KEYENCE

96092E

IP address setting software

IP Setting Tool

User's Manual

Read this manual before using IP Setting Tool.
Keep this manual in a safe place for future reference.

Introduction

<<IP Setting Tool>> sets IP addresses for Ethernet devices that support BOOTP connected to the Ethernet.
This manual explains the outlines, functions and usage of <<IP Setting Tool>>.
Read this manual to fully understand before using.

Safety Precautions

This manual explains handling, operation procedures, cautions, etc. for <<IP Setting Tool>>.
Read this manual to fully understand before using in order to achieve maximum performance of <<IP Setting Tool>>.
Make sure this manual is kept by an end user finally.

■ Symbols

The following symbols alert you to matters concerning the prevention of human injury and product damage.

DANGER	**It indicates a hazardous situation which, if not avoided, will result in death or serious injury.**
WARNING	**It indicates a hazardous situation which, if not avoided, could result in death or serious injury.**
CAUTION	**It indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.**
NOTICE	**It indicates a situation which, if not avoided, could result in product damage as well as property damage.**

Important **It indicates cautions and limitations that must be followed during operation.**

Point **It indicates additional information on proper operation.**

Reference It indicates tips for better understanding or useful information.

This provides reference pages in this manual or another separated manual.

■ General Precautions

- At startup and during operation, be sure to monitor the functions and performance of KEYENCE products and confirm normal operation.
- If the product is modified or used in any way other than those described in the specifications, its functions and performance cannot be guaranteed.
- When KEYENCE products are used in combination with other devices, the functions and performance may be weaken, depending on the operating conditions, surrounding environment, etc.
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■ Notice

When this product is used under the circumstances and operating environments described below, adhere to the limitations of the ratings and functions, take adequate measures to ensure safety such as fail-safe installations, and consult a KEYENCE sales representative.

- For use under circumstances or environments which are not described in this manual
- For use with nuclear power control, railway, aircraft, vehicles, incinerators, medical equipment, entertainment equipment, safety devices, etc.
- For use in applications where death or serious property damage is possible and extensive safety precautions are required.

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Table of Contents

IP Setting Tool

Manual Descriptions

This explains the terms and symbols used in this manual.

Terms

This manual uses the following terms except for some parts.

Term	Description
PC	Short for 'Personal Computer'
<<IP Setting Tool>>	This software

IP Setting Tool

This chapter explains the functions, installation, operation methods and error messages of <<IP Setting Tool>>.

1 IP Setting Tool

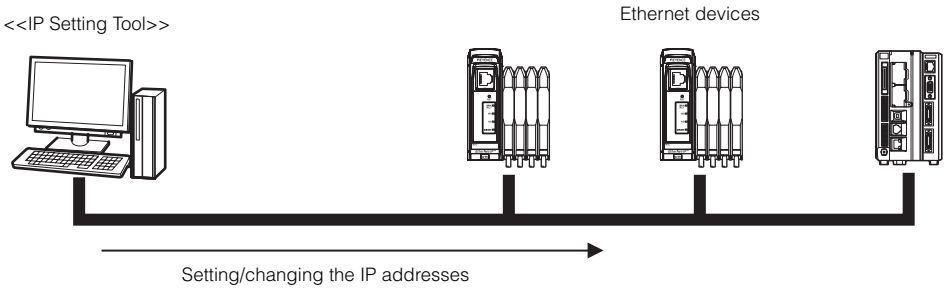
This explains <<IP Setting Tool>>.

Outlines of IP Setting Tool

This explains the outlines of <<IP Setting Tool>>.

■ Outlines

<<IP Setting Tool>> is the software to set or change IP addresses for Ethernet devices that support BOOTP connected to Ethernet.



Point **IP address of EtherNet/IP devices that support BOOTP can be also set.**

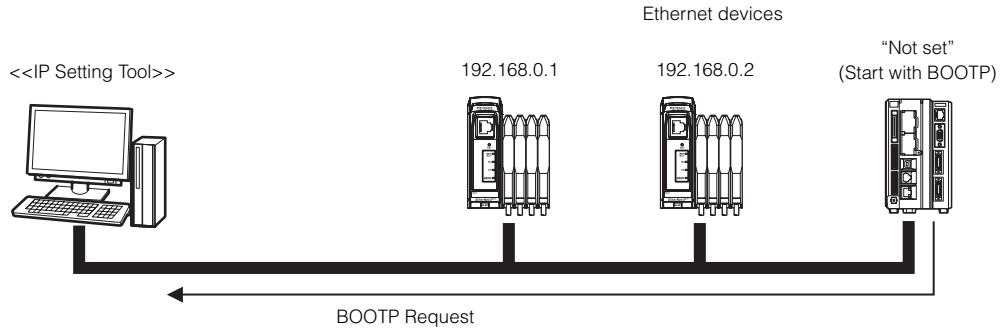
■ Setting IP address

There are three IP address setting methods for Ethernet devices by using <<IP Setting Tool>>.

● Detecting the Ethernet device with BOOTP startup and setting the IP address

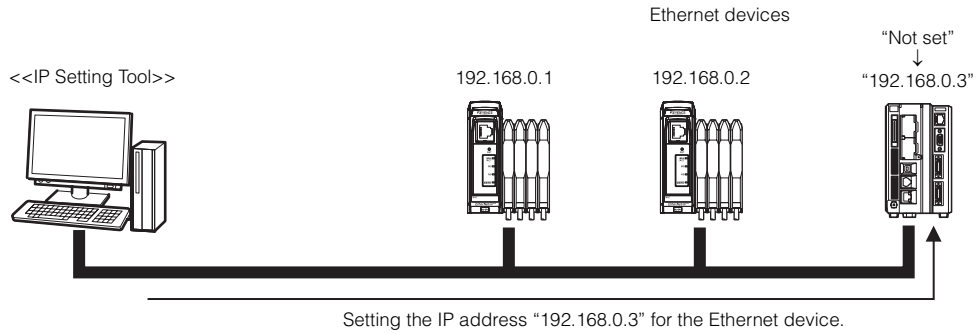
For setting method, see IP Setting Tool operation (1) <Setting/changing IP address> (11 page).

Step 1: Detect the Ethernet device starting with BOOTP.



Point **Automatically <<IP Setting Tool>> detects Ethernet devices which have started with BOOTP.**

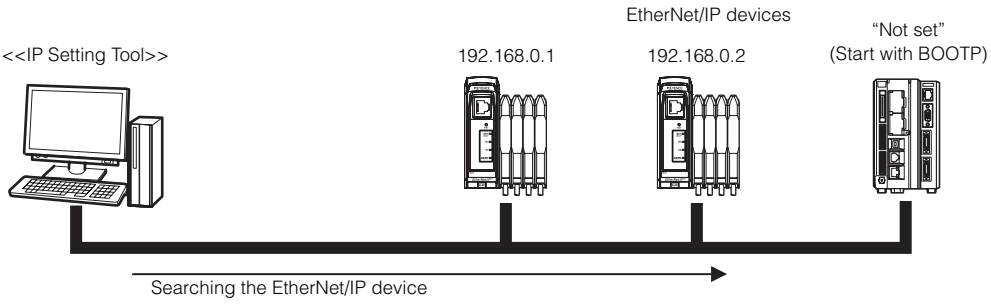
Step 2: Set the IP address for detected Ethernet device.



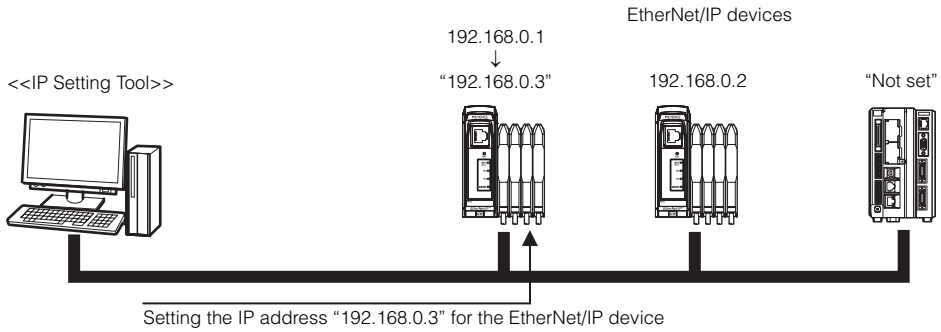
● Changing the IP address for the EtherNet/IP device.

For setting method, see 🕮 IP Setting Tool operation (1) <Setting/changing IP address> (11 page).

Step 1: Search the EtherNet/IP device.



Step 2: Change the IP address for the searched EtherNet/IP device.

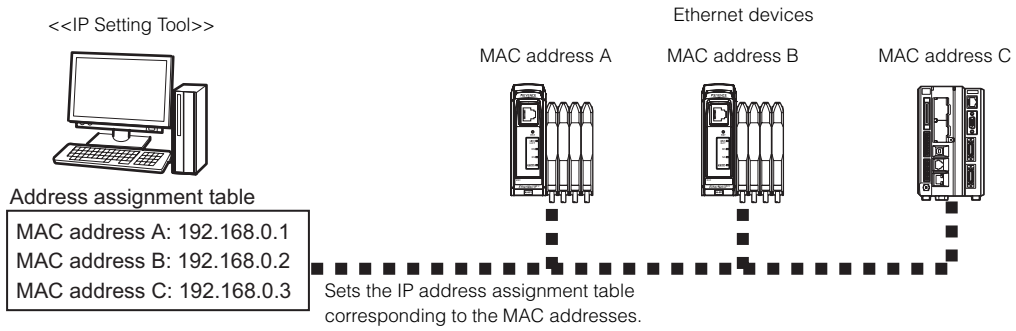


Point **IP address can be changed only to the EtherNet/IP device corresponding to the change in IP address.**

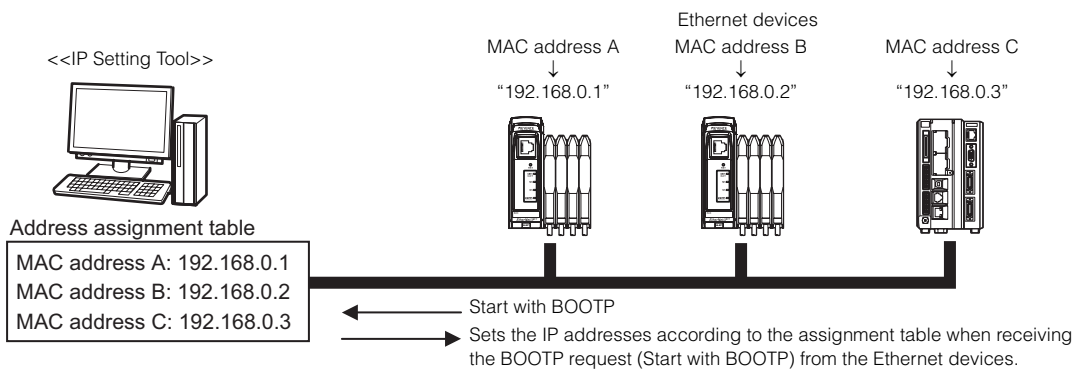
● Creating the address assignment table and setting the IP addresses for Ethernet devices

For setting method, see 🕮 IP Setting Tool operation (2) <Setting with the address assignment table> (15 page).

Step 1: Create the address assignment table.

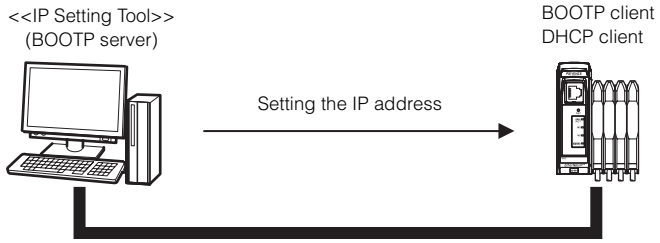


Step 2: Set the IP addresses corresponding to MAC addresses for Ethernet devices.



■ Start with BOOTP and start with DHCP

Start with BOOTP is a recommended default setting for IP addresses of EtherNet/IP devices.
If the IP address setting of Ethernet device has been set to “Start with BOOTP” (or “Start with DHCP”), the device operates as a BOOTP client (DHCP client) at Ethernet connection.
<<IP Setting Tool>> operates as a BOOTP server and detects the BOOTP client (DHCP client) as a device whose IP address has not been set. Then, it can set the IP address.



Reference <<IP Setting Tool>> can set IP addresses for Ethernet devices of DHCP clients. For setting IP addresses for DHCP clients, see Option (23 page).

■ EtherNet/IP functions that IP Setting Tool uses

Function	Description
BOOTP server	Sets IP addresses for devices (BOOTS clients) set to “Start with BOOTP”.
	Sets IP addresses for devices (DHCP clients) set to “Start with DHCP”.
Message communication	Sets IP addresses or sends reset messages via the Explicit Message communication of EtherNet/IP.

2 Installation

This explains the installation of <<IP Setting Tool>>.

Installing IP Setting Tool

This explains items required for installing <<IP Setting Tool>>.

■ Hardware requirements (PC specifications)

The following are requirements to operate <<IP Setting Tool>>.
Confirm that your system complies with the following conditions and that necessary equipment is available.

Compatible PC equipment
PC with Windows 7(32bit)/Vista(32bit)/XP/2000 pre-installed and Ethernet (TCP/IP) equipped

CD-ROM drive

CPU memory capacity

- Windows XP (SP2 or upper versions)/2000(SP3 or upper versions)
  Pentium 400MHz or more (Pentium 600MHz or more recommended)
  Expanded memory 128MB or more
- Windows 7(32bit)/Windows Vista(32bit)
  Processor recommended by Microsoft Corporation
  Expanded memory 512MB or more

Compatible OS
Windows 7(32bit)/Windows Vista(32bit)/Windows XP/Windows 2000

Hard disk free space
20MB or more

● Note when using Windows XP/2000

When installing <<IP Setting Tool>> into the standard folder (C:\Program files\Keyence\IP Setting Tool), give “Power User” or greater authorities to users who use <<IP Setting Tool>>.

● Note when using Windows 7/Vista

When installing <<IP Setting Tool>> into the standard folder (C:\Program files\Keyence\IP Setting Tool), give “Standard User” or greater authorities to users who use <<IP Setting Tool>>.

■ Installation procedure

This explains how to install this software into PC, taking the following drive configuration as an example.

C drive : Hard disk drive

E drive : CD-ROM drive

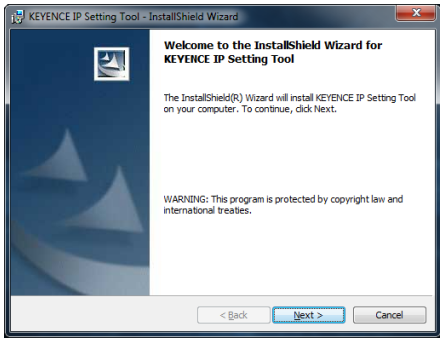
Point **When installing into Windows 7/Vista/XP/2000, log on as an "Administrator" or a greater authority user.**

1 Start up Windows and insert "<<IP Setting Tool>> master disc" into the CD-ROM drive.

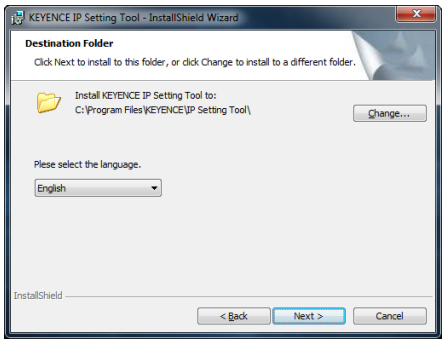
The installation program starts by the Autorun function of PC.

If the installation program does not start, select [Run...] on the Start Menu, enter "e:\setup" in the [Run...] dialog box, and click "OK" button.

2 Click "Next".



3 Specify the installation destination and language at initial startup, and click "Next".



The installation is complete according to the instructions of the installation program.

■ To uninstall

Uninstall <<IP Setting Tool>> when <<IP Setting Tool>> is not necessary.

Uninstall <<IP Setting Tool>> using [Add or Remove Programs] on the Control Panel of Windows.

Point **When uninstalling into Windows 7/Vista/XP/2000, log on as an "Administrator" or a greater authority user.**

3 IP Setting Tool Operations

This explains how to operate <<IP Setting Tool>>.

IP Setting Tool operation (1) <Setting/changing IP address>

This explains how to search the Ethernet devices connected to Ethernet and set/change the IP addresses.

■ Setting procedures

1 From the Start Menu, select [All Programs]→[KEYENCE Applications]→[IP Setting Tool].

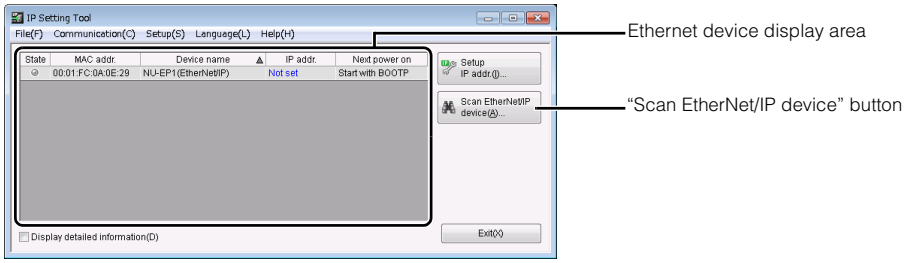
<<IP Setting Tool>> starts.

Another procedure

Double-click the icon.

Point

During startup, <<IP Setting Tool>> detects and displays the BOOTP requests (Start with BOOTP) of the Ethernet devices whose IP address have not yet been assigned.



Item	Description
State	Displays the communication state with the device.*1 Green : Normal communication (IP address set) Blinking green : Normal communication (IP address not set) Red : Abnormal communication (IP address not set) Off : Abnormal communication (IP address set)
MAC addr.	Displays MAC addresses.
Device name	Displays names of KEYENCE products and EtherNet/IP device names. Other than the above are displayed as “Unknown”.
IP addr.	Displays IP addresses. Displays “Not set” when the IP address is not yet assigned.
Next power on	Sets initial IP addresses at the next startup for EtherNet/IP devices. Start with BOOTP : Starts with BOOTP at the next startup. Start with DHCP : Starts with DHCP at the next startup. Start with fixed IP : Uses the fixed IP set at the next startup.
Display detailed information	Turn on the check box to display the host name, request received, and response sent.
Host name*2	Displays the host name of Ethernet.
Request received*2	<<IP Setting Tool>> displays the latest time when BOOTP/DHCP packets have been received.
Response sent*2	<<IP Setting Tool>> displays the latest time when BOOTP/DHCP packets have been sent.

*1 Communication status check is performed as follows: every 15 seconds with devices whose IP addresses have been set, and every time-out (default: 15 seconds) in optional setting with devices which have started with BOOTP/DHCP. If there is no response when checking, the abnormal communication (red or off) is displayed. Option (23 page)

*2 Displayed when Display detailed information is turned on.

Point

If IP addresses cannot be assigned to Ethernet devices set to “Start with BOOTP”, confirm the following.

- **Check if the PC and Ethernet device are properly connected to the network.**
- **Check if the Ethernet device setting is correct.**
- **Check if there is no problem with the PC’s network setup.**
- **Check if the fire wall is not blocking <<IP Setting Tool>>. If blocked, it cannot detect the Ethernet device set to “Start with BOOTP”.**

2 Click “Scan EtherNet/IP device” button and register the EtherNet/IP devices on the EtherNet/IP device display area.

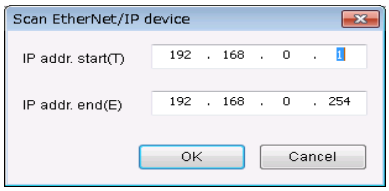
Another procedure

[Communication(C)]→[Scan EtherNet/IP device(A)]

Specify the IP address search range and search EtherNet/IP devices.
Register the searched EtherNet/IP devices on the device display area of <<IP Setting Tool>>.

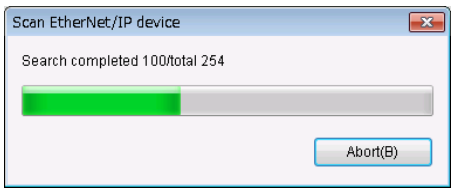
Point

When “Scan EtherNet/IP device” is performed, the EtherNet/IP devices whose IP addresses have been set are searched.
It is not possible to search it excluding the EtherNet/IP device that IP address has been set.



Item	Description
IP addr. start	Enter the first IP address in the search range.
IP addr. end	Enter the last IP address in the search range. Up to 10000 of IP address can be range-specified.

- **Searching (Registering)**

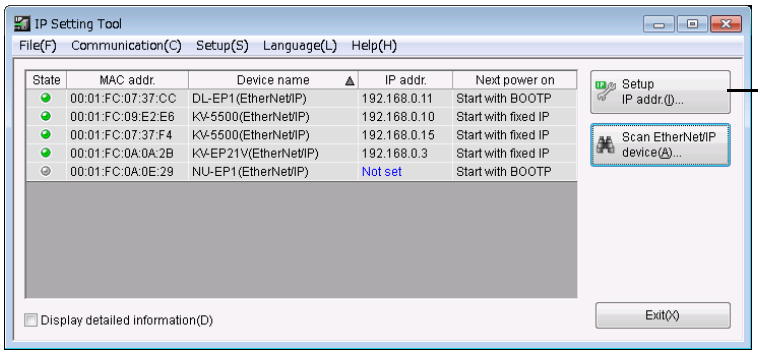


3 Select Ethernet devices on the device display area of <<IP Setting Tool>> and click “Setup IP addr.(I)” button.

Set or change the IP addresses on the displayed [Setup IP addr.] or [Batch set IP address] dialog.

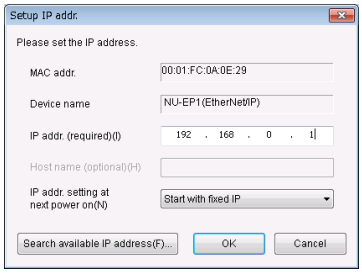
Another procedure

- [Setup(S)]→[Setup IP addr.(I)]
- Select “Setup IP addr.” from the right-click menu.

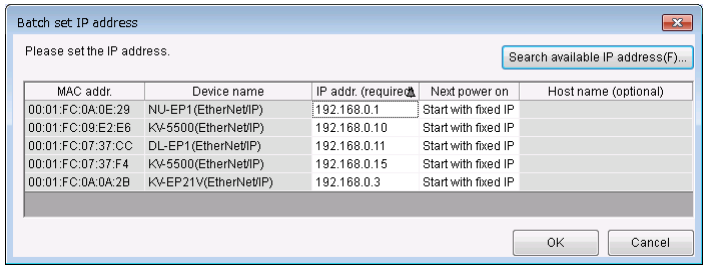


“Setup IP addr.” button

<When selecting a single row>



<When selecting multiple rows>



Item	Description
MAC addr.	Displays MAC addresses.
Device name	Displays names of KEYENCE products and EtherNet/IP device names. Other than the above are displayed as “Unknown”.
IP addr.	Enter the IP address set for the selected device.
Host name	Displays the host name. Host names cannot be set for EtherNet/IP devices manufactured by KEYENCE.
IP addr. setting at next power on	For EtherNet/IP devices manufactured by KEYENCE or those with IP addresses set, setting the initial IP address for the next startup is possible.* Start with BOOTP : Starts with BOOTP at the next startup. Start with DHCP : Starts with DHCP at the next startup. Start with fixed IP : Uses the fixed IP set at the next startup.

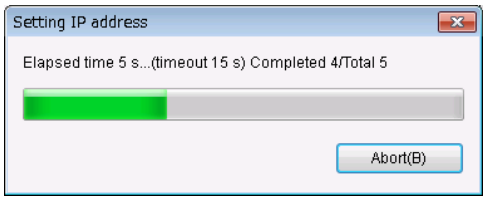
*Cannot be set when using the unit settingless communication function on the KEYENCE EtherNet/IP unit KV-EP21V.

Point

- **Some KEYENCE devices may require switching mode to PROG state when setting IP addresses. Note that <<IP Setting Tool>> sets IP addresses after changing the device mode to PROG state. Accordingly, the device needs to be restored from PROG state to RUN state.**
- **For EtherNet/IP devices manufactured by KEYENCE, if the IP address is not set, “IP addr. setting at next power on” cannot be changed. Restart the [Setup IP Addr.]/[Batch set IP address] dialog after setting the IP address, then change “IP addr. setting at next power on”.**

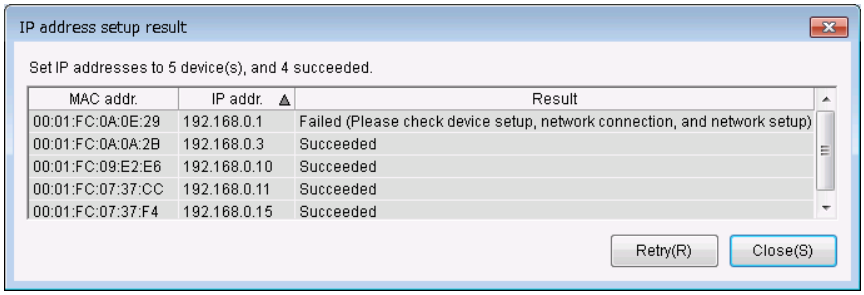
4 Click the "OK" button to set or change the IP addresses for the Ethernet devices.

[Setting IP address] dialog shows the status.



5 Display the IP address setup result.

Point **When all IP addresses for the selected devices have been set successfully, the [IP address setup result] dialog is not displayed.**



Item	Description
MAC addr.	Displays MAC addresses.
IP addr.	Displays IP addresses attempted to be set.
Result	Display the IP address setup result. Succeeded : IP address is successfully assigned. Aborted : IP address assignment process is stopped. If failed, any of the following is displayed. • Failed (Duplicate IP addresses. Please input another IP address) • Failed (The device returned an error response. General Status Code:(*1)H Extended Status Code:(*2)H) • Failed (Please check device setup, network connection, and network setup)*3
Retry	Retries to set IP addresses to the setting failed devices .

*1 Displays the CIP General Status returned from the EtherNet/IP devices in hexadecimal notation. For status details, see manuals of each device.

*2 Displays the CIP Extended Status (Additional Status) returned from the EtherNet/IP devices in hexadecimal notation. For status details, see manuals of each device.

*3 If there is no problem with the network connection and network setting, check the settings of each device using the manuals.

Point **For EtherNet/IP devices, the reset message is sent after IP addresses are changed.**

IP Setting Tool operation (2) <Setting with the address assignment table>

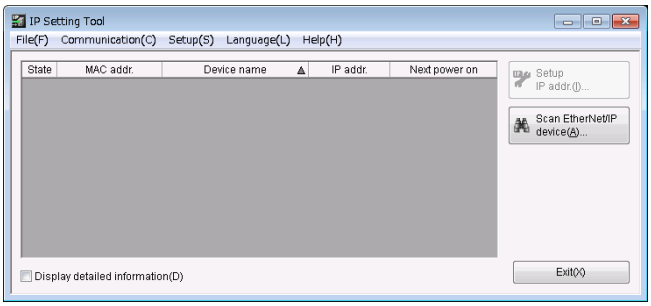
This explains how to set IP addresses of Ethernet devices that support BOOTP connected to Ethernet using the address assignment table made based on the MAC addresses.

■ Setting procedures

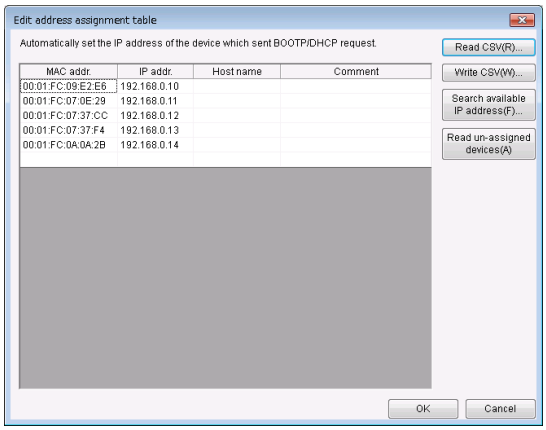
(Create the address assignment table.)

1 From the Start Menu, select [Programs]→[KEYENCE Applications]→[IP Setting Tool].

<<IP Setting Tool>> starts.



2 From the <<IP Setting Tool>> menu, select[Setup(S)]→[Edit address assignment table(T)] and create the address assignment table on the [Edit address assignment table] dialog.



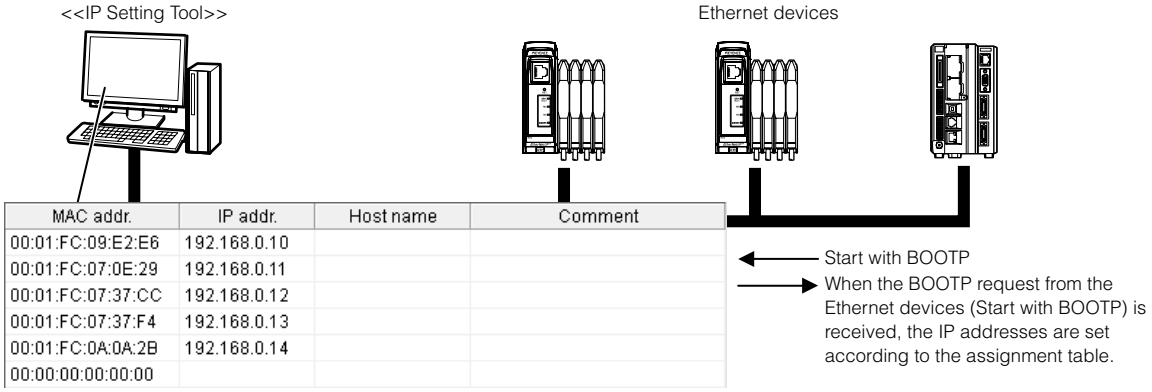
Address assignment table

Item	Description
MAC addr.	Enter MAC addresses.
IP addr.	Enter IP addresses corresponding to MAC addresses.
Host name	Enter the host name. It can be skipped. Setting range: Up to 16 characters in 1 byte 1-byte alphanumeric characters and hyphen (-) can be used. Note that the hyphen (-) cannot be used at the beginning and the ending of characters.
Comment	Enter comments used in the address assignment table only. The comments can be skipped. Setting range: Up to 100 characters in 2 bytes Note that the comma (,), semicolon (;) and double quotation (“) cannot be used.
“Read CSV”	Reads the content of address assignment table saved to CSV file.
“Write CSV”	Saves the content of edited address assignment table as a CSV file.
“Search available IP address”	Starts [Search available IP address] dialog.
“Read un-assigned devices”	Registers with the assignment table the MAC addresses of the IP address un-assigned devices displayed on the device display area in the <<IP Setting Tool>> window.

(Set the IP addresses based on the address assignment table.)

3 Click the "OK" button to enable the address assignment table.

When the setting is enabled, the IP addresses assigned to MAC addresses are set responding to the BOOTP request from the Ethernet devices (Start with BOOTP).



Point

If IP addresses cannot be assigned to Ethernet devices set to "Start with BOOTP", confirm the following.

- **Check if the PC and Ethernet device are properly connected to the network.**
- **Check if the Ethernet device setting is correct.**
- **Check if there is no problem with the PC's network setup.**
- **Check if the firewall of PC is not blocking <<IP Setting Tool>>. If blocked, it cannot detect the Ethernet device set to "Start with BOOTP".**

■ CSV file format for the address assignment table

This explains the format when reading/saving the address assignment table as a CSV file.

Row number	Format	
First row	IP Setting,,File Version,1	
Second row	(Blank row)	
Third row	MAC Address,IP Address,Host Name,Comment	
Fourth - 10003 row	"MAC address","IP address","Host name","Comment"	
	MAC addr.	hh:hh:hh:hh:hh:hh (specified in hexadecimal notation)
	IP addr.	xxx.xxx.xxx.xxx (specified in decimal notation)
	Host name	Can be skipped. Setting available up to 16 characters in 1 byte 1-byte alphanumeric characters and hyphen (-) can be used. Note that the hyphen (-) cannot be used at the beginning and the ending of characters.
	Comment	Can be skipped. Setting available up to 100 characters in 2 bytes Note that the comma (,), semicolon (;) and double quotation (") cannot be used.

Format example

```
IP Setting,,File Version,1

MAC Address,IP Address,Host Name,Comment
00:01:FC:2E:51:2E,192.168.100.99,line1,sensor1
00:01:FC:2E:51:3E,192.168.100.100,,sensor2
00:01:FC:2E:51:4E,192.168.100.101,,sensor3
```

4 Other Functions of IP Setting Tool

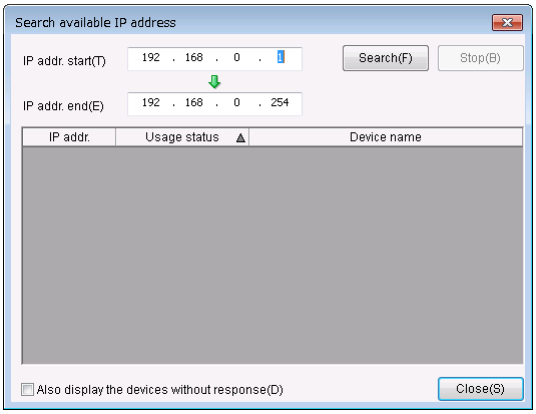
This explains other functions of <<IP Setting Tool>>.

Search available IP address

This searches IP address usage.

1 From the <<IP Setting Tool>> menu, select [Communication(C)]→[Search available IP address(F)].

Specify the IP address search range and search IP address usage.



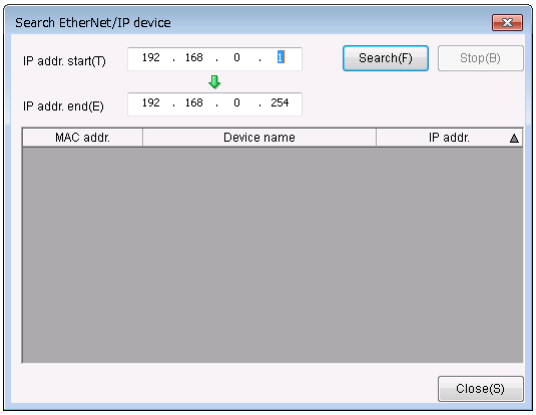
Item	Description
IP addr. start	Enter the first IP address in the search range.
IP addr. end	Enter the last IP address in the search range. Up to 10000 of IP address can be range-specified.
Search	IP addresses in the specified range are searched and the usage status is displayed.
Stop	Stops searching.
IP addr.	Displays IP addresses.
Usage status	Displays the response status of IP address search. Used : IP address that responded during search. No response : IP address that did not respond during search.
Device name	Displays device names of EtherNet/IP devices. Other than the above are displayed as “Unknown”.
Also display the devices without response	Turn on the checkbox to display the IP addresses without response.

Search EtherNet/IP device

This searches EtherNet/IP devices connected to Ethernet.

1 From the <<IP Setting Tool>> menu, select [Communication(C)]→[Search EtherNet/IP device(E)].

Specify the IP address search range and search EtherNet/IP devices.



Item	Description
IP addr. start	Enter the first IP address in the search range.
IP addr. end	Enter the last IP address in the search range. Up to 10000 of IP address can be range-specified.
Search	IP addresses in the specified range are searched and the responding EtherNet/IP devices are displayed.
Stop	Stops searching.
MAC addr.	Displays MAC addresses.
Device name	Displays device names of EtherNet/IP devices.
IP addr.	Displays IP addresses.

Communication test

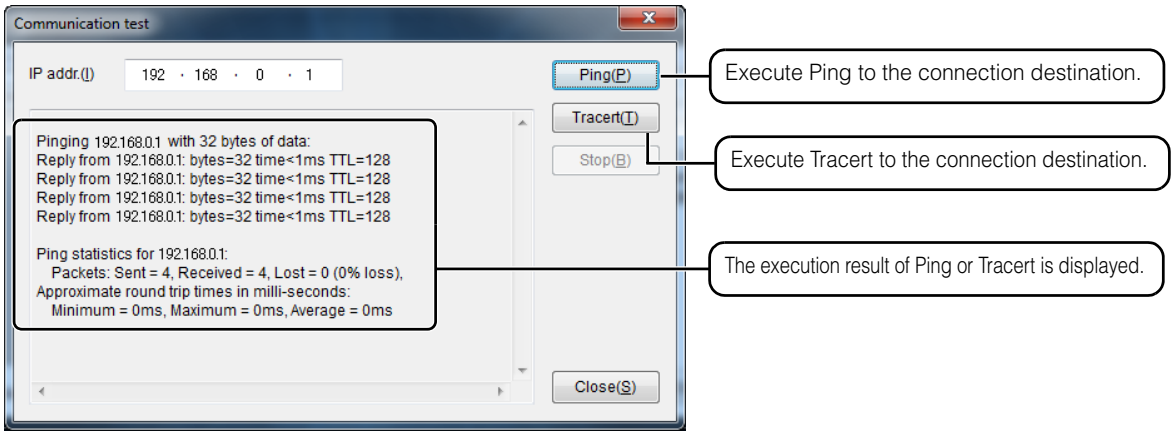
Using “Ping” or “Tracert”, this tests if the connection destination is properly operating. “Ping” and “Tracert” executed from the [Communication test] dialog box have the same functions as “Ping” and “Tracert” executed from MS-DOS prompt.

Ping: By sending the IP packet (ICMP) to the specified IP address and receiving it back from the connection destination properly, this checks if the connection destination is properly operating. Also, since Ping command displays the time taken to respond and lost ratio of packets, the speed to the connection destination can be assumed based on this result.

Tracert: This displays the route from host to host. It is possible to confirm the router status on the route from host to connection destination, or to search the bottleneck on the route from the response time of each router.

1 From the <<IP Setting Tool>> menu, select [Communication(C)]→[Communication test(P)].

Click the “Ping” or “Tracert” button on the displayed [Communication test] dialog box and test the connection destination.



■ When using the “Ping” button

The execution result is displayed on [Execution result].

When no problems are present (Typical example)	When problems are present (Typical example)
Pinging 192.168.0.10 with 32 bytes of data:	Pinging 192.168.0.10 with 32 bytes of data:
Reply from 192.168.0.10: bytes=32time=20msTTL=64	Request timed out.
Reply from 192.168.0.10: bytes=32time=10msTTL=64	Request timed out.
Reply from 192.168.0.10: bytes=32time=10msTTL=64	Request timed out.
Reply from 192.168.0.10: bytes=32time <10msTTL=64	Request timed out.
Ping statistics for 192.168.0.10:	Ping statistics for 192.168.0.10:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),	Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:	Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 20ms, Average = 10ms	Minimum = 0ms, Maximum = 0ms, Average = 0ms

Point

- **For details, confirm with the network administrator. “Ping” may not be used depending on the router setting.**
- **If problems are present with the execution result, consult with the network administrator and take corrective measures.**

■ When using the “Tracert” button

The execution result is displayed on [Execution result].

When no problems are present (Typical example)	When problems are present (Typical example)
Tracing route to 192.168.0.10 over a maximum of 30 hops	Tracing route to 192.168.0.10 over a maximum of 30 hops
1 10 ms < 10 ms 10 ms 192.168.0.10	1 < 10 ms < 10 ms < 10 ms 10.10.17.254
	2 * * * Request timed out.
Trace complete.	3 * * * Request timed out.
	4 * * * Request timed out.
	5 * * ←The “Stop” button is clicked here.

Point

- **For details about each execution result, confirm with the network administrator.**
- **For details, confirm with the network administrator. “Tracert” may not be used depending on the router setting.**

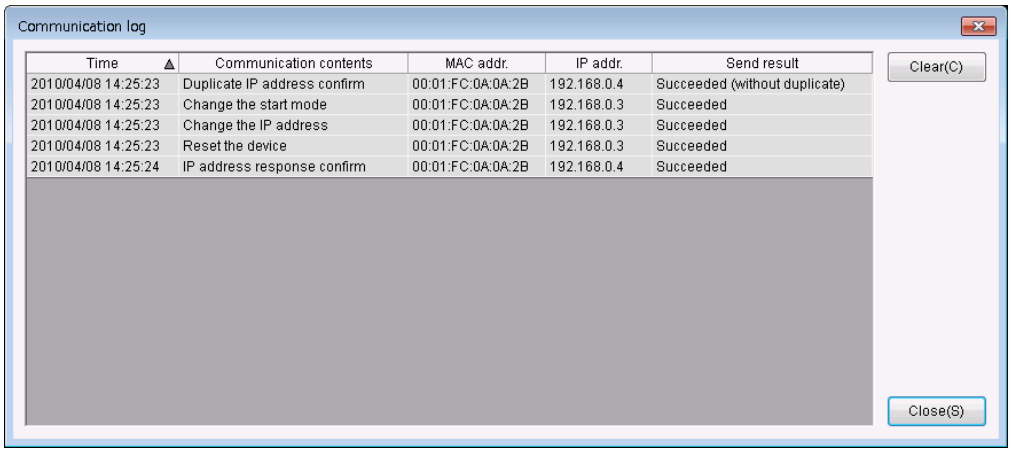
2 Click the “Close” button after confirmation.

Communication log

This records the history of communication exchanged between <<IP Setting Tool>> and Ethernet devices and displays it.

After startup, maximum of 10000 histories beginning with the latest one are recorded.

1 From the <<IP Setting Tool>> menu, select [Communication(C)]→[Communication log(L)].



Item	Description
Time	Displays the time communication occurred.
Communication contents	Displays the communication contents that occurred. BOOTP Request received : Receives the BOOTP Request packets (device→<<IP Setting Tool>>) BOOTP Response sent : Sends the BOOTP Reply packets (<<IP Setting Tool>>→device) DHCP Discover received : Receives the DHCP Discover packets (device→<<IP Setting Tool>>) DHCP Request received : Receives the DHCP Request packets (device→<<IP Setting Tool>>) DHCP Response sent : Sends the DHCP Reply packets (<<IP Setting Tool>>→device) Change the start mode : Changes the start mode of devices (IP address setting at next power on) Change the IP address : Changes the IP addresses of devices Change the host name : Changes the host names of devices Reset the device : Sends the reset message to devices Change the mode* : Changes the mode of devices IP address response confirm : Sends Ping for confirmation after the IP address is assigned Duplicate IP address confirm : Sends Ping to confirm duplication before the IP address is assigned
MAC addr.	Displays MAC addresses of devices at communication destination.
IP addr.	Displays IP addresses of devices at communication destination. When receiving the BOOTP request from Ethernet devices, this is not set.
Send result	Displays the result of sent contents (<<IP Setting Tool>>→ device). If the communication contents include “received”, this is not displayed. Succeeded : Succeeded in sending or changing Failed : Failed in sending or changing Succeeded (without duplicate) : There is no duplication for “Duplicate IP address confirm”. Failed (with duplicate) : There is duplication for “Duplicate IP address confirm”.

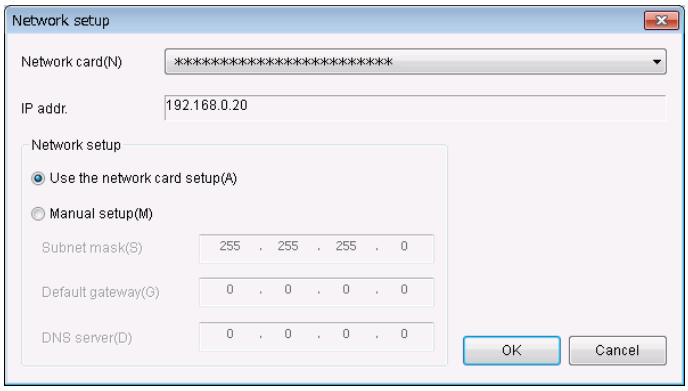
* This is displayed when KEYENCE PLC KV-5500 with built-in EtherNet/IP, and EtherNet/IP unit KV-EP21V are used and the mode is changed from RUN (PROG) to PROG (RUN) mode.

Network setup

This sets the network when the PC has two network cards or more, or the PC and Ethernet devices are connected with the router.
When selecting “Manual setup” and entering the subnet mask, default gateway and DNS server on the Ethernet devices, it is possible to set the IP addresses of Ethernet devices with BOOTP startup on another network connected with the router.

Point **This is effective when using the router compatible with the relay agent function.**

1 From the <<IP Setting Tool>> menu, select [Setup(S)]→[Network setup(C)].



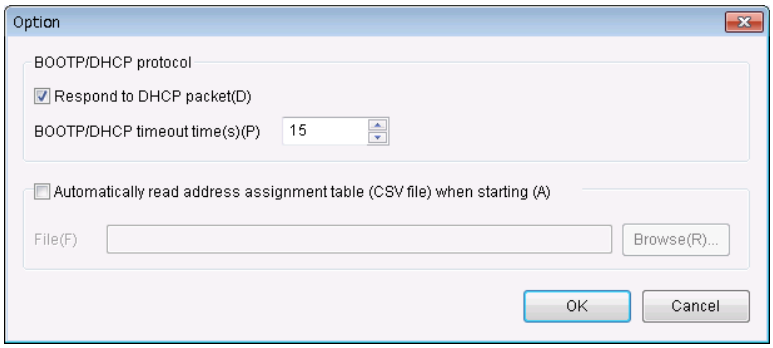
Item	Description
Network card	Displays the network card used for PC. When the PC has two network cards or more, set the network card for <<IP Setting Tool>>.
IP addr.	Displays the IP address set for PC.
Use the network card setup	When the PC and some Ethernet devices are connected with the router, check “Manual setup” and set the subnet mask, default gateway and DNS server on the Ethernet devices.
Manual setup	
Subnet mask*	Sets and displays the subnet mask.
Default gateway*	Sets and displays the default gateway.
DNS server*	Sets and displays the DNS server.

* The Network setup is used when setting the IP addresses for devices with BOOTP/DHCP startup. This is not used when changing the IP addresses for devices with IP assigned.

Option

This changes the settings of <<IP Setting Tool>>.

1 From the <<IP Setting Tool>> menu, select [Setup(S)]→[Option(O)].



Item	Description
Respond to DHCP packet	Ethernet devices sending DHCP packets are set as detection targets.
BOOTP/DHCP timeout time(s)	Sets the interval for checking the communication status with devices with BOOTS startup/ DHCP startup set. If the BOOTP/DHCP request packet reception interval elapses beyond the set time, the status indicator lights red. The range of setup is from 15 to 300 seconds. The default value is 15 seconds. For the status indicator details, see IP Setting Tool operation (1) <Setting/changing IP address> (11 page)
Automatically read address assignment table (CSV file) when starting	Automatically reads the address assignment table (CSV file) when starting <<IP Setting Tool>>.
File	Displays the file path of address assignment table (CSV file) automatically read when starting <<IP Setting Tool>>.
“Browse”	Opens the file selection dialog and selects the address assignment table (CSV file) used .

Send reset message

This sends the reset message to EtherNet/IP devices.
The reset message is used as a restart request to reflect the changed parameter (i.e. IP address, Ethernet communication speed, etc.).
For operation when receiving the reset message, see manuals of each device.

1 Select the EtherNet/IP device, then select [Communication(C)]→[Send reset message(R)].

Point

- **Some KEYENCE devices may require switching mode to PROG state when setting IP addresses.**
- **After executing "Send reset message", the message transmission is executed: message transmission with the Reset service (05H) of Identity object (class ID: 01H) of each device specified with the service data (00H: power reset emulation) .**

IP address initialization

This function is effective when using the KEYENCE EtherNet/IP devices. When executing IP address initialization to KEYENCE EtherNet/IP devices, the IP addresses are initialized (Start with BOOTP) and the reset message is sent.
For operation when receiving the reset message, see manuals of each device.

1 Select the KEYENCE EtherNet/IP device, then select [Communication(C)]→[IP address initialization(U)].

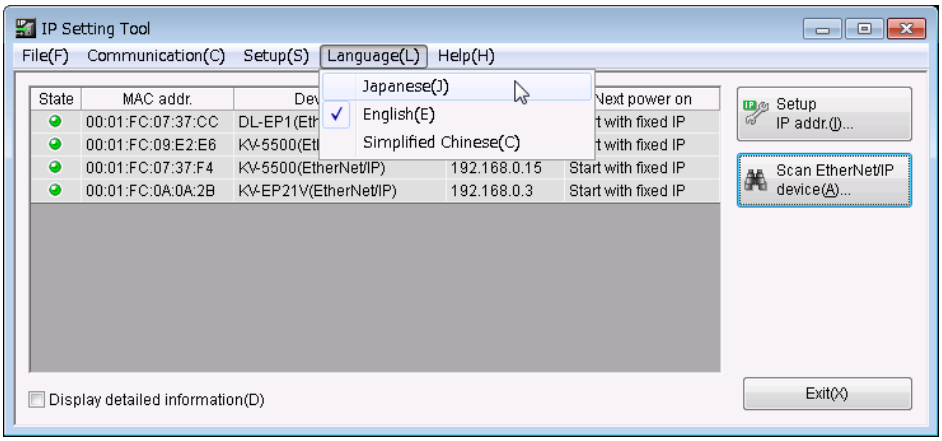
Point

Some KEYENCE devices may require switching mode to PROG state during IP address initialization.
Note that <<IP Setting Tool>> executes IP address initialization after changing the device mode to PROG state. Accordingly, the device needs to be restored from PROG state to RUN state.

Changing the language

This can change the display language of <<IP Setting Tool>>.

1 From the <<IP Setting Tool>> menu, select [Language(L)] and select the display language among [Japanese/English/Simplified Chinese].



The changed language is displayed at the next startup.

Help

The manual and version of <<IP Setting Tool>> can be confirmed using the Help menu.

(Manual)

1 From the <<IP Setting Tool>> menu, select [Help (H)]→[Manual (M)].

This manual opens.

(Version information)

1 From the <<IP Setting Tool>> menu, select [Help (H)]→[Version information (A)].

5 Error Messages

This explains about error messages and corrective measures when error messages are displayed.

Error Messages	Cause and corrective measure
Failed to send reset message to device with [IP address of target device].	The reset message could not be sent due to the communication error or device settings. Check the communication status, device settings and operation status.
Failed to initialize network communication. Application terminated. Please check the following: • More than 16 IP addresses are set in the PC. • Firewall blocks the communication. • Check if there is no problem in the PC's network setup.	<<IP Setting Tool>> could not start. Check the error message content.
Failed to start because BOOTP/DHCP port 67 is not available. The reason may be one of the following: • Another BOOTP/DHCP server is running on the PC. • KV STUDIO is using BOOTP function. • There are problems in the network setup.	<<IP Setting Tool>> could not start. Check the error message content.
Please select the network card.	The network card set with <<IP Setting Tool>> is not valid. Confirm the network card setting or select another network card.
The network card which were used is unusable now. Please select another network card, or cancel and confirm the state of the network card.	The network card set with <<IP Setting Tool>> cannot be used. Confirm the network card setting or select another network card.
Failed to start. The network card is not available.	A valid network card is not present. Check the network card setting and the status.
Subnet mask is not valid.	The input value on the [Network setup] dialog is not valid. Input the correct value.
Default gateway address is not valid.	
DNS server address is not valid.	
Failed to execute command.	Ping/Tracert execution on the [Communication test] dialog failed. Check the network card setting and the connection status.
Failed to read. Error occurred at line [row number with the error factor] in the specified file.	Failed to read the address assignment table. Check if the format of address assignment table is correct.
Invalid host name specified.	Characters invalid as a host name are entered. 1-byte alphanumeric characters and hyphen (-) can be used for host names. Note that the hyphen (-) cannot be used at the beginning and the ending of characters.
The maximum number of batch set is 50.	More than 50 Ethernet devices are selected. Select 50 or less.
Cannot change the IP address since cannot respond to EtherNet/IP message communication.	You have attempted to set the IP address to the device whose IP address cannot be changed. IP addresses cannot be changed for the devices below. • Ethernet device other than EtherNet/IP device • EtherNet/IP device whose IP address cannot be changed
Ethernet communication failed. The network card may be disabled.	The communication failed. Check the network card setting and the status.
Cannot input items more than 10000.	More than 10000 are entered on the [Edit address assignment table] dialog. Enter 10000 or less.
Failed to obtain the state of the device.	The communication with the device failed. Check the communication status, device status or settings. Some devices may not be compatible with the IP address setting via Explicit Message communication.
Failed to obtain the state of the device with [IP address of target device].	The communication with the device failed. Check the communication status, device status or settings.

Error Messages	Cause and corrective measure
Failed to update the state of the device with [IP address of target device].	Mode switching (RUN→PROG or PROG→RUN) for the EtherNet/IP device failed. Check the communication status, device status or settings.
No sufficient disk space.	The address assignment table cannot be saved as a CSV file due to lack of the disk space. Check the disk space.
Failed to change the language. Proper font may be not installed.	The specified fonts have not been installed. Check if the following fonts are installed. Japanese: MS UI Gothic English: Arial Simplified Chinese: SimSun
The font of specified language is not installed. Start with English.	
Authority not sufficient to execute <<IP Setting Tool>>.	Due to lack of authority to execute <<IP Setting Tool>>, it could not start up. Check if the following authorities are conferred. Windows 7/Vista: “Standard user” or higher Windows XP/2000: “Power user” or higher
Failed to initialize the IP address of device with [IP address of target device].	The communication with the device failed. Check the communication status, device or settings or status .

Revision History

Date of printing	Version	Revision contents
June, 2010	Official release	

WARRANTY

KEYENCE products are strictly factory-inspected. However, in the event of a failure, contact your nearest KEYENCE office with details of the failure.

1. WARRANTY PERIOD

The warranty period shall be for one year from the date that the product has been delivered to the location specified by the purchaser.

2. WARRANTY SCOPE

(1) If a failure attributable to KEYENCE occurs within the above mentioned warranty period, we will repair the product, free of charge. However, the following cases shall be excluded from the warranty scope.

- Any failure resulting from improper conditions, improper environments, improper handling, or improper usage other than described in the instruction manual, the user's manual, or the specifications specifically arranged between the purchaser and KEYENCE.
- Any failure resulting from factors other than a defect of our product, such as the purchaser's equipment or the design of the purchaser's software.
- Any failure resulting from modifications or repairs carried out by any person other than KEYENCE staff.
- Any failure that can certainly be prevented when the expendable part(s) is maintained or replaced correctly as described in the instruction manual, the user's manual, etc.
- Any failure caused by a factor that cannot be foreseen at a scientific/technical level at the time when the product has been shipped from KEYENCE.
- Any disaster such as fire, earthquake, and flood, or any other external factor, such as abnormal voltage, for which we are not liable.

(2) The warranty scope is limited to the extent set forth in item (1), and KEYENCE assumes no liability for any purchaser's secondary damage (damage of equipment, loss of opportunities, loss of profits, etc.) or any other damage resulting from a failure of our product.

3. PRODUCT APPLICABILITY

KEYENCE products are designed and manufactured as general-purpose products for general industries. Therefore, our products are not intended for the applications below and are not applicable to them. If, however, the purchaser consults with us in advance regarding the employment of our product, understands the specifications, ratings, and performance of the product on their own responsibility, and takes necessary safety measures, the product may be applied. In this case, the warranty scope shall be the same as above.

- Facilities where the product may greatly affect human life or property, such as nuclear power plants, aviation, railroads, ships, motor vehicles, or medical equipment
- Public utilities such as electricity, gas, or water services
- Usage outdoors, under similar conditions or in similar environments

Specifications are subject to change without notice.

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