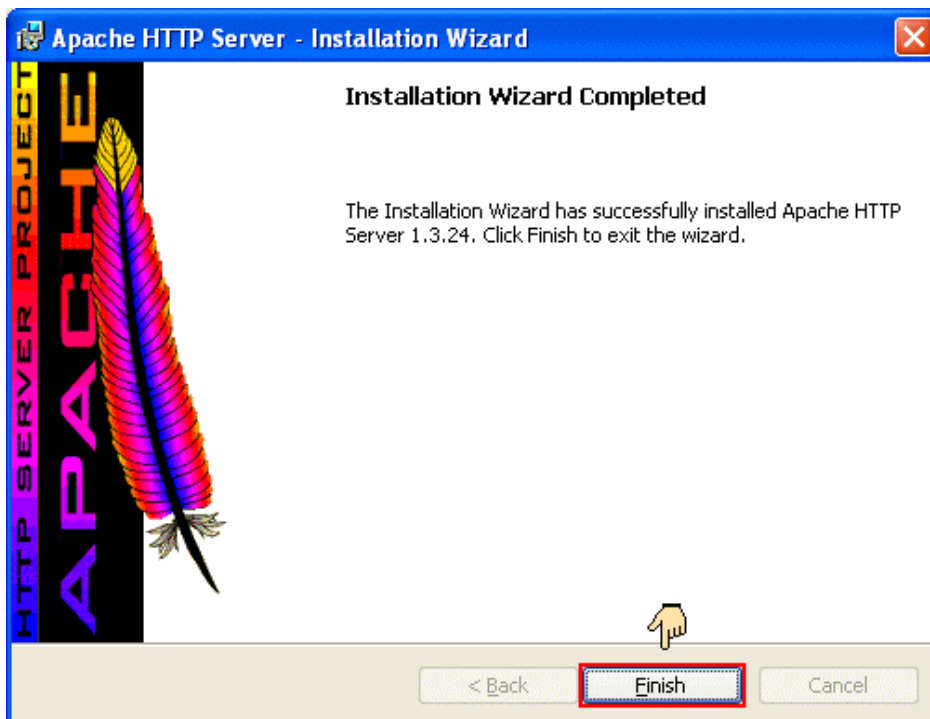
7. Click [Next] button. **Attention: Do not change directory.**



8. Click [Install] button and start installation.



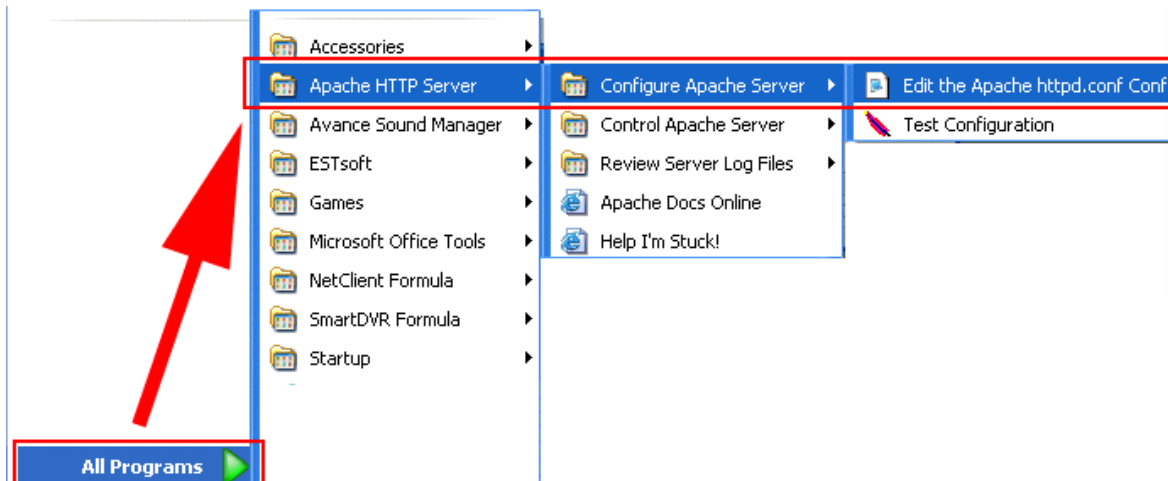
9. Click [Finish] button when completion of installation program.



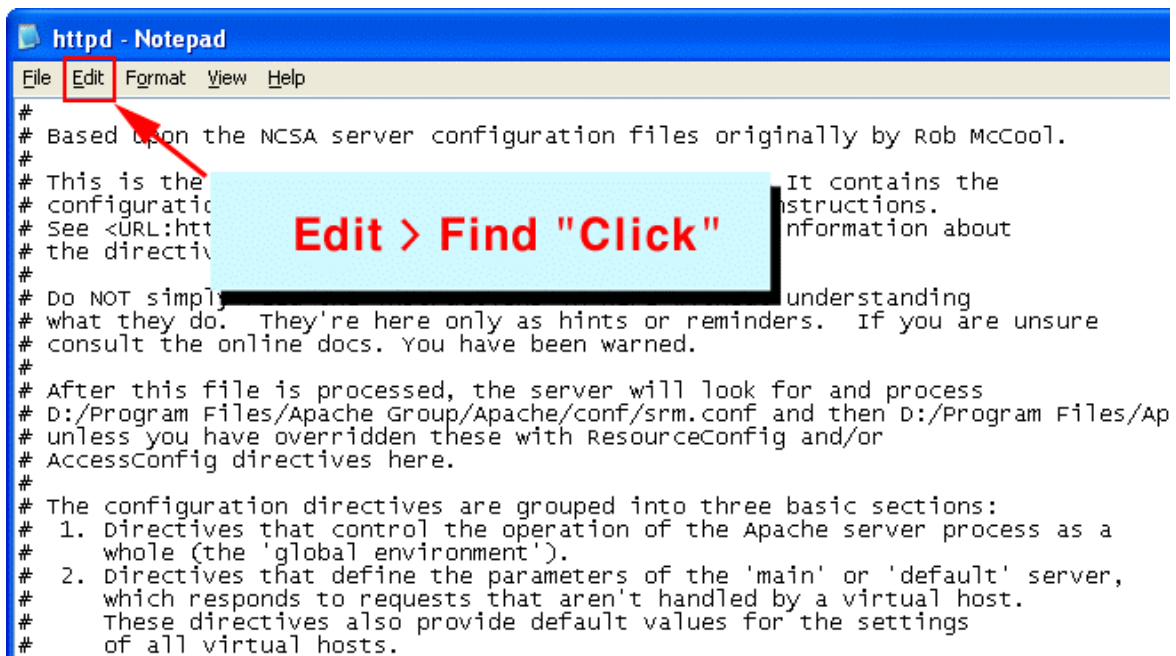
10. Change the port of Apache HTTP Server.

(Windows – Start - Program – Apache Http Server

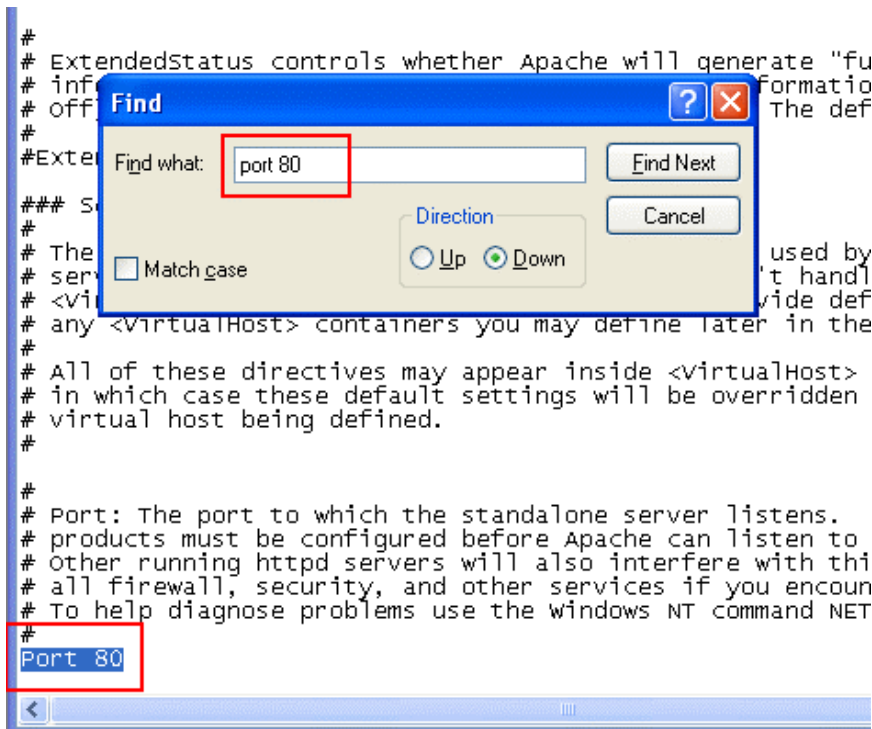
– Select Configure Apache Server – Edit the Apache Http conf...



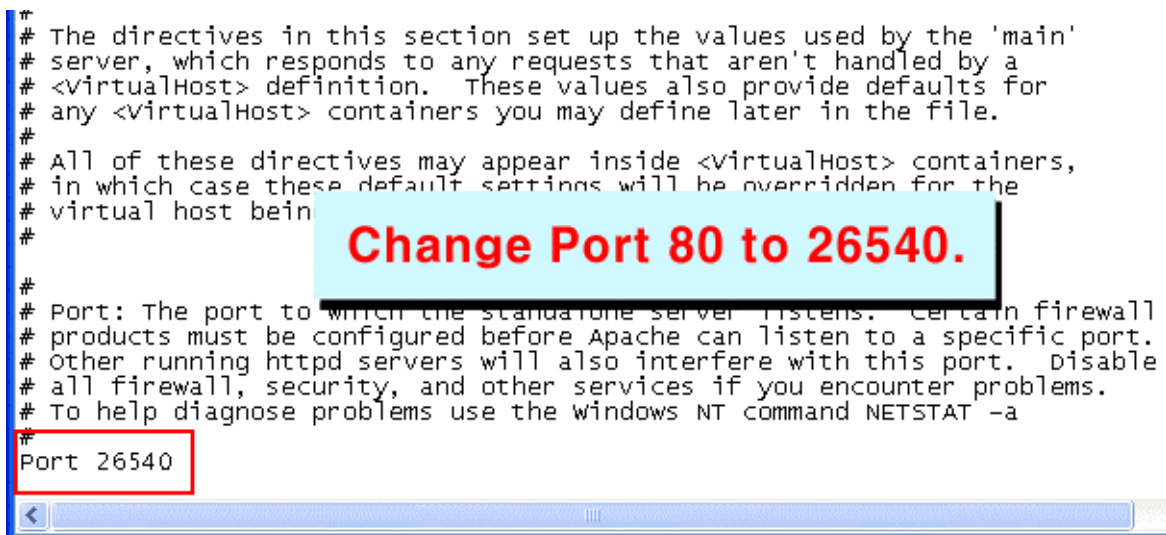
11. The screen will display as following: Select Edit – Find.



12. Insert "port 80" and press enter. Port 80 will view as following:



13. Change Port 80 to Port 26540 and save Notepad.

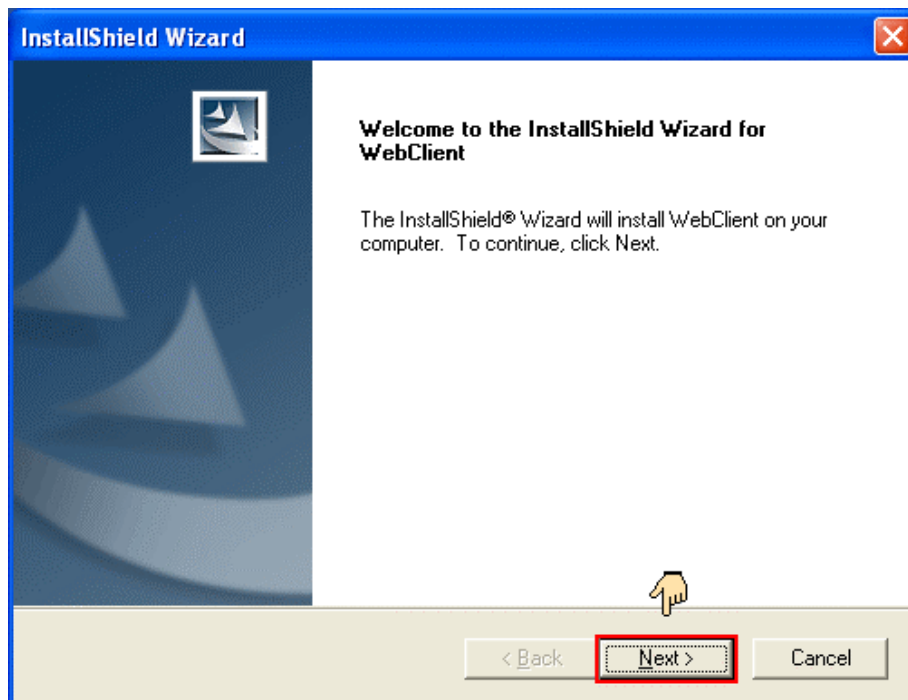


14. Exit Notepad after Save.

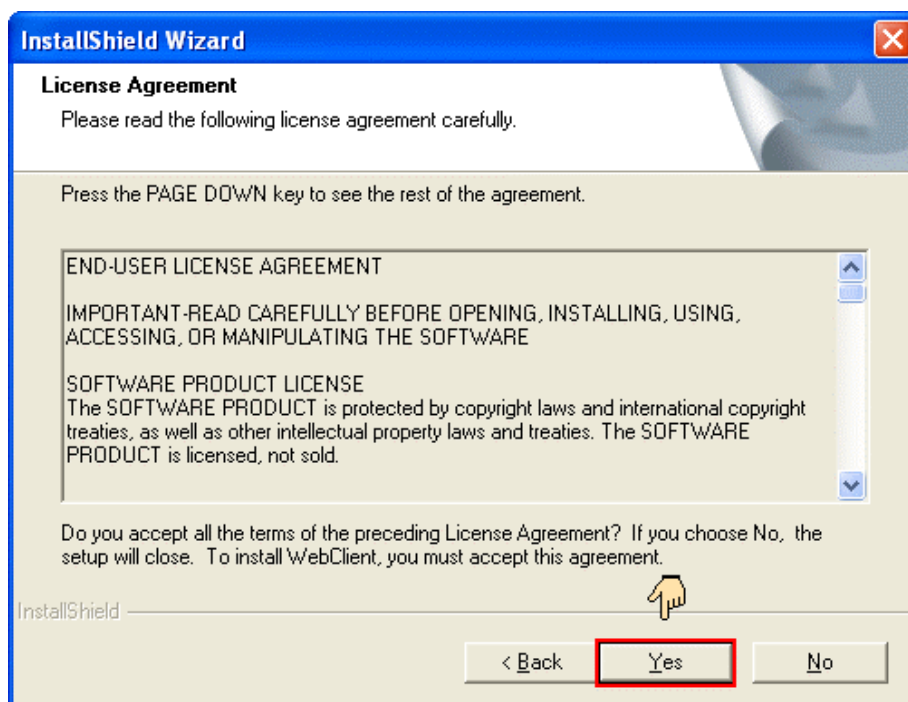
- **Attention: Must add port number after IP address to view in Internet Web Browser.**
- **Ex) http://211.104.32.107:26540**

2-2-4.Web Client Formula Installation

1. Run Web Client Formula () file.
2. The InstallShield Wizard will display as following: Click [Next] button.



3. Read License Agreement carefully. When accept of agreement click [Yes] button.



4. Click [Finish] after completion of installation.

