

# INSTRUCTION MANUAL

A Security Camera Software

authorized by

The Society for the e-JIKEI Network



**Dairi EYE Standard**

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## [1] CONCEPT OF THE e-JIKEI NETWORK

A community with many residents keeping occasional watch around their houses has the potential to inhibit crime. In days gone by, there were many communities like this. However, in our times, when individualism and selfishness become increasingly common, there are very few communities like this. This often results in a lack of eyewitnesses of crimes in our modern communities.

On the other hand, security camera systems are now widely used and have an important role in reducing crime and identifying suspects. As for the typical usage of the security cameras systems, many problems seem to arise from the fact that they are introduced only for the benefit of the owners. One problem is that it is expensive to obtain a complete surveillance of an owner's property. A second problem is that a typical system usually keeps watch only inside the owner's property, so it cannot help with the safety of the community. A third problem is that it sometimes gives the pleasant feeling to the neighbors in case the system watches outside the owner's property. The authors argue that these problems can be solved if the camera systems are introduced within an altruistic community-minded framework.

We contend that a community will have a strong ability to prevent crime if many residents keep watch on what happens around their houses with the aid of their own home computers, commercially available cheap cameras, and free-software.

If the system of security cameras connected to computers and to the Internet spreads nationwide, it could result in a very powerful and flexible social structure. In addition, the software installed in each system could be easily upgraded. This means that this social structure could lead to very interesting subjects and applications for researchers and companies. In the near future, more intelligent functions could be achieved, such as the detection of doubtful motion, the sending of danger messages to the police, and facial comparison with the photos of wanted persons. Real-time chasing of suspected persons will be possible if the crime is very bad and most of the citizens give the police permission to access their own surveillance system. A country with many local

communities having this facility will obtain good homeland security.

However, privacy protection is still one of the most important and delicate issues in promoting the concept. We have generated user guidelines as a part of the conditions of use of the software, in which a careful consideration of privacy issues is required. The users of the software are asked not to watch the obtained pictures without appropriate reasons, so as to prevent them from knowing unnecessary information of neighbors' behaviors. When the concept becomes more widely spread across the nation, new laws will be required for defining the rights of and constraints on the owner of each system including large amount of the obtained information.

## [2] SOFTWARE USE AGREEMENT

### [2.1] Software Use Agreement

If you use the software of e-JIKEI Network Project Term, then you have to agree to the following four terms.

#### (1) Do not make bad use of the software.

You can make bad use of anything. This software is implemented and distributed for crime prevention; however, you can make bad use of the software, for example, for sneaking pictures. "Security camera usage guideline", which is stated elsewhere, is a part of this software use agreement. Read this guideline and do not use the software against this guideline. Although "Security camera usage guideline" is written in stiff style, in brief, this guideline asks you not to make bad use of the software. Since this software has ability, you would invade other's privacy as a result even if you do not would like to. To prevent such troubles, we strictly provide what you must not do in "Security camera usage guideline". For example, when you use the picture obtained by this software for the purposes except criminal investigation of police, you have to give careful caution. When police asks you to provide the picture obtained by the software, it depends on your decision and responsibility whether you comply with such a request.

#### (2) There is no warranty for this software.

We hope but do not warrant that the software works rightly and usefully for crime prevention. We do not take responsibility for the effectiveness such as loss or damage that you can obtain by using the software.

#### (3) We hold the copyright of this software.

We can use the software freely as long as you agree the four terms. However, the copyright of this software belongs to us.

#### (4) Do not redistribute this software.

You have to keep the serial number. Only registration users can use this software. Do not redistribute this software and serial number.

## [2.2] Security camera usage guideline

### (Introduction)

Security camera systems including the free software distributed by e-JIKEI Network Project Team is developed for those who feel that they would like to contribute local area security with the mind of mutual help. We do not hope that the people without this mind use this security camera system. The system has much ability and we think that if we use it rightly, then we can improve local area security. However, because of this ability, it is feared that if you make bad use of this system, you would cause the social big issues. It is also feared that if you innocently reveal information obtained by this security camera system, then you would cause serious results such as invasion of other's privacy. We make the following strict terms a part of usage agreement so that e-JIKEI Network Project Team Software contributes social security which is our purpose.

### (Object)

#### ARTICLE 1

The object of this guideline is to provide the teams that security camera system administrator must obey. We mean that security camera system is the system which consists of e-JIKEI Network Project Team software, computer in which the software is installed, equipment displaying or storing the picture taken by camera.

### (Primary principle)

#### ARTICLE 2

You must use security camera system for realizing the secure and peaceful local community and preventing crime and accident.

### (Prevention of the illegal invasion of other's rights)

#### ARTICLE 3

Security camera system users must prevent the illegal invasion of other's privacy or rights in the usage of the system.

### (Safekeeping of pictures)

#### ARTICLE 4

Security camera system users must safely keep the pictures obtained by the security camera system and the storage media of the pictures and prevent leak of the pictures.

### (Limitation of providing the pictures)

#### ARTICLE 5

Security camera system users may reveal the pictures obtained by security camera system only for criminal investigation or social common idea or legal reasons. However, in any cases, decision of revealing the pictures obtained by security camera systems depends on the user who owns the pictures.

### (Duty of confidentially)

#### ARTICLE 6

Security camera system users must not leak the secrets of others that the users know by the picture of security camera system.

### (Limitation of software distribution)

#### ARTICLE 7

No one must provide this software to those who would use security camera system against this guideline.

### (Interview and confirm of security camera system usage)

#### ARTICLE 8

**Section 1:** e-JIKEI Network Project Team have the right to send out questionnaires to the security camera system users about security camera system usage situation by e-mail and so on.

**Section 2:** Security camera system users must reply the questionnaires as much as possible, however, the users have the right to deny the questionnaires.

## [3] USUFUL INFORMATION

The Society for The e-JIKEI Network

<http://www.e-jikei.org>

## [4] Quick Start Manual

### [4.1] Before start "Dairi EYE Standard"

- (a) For use a USB-camera or a video adapter: The driver of must be installed beforehand.
- (b) For use a network camera, camera parameters, such as IP address, user name and password, must be set properly.
- (c) ConfigCommon.txt must be edit using "Config File Edit", properly.

### [4.2] Points for operation

One run of "Dairi EYE Standard" operates one camera. For operaring multiple cameras using one PC, multiple runs are required.

- (a) Start "Dairi EYE Standard".
- (b) Select the mode among VFW mode, FTP mode and HTTP mode.

### [When VFW mode is selected]

- (c.1) Compression mode must be selected to be "RGB24".
- (c.2) Program window is creaded, then the image taken by the camera is shown.
- (c.3) "Camera Select Dialog" is shown. Slect the name of the camera in it. (Under VFW mode, the camera to be controled can not be selected beforehand. In case of using multiple cameras (or USB Video adapters), the camera is automatically selected and controlled by "Dairi EYE" in turn decided by the operating system.

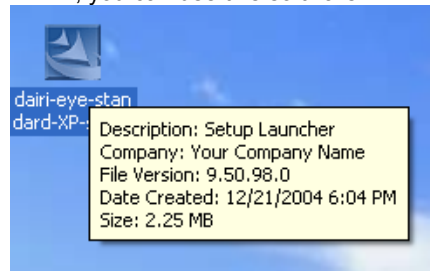
### [When FTP mode or HTTP mode is selected]

- (d.1) "Camera Select Dialog" is shown. Select the name of camera to be controlled.
- (d.2) Program window is creaded, then the image taken by the selected camera is shown.
- (d.3) In the case that you use this software on Windows XP Service Pack 2, there is a possibility of image receiving trouble if the Windows XP firewall works. This trouble occurs because receiving images are delayed by the firewall check.

If several troubles occur in the use of this software, please check the firewall setup or turn off the firewall for this software or the firewall itself.

## [5] How to install

Start the installer downloaded form the homepage of the Society of the e-JIKEI Network ([www.e-jikei.org](http://www.e-jikei.org)). Only if you agree all the terms of "SOFTWARE USE AGREEMENT", you can use this software.



## [6] Camera setting

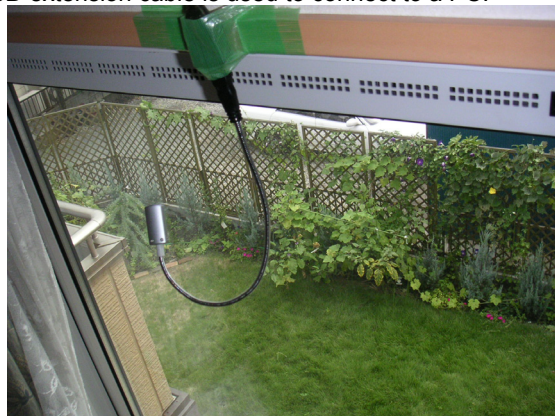
### [6.1] For VFW mode

The driver of the cameras must be installed beforehand. ConfigCommon.txt must be edit using "Config File Edit",

properly. One run of "Dairi EYE Standard" operates one camera. For operating multiple cameras using one PC, multiple runs are required.

"Dairi EYE Standard" can control USB-cameras and USB Video Adapters, that support Microsoft VFW (Video for Windows).

The next figure shows a setup example. A USB camera is attached on the window frame with a tape. A 5-m USB-extension cable is used to connect to a PC.



The next figure shows the view from outside.



The next figure shows another camera which is also attached to the window frame.



#### [6.2] For FTP mode and HTTP mode

Camera parameters, such as IP address, user name and password, must be set properly. ConfigCommon.txt must be edit using "Config File Edit", properly. Every run of "Dairi EYE Standard" operates one camera. For operating multiple cameras using one PC, multiple runs are required.

In the case that you use this software on Windows XP Service Pack 2, there is a possibility of image receiving trouble if the Windows XP firewall works. This trouble occurs because receiving images are delayed by the firewall check. If several troubles occur in the use of this software, please check the firewall setup or turn off the firewall for this software or the firewall itself.

The next figure shows a setup example. A network camera is placed outside a house. All the works was done by D.I.Y.



ネットワークカメラの設置例

The following parameters must be set properly in "ConfigCommon.txt". To edit "ConfigCommon.txt", it is convenient to use "Config File Edit".

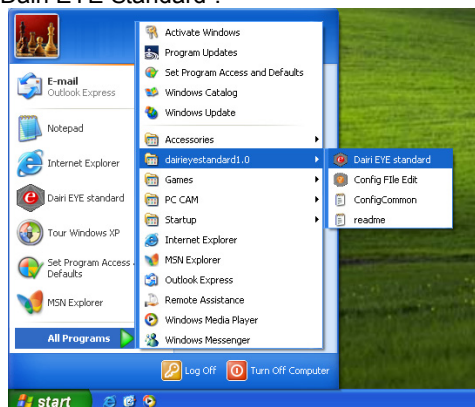
- (a) IP address: for example, 192.168.1.200
- (b) User name: for example, root
- (c) Password: for example, pass
- (d) Image name: for example, image.jpg

## [7] How to use

### [7.1] For VFW mode

Compression mode must be selected to be "RGB24".

Start "Dairi EYE Standard".

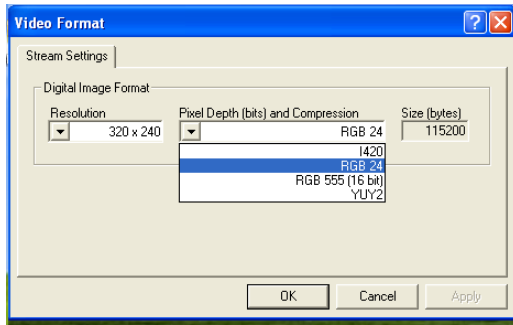


Select "VFW mode".

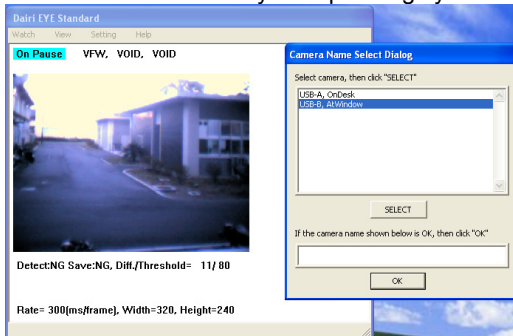




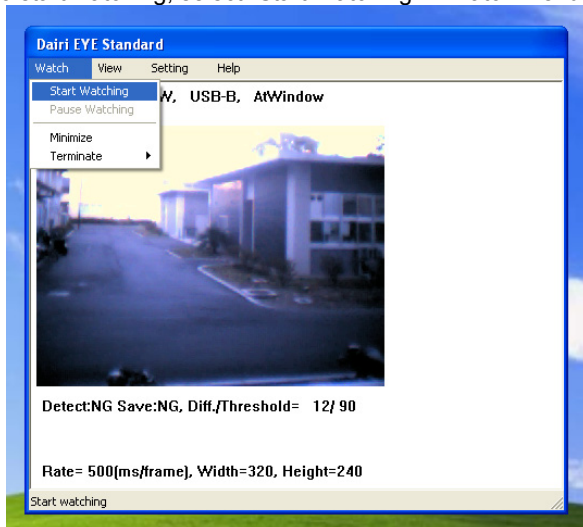
Select "RGB24".



Program window is created, then the image taken by the camera is shown. "Camera Select Dialog" is shown. Select the name of the camera in it. (Under VFW mode, the camera to be controlled can not be selected beforehand. In case of using multiple cameras (or USB Video adapters), the camera is automatically selected and controlled by "Dairi EYE" in turn decided by the operating system.



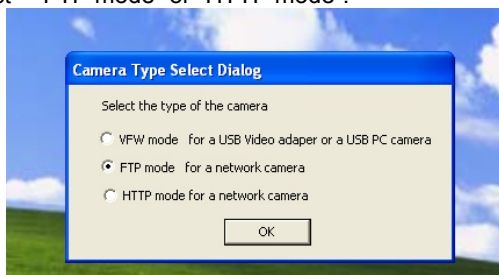
To start watching, select "Start Watching" in watch menu.



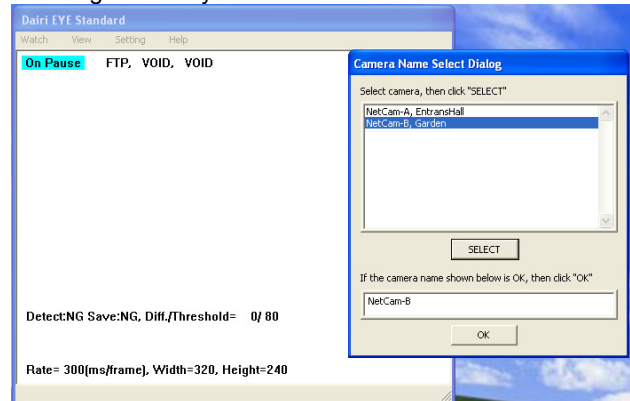
## [7.2] For FTP mode and HTTP mode

Compression mode must be selected to be "RGB24".

Select "FTP mode" or "HTTP mode".



"Camera Select Dialog" is shown. Select the name of camera to be controlled. Program window is created, then the image taken by the selected camera is shown.

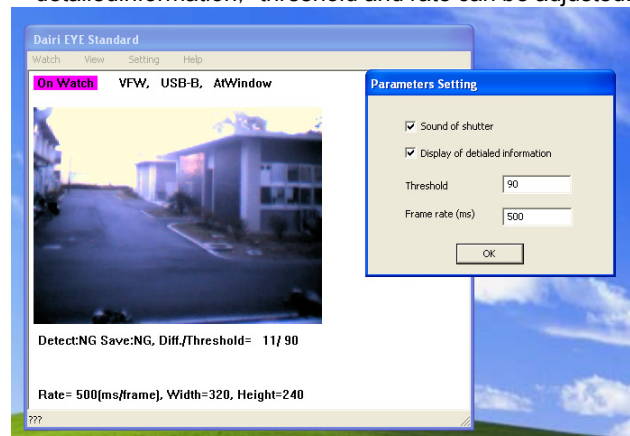


## [8] Functions

The following functions are implemented to the software "Dairi EYE Standard".

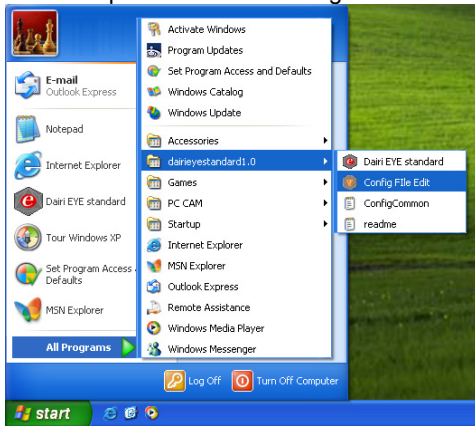
- (1) The system can use two kinds of cameras; one is a VFW cameras or adapter (VFW mode). The other is a network camera (FTP mode and HTTP mode).
- (2) The system always acquires pictures several times in a second from network or USB camera.
- (3) The system can use two or more cameras in one PC.
- (4) If the acquired picture is different from the picture acquired immediately before, then the system saves the acquired picture. Otherwise, the system does not save it.
- (5) The system user can designate the threshold of the difference between the acquired picture and the picture acquired immediately before.
- (6) The saved pictures are automatically erased at the time, which the system user designates.
- (7) The system monitors the remaining disk space. When the disk space is less than 3 GB at the time of 0:00, the system shows the instantaneous value of the remaining disk space every time the picture saved.
- (8) Every time the number of the picture saved in one day exceeds the set value, the system shows the warning message and the value of the threshold is set to be 50% larger.

Using the parameter set dialog, sound of shutter, detailed information, threshold and rate can be adjusted.

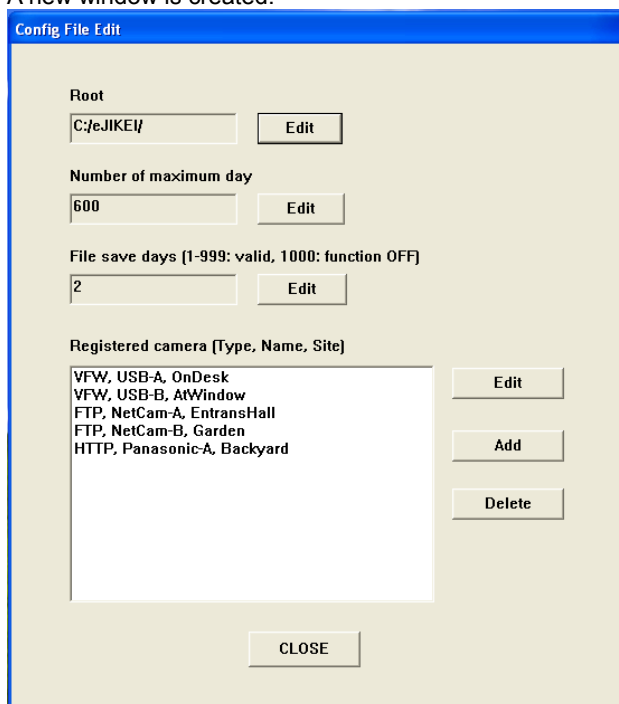


## [9] How to use “Config File Edit”

The software helps user to edit “ConfigCommon.txt” safely.



A new window is created.



### [Root Directory: C:/e-jikei/]

This set the root directory, where the image saved.

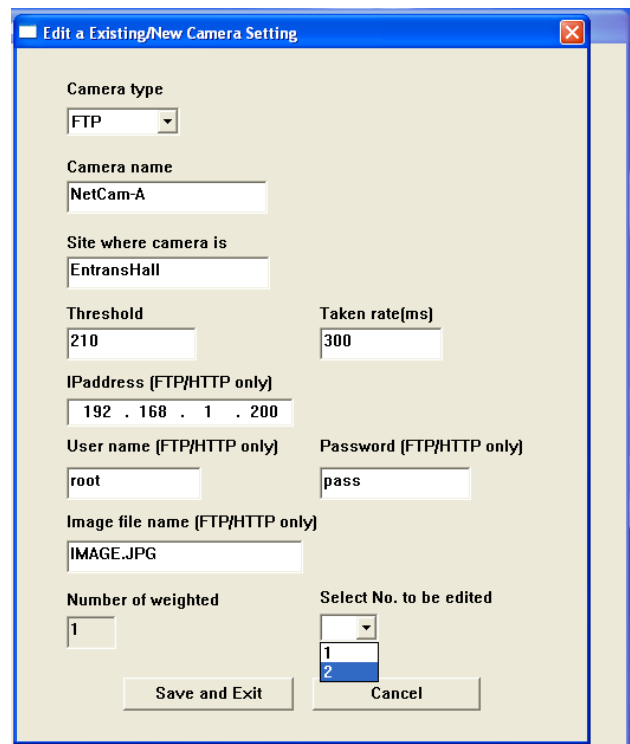
### [Number of maximum day:600]

This sets the maximum number of the pictures saved in one day. Every time the number of the picture saved in one day exceeds the set value, the system shows the warning message and the value of the threshold is set to be 50% larger.

### [File save days:2]

The directory in which the images taken by the camera saved before (FileSaveDays + 1) days, is automatically deleted after 0:00. If FileSaveDays is set to be 1000, the function is killed.

If a camera is selected and then “Edit” is clicked, a new window is created to edit the selected camera.



### [Camera:FTP]

Select the type of the camera.

### [Camera:NetCam-A]

Enter the name of the camera.

### [Site where camera is:EntransHall]

Enter the site name of comment where the camera is placed.

### [ Threshold:210]

If the difference of the relevant two pictures exceeds Threshold, the system considered that the motion is detected. Threshold must be set between 0 and 65025.

### [Taken rate:300]

This value is set the frame rate of pictures sent form the camera to PC.

### [IP address:192.168.1.200]

### [User name:root]

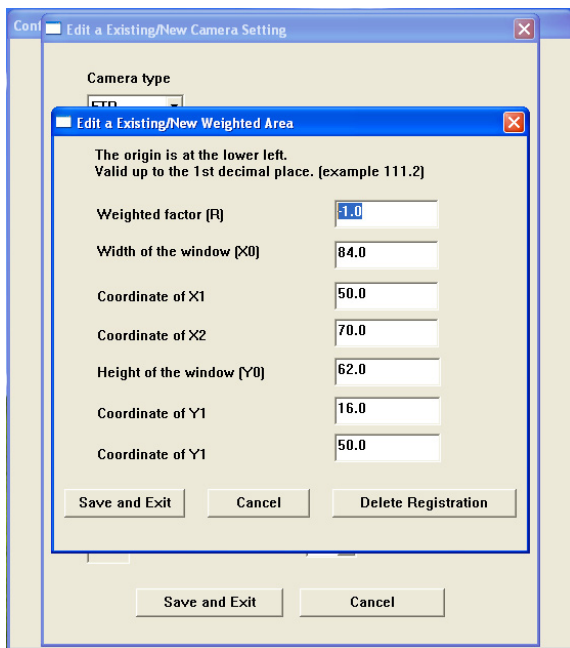
### [Pass word:pass]

### [Image file name:IMAGE.JPG]

These 4 parameters are only valid for FTP mode and HTTP mode.

### [Number of weighted:1]

This is the number of the area in which the sensitivity of the motion detection is adjusted. This value must be between 0 and 10.



The meanings of these values are as follows.

**R**:Weight. If Weight=-1, the area is ignored. If Weight=-0, nothing is changed. If Weight=1, the sensitivity of the area is twiced.

**x<sub>0</sub>** :Total Width

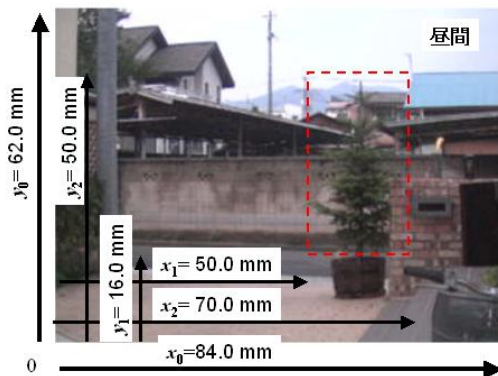
**x<sub>1</sub>** :Width (See the next two figures)

**x<sub>2</sub>** :Width (See the next two figures)

**y<sub>0</sub>** :Total Height

**y<sub>1</sub>** :Height (See the next two figures)

**y<sub>2</sub>** :Height (See the next two figures)



In this case, the weighted area is set to ignore the area around the tree.



The figure shows the procedure to measure the parameters.

## [10] Recommended Hardware

### [10.1] For VFW mode

Any USB-PC camera with the VFW(Microsoft Video for Window) driver can be used.



USB repeater cable (usually 5 m long) will be useful to set a USB camera inside a house with low cost.



Home video cameras with image output can be used by means of a USB video adapter.







Such connecting adapter will be useful for use of usual security cameras instead of home video cameras.



**[10.2] For FTP mode and HTTP VFW mode**  
**CG-WLNC11MN (manufactured by COREGA)**  
 FTP mode is suitable to control this camera.



**CS-TX01F(wireless) / CS-TX01B(wire) (manufactured by PCi)**  
 FTP mode is suitable to control this camera.



**KX-HCM170 (manufactured by Panasonic)**  
 Only HTTP mode can control this camera.

