

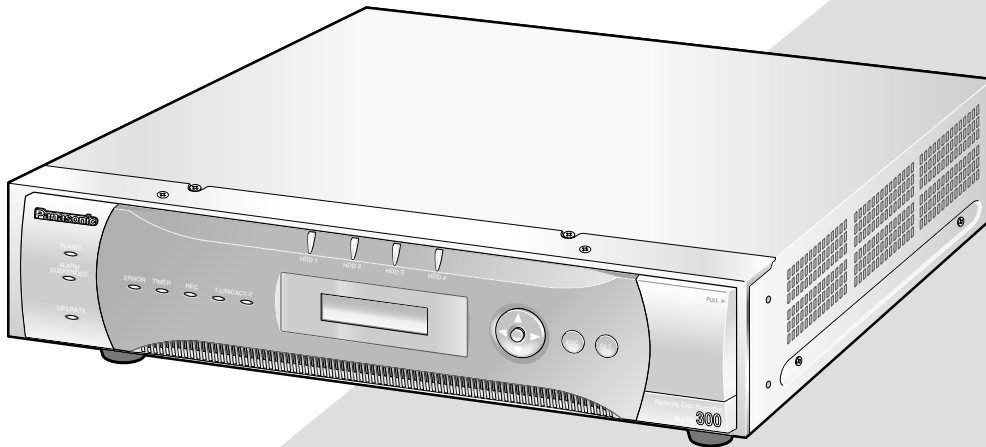
Panasonic[®]

Network Disk Recorder

Operating Instructions

Model No. **WJ-ND300**

PRELIMINARY



Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

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Preface

Features

The Network Disk Recorders WJ-ND300 series are designed for use within a surveillance system, and perform recordings and playbacks pictures from network cameras in the system.

The network disk recorder is a recording device using a hard disk drive to record camera pictures instead of using videotapes so that pictures recorded by repeated overwriting will not experience deterioration of the recorded picture quality.

Up to 32 cameras can be connected via a network and it is possible to record their camera pictures. It is possible to perform the settings or operate the WJ-ND300 (this unit) using a web browser installed on a PC connected to a network. Up to 8 PCs (web browsers) can access this unit concurrently and it is possible to perform the settings and operate this unit.

"WJ-ND300" is the generic name of the network disk recorders WJ-ND300 series.

Various Recording Functions

- **Multi-recording**

It is possible to perform multiple recordings using a single network disk recorder even if the operating environments are different, for example, recording pictures of cameras in different places at different times.

- **Schedule recording**

It is possible to perform recording automatically at a scheduled time on a designated day of a week. It is also possible to perform recording at a different recording rate according to time range.

- **Emergency recording**

In the case of an emergency, emergency recordings will be given a higher priority than other recording modes by operating an external switch.

- **External timer recording**

It is possible to perform recording automatically using an external timer.

- **Event recording**

At an event occurrence, such as an alarm signal is supplied, the recording mode (quality and recording rate) can be changed to high quality to record pictures.

Downloading/Transmitting Images

It is possible to download (save) the currently displayed image in the web browser window onto the hard disk of a PC. By establishing an FTP server, it is possible to transmit images to the designated FTP server periodically. When an event occurs, it is possible to transmit images from the camera installed in the place where the alarm occurred.

Event Notification Function

When an event occurs, it is possible to send e-mails to designated addresses to notify of the event occurrence. It is also possible to send an e-mail with an image recorded when the event occurred.

Security Function and Reliability

- User authentication function (registration of ID and password) allows users access to predetermined selection of the available functions. Up to 32 users can be registered.
- Host authentication function restricts devices from operating this unit if their IP addresses are not registered.
- If a hard disk crashes, the RAID 5 function prevents any recorded pictures loss.

About these Operating Instructions

There are 3 sets of operating instructions for the WJ-ND300 as follows.

- Installation Guide (book)
- Operating Instructions (PDF)
- Setup Instructions (PDF, these operating instructions)

These "Operating Instructions" contain descriptions of how to operate this unit using a PC via a network.

Refer to the "Setup Instructions (PDF)" for descriptions of how to perform the required settings to operate this unit using a PC and how to connect to other devices. (These operating instructions are for system installers.)

The settings of the unit will be different depending on the settings of the LAN or the Internet service provider to which the unit is to be connected. Refer to an administrator of each network for further information about the respective network.

Refer to the provided "Operating Instructions (book)" for descriptions of how to operate this unit using the buttons on the front panel of the unit, installation and system configurations.

Adobe® Reader is required to read these operating instructions (PDF) on the provided CD-ROM. When the Adobe® Reader is not installed on the PC, download the latest Adobe® Reader from the Adobe web site and install it.

"WJ-ND300" or "ND300" shown in the illustrations used in these operating instructions indicate this unit or the WJ-ND300 series.

System Requirements for a PC

It is recommended to operate this unit using a PC that meets the following system requirements. If using a PC that does not meet the following system requirements, it may cause problems such as slow imaging or the browser becomes inoperable.

| | |
|--------------------|---|
| OS: | Microsoft® Windows® 2000 Professional SP4, Microsoft® Windows® XP Professional SP1a, SP2, Microsoft® Windows® XP Home Edition SP1a, SP2 |
| OS Language: | English, French, Spanish, German, Italian |
| Computer: | IBM PC/AT Compatible |
| CPU: | Pentium® 4 1.4GHz or faster |
| Memory: | 512 MB or more |
| Monitor: | 1024 x 768 pixels or more, 16-bit HIGH color or better |
| Network Interface: | 10/100Mbps Network interface card must be installed |
| Web Browser: | Microsoft® Internet Explorer 5.5 SP2, 6.0 SP1, 6.0 SP2 Other web browsers are not compatible with this unit. |

Trademarks and Registered Trademarks

- Adobe, Adobe logos, and Acrobat are registered trademarks of Adobe Systems Incorporated in the U.S. and/ or other countries.
- Microsoft, Windows and Windows XP are registered trademarks of Microsoft Corporation in the U.S. and/or other countries.
- Other names of companies and products contained in these operating instructions may be trademarks or registered trademarks of their respective owners.

Abbreviations

The following abbreviations are used in these operating instructions.

Microsoft® Windows® 2000 Professional Service Pack 4 is described as Windows 2000.

Microsoft® Windows® XP Professional SP1a or SP2 and Microsoft® Windows® XP Home Edition SP1a or SP2 are described as Windows XP.

Terms Used in these Operating Instructions

HDD

Refers to a hard disk drive (mass storage medium). The unit records camera pictures on a hard disk rather than on video tape.

Recording rate (ips)

Refers to the unit that determines the smoothness with which the recorded images are played back. It expresses the number of frames recorded per second. The higher the number, the smoother the movement, but the available recording time becomes shorter.

Resolution

Resolution refers to the degree of fineness and quality of the camera pictures recorded by this unit. This unit displays the resolution in number of dots. For example, if the number of horizontal dots is 720 and the number of vertical dots is 480, the display reads 720 x 480.

Manual recording

Function for starting and stopping recording manually by clicking the [REC] button or [REC STOP] button.

Schedule recording

Function for starting and stopping recording automatically at a preset time.

Event recording

Function for starting recording automatically when an event occurs.

Event recordings are divided into pre recordings (pictures before the event occurs) and post recordings (pictures after the event occurs).

Emergency recording

Function for performing priority recording in emergency situations, etc. through an external switch connected to the unit.

External recording mode

Function for changing the programmed time schedule through an external switch connected to the unit.

Event

An event is a phenomenon which triggers a specific operation (event operation) in the unit. Events are divided into terminal alarm, command alarm, and camera site alarm.

Event Action

Event action refers to a specific operation performed when an event occurs. Event operations are divided into ALM (Alarm Mode), ADM (Activity Detection Mode), and are selectable. In ALM, the occurrence of an event is announced by screen display, LED, or buzzer (Alarm Operation). In ADM, the occurrence of an event is not announced, but the unit starts event recording, performs the preset operations, and enters the event into the event log. In OFF mode, the unit only enters the event into the event log.

Sequence

Sequence refers to automatically changing the displayed camera picture in a preset sequence. Sequence display is possible while the unit displays live pictures.

Electronic zoom

Function for enlarging live and playback pictures. While the camera uses the camera zoom function to enlarge pictures, the electronic zoom function enlarges the picture electronically in the unit and displays it.

Camera control

Camera control refers to controlling the functions of the combination cameras connected to the unit. These functions include Pan/Tilt, Zoom, Focus, Iris, Preset Operations (moving the camera to a preset horizontal/vertical position), and Auto (for example, automatic panning).

A-B repeat playback

Function for playing back repeatedly between a set start point (A) and an end point (B) in playback mode.

HDD safety mode

Function for turning off the power supply to the HDD to prevent damage of the HDD due to vibration and shock if the unit is mounted in or dismounted from the rack with the power turned on.

Disk config

When an HDD is replaced, removed, or added, the HDDs need to be newly configured. Disk config refers to the menu for performing these HDD settings.

RAID (RAID5)

This stands for Redundant Arrays of Inexpensive Disks. It refers to a technology to implement a high-speed large-capacity and high-reliability disk unit by distributing access to multiple HDDs. If trouble occurs in one of the HDDs, the data on the faulty HDD can be recovered based on the error correction data recorded on the other HDDs. (RAID5 is used when 3 or more HDDs are connected. If trouble occurs simultaneously in 2 or more HDDs, the data of the faulty HDD cannot be recovered.)

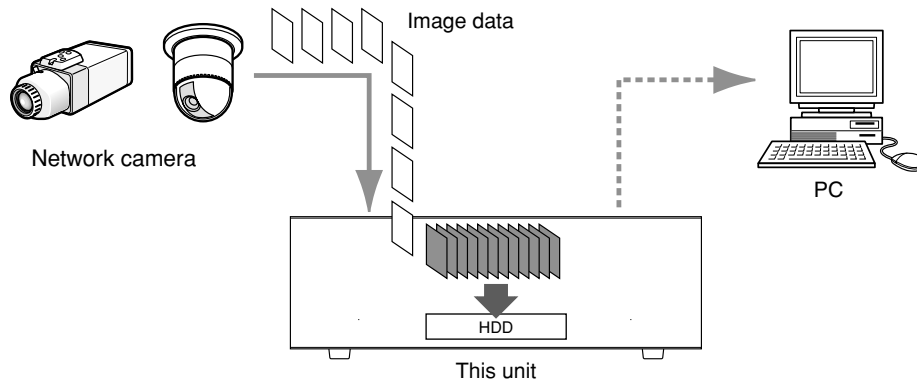
System Administrator

This refers to a person who has the responsibility and authority to operate the unit and perform settings.

Recording/Playback/Live Image Transmission

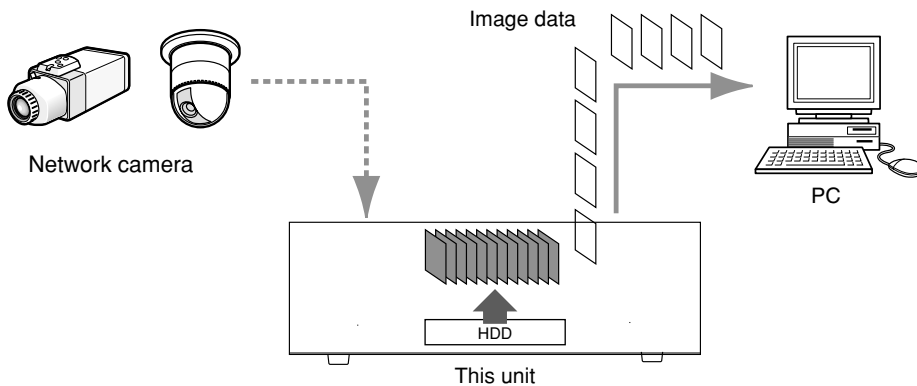
Recording

Images will be transmitted from cameras to this unit and will be recorded. Images from up to 32 cameras can be recorded on a single network disk recorder. Recorded images are compliant with the JPEG format. It is possible to perform the settings relating recording such as resolution, recording rate, etc. on this unit.



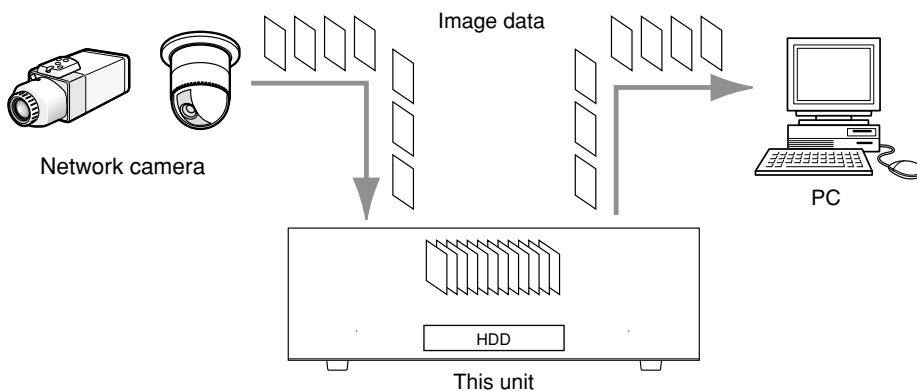
Playback

Images recorded on the hard disk drive of this unit can be transmitted to a PC and they can be played. A single network disk recorder can transmit images to up to 8 PCs (web browsers). It is necessary to use a web browser or the optional software (WV-AS65) to display recorded images.



Live Image Transmission

Live images from network cameras can be transmitted to PCs through this unit. Live images from up to 32 network cameras can be transmitted to up to 8 PCs concurrently.



Recording

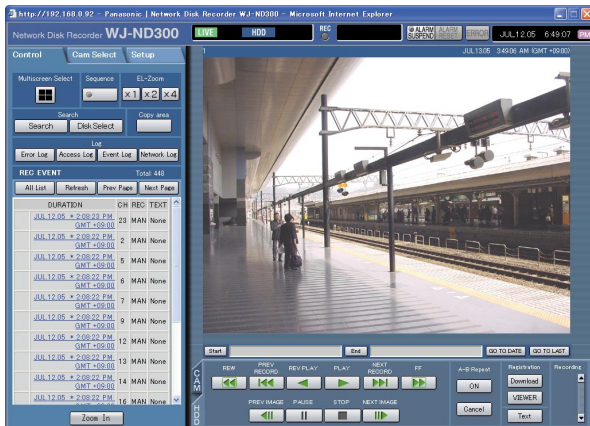
Start/stop recording manually.

Refer to a system administrator for the required settings for manual recording.

Refer to the Setup Instructions (PDF) for descriptions of how to turn on the unit and how to display the operation window.

Screenshot 1

Display the [HDD] tab.



Step 1

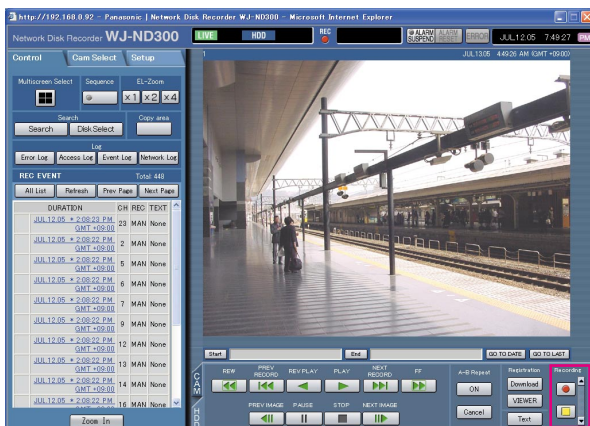
Click the [**▲**] button of the [REC] box.

Note:


Hold down the [**▲**] button until the [Recording] button and the [Stop recording] button are displayed.

Screenshot 2

The [Recording] button will be displayed in the [REC] box.




Step 2

Start recording by clicking the  [Recording] button.

- The REC indicator in the status display area will be lit red when recording has started.
- When images from cameras are currently recorded with higher priority than manual recording, manual recording will be suspended until that recording finishes.

Refer to the following for further information about each recording mode.

Step 3

Click the  [Stop recording] button to stop recording.
→ The REC indicator will go off.

Notes:

- When stopping manual recording while another recording with a different recording mode (ex. event recording → next page) is being performed, the [REC] indicator will remain lit and the other recording will continue.
- It is impossible to record images when images are not being received from cameras.

About the recording mode and the priority

There are 5 recording modes. Each recording mode and priority is as follows.

When two or more recordings with different recording modes started simultaneously, only recording with the highest priority will start.

| Recording Mode | Description | Priority |
|-----------------------|---|-----------------|
| Emergency recording | When an emergency event occurs, perform recording manually using an external switch, etc.. | Highest |
| Post-event recording | Perform recording manually at any event occurrence. | 2 |
| Manual recording | Start/stop recording manually. | 3 |
| Schedule recording | It is possible to perform recording automatically at a schedule time on a designated day of a week. | 4 |
| Pre-event recording | Perform recording manually at any event occurrence. | 5 |

Playback

A recorded image can be played. Playback is also available during recording.

Screenshot 1


Display the [HDD] tab.



Step 1

Click the [PLAY] button.

→ Playback of a recorded image will be performed.


 will be displayed in the status display area. Playback will start from the finish point (time and date) of the last playback.

Notes:

- When played for the first time after login, the latest recorded image will be played. Playback will start 30 seconds before the time of the latest recorded image with the default setting. The following are available for the playback start time.
5 s/10 s/30 s/1 min/5 min
Refer to a system administrator for further information.
- Playback speed may become slow when playing images recorded at 15 ips or a higher rate on a single screen.
- When playing images on a 4-Screen, images will be played with frame dropping.
- When playing images recorded at a different recording rate (one at a higher rate and the other at a lower rate) simultaneously on a 4-Screen, the difference between the displayed time for each channel will be widen.

Step 2









Click the [STOP] button to stop playback.


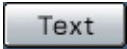






→  displayed in the status display area will go off and a live image will be displayed.

Notes:

- It is possible to change camera channels by clicking the desired camera channel on the [Cam Select] tab during playback.
- It is possible to switch the screen to a quad-screen by clicking the desired [Multiscreen Select] button during playback.
- Clicking the camera title during quad display will display the clicked picture on a single screen.

Other functions for playback

| | | |
|---|--|--|
| <p>Pausing</p> |  | <ul style="list-style-type: none"> • Playback will be stopped when this button is clicked during playback. • Playback will be resumed when this button is clicked during pausing. |
| <p>Frame play/reverse frame play</p> |   | <ul style="list-style-type: none"> • Frame play/reverse frame play is available only during pausing. • When the [NEXT IMAGE] button is clicked, the next frame is played and paused. • When the [PREV IMAGE] button is clicked, the previous frame is played and paused. |
| <p>Fast playback/fast reverse playback</p> |   | <ul style="list-style-type: none"> • Playback speed will be changed in the following order each time the fast playback button is clicked: Step2 (Approx. 4x) → Step3 (Approx. 8x) → Step4 (Approx. 16x) → Step5 (Approx. 32x) → Step6 (Approx. 48x) → Step7 (Approx. 96x) • Reverse playback speed will be changed in the following order each time the fast reverse playback button is clicked: Step2 (Approx. 4x) → Step3 (Approx. 8x) → Step4 (Approx. 16x) → Step5 (Approx. 32x) → Step6 (Approx. 48x) → Step7 (Approx. 96x) • When the [PLAY] button or the [REV PLAY] button is clicked during fast playback/fast reverse playback, playback speed will return to the normal playback speed. |
| <p>Skip/reverse skip</p> |   | <ul style="list-style-type: none"> • When the [NEXT RECORD] button is clicked, playback is skipped to the latest recorded image. • When the [PREV RECORD] button is clicked, playback is skipped to the oldest recorded image. • When there is no latest/oldest recorded image to be skipped to, the current playback will continue, but the playback may start from a point around a minute before the last playback point. |
| <p>Skips to the latest recorded image.</p> |  | <ul style="list-style-type: none"> • Skips to the latest time of the image currently playing and plays it. Skips to the point 30 seconds before the time of the latest recorded image with the default setting. The following points are available to be skipped to. 5 s/10 s/30 s/1 min/5 min Refer to a system administrator for further information. • When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start. <p>Note: When the [GO TO LAST] button is clicked while recording images at a lower recording rate, playback of the latest recorded images may be paused or images may not be displayed.</p> |

| | |
|--|---|
| <p>Playback on a multi-screen</p> |  <ul style="list-style-type: none"> • Displays playback images on a 4-Screen. • Up to 4 camera images can be displayed simultaneously on a 4-Screen screen. Images of the camera group (A-H) consisted from 4 camera channels in advance will be switched and displayed sequentially on a 4-Screen screen. Refer to the Setup Instructions (PDF) for descriptions of how to perform the camera group settings. • Click a camera title in the [Cam Select] tab or the camera title displayed on the image to return to a single screen display. |
| <p>Text (page 31)</p> |  <ul style="list-style-type: none"> • The attached text information will be displayed when this button is clicked during pausing. Click the [Text] button after pausing playback. • The text information display/edit is available only when a recorded image is played in a single screen. |
| <p>EL-Zoom</p> |  <ul style="list-style-type: none"> • Displayed playback images or live images will be enlarged. • Click the button in the [EL-Zoom] box to zoom in on the displayed image. <ul style="list-style-type: none"> [x1] button: Returns to the original displayed size (x1 zoomed size). [x2] button: Displays images with x2 zoomed size. [x4] button: Displays images with x4 zoomed size. Clicking a point in the zoomed image moves the zoomed image by positioning the clicked point as the center point. |
| <p>A-B Repeat Playback</p> |     <p>Recorded images between two designated points (point A: start point, point B: end point) will be played repeatedly.</p> <ol style="list-style-type: none"> ① Designate a start point (A) by clicking the [Start] button during playback. <ul style="list-style-type: none"> → The time and date of point A will be displayed next to the [Start] button. ② Designate an end point (B) by clicking the [End] button during playback. <ul style="list-style-type: none"> → The time and date of point B will be displayed next to the [End] button. ③ Playback between point A and B will start and keep playing repeatedly when the [START] button is clicked. ④ Click the [Cancel] button during A-B repeat playback to return to normal playback. |
| <p>Zoom In</p> |  <p>Enlarges the live camera image and playback picture.</p> |

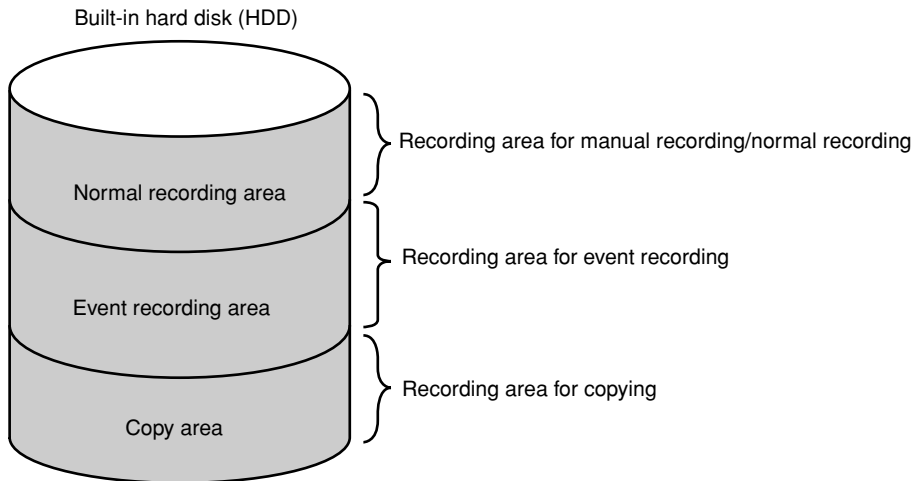
Playback after Selecting a Disk

Images from cameras will be recorded on the built-in hard disk drive of this unit.

Select a disk and play images as follows.

The following disks can be selected.

- **HDD normal recording area/event recording area:** Recording area in the built-in hard disk of this unit. Recorded images by manual recording (page 9) or event recording will be stored in this area.
- **HDD copy area:** Copy area in the built-in hard disk of this unit. Recorded images will be copied in this area. (page 29)

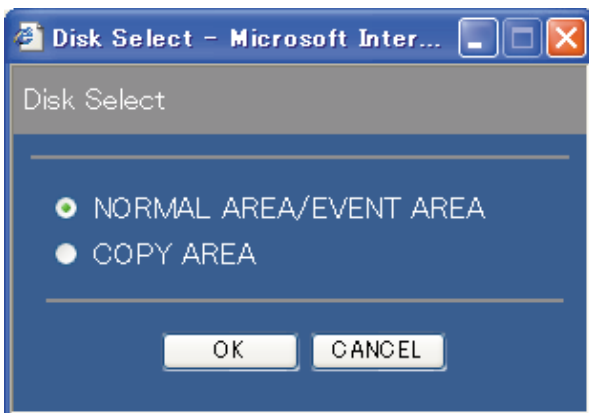


Note:

- The built-in hard disk or the built-in hard disk in an extension unit is described as "disk" in these operating instructions.
- Playback is also available during recording.
- The capacity of each recording area will be different depending on the settings. Refer to a system administrator for further information.

Screenshot 1

Click the [Disk Select] button in the [Search] box of the [Control] tab. The disk select window is displayed.



Step 1

Check the radio button of the desired disk to be played.

Step 2

Click the [OK] button.

Note:

It is impossible to select the HDD copy area in the following cases (the pop-up window will be displayed):

- When the selected area has been selected by another user
- When copying is being performed manually
- When playing images

Screenshot 2

The selected disk will be displayed on the status display area.

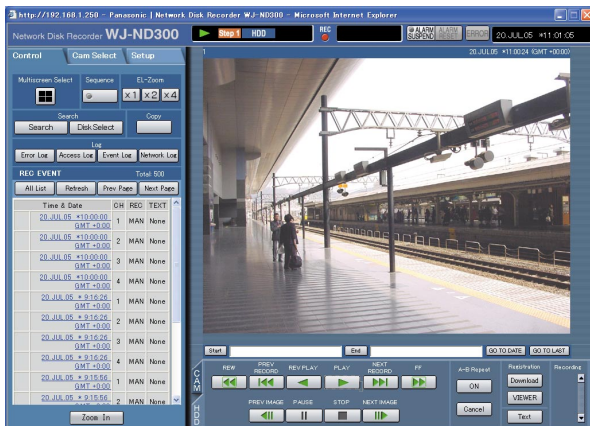


Step 3

Click the [HDD] tab.


Screenshot 3

The [HDD] page will be displayed.



Step 4

Click the [PLAY] button.


→ Recorded images on the selected disk will be played.  will be displayed in the status display area.

Note:

Playback will start from the finishing point (time and date) of the last playback by clicking the [PLAY] button after stopping playback.

Step 5

Click the [STOP] button to stop playback.

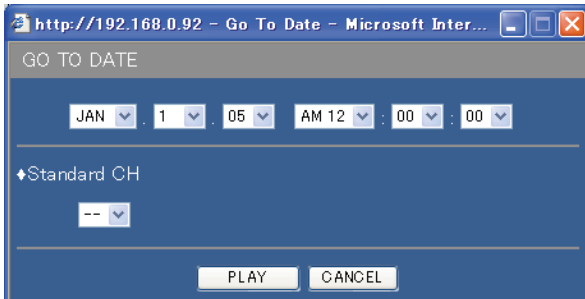
→  displayed in the status display area will go off and a live image will be displayed.

Playback from a Designated Time and Date

Start playback by designating the desired time and date of a recorded image to be played. Playback is also available during recording.

Screenshot 1

Click the [GO TO DATE] button in the playback point operation area after selecting the desired camera channel to display the "GO TO DATE" window.



Step 1

Click the [✓] button and enter the desired time and date of a recorded image to be played.

• Search criteria (Camera CH)

Determine which camera channel is to be used as a standard time zone when searching.

(It is necessary to determine the primary time and date by selecting a camera channel when cameras are installed in two or more countries.)

Step 2

Click the [PLAY] button.

→ Play recorded images of the entered time and date.



will be displayed in the status display area.

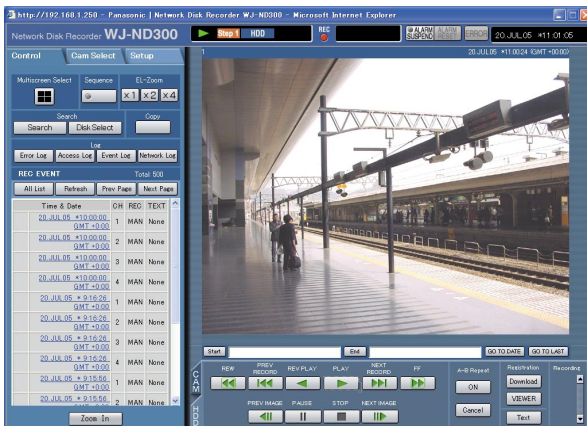
When there is no image for the entered time and date, the following action will be taken.

When there are images recorded after the entered time and date, the nearest recorded image after the entered time and date will be played.

When there are images recorded after the entered time and date, the nearest recorded image after the entered time and date will be played.

Screenshot 2

The recorded images will be played in this area.



Step 3

Click the [STOP] button on the [HDD] tab to stop playback.



displayed in the status display area will go off and a live image will be displayed.

Search and Play Recorded Event

Search for a recording event and play it (recording event search)
 Recording events can be searched by filtering as follows.

Note:

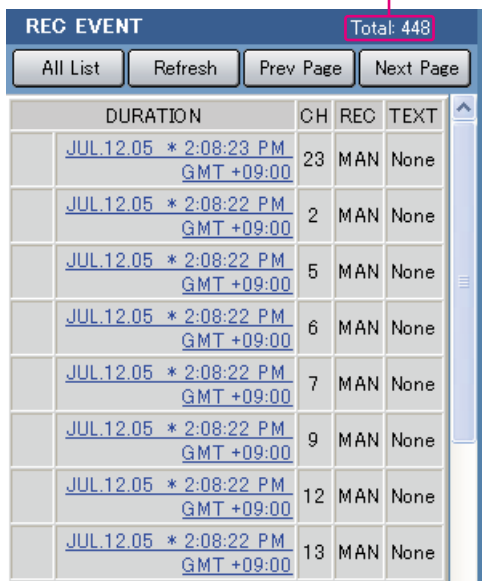
Area of the hard disk drive subject to search for recording events is different depending on the disk area. To search for recording events in the HDD normal recording area and event recording are, select "NORMAL AREA???" or "EVENT AREA???". To search for recorded images in the copy area, select "COPY AREA???". Refer to page 14 for further information about "DISK SELECT".

About Filtering

| Conditions for filtering | How to search |
|--------------------------|---|
| Time and date | Designate a time period and search images recorded in the designated period to play. |
| Event | Searches for images from the selected recording mode only. The following recording modes can be selected. <ul style="list-style-type: none"> • Manual: Manual recording (page 9) • Schedule: Schedule recording (Operating Instructions (PDF)) • Emergency: Emergency recording (Operating Instructions (PDF)) • Site alarm: Recording at a site alarm occurrence (page 26) • Terminal alarm: Recording at a terminal alarm occurrence (page 26) • Command alarm: Recording at a command alarm occurrence (page 26) |
| Text | Searches only images recorded with/without text information. |

About Displaying the Recording Event List Window

Number of the listed data



Number of the listed data: Displays the total number of the listed data

[All List] button: Cancels filtering and lists all recording events.

[Refresh] button: Refreshes the displayed contents to the newest one.

[Prev Page] button: Displays the previous page of the list.

[Next page] button: Displays the next page of the list.

DURATION: Start time of recording will be displayed.

CH: A camera channel currently used for recording will be displayed. Recorded images of the displayed camera channel will be played in a single screen.

REC: Recording mode will be displayed.

MAN: Manual Recording

SCH: Schedule recording

EMR: Emergency recording

TRM: Recording at a terminal alarm occurrence

COM: Recording at a command alarm occurrence

CAM: Site alarm

PRE: Pre-event recording

Text: When text information is attached to the recorded image, "Added" will be displayed. When text information is not attached to the recorded image, "None" will be displayed.

How to Operate

Screenshot 1

Click the [Search] button in the [Search] box of the [Control] tab. The REC event search window is displayed.



Step 1

Select searching conditions

• Time & Date

Filter by time and date. Select a start time and an end time by clicking the [V] button.

• REC Events

Filter by recording event. Click to select the desired recording event to be displayed when filtering by recording events.

• Standard CH

Determine which camera channel is to be used as a standard time zone when searching.

(It is necessary to determine the primary time and date by selecting a camera channel when cameras are installed in two or more countries.)

• Camera

Filter by camera channel. Check the radio button of the desired camera channel to be searched for.

• Text

Filter by with/without text information. Select "Added" or "None" by clicking the [V] button.

When "--" is selected, searching will be performed without filtering by with/without text information.

Step 2

Click the [OK] button.

→ **FILTERING** will be displayed in the status display area. The filtered result will be displayed.

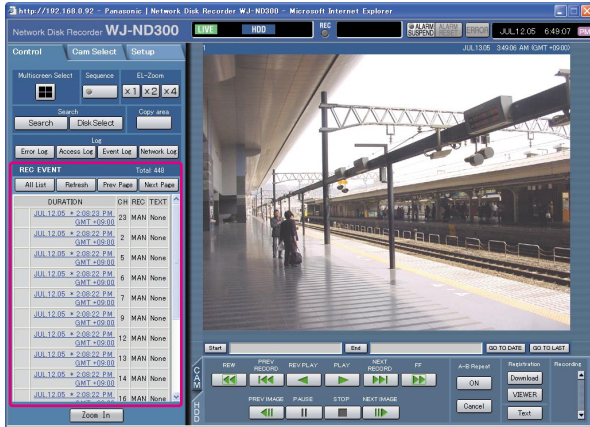
Note:

Click the [All List] button to cancel the filtering.

FILTERING will go off and all recording events will be listed.

Screenshot 2

The search results (recording event list) will be displayed below the [Control] tab.



Step 3

Click the time of the desired recording event.

→ Play a recorded image of the recording event from the selected time.

Step 4

Click the [STOP] button to stop playback.

Monitor Live Images

Live image will be displayed in the web browser window.

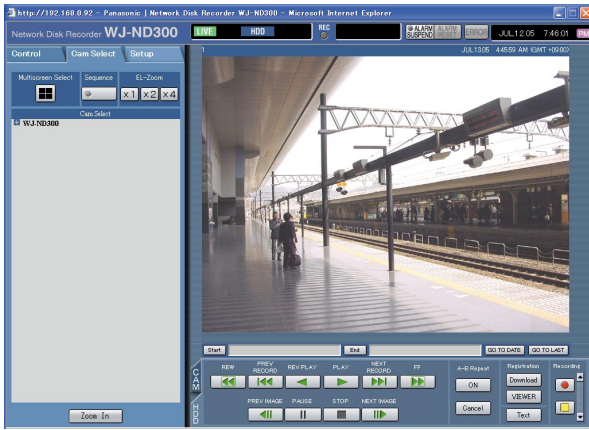
It is possible to display live images on a single screen or a multi-screen in the web browser window.

It is also possible to display live images sequentially (sequential display).

Display Images from a Camera on a Single Screen

Screenshot 1

Display the [Cam Select] tab.

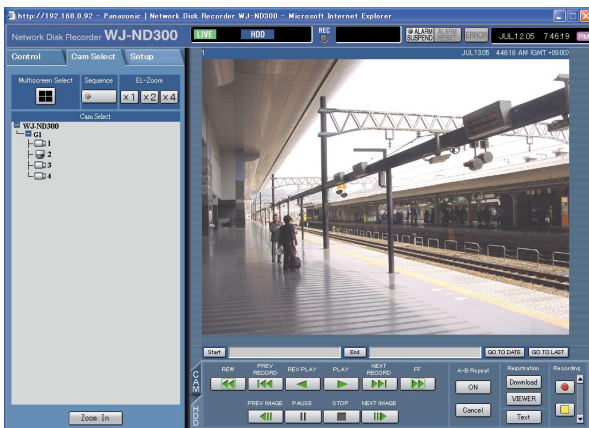


Step 1

Click the desired camera title from the list displayed in the [Cam Select] box.

Screenshot 2

Live images from the selected camera channel will be displayed.



Notes:

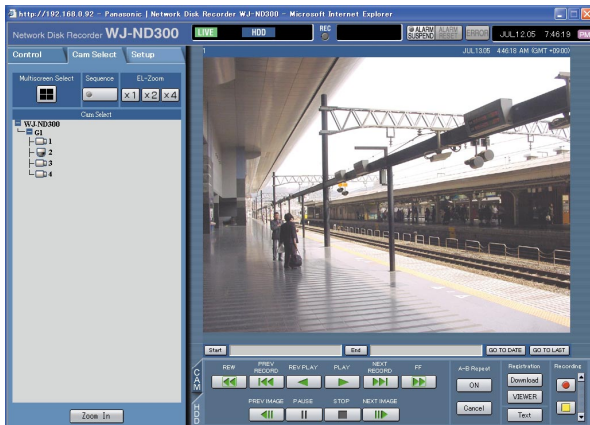
- Camera Select
Clicking the camera title will display a list of cameras connected to the unit.
Images from the selected camera channel will be displayed on the image display area by clicking one of camera names.
- About the electrical zoom
When displaying an image on a single screen, zooming in on the displayed image is possible.
Click the button in the [EL-Zoom] box to zoom in on the displayed image.
[x1] button: Returns to the original displayed size (x1 zoomed size).
[x2] button: Displays images with x2 zoomed size.
[x4] button: Displays images with x4 zoomed size.
Clicking a point in the zoomed image moves the zoomed image by positioning the clicked point as the center point.
- When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.

Display Images from Cameras on a 4-Screen

Images from cameras will be displayed on a 4-Screen screen.

Screenshot 1

Display the [Camera Select] tab.



Step 1

Click the button of the [Multiscreen] box.

Screenshot 2

Images from cameras will be displayed on a 4-Screen screen.



Step 2

Up to 4 camera images can be displayed simultaneously on a 4-Screen screen.

Each time the button is clicked, the camera picture is changed to quad display according to the settings made in [Advanced] – [System] – [Basic Setup] – [Monitor Display Setup] of the setup menu.

Step 3

Click a camera title in the [Cam Select] tab or the camera title displayed on the image to return to a single screen display.

Note:

When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.

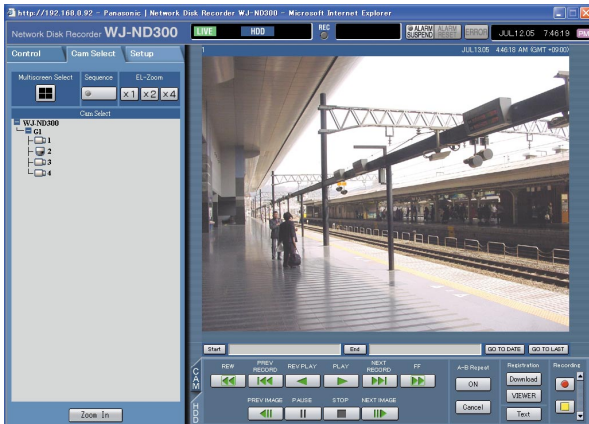
Display Images in the Sequential Display

Displayed images from cameras will be switched automatically.

Camera images will be displayed sequentially according to the settings performed in advance.

Screenshot 1

Display the [Cam Select] tab.



Step 1

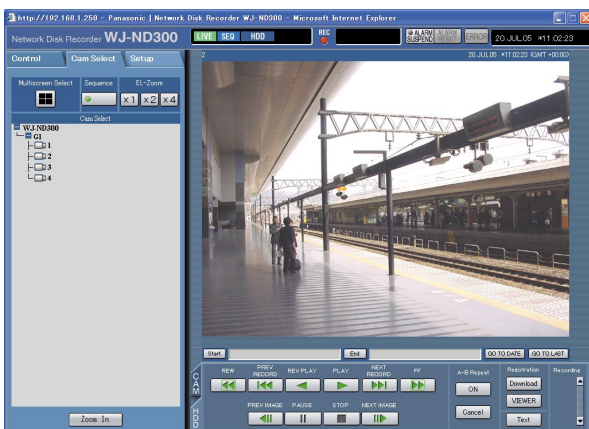
Click the button of the [Sequence] box.

→ The lamp on the button lights (green) during sequence operation.

The sequence action will start and the lamp on the button will light (green) during sequence operation. The "SEQ" indication will also light on the status display area.

Screenshot 2

Live images will be displayed sequentially according to the settings performed in advance.



Step 2

To stop the sequential display, click the button once again. The lamp on the button will go off when sequence operation is stopped.

When operations to display images on a single screen (page 20) or 4-Screen screen (page 21) are performed during the sequential display, the sequential display will be canceled.

Note:

- The sequence step that is unavailable to display will be skipped.
- When the [GO TO LAST] button is clicked while displaying live images, playback of the latest recorded images from the selected camera channel will start.

Control Cameras

When displaying live images, the following camera controls are possible.

- Panning/tilting: Moves a camera horizontally/vertically.
- Zooming: Zooms in/out of images.
- Focus: Adjusts the focus.
- Iris: Adjusts the iris of the lens.
- Preset action: Moves a camera to the preset position registered in advance.
- Auto: Moves a camera with an auto function set in advance.

Note:

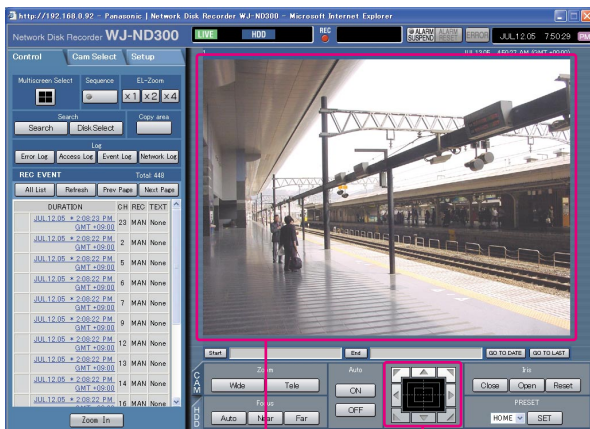
- Depending on the models of the connected cameras, it may be impossible to control the camera or some functions may be not available.
- Controlling cameras is possible only when displaying live images on a single screen.

Panning/Tilting Operation

Moves a camera horizontally/vertically.

Screenshot 1

Display the [CAM] tab.



Control buttons/Control pad
Image display area

Step 1

Moves a camera horizontally/vertically in the following ways.

- **Control buttons:** Click to move the camera.
- **Control pad:** Click to move the camera. Panning/tilting speed will be faster if a clicked point gets farther from the center point of the control pad.
- **Image display area:** Click the desired point to be the center of the field angle in the displayed image. The camera moves to position the clicked point as the center point of its image.

Zoom/Focus/Iris Operations

Zooming: Zooms in/out of images. Depending on the models of the connected cameras, the image size for the respective zooming portion may be different. For further information, refer to the operating instructions of the camera.

Focus adjustment: Adjusts the focus. The auto focus function is available.

Iris adjustment: Adjusts the iris of the lens. Adjusts the iris of the lens.

Screenshot 1

Display the [CAM] tab.



Step 1

• Zooming

Adjust zooming by clicking the [Wide] button or the [Tele] button in the [Zoom] box.

• Focus adjustment

Adjust the focus by clicking the [Near] button or the [Far] button in the [Focus] box.

The auto focus function is available by clicking the [Auto] button.

• Iris adjustment

Adjust the iris by clicking the [Open] button or the [Close] button in the [Iris] box.

Click the [Reset] button to reset the setting for the iris.

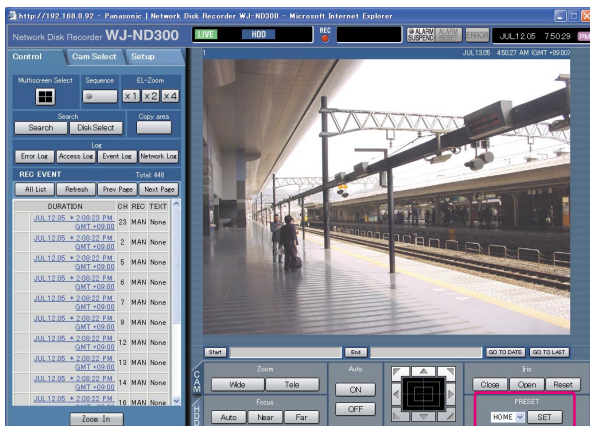
Move a Camera to the Preset Position

Moves a camera to the preset position registered in advance. Registering preset positions is required to perform the preset function.

Refer to the operating instructions of the connected camera for the descriptions of how to register the preset position. It is impossible to register the preset positions of cameras using this unit.

Screenshot 1

Display the [CAM] tab.



Step 1

Click the [✓] button in the [Preset] box to select a preset number (HOME, 1 - 16) to be moved.

Step 2

Click the [Set] button.

→ The camera moves to the registered preset position respective to the selected preset number.

Auto Function (Auto Pan, etc)

Moves a camera with an auto function set in advance.

Screenshot 1

Display the [CAM] tab.



Step 1

The auto function can be performed by clicking the [ON] button in the [Auto] box.

Click the [OFF] button to stop the auto function.

Note:

Refer to the operating instructions of the connected camera for further information about the auto function of the camera.

About the Event Function

The event action will be performed when the following events occur.

- Terminal alarm: When a signal is supplied from an external device such as a door sensor to the ALARM terminal, this is stated as an event of a terminal alarm.
- Command alarm: A command alarm is sent from a PC via a network.
- Site alarm: An alarm using Panasonic Protocol is sent from a network camera.

Action at an Event Occurrence

The event action will be performed according to the settings when an event occurs.

There are 3 event action modes for the alarm mode (ALM), the activity mode (ADM) and OFF for each event type.

The event action will be different according to the set event action mode.

About the event action mode

- **Alarm Mode (ALM)**

This mode notifies of an event occurrence outside. Action taken in the alarm mode is referred to as the alarm action.

- **Activity Detection Mode (ADM)**

This mode does not notify of an event occurrence outside, but records event log and performs preset actions.

- **OFF**

Performs only recording of the event log. Other event actions will not be performed.

| Alarm action | Alarm Mode | Activity mode | OFF |
|---|------------|---------------|-----|
| Start recording. | ✓ | ✓ | – |
| Alarm message. | ✓ | – | – |
| Blinks the alarm indicator. | ✓ | – | – |
| Sounds the buzzer. | ✓ | – | – |
| Move a camera to the preset position | ✓ | ✓ | – |
| Notifies of an event occurrence by sending e-mails. | ✓ | – | – |
| Supplies a signal from the ALARM connector or the ALARM/CONTROL connector on the rear panel of this unit (Alarm signal output). | ✓ | – | – |
| Record the event log. | ✓ | ✓ | ✓ |
| Transmits images onto an FTP server | ✓ | – | – |
| Notifies of an alarm occurrence according to the Panasonic protocol settings. | ✓ | – | – |

✓: Applicable –: Not applicable

About the alarm action

- **Start recording.**

Recording will start at an event occurrence. Recording will be performed according to the settings such as recording duration, recording rate, etc. that were configured on the setup menu. (Refer to the Setup Instructions (PDF) for further information.)

Depending on the settings, it is possible to start recording images before an event occurs (Pre-event recording).

- **Displays alarm message.**

The pop-up window that notifies of an event occurrence will be displayed at an event occurrence.

- **Blinks the alarm indicator.**

The alarm indicator on the front panel of the unit will start blinking at an event occurrence.

- **Sounds the buzzer.**

The buzzer will start sounding for the set duration according to the settings configured on the setup menu. (Refer to the Setup Instructions (PDF) for further information.) When the buzzer settings are not configured, the buzzer will not sound.

- **Move a camera to the preset position**

The camera will move to the preset position registered in advance at an event occurrence. Refer to the operating instructions of the connected camera for the descriptions of how to register the preset position.

- **Notifies of an event occurrence by sending e-mails.**

When an event occurs, this unit notifies of the event occurrence with the time and date of the event occurrence by sending e-mails (alarm mails) to the registered addresses. It is also possible to attach an image to the alarm mail.

Up to 4 addresses can be registered as recipients of the alarm mail.

To send the alarm mail at an event occurrence, it is required to perform the settings on the SETUP MENU in advance.

- **Supplies a signal from the ALARM connector or the ALARM/CONTROL connector on the rear panel of this unit (Alarm signal output).**

It is possible to output signals from the ALARM connector on the rear panel of the unit and sound the buzzer when an event occurs. The alarm output duration can be set on the setup menu. (Refer to the Setup Instructions (PDF) for further information.)

- **Record event log.**

The event type and the occurrence time and date will be recorded when an event occurs.

- **Transmits recorded images to an FTP server at an event occurrence**

When an event occurs, recorded images will be continued transmitting to an FTP server automatically for the set duration from the recording start time. To send the alarm image to an FTP server at an event occurrence, it is required to perform the settings on the SETUP MENU in advance. Refer to the Setup Instructions (PDF) for further information.

- **Notifies a PC of an alarm occurrence according to the Panasonic protocol settings.**

Select "ON" or "OFF" to determine whether or not to notify of an alarm occurrence (or error information) to a PC according to the "Network Panasonic Protocol" of the setup menu ("Comm" – "Network Panasonic Protocol").

To receive a notification (or error information) and display the contents of the notification, the optional software (WV-AS65) is necessary.

Cancel the Alarm Action

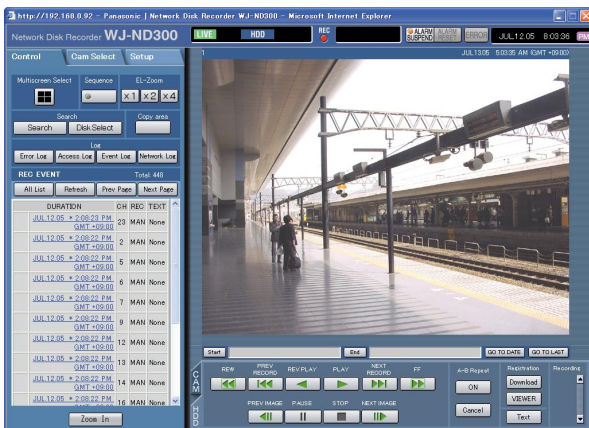
The alarm action will be performed when an event is detected.
To cancel the alarm action manually, do the following.

Screenshot 1

[ALARM RESET] will be displayed in the status display area when an alarm occurs.

Step 1

Click the [ALARM RESET] button.
→ The alarm action will be canceled.



Suspend the Alarm Action

Configure the settings to not to perform the alarm action even when an event occurs. It is useful to suspend the alarm action at an event occurrence such when maintaining the unit for a certain period.
Even though the alarm action is suspended, recording of images, event log recording and the preset action will be performed.

Screenshot 1

The operating window will be displayed.

Step 1

Click the [ALARM SUSPEND] button.
→ The alarm action will be suspended.
The "ALARM SUSPEND" indicator on the front panel of the unit will light.

Step 2

To release the alarm suspension, click the [ALARM SUSPEND] button again.
→ The "ALARM SUSPEND" indicator on the front panel of the unit will go off.



Copying (Duplicate)

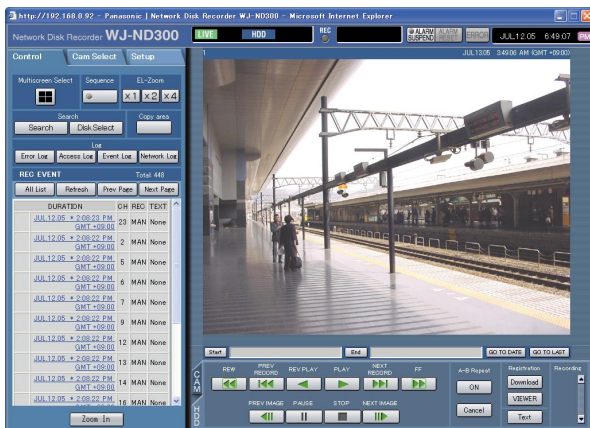
Images recorded on the normal area/event area can be copied manually onto the copy area of the hard disk drive. It is recommended to make back-up copies on a regular basis for unexpected situations such as malfunction of the hard disk.

Manual copy is available during the following.

- While displaying live images
- While playback or pausing playback of recorded images

Screenshot 1

Display the [Control] tab.



Step 1

Click a button in the [Copy] box of the [Control] tab.

Note:

It is impossible to copy recorded images in the following cases.
(The pop-up window will be displayed when the button in the [COPY] box is clicked.)

- When copying is being performed
- When a download is being performed (page 37)
- When "COPY AREA" is selected for "DISK SELECT"

Screenshot 2

The data copy window will be displayed.



Step 2

Click to select the desired camera channel to be copied. It is possible to select two or more camera channels.

Step 3

Select a start time and an end time for copying by clicking the [V] button.

Step 4

Determine which camera channel is to be used as a standard time zone when searching.
(It is necessary to determine the primary time and date by selecting a camera channel when cameras are installed in two or more countries.)

Step 5

Click the [OK] button.

→ **COPY** will be displayed in the status display area when copying starts. However, copying will not be performed in the following cases (the pop-up window will be displayed):

- When another user has selected the desired copy drive
- When copying is being performed

Note:

It is possible to cancel copying using the copy cancel window that can be displayed by clicking the [COPY] button during copying.

Deletion of Recorded Images Saved on the Hard Disk Manually

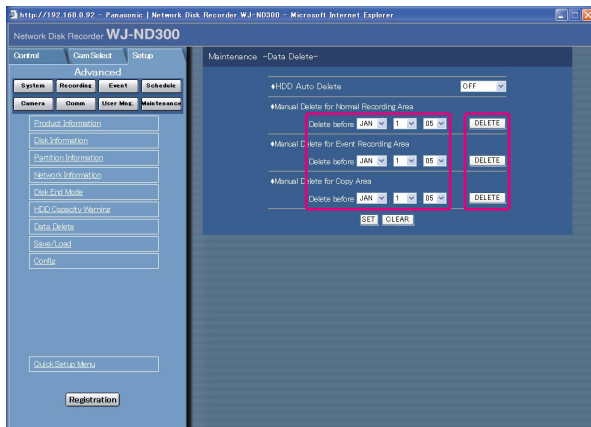
Delete recorded images saved in the normal area, the event area or the copy area of the hard disk manually. By setting a time and date, the images recorded the day before the set time and date will be subject to deletion.

Important:

- It is impossible to recover the deleted images.
- It is possible to delete recorded images automatically when the set days have passed from the day the image was recorded (HDD auto deletion).
Refer to a system administrator for further information.
- When "STOP" is selected for "Disk End Mode" of "Maintenance", the available disk space will not be increased even though deletion is performed.

Screenshot 1

Click the [Maintenance] button in the setup menu (Advanced) and then click "Data Delete". The "Data Delete" window will be displayed.



Step 1

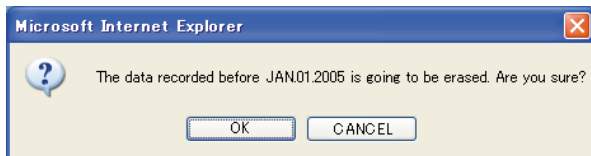
Set time and date for any of "Manual Delete for Normal Recording Area", "Manual Delete for Event Recording Area" or "Manual Delete for Copy Area" by clicking [√]. Images recorded before the set time and date will be deleted.

Step 2

Click the [DELETE] button.

Screenshot 2

The confirmation window will be displayed.



Step 3

Click the [OK] button.

→ Start deletion. When deletion complete, the "Data Delete" window will be operable again.

Display/Edit the Text Information

It is possible to attach text information to images when recording.

It is possible to enter up to 200 characters for text information.

These are the descriptions of how to display/edit the attached text information to images.

Note:

Displaying/editing text information is possible during pausing playback on a single screen.

Screenshot 1

Start operation after starting playback of recorded images in a single screen.

**Step 1**

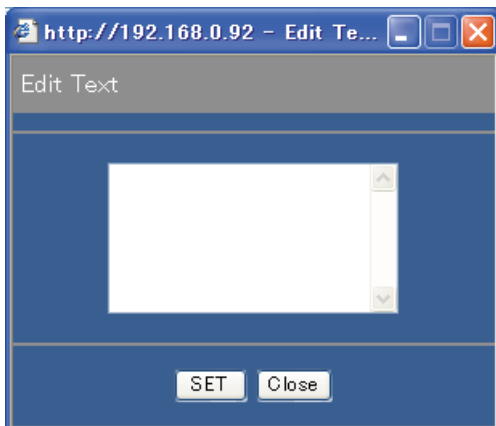
Pause playback by clicking the [Pause] button.

Step 2

Click the [Text] button in the [HDD] tab.

Screenshot 2

The "Edit Text" window will be displayed.

**Step 3**

The text information attached to the recorded images will be displayed.

Step 4

Edit text information. It is possible to enter up to 200 characters (up to 10 lines) for text information.

• About the available characters

The following alphanumeric characters can be entered.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z 0 1 2 3 4 5
6 7 8 9 ! " # \$ % & ' () * + , - . / : ; < = > ? @ [\] ^ _ ` | } ~
(space)

Step 5

Click the [SET] button.

→ The text information will be registered.

Step 6

Click the [Close] button.

→ The [Edit Text] window will close.

Transmits Camera Images onto an FTP Server

It is possible to transmit images to an FTP server.

Image transmission can be performed at a designated time periodically (FTP SEND BY PERIODIC TIMER) or at an event occurrence (FTP ALARM SENDING).

Transmit Images from Cameras Periodically

It is necessary to perform the settings on the setup menu in advance to transmit images from cameras to an FTP server periodically.

The settings relating to "FTP SEND BY PERIODIC TIMER" such as FTP server directory, transmission interval, source camera channel, etc. can be performed on the setup menu (Advanced) ("Comm" - "Network FTP Setup" - "FTP SEND BY PERIODIC TIMER").

Select "ON" or "OFF" on the setup menu (Advanced) ("Schedule" - "Time Table" - "FTP SEND PERIODIC TIMER") whether or not to transmit images periodically.

Refer to the Setup Instructions (PDF) for setup.

Transmit Images from Cameras at an Event Occurrence

It is necessary to perform the settings on the setup menu in advance to transmit images from cameras to an FTP server at an event occurrence.

The settings relating to "FTP ALARM SENDING" such as FTP server name, "Duration-Pre", "Duration-Post", etc. can be performed on the setup menu (Advanced) ("Comm" - "Network FTP Setup" - "FTP ALARM SENDING").

Select "ON" or "OFF" on the setup menu (Advanced) ("Schedule" - "Time Table" - "FTP ALARM SENDING") whether or not to transmit images at an event occurrence.

Refer to the Setup Instructions (PDF) for setup.

Check Logs

The following logs can be checked.

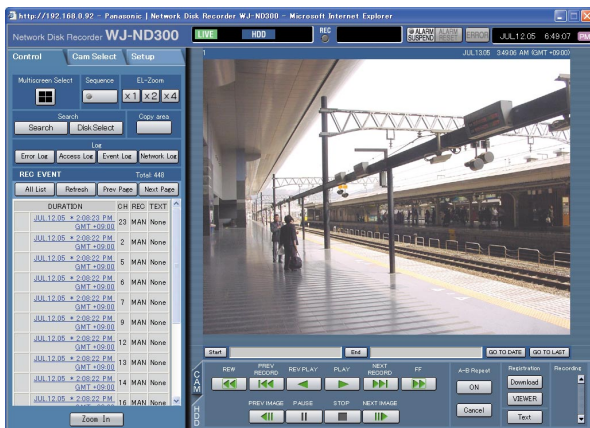
- Error log
- Access log
- Event log (event occurrence time and details)
- Network trouble log

Check the Error Log

The error log will be displayed in list form.

Screenshot 1

Display the [Control] tab.

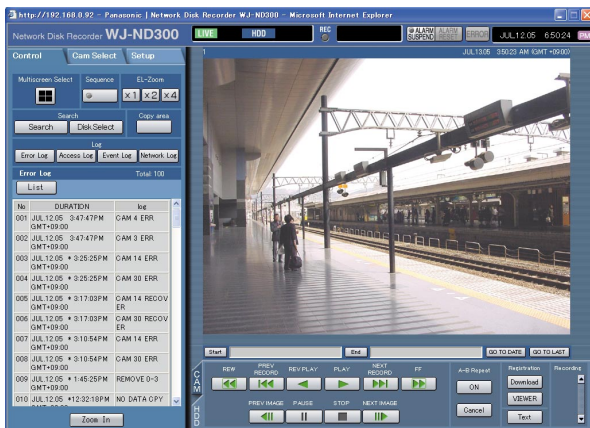


Step 1

Click the [Error Log] button in the [Log] box of the [Control] tab.

Screenshot 2

The error log (the error log window) will be displayed in list form below the [Control] tab. Refer to page 49 for further information about the error log.



Step 2

Click the [List] button to close the error log window.

Note:

- Up to 100 error logs can be kept. When more than 100 event logs are filed, the older event logs will be overwritten by the newer event logs.
- In this case, the oldest log is the first to be overwritten.
- Live images will not be refreshed while the logs are being displayed.

Check the Access Log

The time when logged in/out for this unit, the user name, and the IP address will be displayed.

Screenshot 1

Display the [Control] tab.



Step 1

Click the [Access Log] button in the [Log] box of the [Control] tab.

Screenshot 2

The access log (the access log window) will be displayed in list form below the [Control] tab.



Indications for access log

****IN:** The user name or the IP address displayed before IN indicates the user/host logged in.

****OUT:** The user name or the IP address displayed before OUT indicates the user/host logged out.

A user name or IP address will be displayed.

Step 2

Click the [List] button to close the access log window.

Note:

- Up to 100 access logs can be kept. When more than 100 event logs are filed, the older event logs will be overwritten by the newer event logs.
- Live images will not be refreshed while the logs are being displayed.

Check the Event Log

The event logs (event occurrence times and their details) will be displayed.
Refer to page 26 for further information about each event.

Screenshot 1

Display the [Control] tab.

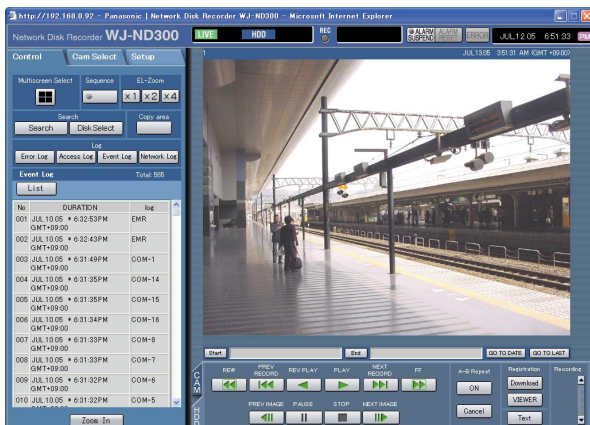


Step 1

Click the [Event Log] button in the [Log] box of the [Control] tab.

Screenshot 2

The event log (the event log window) will be displayed in list form below the [Control] tab.



Indications for event log

- COM:** Command alarm
- EMR:** Emergency recording
- TRM:** Terminal alarm
- CAM:** Site alarm

Step 2

Click the [List] button to close the event log window.

Note:

- Up to 750 event logs can be kept.
When more than 750 event logs are filed, the older event logs will be overwritten by the newer event logs.
- Live images will not be refreshed while the logs are being displayed.

Check the Network Trouble Log

The network log (network event) will be displayed in list form.

Screenshot 1

Display the [Control] tab.

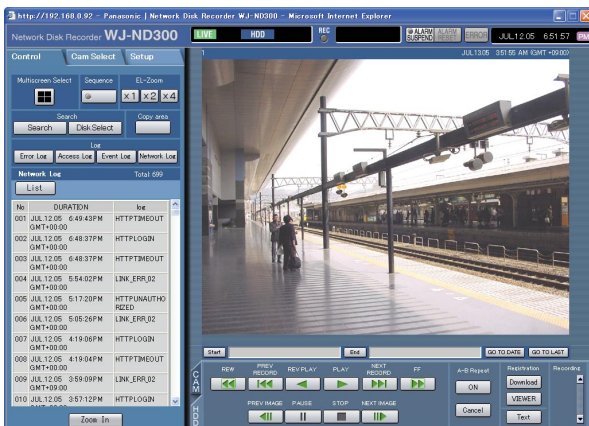


Step 1

Click the [Net Log] button in the [Log] box of the [Control] tab.

Screenshot 2

The network trouble log (the NW log window) will be displayed in list form below the [Control] tab. Refer to page 49 for further information about the network trouble log.



Step 2

Click the [List] button to close the NW log window.

Note:

- Up to 1 000 network trouble logs can be kept. When more than 1 000 event logs are filed, the older event logs will be overwritten by the newer event logs.
- When the same trouble as the one recorded on the latest log occurred, only the latest log will be updated.
- Live images will not be refreshed while the logs are being displayed.

Download Recorded Images

Designate the start point and the end point of played images and download images to a PC.

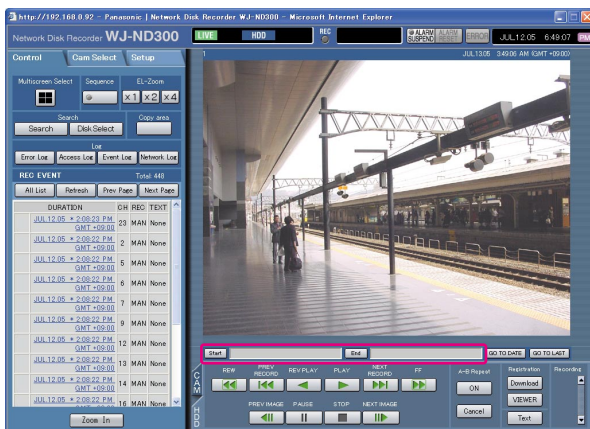
Recorded images will be downloaded as image data files (filename.n3r). Refer to page 39 for the descriptions of how to play the downloaded images.

Important:

- When downloading, the available disk space must be 2 or more times the size of the file to be downloaded.
- * It is a feature of Internet Explorer.
- Otherwise, it may be impossible to properly play the downloaded file on a PC.

Screenshot 1

Display the [HDD] tab.



Step 1

Enter the desired start time for download in the [Start] box on the playback point operation area.

It is also possible to designate the start time by clicking the [Start] button at the desired point to set as the start point of the image to be downloaded.

→ The time and date of the start point will be displayed in the playback position display area.

Step 2

Enter the desired end time for download in the [End] box on the playback point operation area.

It is also possible to designate the end time by clicking the [End] button at the desired point to set as the end point of the image to be downloaded.

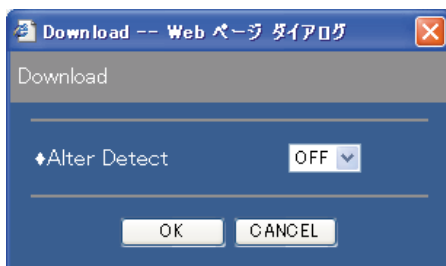
→ The time and date of the end point will be displayed in the playback position display area. It is possible to designate up to 20 minutes of the time range per download.

Step 3

Click the [Download] button.

Screenshot 2

The "DOWNLOAD SETUP" pop-up window will be displayed.



Step 4

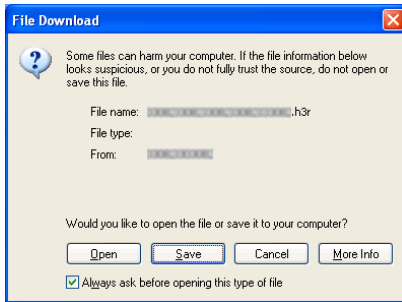
Click the [OK] button after selecting "ON" or "OFF" for "Alter Detect" to determine whether or not to attach an alteration detection code to recorded images to be downloaded.

Note:

The download time will be longer when "ON" is selected for "Alter Detect".

Screenshot 3

The download window will be displayed.

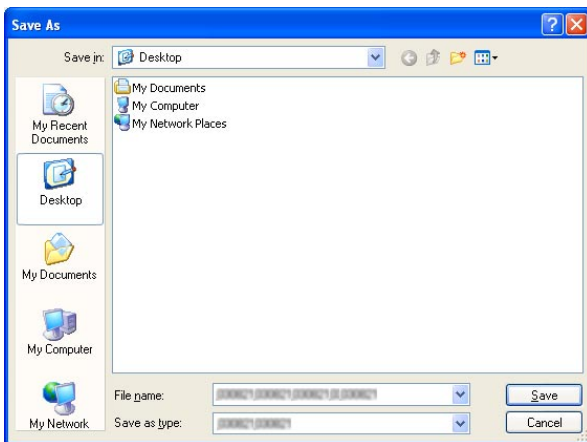


Step 5

Click the [Save] button.

Screenshot 4

The "Save as..." window will be displayed.



Step 6

Create a new folder in the desired directory and click the [Save] button.

→ Recorded images will be downloaded as image data files (filename.n3r).

Play Downloaded Images

Recorded images will be downloaded as image data files (filename.h3r). It is possible to play, save and print downloaded images using the viewer software on the provided CD-ROM (Downloading this software is also available.)

Download the Viewer Software

Screenshot 1

Display the [HDD] tab.

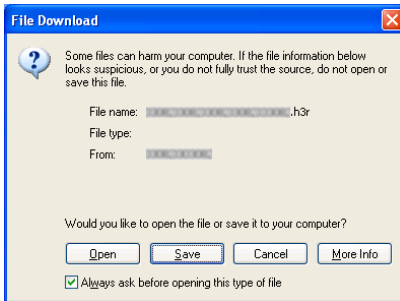


Step 1

Click the [VIEWER] button of the [Registration] box.

Screenshot 2

The download window will be displayed.

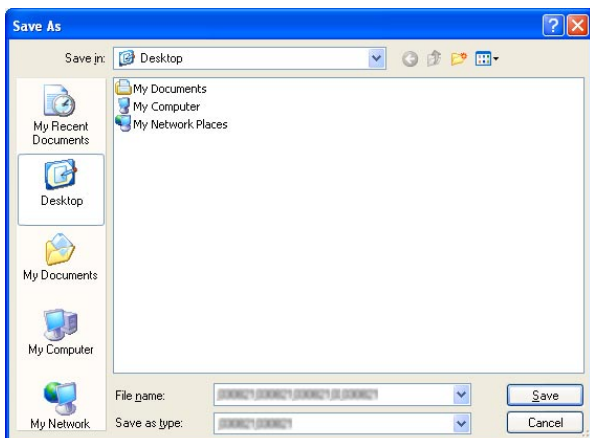


Step 2

Click the [Save] button.

Screenshot 3

The "Save as..." window will be displayed.



Step 3

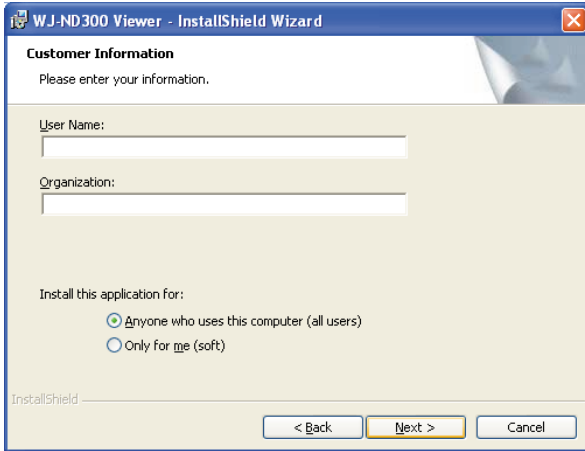
Create a new folder in the desired directory and click the [Save] button.

→ The viewer software (filename.n3r) will be downloaded.

Install the Viewer Software

Screenshot 1

The user information entry screen will be displayed.



Step 1

Double-click the downloaded file (n3vsetup.exe).

Step 2

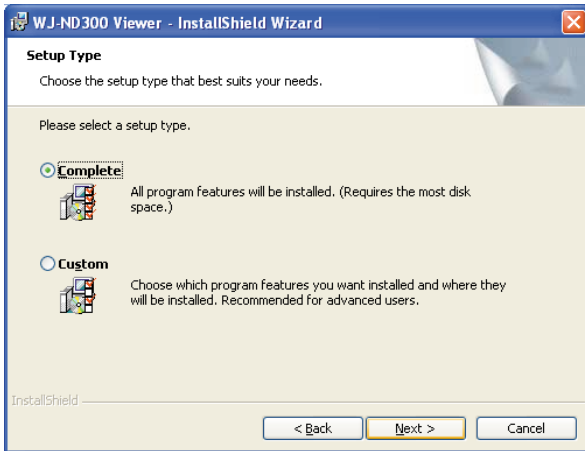
Complete the user information fields and click the [Next] button.

Note:

User information entry is not required to proceed.

Screenshot 2

The setup type selection screen will be displayed.

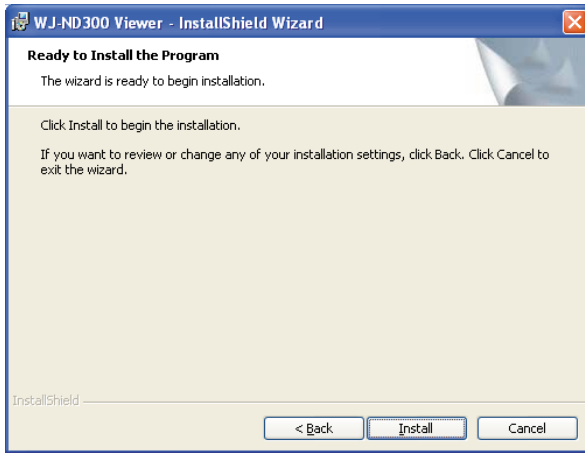


Step 3

Select "Complete" and click the [Next] button.

Screenshot 3

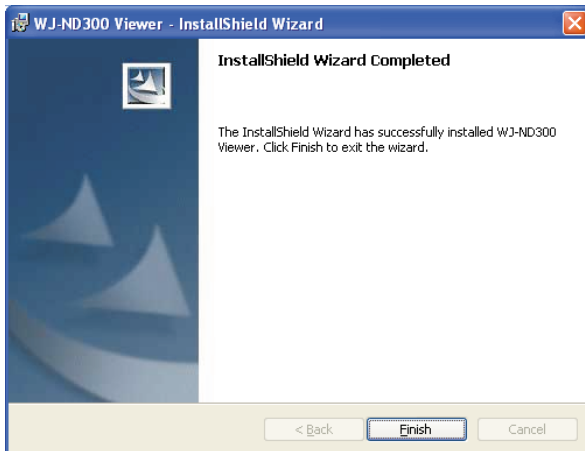
The wizard is ready to install.



Step 4

Click the [Install] button.

Screenshot 4



Step 5

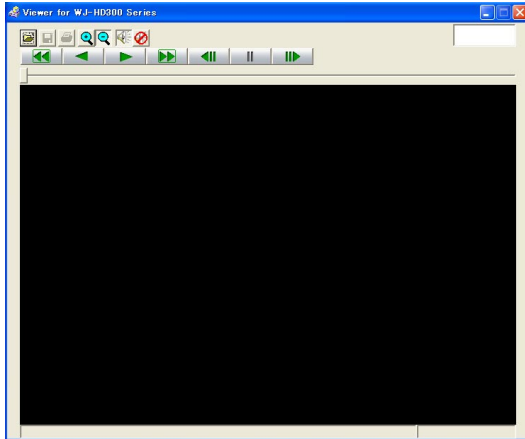
Click the [Finish] button.

The installation of the viewer software is complete.

Playback Downloaded Images

Screenshot 1

Start up the viewer software and display the following window.

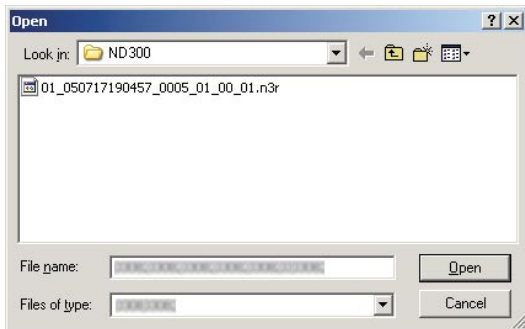


Step 1

Click the [OPEN] button.

Screenshot 2

The [Open file] window will be displayed.



Step 2

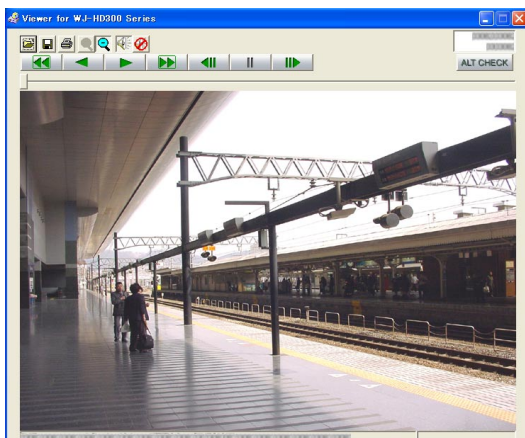
Select the downloaded image data file (filename.n3r).

Step 3

Click the [Open] button.

Screenshot 3

The recorded images will be played in this area.



Step 4

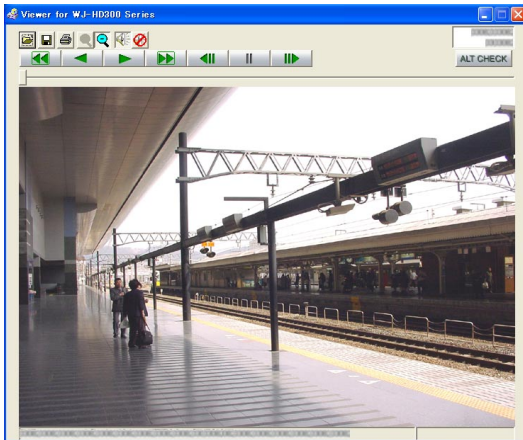
Click the [PLAY] button.

Save Downloaded Images

It is possible to save the paused image as a jpeg file (extension: jpg). Saving the downloaded file is available only when the image is paused.

Screenshot 1

Start operation when playing the downloaded images using the viewer software.



Step 1

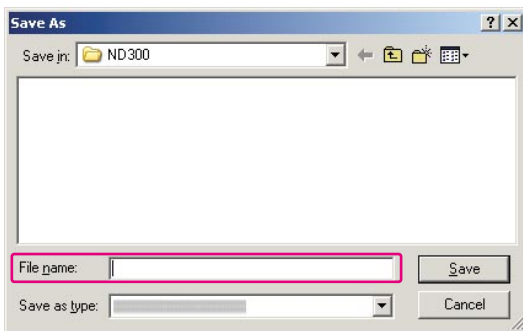
Click the [PAUSE] button.

Step 2

Click the [SAVE] button.

Screenshot 2

The "Save as..." window will be displayed.



Step 3

Enter the file name and select the file format (JPG).

Step 4

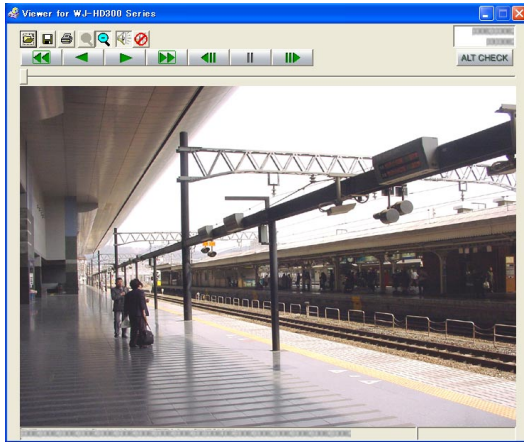
Designate the folder and click the [Save] button.
→ The image data will be downloaded and saved.

Print the Displayed Image

It is possible to print the paused image.

Screenshot 1

Start operation when playing the downloaded images using the viewer software.



Step 1

Click the [PAUSE] button.

Step 2

Click the [PRINT] button.

Note:

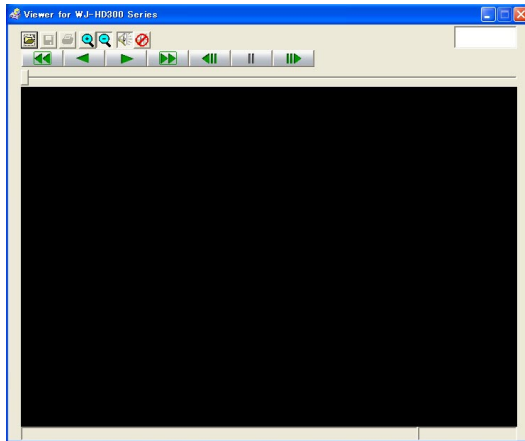
The time and date being displayed on the viewer when paused will also be printed.

Perform the Alteration Detection

It is possible to detect the alteration of the data if a code for the alteration detection has been attached to the downloaded data. Refer to page 37 for descriptions of how to attach a code for the alteration detection.

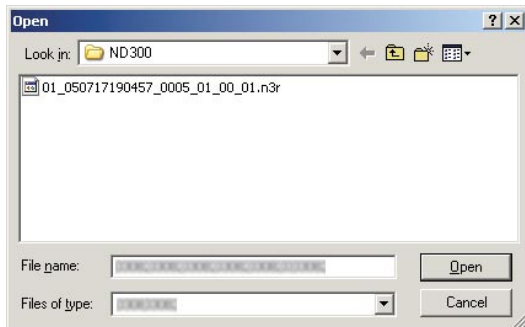
Screenshot 1

Start up the viewer software and display the following window.



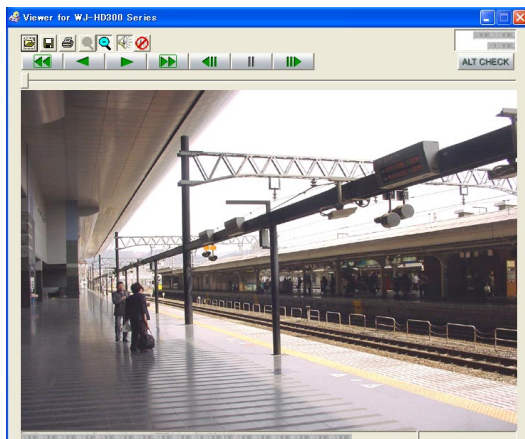
Screenshot 2

The [Open file] window will be displayed.



Screenshot 3

The first frame of the downloaded image will be displayed and paused.



Step 1

Click the [OPEN] button.

Step 2

Select the downloaded image data file (filename.n3r).

Step 3

Click the [Open] button.

Step 4

Click the [ALT CHECK] button.

→ The alteration detection will start.

The following pop-up window will be displayed while/after performing the alteration detection.

OK (Not Altered): No alteration was detected.

NG (Altered): Alteration was detected.

Note:

The [ALT CHECK] button will be displayed only when opening an image data file with a code for the alteration detection.

Notification by E-Mail

Alarm Mail Notification

The following mail will be sent to notify of an alarm occurrence to a registered address when an alarm occurs.

Contents of the alarm mail:

In ND300 (192.168.1.250), alarm was occurred.
Alarm date: xx-xxx-xxxx xx:xx:xx GMT xx:xx (**Example:** 1-JAN-2005 GMT+09:00)
Cause of alarm: Displays an event type and a camera channel or an alarm number (**Example:** COMMAND ALARM 5CH)
File name of alarm image: The file name of the image attached to an e-mail.
URL: http://192.168.1.250/

Edit the Contents of the Alarm Mail

It is possible to edit the contents of the alarm mail that notifies of the event occurrence with the time and date of the event occurrence.

To edit the alarm mail, do the following.

Step 1

Edit the contents using text editing software and save in the text format.

Depending on the item (time and date at an event occurrence, cause of alarm, host address, etc.) to be displayed, the characters to be entered will be different. Refer to the following list of characters to be replaced when editing the contents of the mail. Save the edited mail contents with the file name "almmail.tpl".

Step 2

Start up the FTP software and enter the IP address of the unit to connect to that unit.

Enter the user name and password as follows.

User Name: User ID of the administrator (Default: ADMIN)

Password: Password respective to the user ID of the administrator (The default password is 12345.)

Refer to a system administrator for further information about the settings of user name and password.

Step 3

Transfer the edited file (almmail.tpl) in the text format.

The directory to be sent is as follows.

/user/ND300/HTML_FILES

List of characters to be replaced

| Item to be displayed | Display style of entered characters | Example |
|---|-------------------------------------|--|
| Time and date when the alarm occurred | %#05000000 | 4-digit display (2003 - 2099) |
| Month when the alarm occurred (number) | %#05000100 | 1 or 2-digit display (1 - 12) |
| Month when the alarm occurred (letters) | %#05000200 | Displays first 3 letters (Jan, Feb ... Dec) |
| Day when the alarm occurred | %#05000300 | 1 or 2-digit display (1 - 31) |
| Time when the alarm occurred | %#05000400 | 24-hour display (15:00:00 GMT xx : xx) |
| Mail address of the sender | %#05000500 | |
| Host name of ND300 | %#05000600 | |
| IP Address of ND300 | %#05000700 | 192.168.1.250 |
| Cause of alarm | %#05000800 | Terminal: TERMINAL ALARM Command: COMMAND ALARM Emergency recording: EMERGENCY Site: Camera |
| Alarm number | %#05000900 | 1 or 2-digit (1 - 32) + CH |
| File name of the alarm image | %#05001000 | xx_ALMyyyymmddhhmmss.jpg Remains blank when no alarm image exists. xx: Camera channel number yyyymmdd: Date (year, month, day) when the alarm occurred hhmmss: Time (hour, minute, second) when the alarm occurred |
| URL | %#05001100 | Host name/domain name: HTTP port number/ • When the set host name and the domain name are obtained correctly using DDNS (Only when "ON" is selected for "DDNS") IP Address: HTTP port number/ • When "Host Name" and "Domain Name" are not set (Only when "OFF" is selected for "DDNS") • When the host name and the domain name failed to be obtained correctly using DDNS (Only when "ON" is selected for "DDNS") The part following the IP address (:"HTTP port number) will be omitted when "80" is set for "HTTP Port Number". |

Warning Mail Notification

The following mail will be sent to notify of a trouble occurrence to a registered address when the trouble occurs.

ND300 (192.168.0.250) STATUS REPORT.
 Time and date: 2005-1-1 12:00:00
 STATUS: The description of the trouble will be displayed. (**Ex.** THERMAL ERROR)

| Display | Description |
|---------|--|
| DATE | Time and date when the trouble occurred will be displayed. |
| STATUS | The description of the trouble will be displayed. HDD Capacity warning*1: <except FULL> EVENT-HDD CAPACITY REMAINS ** % COPY-HDD CAPACITY REMAINS ** % ** indicates the available disk space (%) <FULL> EVENT-HDD FULL COPY-HDD FULL Power outage detection: POWER LOSS Recover from a power outage: POWER RECOVERD NW camera trouble detection: CAM**COMMUNICATION ERROR * indicates camera channel NW camera trouble recovery: CAM** COMMUNICATION RECOVERED * indicates camera channel HDD smart warning: HDDx-y DISK WARNING x-y indicates disk number (sequential serial number) HDD hour meter warning: HDDx-y HOUR METER WARNING Remove auto links: HDDx-y LOGICALLY REMOVED x-y indicates disk number (sequential serial number) RAID5 recovery failure: HDDxRAID5 RECOVERY FAILURE (X indicates unit number, Y indicates disk number) Fan trouble: FAN ERROR x-y X indicates unit number, Y indicates fan number Thermal trouble: THERMAL ERROR x-y X indicates unit number, Y indicates sensor number NW Link error: PORTx NETWORK LINK ERROR x indicates network port number RAID1 down: HDDx-y RAID5 1DOWN x-y indicates disk number (sequential serial number) RAID2 down: HDDx-y RAID5 2DOWN x-y indicates disk number (sequential serial number) DHCP IP address lost: PORTx DHCP ERROR x indicates network port number |

HDD capacity warning

A warning mail with the <except FULL> content will be sent when the available disk space becomes less than the set value for "Capacity warning" in the "Maintenance" menu. After a warning mail is sent, a warning mail with the <except FULL> content will be sent each time 1% of the available disk space is reduced, and a warning mail with the <FULL> content will be sent when there is no available disk space.

About the Error Log

The following are the descriptions about the contents of the error log and the network error log.

| Content | Error Log | Network log | Indication on the LED | Output from the connector on the rear panel |
|--|--------------|-------------|-------------------------------------|---|
| Power outage detection | PWR LOSS | – | SYS-1 ERR POWER FAILURE | – |
| Recover from a power outage | PWR RECOVER | – | – | – |
| Fan warning | FAN u-f | – | FAN-1-u-f ERR FAN ERROR | Error output |
| Thermal error warning | THERMAL u-1 | – | TML-1-u-1 ERR THERMAL ERROR | Error output |
| Extension mode settings error | – | – | SYS-2 SINGLE MIX ERROR | – |
| HDD Write error | W-ERR u-d | – | – | – |
| HDD Read error | R-ERR u-d | – | – | – |
| RAID 1 down | HDu-d 1DOWN | – | – | HDD error output |
| RAID 2 down | HDu 2DOWN | – | – | HDD error output |
| Disk array change | – | – | Please Setup on DISK CONFIG MENU | – |
| HDD S.M.A.R.T. warning | SMART u-d | – | HDD-1-u-d ERR HDD WARNING | HDD error output |
| HDD hour meter warning | H.METER u-d | – | HDD-2-u-d ERR HDD HOUR METER | HDD error output |
| Volume Error | V-ERROR vvv | – | – | HDD error output |
| HDD SKIP warning *1 | SKIP HDD u-d | – | – | HDD error output |
| Remove auto links | REMOVE u-d | – | HDD-3-u ERR HDD REMOVED | HDD error output |
| HDD RAID5 | R-FAIL u | – | HDD-4-u ERR RAID5 RECOVERY | HDD error output |
| EVENT area available capacity warning | EVT-***% | – | – | Copy/event recording area available capacity warning output |
| EVENT area available capacity warning (FULL) | EVT-FULL | – | HDD-5 ERR EVENT-HDD FULL | Copy/event recording area available capacity warning output |
| COPY area available capacity warning | CPY-***% | – | – | Copy/event recording area available capacity warning output |
| COPY area available capacity warning (FULL) | CPY-FULL | – | HDD-6 ERR COPY-HDD FULL | Copy/event recording area available capacity warning output |
| Copy error | NO DATA CPY | – | – | – |
| HDD RAID board initialization failure | | | HDD-9 ERR RAID INITIAL ERR | |
| Network link error | – | LINK-ERRn | NET-1-n ERR NW LINK ERROR | Network error output |

*1: "HDD SKIP" is the function that continues recording even when an error occurs, such as an HDD write error, by recording images on the next HDD.

| Content | Error Log | Network log | Indication on the LED | Output from the connector on the rear panel |
|--|------------------|--------------------|--------------------------------|--|
| Network camera error detection | CAM cc ERR | – | NET-3-0 ERR CAMERA cc ERROR | Camera error output |
| Network camera error recovery | CAM cc RECOVER | – | – | – |
| Send mail | – | SMTPMAIL_SEND | – | |
| E-mail authentication error | – | SMTPATTEST_ERR | – | Network error output |
| Failed to resolve POP3 server address from DNS | – | SMTPPOP3ADD_ERR | – | Network error output |
| Failed to find POP3 server | – | SMTPPOP3SVR_ERR | – | Network error output |
| Failed to resolve SMTP server address from DNS | – | SMTPSVRADD_ERR | – | Network error output |
| Failed to find SMTP server | – | SMTPSVR_ERR | – | Network error output |
| MAIL FROM command error | – | SMTPMAILFROM_ERR | – | Network error output |
| RCPT TO command error | – | SMTPRCPTTO_ERR | – | Network error output |
| Failed to find SMTP server Other error | – | SMTPOTHER SMTP | – | Network error output |
| FTP client transmission complete | – | FTPCLIENT_OK | – | – |
| FTP server transfer complete | – | FTPSVRFWD_OK | – | – |
| Failed to resolve FTP server address from DNS | – | FTPSVRADD_ERR | – | Network error output |
| Failed to find FTP server | – | FTPSVR_ERR | – | Network error output |
| FTP uploading error | – | FTPUPLOAD_ERR | – | Network error output |
| FTP passive mode error | – | FTPPASSIVE_ERR | – | Network error output |
| FTP log-in failure | – | FTPLOGIN_FAULT | – | Network error output |
| FTP log-out failure | – | FTPLOGOUT_FAULT | – | Network error output |
| Other error for FTP | – | FTPOTHER | – | Network error output |
| DDNS IP address update | – | DDNSIPADDUPDATE_OK | – | |
| No response from the DDNS server | – | DDNSSVRRES_ERR | – | Network error output |

| Content | Error Log | Network log | Indication on the LED | Output from the connector on the rear panel |
|---|-----------|----------------------|-----------------------|---|
| Password error for DDNS user name | – | DDNSUSERPASS_ERR | – | Network error output |
| DDNS IP address update error | – | DNSIPADDUPDATE_ERR | – | Network error output |
| Other error for DNS | – | DNSOTHER | – | Network error output |
| Synchronization with the NTP server succeeded | – | NTPGETTIME_OK | – | – |
| Failed to resolve NTP server address from DNS | – | NTPSVRADD_ERR | – | Network error output |
| Failed to adjust the time | – | NTPSETTIME_ERR | – | Network error output |
| No response from the NTP server | – | NTPSVRRES_ERR | – | Network error output |
| Other error for NTP | – | NTPOTHER | – | Network error output |
| SNMP transmission succeeded | – | SNMPSEND_OK | – | – |
| Password error for SNMP user name | – | SNMPUSERPASS_ERR | – | Network error output |
| SNMP object inquiry failure | – | SNMPOBJ_ERR | – | Network error output |
| Other error for SNMP | – | SNMPOTHER | – | Network error output |
| Having IP address succeeded | – | DHCP_IPADD_OK | – | – |
| DHCP lost | – | DHCP_IPADD_LOST | – | Network error output |
| DHCP IP address update failure xx% | – | DHCP_IPADDUPDATE_ERR | – | Network error output |
| DHCP IP address inquiry failure | – | DHCP_IPADDENT_ERR | – | Network error output |
| Other error for DHCP | – | DHCPOTHER | – | Network error output |
| HTTP login | – | HTTPLOGIN | – | – |
| Password error for HTTP user name | – | HTTPUSERPASS_ERR | – | Network error output |
| HTTP download failure | – | HTTPDOWNLOAD_ERR | – | Network error output |
| HTTP inquiry invalid | – | HTTPDREQUEST_ERR | – | Network error output |
| Other error for HTTP | – | HTTPOTHER | – | Network error output |
| Move to CONFIG | – | CONFIG_LOGIN | CONFIG | – |

Parameter in the logs above

| Parameter | Description | Detail |
|------------------|---------------------|--|
| u | Unit/unit number | 1-4: Extension unit, 9: RAID of this unit, 0: SINGLE of this unit |
| f | FAN number | 1-4: FAN number (FAN1-FAN4) |
| d | Disk number | 1-4: Disk number (HDD1-HDD4), 5: Others (Unknown HDD) |
| n | Network port number | 1: Camera port, 2: Client PC port, 3: Maintenance port |
| cc | Camera number | 01-32: Camera number |
| vvv | Volume number | NML: Normal recording area, EVT: Event recording area, CPY: Copy area |

Troubleshooting

Before asking for repairs, check the symptoms with the following table.

Contact your dealer if a problem cannot be solved even after checking and trying the solution or a problem is not described below, and when having a problem with installations.

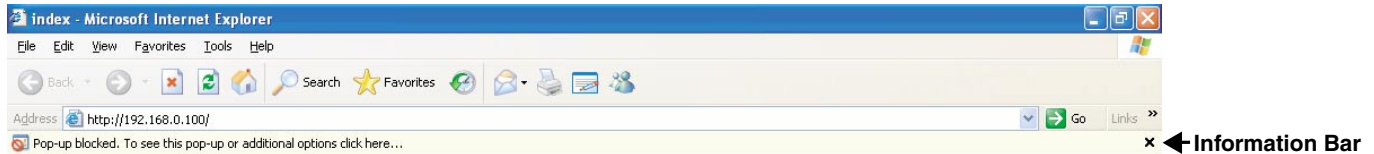
| Symptom | Cause/solution | Reference pages |
|---------------------------------|---|--|
| Cannot access from the browser. | <ul style="list-style-type: none"> Is the Ethernet cable firmly connected to the 10/100BASE-T port? Confirm the cable is firmly connected. | - |
| | <ul style="list-style-type: none"> Is the connection indicator of the 10/100BASE-T port lit? When it is not lit, connection to a LAN is not established or a network is not working correctly. Confirm that the connection indicator of the 10/100BASE-T port is lit. Refer to a system administrator if it is not lit. | - |
| | <ul style="list-style-type: none"> Is the valid IP address set? Refer to a system administrator for further information. | Refer to the Setup Instructions (PDF). |
| | <ul style="list-style-type: none"> Are you accessing the wrong IP address? Check the connection as follows: >ping "IP address of this unit" If there is reply from this unit, the connection is normal. If not, check the settings of the IP address and the subnet mask. | - |
| | <ul style="list-style-type: none"> Is the same IP address provided to other devices? Refer to a system administrator for further information. | Refer to the Setup Instructions (PDF). |
| | <ul style="list-style-type: none"> Are there contradictions between the address and the network subnet to be accessed? Or is "Use Proxy Server" for the settings of the browser checked? When accessing this unit in the same subnet, entering the address of this unit in the "Don't Use Proxy For These Addresses" box is recommended. | Refer to the Setup Instructions (PDF). |

| Symptom | Cause/solution | Reference pages |
|--|---|--|
| The image is not being refreshed. | <ul style="list-style-type: none"> Depending on the traffic of the network, there might be difficulties in displaying images. Press the [F5] button on the keyboard to request images. | — |
| Cannot close the authentication window displayed when displaying the basic operation window. | <ul style="list-style-type: none"> Are the correct user name and password entered? Confirm the correct user name and password. | Refer to the Setup Instructions (PDF). |
| Cannot play the downloaded image file. | <ul style="list-style-type: none"> When any setting of the SETUP MENU has been changed during the download, the download will be canceled automatically. In this case, the downloaded file is not a complete file and it is impossible to play it. | — |
| The message "Please Wait." remains on the screen. | <ul style="list-style-type: none"> The "Active X control" is not installed in the PC. Install the "Active X control" by referring to the following page. | 53 |
| No live image is displayed. | <ul style="list-style-type: none"> Are the connected network cameras configured correctly? Check the settings of the setup menu ("Camera" - "NW Camera Setup"). | Refer to the Setup Instructions (PDF). |
| | <ul style="list-style-type: none"> Are the settings of the setup menu configured correctly? Check the settings of the setup menu ("Schedule" - "Program" - "LIVE VIDEO"). | Refer to the Setup Instructions (PDF). |
| | <ul style="list-style-type: none"> Are the network settings of the cameras and the unit configured correctly? Check the settings of IP address, subnet mask and default gateway for them. | Refer to the Setup Instructions (PDF). |
| It is impossible to operate the camera. | <ul style="list-style-type: none"> Are the settings of the network camera set correctly? Check the model of the set camera on the setup menu ("Camera" - "NW Camera Setup"). | Refer to the Setup Instructions (PDF). |
| | <ul style="list-style-type: none"> Are the user ID and the password for the network camera set correctly? Check if the user ID and password are set correctly on the setup menu ("Camera" - "NW Camera Setup"). | Refer to the Setup Instructions (PDF). |

When using a PC on which Windows XP Service Pack2 (SP2) is installed

The following may occur during operation when using a PC on which Windows XP Service Pack2 (SP2) is installed. Follow the instructions below when the following occurred. By performing the following solutions, other applications and the security level may not be affected.

The "Information Bar" expressed in the following symptom and solutions will be displayed just below the address bar only when there is information to communicate.



| Symptom | Solutions | Reference pages |
|---|---|-------------------------------|
| <p>The following message is displayed on the information bar. "Pop-up blocked. To see this pop-up or additional options, click here..."</p> | <ul style="list-style-type: none"> Click the information bar and select "Always Allow Pop-ups from This Site...". The dialog window saying "Allow pop-ups from this site?" will be displayed. Click the "Yes" button. | <p>14, 16, 18, 29, 32, 37</p> |
| <p>The following message is displayed on the information bar."This site might require the following Active X control: 'ND300 CTL.cab' from 'Matsushita Electric Industrial Co., Ltd'. Click here to install..."</p> | <ul style="list-style-type: none"> Click the information bar and select "Install Active X Control...". The "Security Warning" window will be displayed. Click the "Install" button on the displayed "Security Warning" window. | <p>9, 11, 20</p> |

| Symptom | Cause/solution | Reference pages |
|---|--|-------------------------------|
| <p>The following message is displayed on the information bar. "To help protect your security, Internet Explorer blocked this site from downloading files to your computer. Click here for options..."</p> | <ul style="list-style-type: none"> Click the information bar and select "Download File...". When downloading fails even though you selected "Download File...", perform the following operation. Click "Internet Options..." on the Tools menu of Internet Explorer, and then click the "security" tab. Then, click the "Custom Level..." button. The "Security Settings" window will be displayed. Under "Downloads", select "Enable" for "Automatic prompting for file downloads". Click the "OK" button. The "Warning" window will be displayed. Click the "Yes" button. | <p>37, 38</p> |
| <p>The following message is displayed on the information bar when tried to execute a downloaded file. "The publisher could not be verified. Are you sure you want to run this software?"</p> | <ul style="list-style-type: none"> Click the "Run" button. | <p>39</p> |
| <p>Unnecessary status bar or scroll bar is displayed on the pop-up window.</p> | <ul style="list-style-type: none"> Click "Internet Options" on the Tools menu of Internet Explorer, and then click the "Security" tab. Then, click the "Custom Level..." button to open the "Security Setting" window. Under "Miscellaneous", select "Enable" for "Allow script-initiated windows without size or position constraints". Click the "OK" button. The "Warning" window will be displayed. Click the "Yes" button. | <p>14, 16, 18, 29, 32, 37</p> |

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