Application Software for Fish-eye Lens Camera

OPT360Viewer

Operation Manual

(Windows Version)

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This is an operation manual of "OPT 360 Viewer" application software for viewing images from 360° network camera NM33 series, NM35 series, NUD360 series of OPT Corporation. This manual corresponds to OPT360Viewer Version 1.0.3.0 or later.

- Please read this manual carefully and use it correctly and safely.
- Please keep this manual in a safe place.
- Operation of each camera should be referred to the instruction manual of each product..

Note: In order to read the PDF file, Adobe Reader of Adobe Systems Corporation is necessary.

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Application Software "OPT360Viewer" specially designed for Fish-eye Lens Camera

1. Features

 To monitor a live view of 360° network camera by dewarping.
 The corresponding 360° network cameras are NM33 series, NM35 series, NUD360 series of OPT Corporation and ZOOM Co. Ltd.

Note: Dewarping is an image processing function that corrects the distortion of image peculiar to the fisheye lens so that it looks like a flat image. Dewarping includes the partial expansion, 180° x 2 panorama, and Quad partial modes.

- To playback a view recorded on a NVR by dewarping. The **corresponding NVR** is referred to **4-3 on page 25**.
- To switch the dewarping mode (1 screen, 2 screens, 4 screens)
- Electronic Pan Tilt Zoom (e-PTZ)
- Sub-screen Display
- Change View Layout
- Auto Pan
- Preset
- Save still images, save movies

2. Install / Uninstall

(1) **Operating environment** of installation PC

OS: Windows 7, 8.1, 10 CPU: Intel Core i3 or higher (recommended Core i5 or higher) or equivalent Memory: 4 GB or more

(2) **Install**

Save the OPT360Viewer file by the folder to the desired location on your PC. If necessary, create a shortcut of the executable file (OPT360Viewer.exe) on the desktop screen.

(3) Uninstall

Deletes the OPT360Viewer file by the folder.

3. Operation

3-1 Start and Exit

To start the OPT360Viewer, double click on the executable file (OPT360Viewer.exe) or icon.



To exit, click the [X] button in the upper right of the main screen or click the upper left icon of the main screen and select [(C)] from the menu to be displayed.

3-2 Main Screen

When start up for the first time, the following main screen will be displayed. After the second time, it will be activated with the setting of the last time.



Area	Feature
① Camera No.	Select a camera to display on a VIEW screen from the camera list.
② VIEW Layout	Select a layout of VIEW Area.
③ Live/Stop	Connect and disconnect the camera.
④ Playback	Playback the video recorded on NVR.
5 VIEW Area	Display the VIEW screens with the camera image.
6 Target	Select the VIEW to be operated.
⑦ View Mode	Select the display pattern in the VIEW screen.
⑧ Button Panel	Control the camera view.
9 Preset	Operate the preset function.
10 Capture	Save movies and save still images.
1) Setting	Register the camera, save image settings.
② Version Display the version of the application.	

Explanation of each area in the main screen:

3-3 Register / Edit / Delete of camera

To monitor the camera image, first register the camera in the camera list. Camera itself and the camera connected to NVR can be registered.

3-3-1 Registration of Camera

(1) Display the registration screen

To register the camera, first click the [**Setting**] button.

2	OPT360Viewer			_ 🗆 🗙
Camera No.: -hot Select- v Resolution: vga v VIEW Layout: 9VIEW2 v Playback Target				VIEW9
Al VIEW Only Active VIEW View Mode		2W1		VIEW8
Button Panel Up Left Center Right				VIEW7
Down Child 1 2 3 4 5 6 7 8				VIEW6
Set Clear Rotate Capture Rec Start Rec Stop JPEG Setting Version Version Version	VIEW2	VIEW3	VIEW4	VIEW5

[Main Screen]

Then, the setting dialog will appear and the Camera List screen will be displayed.

Setting	×	
Camera List Path Camera Name	IP Address	
User ID	Password	
Type IP Camera ONVR Model IP CAMERA V	Http Port	Camera Information Area
Add Del	Stream/Camera No.	Operation Button
Camera Name IP Address	User ID Password Stre	Camera List
<		Up/Down Button
	OK キャンセル	

[Dialog-Camera List Screen]

(2) Enter the camera information

Enter the following information of the camera to be registered. (See also **4-1. Camera information setting example**)

① Camera Name	Enter any name such as a camera name or an installation place.
② IP Address	Enter the IP address or host name of the camera. For connecting the camera via NVR, enter the NVR IP address or host name.
③ User ID	Enter the user ID (login ID) of the camera. For connecting the camera via NVR, enter the NVR user ID (login ID).
④ Password	Enter the login password to the camera. For connecting the camera via NVR, enter the login password to NVR.
S Mode	 Select the connection method to the camera. For connecting the camera directly, select [IP Camera]. Select [NVR-E] for connecting to the camera via NVR Type E. Select [NVR-A] for connecting to the camera via NVR Type A.
6 Model	Select a type of camera to connect from the pull-down menu.
⑦ Http Port	Enter the HTTP Port of the camera. Enter the HTTP Port of the NVR for connecting the camera via NVR.
⑧ Stream Port	 Enter the stream port number of the camera. For the NM35 series / NUD 360 series, enter the RTSP port number. For NM33 series, enter the Remote Service port number. For IPB-300F-IPW, enter the same number for Http Port. For connecting the camera via NVR, enter the RTSP port number of NVR.
⑨ Stream / Camera No.	Enter the camera's stream channel number (1, 2,). For connecting the camera via NVR, enter the camera number registered in NVR (1, 2,).

(3) Save the camera list

- ① After entering the camera information, click the [Add] button to register it in the camera list. However, it is only indicated in the camera list and is not saved yet.
- ② To register additional cameras, enter the camera information you want to register and click the [Add] button. Up to 32 cameras can be registered in the camera list.
- Finally click on the [OK] button to save the created camera list. If you do not do this, the created camera list will not be saved.
 If you click the [±t/t] button or the [X] button at the upper right of the Dialog.

If you click the [キャンセル] button or the [X] button at the upper right of the Dialog screen, Dialog will exit without saving the created camera list.

	alog ×	Π
Camera List Path Camera Name Camera-1 User ID user 1	IP Address 192.168.0.121 Password	 [Registration of camera information] Enter camera information Click the [Add] button Click the [OK] button
Camera Type IP Camera DDIPS NVR NUD360 Stream/Camera No. 1 Add Del Camera Name IP Address Camera 1 192.168.0.121	Stream Port 554 Http Port 80 Edit Save User ID Password Stre user 1 ***** 554	Camera Information Area Registered information of the Camera-1
<	○K キャンセル	

[Registration to the camera list]

3-3-2 Edit and delete of Camera Information

Registered camera information can be edited and deleted. You can also leave it on the camera list and not indicate it on the camera list on the main screen.

(1) Edit the registered information

- ① Click on the camera you want to edit from the camera list first. The camera is selected and turns blue.
- ② Next, clicking the [Edit] button will indicate the information of that camera in the entry field.
- ③ Edit the camera information.
- ④ Click the [Save] button to reflect the edited information on the camera list. However, it is not saved yet.
- \bigcirc If there are multiple cameras you want to edit, repeat 1 to 4.
- 6 Click the [OK] button to save the edited camera list and exit Dialog. If you click the [Cancel] button or the [X] button at the upper right of the Dialog screen, Dialog will exit without saving the edited content.

(2) Delete the registered information

- ① Click on the camera you want to delete from the camera list first. The camera is selected and turns blue.
- ② Next, clicking the [Del] button will delete the information of that camera from the camera list.
- ③ Click the [OK] button to save the edited camera list and exit Dialog. If you click the [キャンセル] button or the [X] button at the upper right of the Dialog screen, Dialog will exit without saving the edited content.

D	ialog ×]
Camera List Path		[Editing camera information]
Camera Name	IP Address	 Select a camera
Camera-7	192.168.0.127	② Click the [Edit] button
		③ Edit camera information
User ID	Password	④ Click the [Save] button
user 1	•••••	⑤ Click the [OK] button
Camera Type	Stream Port	
IP Camera ODDIPS	554	[Delete camera information]
ONVR ONUD360		1 Select a camera
Stream/Camera No.	Http Port	② Click the [Del] button
1	80	3 Click the [OK] button
Add Del	Edit Save	
Camera Name IP Address	User ID Password : ^	
✓ Camera-1 192.168.0.121 ✓ Camera-2 192.168.0.122	user1 ****** △	The state of the Camera-3 is
Camera-3 192.168.0.123	user1 ****** ▼	selected.
Camera-4 192.168.0.124	user1 ******	
<	>	
	OK キャンセル	

[Edit and delete of Camera Information]

- (3) Indication of the Camera List
 - ① The order (position) of camera to indicate

Cameras are indicated in the camera list in the order of registration, but you can move the order (position) of the camera to indicate by using the $\triangle \bigtriangledown$ (up/down) buttons on the right side of the camera list.

This operation does not work unless two or more cameras are registered.

- First, select the camera you want to move the indication position by clicking it.
- Next, click the $\triangle \bigtriangledown$ (up / down) button until the camera comes to the desired position.
- Save the created camera list by clicking the [OK] button at the end.
- Non-indication of camera

If you click \square on the left side of each camera in the camera list and uncheck it and save it, the camera will not appear in the camera list displayed by clicking the Camera No. in the main screen. This is useful when you want to keep the unused camera information temporarily in the camera list.

D	ialog ×	
Camera List Path		[Change the order of indication]
Camera Name	IP Address	 Select a camera
		2 Move with up / down button
User ID	Password	③ Click the [OK] button
Camera Type	Stream Port	[Non-display of camera]
IP Camera ODIPS		1 Uncheck
ONVR ONUD360		② Click the [OK] button
Stream/Camera No.	Http Port	
Add Del	Edit Save	
	Liser ID Password	Up/Down Buttons
Camera Name IP Address	User ID Password : ^	Op/Down Buttons
Camera-2 192.168.0.122	user1 ******	
Cantra-3 192.168.0.123	user1 ****** 🗸	
Camera-4 192.168.0.124	user1 ******	
<	>	
		The state of unchecking
		Camera-2 and Camera-3.
	OK キャンセル	Camera-2 and Camera-3.

[Indication order change and Setting for Non-display of camera]

Camera No.:	-Not Select- 🗸		
Resolution:	-Not Select- Camera-1	Live	Camera-2 and Camera-3 are not indicated.
VIEW Layout:	Comoro 4	Playback	
Target	Camera-6 Camera-7	ve VIEW	

[Window of Camera Information]

3-4 Camera Connection and Video Display

3-4-1 Camera Connection and Disconnection

- (1) To connect the camera and display the video
 - ① Click the VIEW number you want to display. The selected VIEW is surrounded by a red frame.
 - ② Open the camera list from the Camera No. pull-down menu and select the camera you want to connect to this VIEW.
 - ③ Click the [Live] button. The camera live view is displayed on the selected VIEW. When connected to the camera, the [Live] button will change to the [Stop] button and the character "[**Camera name] Live**" will be displayed in white at the bottom left of the screen. It may take some time until the video is displayed depending on the network environment. Please use it with high speed communication line such as the optical line. In the case of a slow line, updating the screen may take time and freezing may occur.
- (2) To terminate the camera connection
 - ① Click on the VIEW screen for which you want to stop the connection. The selected VIEW is surrounded by a red frame.
 - ② Click the [Stop] button. The connection with the camera is cut off and the display of the image is stopped. When the connection is stopped, the [Stop] button will change to the [Live] button.

Camera No.:	Camera-1	~	
Resolution:	vga	\sim	Live
VIEW Layout:	9VIEW2	~	Playback

[State that the camera is not connected.]

Camera No.:	Camera-1	\sim	Char
Resolution:	vga	\sim	Stop
VIEW Layout:	9VIEW2	~	Playback

[State that the camera is connected.]

3-4-2 VIEW screen layout change

(1) Layout of VIEW screens

You can select the layout of the VIEW screens from the [VIEW Layout] pull-down menu. 1 VIEW, 4 VIEW, 9 VIEW, 16 VIEW can be selected. With 9 VIEW and 16 VIEW, you can also select the layout (9 VIEW 2, 16 VIEW 2) enlarged by 1 screen further.



[VIEW Layout Selection]



[1VIEW screen]



[9VIEW screen]



[4VIEW screen]



[9VIEW2 screen]

CPT350Viewer				– 🗆 X	OPT360Viewer
Camera No.: Not Select- V Resolution: vga VIEW Love Playback Target Only Active VIEW		VIEW2	MEW3	VIEW/4	Camera No. : Hot Select. ∨ Line Resolution: vga Payment VEW Layout: MOREW2 Payment Target @Only Active YEW
View Mode	VIEW5	VIEW6	VIEW?	VIEW8	Ver Mole
Button Panel Up Left Center Right					Button Panel
Down Small Adjust	VIEW9	VIEW10	VEW11	VIEw12	Down Smith
1 2 3 4 5 6 7 8 Set Clear Rotate Capture Rec Start Rec Stop 3PEG	VIEW13	VIEw14	VEW15	VIEW16	1 2 3 4 5 6 7 8 Set Clear Rotate Capture Rec Start Rec Start 3PEG
Setting Version					Rec Start Rec Stop JPEG

[16VIEW screen]





- (2) Change the VIEW NO.
 - To change the VIEW number,
 - Click on the VIEW screen for which you want to change the view number. The selected VIEW is surrounded by a red frame.
 - (2) Right click on the selected view screen. The VIEW number window will appear. The already selected view number contains \mathbf{V} .
 - ③ Select the VIEW number you want to display newly. You can switch from the current VIEW number screen to the screen with the newly selected view number.
 - ④ If you want to replace a view in the large screen of 9VIEW2 and 16VIEW2, click the VIEW screen you want to make large screen.



[VIEW NO. Window]



_

[To replace the VIEW NO.]

- ① Click on the VIEW screen you want to replace and select it.
- ② Right-click the VIEW screen to display the VIEW number window.
- ③ Click to select the VIEW number you want to replace.

(3) Indicate multiple number of windows

Each VIEW can be displayed in a window separate from the main screen window. All VIEWs can be displayed in a separate window.

- ① Right-click on the VIEW screen you wish to set as a separate window and the VIEW number window will be displayed.
- ⁽²⁾ Clicking [PopUp] at the top of the VIEW No. window will separate the VIEW from the main screen window with the same position and size. A title bar is added to the separated window. Them, you can move and change the size.



【VIEW No. Window】

[Separated window]

③ Drag the title bar of the separated window to move it to the desired place. You can change the window size freely with the mouse.



[Main screen window after separated]

Drag the title bar to move.



[Separated VIEW window]

④ To return the separated window to the main screen window, right click on the VIEW screen and click indicated [EXIT], or click the [×] button at the upper right of the window.



[[EXIT] and [×] button]

(4) Full screen

Double click each VIEW screen to display that VIEW in full screen.

Double click on the screen or press the ESC key or Enter key to return to the original screen display when full screen is displayed.

3-4-3 Target Setting

With the Target setting, you can select the scope of "View Mode" "Button Panel" "Preset" "Capture" operation explained below.

- When set to [All VIEW], the frames of all VIEWs turn red, only Active VIEW turns orange, and all the VIEWs are operated.
- When set to [Only Active VIEW], the frames of all VIEWs turn green, only Active VIEW turns red, and only the selected active VIEW is operational.



[Select Target VIEW]

1	OPT360Viewer	- • ×
Same No.: Camera 1 v Unit Read/Date: yap v Unit Date: Layout: Camera 1 v Pendast Tot: Only Assistant Date:	NEW	MEw2
00 00 Left Conter Right Total Adjust 1 Adjust Set Class Rec Sart Rec Sart Setig Yean	veva	МЕмя

[when selecting "Only Active VIEW"]



[[] when selecting "All VIEW"]

3-4-4 VIEW MODE selection

You can select the display mode of the camera by button operation in "View Mode" area.



[View Mode area]

(1) Camera Posture

You can select the layout of the VIEW screen from the [VIEW Layout] pull-down menu. The following modes are selectable. Click to select according to the installation posture of the camera.

- 1 Wall mode
- ② Ceiling mode
- ③ Desktop mode
- (2) Dewarping Mode ($^{(8)}$ Dewarp is set as \square)

If intending to indicate fisheye image from the camera by dewarping, check @Dewarp \square . The following dewarping modes are selectable. Click to select the mode to display the image.

- ④ 1 screen mode (partial expansion mode)
- (5) 2-screen panorama mode
- 6 4-screen mode
- ⑦ fisheye mode
- In ①Wall mode, only ④ partial expansion mode and ⑦ fisheye mode can be selected.
- When selecting ⑦ fisheye mode, a fisheye image, with its periphery is blackened, is output without being dewarped.
- (3) Through Mode ((BDewarp is set as \Box)

To display the image that was dewarped inside the camera, set @Dewarp to \square . Since the image is passed through without being dewarped, the original image that was dewarped the camera is displayed as it is.

In the through mode, the installation attitude button and dewarping mode button are invalid.



[Dewarping Mode]

($\ensuremath{\$}$ Dewarp is set as $\ensuremath{\checkmark}$)

Ex.) 2-screen panorama image dewarped by OPT360Viewer.



(\otimes Dewarp is set as \Box)

Ex.) A through image dewarped inside the camera.



3-4-5 Screen control of Dewarped video

You can control the screen of the dewarped video by button operation in "Button Panel" area.



(1) Pan / Tilt / Zoom

- Pan / tilt operation is possible with [Left] [Right] [Up] and [Down] buttons. You can also pan / tilt by dragging the VIEW screen with the mouse.
- You can zoom in with the [Zoom in] and [Zoom out] buttons. You can zoom in even by turning the mouse wheel on the VIEW screen.
- Clicking the [Center] button returns the screen to the initial setting position and zoom ratio of the installation posture / plane expansion processing mode at that time.

(2) Auto Pan control

Auto Pan operation is controlled.

You can select the direction / speed at which the screen moves with the control bar.



[Auto Pan Control Bar]

(3) Sub-screen Display ON/OFF

The fisheye image from the camera is displayed in small size at the upper left of the view screen, which is called as the sub-screen (Child screen).

The area to be dewarped is displayed with a yellow frame in the sub-screen.

When the sub-screen is not displayed, clicking the [Child] button displays the sub-screen, and when the sub-screen is displayed, when the [Child] button is clicked, the sub-screen disappears.



[Sub-screen ON/OFF]

(4) Adjustment of the dewarping range

You can fine-tune the range (the size and position of the circle in the fisheye image) of the image to dewarp.

Normally you do not need to make this adjustment.

- 1 Click on the VIEW screen you want to adjust and select it.
- ② Click the [Adjust] button. A red circle indicating the dewarping range is displayed.

③ Adjust the size and position of the red circle by clicking the up, down, left, right buttons and the zoom-in/zoom-out buttons in "Button Panel" so that it will be in the optimum range. The adjustment can be done also by clicking the adjustment screen and dragging with the mouse and operating the wheel so that the fisheye image to move or to be enlarged or shrunk.

If you want to return the moved fisheye image and the red circle to the reference position (reset fine adjustment), click the [Center] button on the adjustment screen to return to the original position.

④ When you click the [Adjust] button after adjustment, the red circle disappears and adjustment ends.



[Fine tuning of the dewarping range]

Note: Dewarping is an image processing function that corrects the distortion of the image peculiar to the fisheye lens so that it looks like a flat image. Dewarping includes the partial expansion, 180° x 2 panorama, and Quad partial modes.

3-4-6 Preset

It is possible to register the image setting configuration as for the viewing position, zoom level, dewarping pattern, and sub-image display ON/OFF in at most 8 addresses.

There is also a rotation function that automatically sequentially switches registered preset values at 5-second intervals.



- (1) Registering Preset values
 - ① Set the factors such as the viewing position and the zoom level to the view you want to add to the preset.
 - ⁽²⁾ Click the preset number for which you want to register the preset values. When selected, a red frame is attached to the preset number.
 - ③ If you click the [Set] button, the VIEW screen information of all connected videos are registered as the preset value now. When the preset value is registered, the background color of the preset number changes from white to blue.
 - 4 To register multiple preset values, repeat the above 1 to 3.
 - (5) After registration, just by clicking the registered preset number, the recorded preset value is immediately reflected on the VIEW screen. At this time, if the Target setting is set to [All VIEW], it will be reflected in all VIEWs, and if it is set to [Only Active VIEW] it will be reflected only in the currently activated VIEW. However, it will not be reflected unless the camera is connected.
- (2) Delete Preset values
 - ① Click the preset number you want to delete from the registered preset and select it. When selected, a red frame is attached to the preset number.
 - ② Click the [Clear] button to delete the preset value registered for that preset number. When the preset value is deleted, the background color of the preset number changes from blue to white.
- (3) Rotation

With the rotation function, the registered setting configuration can be switched to the next preset address every 5 seconds.

- 1 Register two or more preset values.
- ② Clicking the [Rotate] button will sequentially switch from the smaller preset number registered at 5 second intervals in order, and the red frame indicating the selection will also move accordingly. Skip numbers without registration and skip to the next registered number.
- ③ To stop the rotation operation, click the [Rotate] button during the rotation operation.

3-5 Playback of recorded video in NVR

You can play back the video from the camera recorded to the NVR by dewarping.

- ① Select a VIEW screen in which you want to play back the recorded video and select the camera from [Camera No.].
- ② Click the [Playback] button. The Playback Control window will be indicated.
 If you were viewing a live video at that VIEW screen, please click the [Stop] button once, disconnect it and then click the [Playback] button.



[Playback Control Window]

 $\ensuremath{\mathfrak{I}}$ Set the date and time you want to play back.

<How to enter the date (Date)>

- Click the ▼ mark on the right side of the date to open the calendar, so select the date.
- <How to input time (Time)>
 - Click one of the hour, minute, or second, and the selected one becomes blue.
 - Enter a numerical value from the keyboard or click the ▲ ▼ mark on the right side to change the numerical value.
- ④ Click the [Play] button. Then, playback starts after looking ahead for a while.
 However, if there is no recorded video of the selected date and time, playback will not be performed. In addition, playback stops when there is no recorded video.
- (5) By operation of the "View Mode" and the "Button Panel", you can view the dewarped video.
- ⁽⁶⁾ Play, fast back, fast forward, pause, and stop operation can be done. For fast forward and fast back, its speed can be changed by every clicking of the button in order of x2 → x4 → x8 → x16 → x2. However, in some case of NVR feature, x16 speed

may not be available. Click the [Play] button during fast forward / fast back to return to the normal speed. Click the [PAUSE] button during playback to pause the play and then click the [PLAY] button to restart the play.

 ⑦ "[Camera name] Playback [speed]" is indicated at the bottom left of the VIEW screen and "[recorded date and time]" is indicated in white at the bottom right of the screen. The playback speed is indicated as standard speed: 1X, 2X speed: 2X, 4X speed: 4X, 8X speed: 8X, and 16X speed: 16X.

3-6 Save Movie and Still Image

You can save movies and still images of camera. Manual recording is available for saving movies. Movie is saved as AVI file and the still picture as JPEG file.

3-6-1 Setting the saving conditions

[Path] tab

Set conditions for saving in advance of saving movies and still images.

(1) Display of setting screen

Click the [Path] tab in the Dialog displayed after clicking the [Setting] button on the main screen.

amera List Path Movie		
Directory C:¥OPT360Viewer_v.1.0.0		Movie setting area
File Name %n_%Y%M%D%h%m%s	avi 10 GB	Maximum saving capaci
JPEG Directory C:¥OPT360Viewer_v.1.0.0		Browser button
File Name %n_%Y%M%D%h%m%s	.jpg	Still image setting area (JPEG)
File Name Format %n Camera Name %Y year %M month %D day %h hour %m minite %s second	Image Size Input size The same aspect ratio as the view (Jpeg Only) Manual Width Height 1024 X 768	— Image size setting area

[Setting condition of Movie and Still Image]

(2) Setting the directly and file name for saving

Set the destination "Directory" and file name for both movies and still images.

If you want to change the pre-set "Directory", click the [...] button (Browse button) and select the desired folder from the Dialog that appears. If you want to specify a new folder, create that folder beforehand.

If you want to change the saved file name, change it referring to the file name format specification.

(3) Setting the maximum recording capacity of movies

Set the maximum capacity to be stored in the save destination "Directory" in the "Max Size" field. Only AVI files created with this application are eligible and AVI files created by other applications are excluded.

Please check the free storage space of the drive to save before setting.

- (4) Setting the image size
 - Select the image size to save from the following.
 - ① Input size

Same size as input from camera

2 The same aspect ratio as the view (JPEG Only)

Size changed to the same aspect ratio as $\ensuremath{\mathsf{VIEW}}$

- \ast Only still images are supported. The movie becomes the size of .
- ③ Manual

Specified size you entered

(5) Save settings

When setting is completed, save the setting values.

- Click the [OK] button to save the setting and exit Dialog.
- Clicking the [Cancel] button or the [X] button at the upper right of the Dialog screen closes Dialog without saving the edited content.

3-6-2 Save Movie – Manual recording

To perform the manual recording,

with the camera connected,

- 1 Click the [Rec Start] button to start recording.
 - When recording is started, is displayed at the upper right of the VIEW screen you are recording.
- ② Recording stops by clicking the [Rec Stop] button during recording.

• When the recording is stopped, • at the upper right of the VIEW screen you are recording disappears.

- ③ The Target setting at the time of operation is
 - set to [All VIEW], all connected VIEWs will be recorded.
 - set to [Only Active VIEW], only the Active VIEW is recorded.

Capture		
Rec Start	Rec Stop	JPEG

[Manual Recording]

3-6-3 File Size and Recording Auto Stop

- ① Recording file is split as one AVI file if the file size exceeds 1 GB or the recording time of the file reaches 30 minutes.
- ② When the remaining record capacity of the storage becomes less than 500 MB or the total capacity of the recorded file reaches the "maximum recording capacity" set in Dialog, recording is stopped in the case of manual recording.

3-6-4 Save Still Image

To save a still image, click the [JPEG] button. It is saved as a JPEG file.

At that time, the Target setting is

- in the case of [All VIEW], the still images of all the connected VIEWs are saved.
- in the case of [Only Active View], only the still images of the selected Active VIEW are saved.

Capture		
Rec Start	Rec Stop	JPEG

[Saving of Still Image]

3-7 Application Version Information

When clicking the [Version] button, a confirmation screen of application version information is displayed.

apture		
Rec Start	Rec Stop	JPEG
Setting	9	Version
	_	ton]

八	ージョン情報 OPT360Viewer ×	
<u></u>	OPT360Viewr, Version 1.0.0.0 Copyright (C) 2016	
	ОК	
[Vers	sion Confirmation Window	

4. Remarks

4-1 Examples of Camera Information Setting

(1) NM35 Series

< Item >	<setting example=""></setting>	< Note>
Camera Name	Camera-1	any (camera name or installation place)
IP Address	192.168.0.100	Camera's IP address
User ID	user1	Camera's user (log-in) address
Password	11111111	Camera's log-in password
Mode	IP Camera	Select [IP Camera]
Model	NM35 x D-F	Select [NM350D-F] or [NM351D-F] .
Http Port	80	normally "80"
Stream Port	554	normally "554"
Stream/Camera No.	1	1 is Stream1 and 2 is Stream2.
		Its resolution is higher in the order of $1>$
		2, but the data transfer amount is large in
		that order.

(2) NM35 Series connected to NVR Type E

< Item >	<setting example=""></setting>	< Note>
Camera Name	NVR_Camera-1	any (camera name or installation place)
IP Address	192.168.0.100	IP address of NVR Type E (example)
User ID	admin	User (log-in) ID of NVR Type E
Password	11111111	Log-in password NVR Type E
Mode	NVR-E	Select [NVR-E]
Model	NM35xD-F	Select [NM350D-F] or [NM351D-F] .
Http Port	80	normally "80"
Stream Port	554	normally "554"
Stream/Camera No.	1	The channel number of the camera registered on the NVR Type E. (example)

					\times
Camera List Path					
Camera Name		IP Addre	SS		
Camera-1		192.168	.0.100		
User ID		Password	ł		
user 1		•••••	•••		
Туре		Http Port	t		
IP Camera	NVR	80			
Model		Stream P	ort		
NM350D-F	~	554			
		Stream/C	Camera No.		
		1			
					_
Add	Del	Edit	5	Save	
Camera Name IP	Address	User ID	Password	Stre	
Camera-1 19	92.168.0.100	user 1	******	554	Δ
				_	
					Y
				_	

[NM35 series]

tting					
amera List Path					
Camera Name		IP Addre	SS		
NVR_Camera-1		192.168	3.0.100		
User ID		Passwore	d		
admin		•••••	•••		
Type		Http Por	t		
O IP Camera	NVR	80			
Model		Stream P	ort		
NM350D-F	~	554			
		Stream/0	Camera No.		
		1			
Add	Del	Edit	S	ave	
Camera Name	IP Address	User ID	Password	Stre	
NVR_Camer	192.168.0.100	admin	*****	554	Δ
<				>	

[NM35 series connected to NVR Type E]

(3) NM33D-x-IP Series

< Item >	<setting example=""></setting>	< Note>
Camera Name	Camera-1	any (camera name or installation place)
IP Address	192.168.1.100	Camera's IP address (example)
User ID	root	Camera's Admin ID
Password	root	Camera's Admin Password
Mode	IP Camera	Select [IP Camera]
Model	NM33D-x-IP	Select a model in NM33D-x-IP.
Http Port	80	normally "80"
Stream Port	7501	normally "7501" (Remote Service Port No.)
Stream/Camera No.	1	1

(4) IPB-300F-IPW

< Item >	<setting example=""></setting>	< Note>
Camera Name	Camera-1	any (camera name or installation place)
IP Address	192.168.1.100	Camera's IP address (example)
User ID	root	Camera's Admin ID
Password	root	Camera's Admin Password
Mode	IP Camera	Select [IP Camera]
Model	IPB300F-IPW	Select [IPB300F-IPW]
Http Port	80	normally "80"
Stream Port	80	normally "80" *same as Http Port
Stream/Camera No.	1	1

Setting					×
Camera List Path					
Camera Name		IP Addre	SS		
Camera-1		192.168	3.1.100		
User ID		Password	đ		
root		••••			
Туре		Http Port	t		
IP Camera	NVR	80			
Model		Stream P	ort		
NM33D-F-IP	~	7501			
			Camera No.		
		1			
Add	Del	Edit		Save	
Camera Name 1	IP Address	User ID	Password	Stre	
Camera-1	192.168.1.100	root	*****	750	
<				>	
			011		daul
			OK	キャン	1211

[NM33D-x-IP series]

mera List Path											
Camera Name Camera-1 User ID root		IP Address 192.168.1.100 Password ••••									
						Туре		Http Port	t		
						IP Camera NVR Model		80			
								Stream Port			
IPB300F-IPW V		80									
		Stream/0	Camera No.								
		1									
Add	Del	Edit	S	ave							
Camera Name	IP Address	User ID	Password	Stre							
Camera-1	192.168.1.100	root	*****	80	2						
				7							
					· _						
				>							
۲											

【IPB-300F-IPW】

(5) NUD360 Series

< Item >	<setting example=""></setting>	< Note>
Camera Name	Camera- 1	any (camera name or installation place)
IP Address	192.168.0.120	Camera's IP address
User ID	admin	Camera's user (log-in) address
Password	123456	Camera's log-in password
Mode	IP Camera	Select [IP Camera]
Model	IPB300F-IPW	Select [NUD360-F]
Http Port	80	normally "80"
Stream Port	7070	normally "7070"
Stream/Camera No.	1	1 is Stream1, 2 is Stream2 and 3 is Stream3.
		Its resolution is higher in the order of $1 > 2 > 3$,
		but the data transfer amount is large in that
		order.
		(Refer to the NOTE in the next page.)

(6) IPCAM Type A

< Item >	<setting example=""></setting>	< Note>			
Camera Name	Camera- 1	any (camera name or installation place)			
IP Address	192.168.0.120	Camera's IP address			
User ID	admin	Camera's user (log-in) address			
Password	123456	Camera's log-in password			
Mode	IP Camera	Select [IP Camera]			
Model	IPCAM-A	Select [IPCAM-A]			
Http Port	80	normally "80"			
Stream Port	7070	normally "7070"			
Stream/Camera No.	1 or 2	1 is Stream1, 2 is Stream2.			
		Its resolution is higher in the order of $1 > 2$, but			
		the data transfer amount is large in that order.			

(7) NM35 series / NUD360 series / IPCAM Type A connected to NVR Type A

< Item >	<setting example=""></setting>	< Note>			
Camera Name	NVR_Camera-1	any (camera name or installation place)			
IP Address	192.168.0.120	NVR Type A's IP address			
User ID	admin	NVR Type A's user (log-in) address			
Password	123456	NVR Type A's log-in password			
Mode	NVR-A	Select [NVR-A]			
Model	NUD360-F	Select [NM35xD-F], [NUD360-F] or [IPCAM-A]			
Http Port	80	normally "80"			
Stream Port	7070	normally "7070"			
Stream/Camera No.	1	The channel number of the camera registered			
		on the NVR Type E. (example)			

Setting					×
Camera List Path					
Camera Name		IP Addre	SS		
Camera-1		192.168	3.0.100		
User ID		Password	ł		
admin		•••••	•		
Туре		Http Port	t		
IP Camera	ONVR	80			
Model		Stream P	ort		
NUD360-F	~	7070			
		Stream/C	Camera No.		
		1			
Add	Del	Edit	Si	ave	
Camera Name	IP Address 192, 168, 0, 100	User ID admin	Password	Stre	
Camera-1	192.168.0.100	admin		/0/	Δ
					∇
<				>	
			OK	キャンオ	216

[NUD360 series]

amera List Path				
Camera Name		IP Addre	SS	
Camera-1		192.168	3.0.100	
User ID		Passwor	d	
admin		•••••	•	
Туре		Http Por	t	
IP Camera	ONVR	80		
Model		Stream F	Port	
NUD360-F	~	7070		
		Stream/0	Camera No.	
		1		
Add	Del	Edit	S	ave
Camera Name	IP Address	User ID	Password	Stre
Camera-1	192.168.0.100	admin	*****	707
<				>

[Camera connected to NVR Type A]

amera List Path					
Camera Name		IP Addre			
Camera-1		192.168	3.0.100		
User ID		Passwor	d		
admin		•••••	•		
Туре		Http Por	t		
IP Camera	○ NVR	80			
Model		Stream P	ort		
NUD360-F	~	7070			
		Stream/0	Camera No.		
		1			
Add	Del	Edit	S	ave	
Camera Name	IP Address	User ID	Password	Stre	
Camera-1	192.168.0.100	admin	******	707	2
				4	7
				1	7
<				>	

【IPCAM Type A】

% Note on Stream No. setting

In general, high-resolution images can be obtained from the camera output in the order of Stream 1> 2> 3. Besides, the resolution increases and the number of connected devices increases, the amount of data transfer increases in proportion to it, so the load on the network line and PC increases accordingly. Please set according to the processing capacity of the network line and PC used. Especially the NUD360 series is a high resolution camera, so Stream 1 has a large data transfer amount and a large load so that the image may not be smooth movement or it may be greatly delayed depending on the environment to use. In that case we recommend that you do the following.

- Change to Stream 2 or 3.
- Reduce the resolution of Stream 1.
- Reduce the number of cameras to connect.
- Increase the capacity of network lines and PCs.

4-2 Remarks at the place to deliver camera images via the Internet

(1) Global IP address

In order to distribute camera images via the Internet, a global IP address is required So please use static global IP address.

(2) Port release

It is necessary to release the stream port and HTTP port set with the camera information.

4-3 About corresponding NVR

Please use the NVR as listed below.

- Type E: EverFocus / ENVR8304X、ENVR8304E、ENVR8304D Corresponding to NM35 series cameras
- Type A: Ask us for the detail. Corresponding to NM35 series / NUD360 series / IPCAM Type A cameras

4-4 About the setting for PC performance

On a PC that has "visual effects" enabled in PC performance settings, changing the size or

moving the window while monitoring the video may cause the screen to become distorted or the operation to become unstable.

In order to avoid these phenomena, it is better to disable visual effects and 3D display as much as possible, but it is recommended to set the following items, in particular.

Select [Control Panel] -> [System] -> [Advanced System Settings] and select [Performance Settings] to open the Dialog with the [Visual Effect] setting as shown in the following window.

Uncheck the [Show window contents while dragging] check box on the [Visual Effects] tab Uncheck and click [OK].

