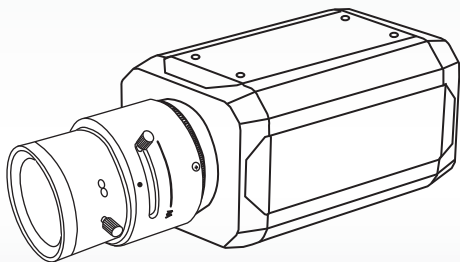


IP Manager

User's Guide



1. Introduction

IP Manager is a program used for basic configuration, diagnostics and F/W upgrade of IP camera (hereafter called as 'server').

IP Manager provides the following features.

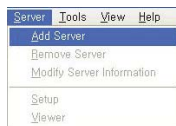
- Finding servers on the LAN and assigning IP address
- Monitoring server status: encoding/decoding, serial, sensor etc.
- Diagnostic function: PING, network bandwidth measurement, video/audio output port check, serial port check
- F/W upgrade

2. Registration and Removal of Server

■Registration of a server

In order to manage servers using True manager, the first step is to register the server. The following steps describe the way to register a server.

①Select Add Server on Server menu.



②Enter information for connecting to the server at Add Server dialog.

If the server is registered on DDNS server, domain name can be used instead of IP address. When the IP address of the server is forgotten, it is possible to find the IP

address of the server with IP Discovery function. (Please refer to IP Discovery section).

③Press Add button.

■Removal of a server

A server can be removed by the following steps.

①Select the server to remove on Servers tab; Selected server is highlighted with blue color.

②Select Remove Server on Server menu.

Servers	Channels	Peripherals				
	State	Name	IP/Domain Name	MAC Address	Model	
<input checked="" type="checkbox"/>	Trying connection	Main gate	192.168.10.212			
<input checked="" type="checkbox"/>	Trying connection	Window 2	192.168.10.218			
<input type="checkbox"/>	Disconnected	Lobby	192.168.10.207			

■Modification of information for a server

Information for a server can be modified on the dialog invoked by selecting Modify Server Info on Server menu.

■IP Discovery

Using IP Discovery function, all servers on the same LAN where the PC executing IP Manager is located can be found. Furthermore, it is possible to change IP address of a server easily. IP Discovery dialog is invoked by pressing IP Discovery button on Add Server dialog, and it shows all IP Camera systems on the same LAN.

IP address	MAC address	Base Port	HTTP Port	IP Mode
192.168.10.152	00:1C:63:A3:01:29	2222	80	Fixed IP
192.168.10.3	00:1C:63:A3:00:11	2222	80	DHCP
192.168.10.162	00:1C:63:A3:00:76	2222	80	Fixed IP
192.168.10.98	00:1C:63:AA:00:10	2222	80	Fixed IP
192.168.10.96	00:1C:63:A3:00:01	2222	80	Fixed IP
192.168.10.161	00:1C:63:A3:00:37	2222	80	Fixed IP
192.168.10.77	00:1C:63:A3:01:01	2222	80	Fixed IP
192.168.10.89	00:1C:63:A3:00:04	2222	80	Fixed IP

If you press Select button after selecting a server, the information for the server is automatically entered on Add Server dialog. Pressing IP Change button after selecting a server invokes a dialog on which IP address of the server can be changed.

IP Address Change dialog box. It contains fields for IP Mode (Fixed IP), IP Address (192.168.10.3), Subnet Mask (255.255.255.0), and Gateway (192.168.10.1). There are Change and Cancel buttons at the bottom.

It is possible to change IP address of a server which has IP address of different subnet.

■ Removal of a server

When there is large number of servers, it is convenient to manage servers in several groups. Using Add Group and Remove Group on Group menu, server group can be created and deleted. Modify Group menu is used to add servers to a group or to remove servers from a group.

3. Connection Management

■ Server connection

If the check box on the first column in Servers (or Channels/Peripheral) tab, True Manager tries to connect to the server. If the server is running and the network to the server is normal, it will be connected immediately and State will be changed to Connected.

Servers	Channels	Peripherals							
State	Name	IP/Domain Name	MAC Address	Model	Type	Firmware	Start Up Time		
<input checked="" type="checkbox"/>	Connected	3	192.168.10.3	00:1C:63:A3:00:11	TC5-200	Encoder	Encoder-V1.TEST	2007/08/11 15:15:53	
<input type="checkbox"/>	Disconnected	Main gate	192.168.10.4						
<input checked="" type="checkbox"/>	Connected	Ware house	192.168.10.161	00:1C:63:A3:00:37	TC5-200	Encoder	Encoder-V1.101G	2007/08/08 19:57:56	

If it fails to connect to the server due to server or network failure, State displays Trying connection. As soon as the server or network is recovered, it will be connected

automatically. That is, IP Manager periodically retries connection to servers with check box checked.

■ Removal of a server

If the check box is unchecked, the connection to the server is released and State displays Disconnected.

4. Monitoring of Server

■ Servers tab – General information

Servers tab shows general information for a connected server: MAC address, product model, system mode(Type) F/W version and startup time. This information comes only for connected servers.

Servers	Channels	Peripherals							
State	Name	IP/Domain Name	MAC Address	Model	Type	Firmware	Start Up Time		
<input checked="" type="checkbox"/>	Connected	3	192.168.10.3	00:1C:63:A3:00:11	TC5-200	Encoder	Encoder-V1.TEST	2007/08/11 15:15:53	
<input checked="" type="checkbox"/>	Connected	Main gate	192.168.10.96	00:1C:63:A3:00:01	TC5-200	Encoder	Encoder-V1.TEST	2007/08/11 09:18:55	
<input checked="" type="checkbox"/>	Connected	Ware house	192.168.10.161	00:1C:63:A3:00:37	TC5-200	Encoder	Encoder-V1.101G	2007/08/08 19:57:56	

■ Channels tab - Monitoring of video/audio channel state

Channels tab displays how of video channel and audio channel of servers are working.

Servers	Channels	Peripherals									
State	Server Name	Ch	Conns	Cam	Motion	V-E (kbps)	V-E (fps)	V-D (kbps)	V-D (fps)	A-E (kbps)	A-D (kbps)
<input checked="" type="checkbox"/>	Connected	3	1	2	OK	1090	33	0	0	60	76
<input checked="" type="checkbox"/>	Connected	Main gate	1	2	OK	1797	30	0	0	0	0
<input checked="" type="checkbox"/>	Connected	Ware house	1	1	OK	970	30	0	0	62	0

Item	Displays
Ch	Channel no.
Conns	Number of clients connected to a server (including True Manager)
Cam	Video loss status
Motion	Motion status
V-E(kbps)	Video encoding bitrate
V-E(fps)	Video encoding framerate
V-D(kbps)	Video decoding bitrate
V-D(fps)	Video decoding framerate
A-E(kbps)	Audio encoding bitrate
A-D(kbps)	Audio decoding bitrate

Depending on the system mode, items which are not relevant to the mode may display 0 always. For example, V-D(kbps) and V-D(fps) are always 0, if the system mode is Encoder.

■ Peripherals tab – Monitoring of serial, sensor and relay port

Peripherals tab displays the status of serial, sensor and relay port.

Servers		Channels	Peripherals								
	Status	Server Name	COM1-TX	COM1-RX	COM2-TX	COM2-RX	Sensor1	Sensor2	Buzzer	Relay1	Relay2
<input checked="" type="checkbox"/>	Connected	3	0	0	0	0	Off	Off	Off	Off	Off
<input checked="" type="checkbox"/>	Connected	Main gate	0	0	0	0	Off	Off	Off	Off	Off
<input checked="" type="checkbox"/>	Connected	Ware house	0	0	0	0	Off	Off	Off	Off	Off

Item	Displays
COM1-TX COM1-RX	Activity of RS-232C port - TX: server -> external equipment - RX: external equipment -> server
COM2-TX COM2-RX	Activity of RS-422/485 port - TX: server -> external equipment - RX: external equipment -> server
Sensor1 Sensor2	States of sensor ports
Buzzer	State of buzzer
Relay1 Relay2	States of relay ports

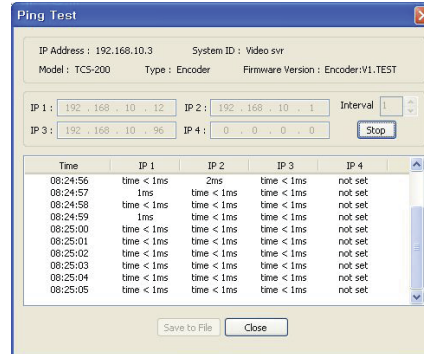
5. Network and System Diagnostics

IP Manager provides various diagnostic features with which the reason for the following situations can be found.

- Connection between two IP Cameras, or between IP Camera and CMS(Central Monitoring System) is not established.
- Video, audio or serial data are not delivered as configured.
- Video and/or audio outputs don't come on output port.

■ Ping test

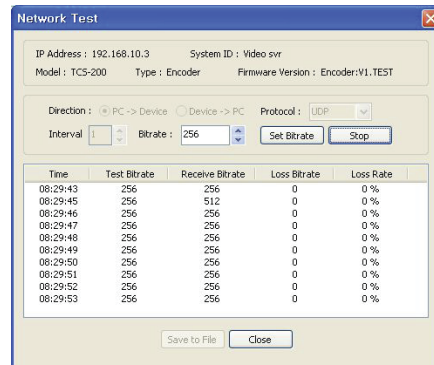
Ping Test dialog can be invoked by selecting Ping Test on Tools menu after selecting a server.



Ping test is useful for checking if one or more remote systems are reachable from a server. Up to 4 systems can be registered as the targets of Ping test, which makes it possible to identify the hop(segment of network) where network failure may happen. For example, local router, remote router and remote Encoder can be pinged from a Decoder simultaneously.

■ Network test

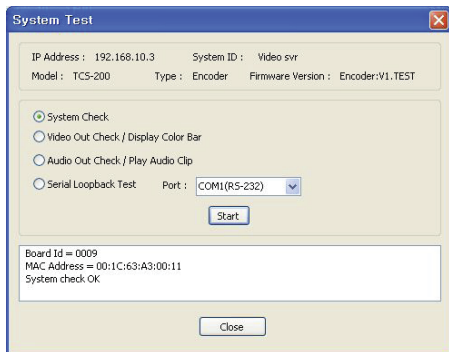
Network Test dialog is invoked by selecting Network Test on Tools menu.



Network test can be used for measuring effective bandwidth and/or packet loss rate between a server and PC running True Manager by generating test traffic of constant bitrate. This feature is useful for identifying the reason why video quality comes poorer than expected. TCP protocol can be selected for measuring effective bandwidth, while UDP protocol is appropriate for checking if the network is not reliable.

■ Network test

Selecting System Test on Tools menu invokes a dialog on which system H/W status, video/audio output function and serial ports can be diagnosed.



■ System Check

System Check tests if H/W components are fine and displays board ID and MAC address.

■ Video Out Check / Display Color Bar

It displays color bar on video output port. This function works for Decoder or Duplex mode, and is useful for checking if video output port or external display device is normal.

■ Audio Out Check / Play Audio Clip

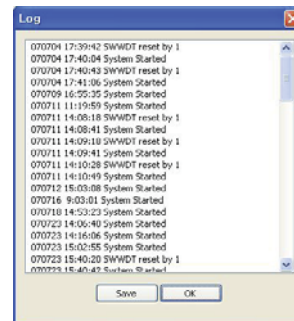
It plays audio clip and outputs to audio output port. This function is useful for checking if audio output function of a server or external audio output devices such as amplifier and speaker are normal.

■ Serial Loopback Test

Using this function, it is possible to check if a serial port is alive. When this function is started after forming the loopback in a serial port (i.e. connecting pin2 and 3 together in case of RS-232C port), numbers of bytes sent and received are displayed. The port is normal if number of sent bytes and number of received bytes are equal.

■ Viewing server's log

The log in a server can be viewed by selecting Log on Tools menu.

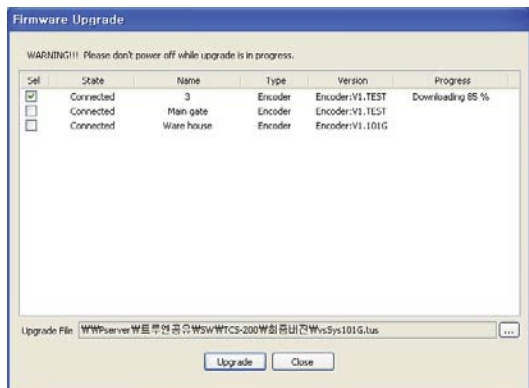


■ Remote rebooting of a server

A server can be rebooted by selecting Reboot on Tools menu.

6. F/W Upgrade

When Update is selected on Tools menu, the dialog for F/W upgrade comes.



- ① Select a server to upgrade (check the check box in Sel column). More than one server can be upgraded simultaneously.
- ② Select an upgrade file.
- ③ Press Upgrade button.
- ④ Wait until Progress is changed to Upgrade succeeded.

Notice: Please don't power-off the server while upgrade is in progress.

When network condition is poor, upgrade may fail. In such case, please retry above procedure after network condition is recovered.

7. Remote Setup and Video Viewing

IP Camera provides web-based Setup and video viewing. If Setup on Server menu is selected, Internet Explorer is invoked and page for remote setup of the server is displayed. If Viewer is selected on the menu, Internet Explorer displays the video from the server.

Memo

