# Panasonic ideas for life

## Network Disk Recorder Version 1.03 WJ-ND400

NTSC WJ-ND400 (120 V AC) PAL WJ-ND400 (220 ~ 240 V AC)



### High performance Network Disk Recorder for Megapixel i-Pro Network Cameras with 9 Serial ATA HDD slots

#### **Key Features**

- MPEG-4 and JPEG multi format
- Up to 64 network cameras can be connected without extra license fee and their images can be recorded simultaneously.
- 200 Mbps high throughput: Best match with Megapixel **i-Pro** Network Cameras
- Various Recording Modes: Manual, Schedule including Event (Pre/Post), Emergency. Schedule mode includes eight recording programs with individual recording mode for each camera, and 6 time schedules per day.
- Panasonic camera control: Pan/Tilt, Zoom, Focus, Brightness, Preset Position, Auto mode (depending on camera model).
- Audio from **i-Pro** network cameras can be recorded and played back, G.726 (ADPCM) 32 kbps.
- Cameras can be assigned to one of the 8 groups for easier browsing.
- Flexible playback controls: Goto Date (Jump to specific time/date), Goto Last (Jump to 5 sec. ~ 5 min. before the record end).
- Various display modes: Spot, Quad (16 patterns), Spot Sequence, Quad Sequence (Live).
- Filtered search: Time & Date, Event Type, Camera number.
- VMD search: Motion in a specified area in the recorded images can quickly be searched (works with supported **i-Pro** cameras and WJ-NT314).
- 2x, 4x Digital zoom (Live/Playback)
- Recorded images can be downloaded to a PC. Downloadable viewer software allows playback of images downloaded from the recorder.
- Various alarm sources include 32x Terminal inputs, 64x Camera alarms, Panasonic Alarm Protocol. Flexible alarm actions include Event recording, E-mail notification, Alarm message, Camera positioning, FTP image transfer, Terminal output, Panasonic alarm protocol output, Buzzer and LED.
- 2x built-in network interfaces (10Base-T / 100Base-TX / 1000Base-T) for camera recording and client access
- Up to 16 clients can monitor images and control WJ-ND400 simultaneously.
- FTP client function enables periodic live image transfer or recorded image transfer in response to an alarm.
- Performance measurement function for appropriate recording frame rate setup
- Images recorded in the SD memory card in i-Pro network cameras can be transferred to the recorder automatically even when the recorder is in recording status.

- Setup can be made with the user friendly browser GUI. Multilingual options include English / French / Spanish / Germany / Italian / Russian / Chinese / Japanese.
- User/Host authentication, 4 programmable user levels, 16 user priorities and User-Camera View/Control partitioning set up for sophisticated user management. Up to 32 user registrations
- Alteration detection and recorded data encryption for data security
- Multi-recorder-Multi-site-system can be made with optional WV-ASM100 i-Pro Management Software.
- Up to 9 Serial ATA HDDs can be installed. With hot plug support, the HDDs can be removed without interrupting the recording.
- HDD capacity is expandable up to 54 HDD slots (9 HDD slots in the main unit and 5 optional WJ-HDE400 Hard Disk Extension Units each with 9 HDD slots).
- Disk partitioning including Normal, Event, Pre-Event, Copy for flexible record management
- RAID5/6 redundant recording for data security
- Superior reliability with an embedded OS compared to PC-based system

#### **Standard Accessories**

- \* The CD-ROM contains the operating instructions (PDFs) The following are for installation:
- Power Cord (NTSC model) ..... 1 pc.
- Key ...... 2 pcs.

### **Optional Accessory**

Hard Disk Extension Unit **WJ-HDE400** 



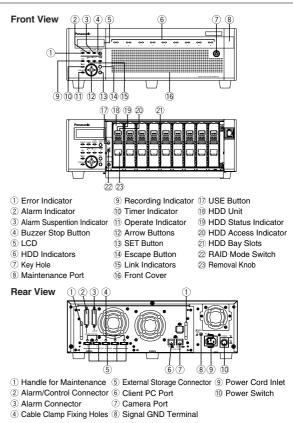
#### Specifications

| Cameras<br>Recording<br>Browser<br>GUI | Supported Image<br>Supported Aud<br>Maximum Number<br>Recording Moc<br>Pre-Event Rec<br>Scheduled Recor<br>Frame Rate/Ca | ge Format<br>Resolution<br>io Format<br>of Cameras<br>de | Panasonic i-Pro series Network cameras (Contact Panasonic for BB series and Axis® camera:<br>MPEG-4, JPEG, M-JPEG<br>1,280 x 960, 960 x 720, 640 x 480, 320 x 240 (Depending on the camera)<br>G.726 (ADPCM) 32 kbps<br>64<br>Manual, Schedule including Event (Pre/Post), Emergency |
|--|--|--|--|
| Recording<br>Browser<br>GUI            | Supported Image<br>Supported Aud<br>Maximum Number<br>Recording Moc<br>Pre-Event Rec<br>Scheduled Recor<br>Frame Rate/Ca | Resolution<br>io Format<br>of Cameras<br>le              | 1,280 x 960, 960 x 720, 640 x 480, 320 x 240 (Depending on the camera)<br>G.726 (ADPCM) 32 kbps<br>64  |
| Recording<br>Browser<br>GUI            | Supported Aud<br>Maximum Number<br>Recording Moo<br>Pre-Event Rec<br>Scheduled Recor<br>Frame Rate/Ca                    | io Format<br>of Cameras<br>le                            | G.726 (ADPCM) 32 kbps<br>64  |
| Recording<br>Browser<br>GUI            | Maximum Number<br>Recording Moo<br>Pre-Event Rec<br>Scheduled Recor<br>Frame Rate/Ca                                     | of Cameras<br>le   | 64   |
| Recording<br>Browser<br>GUI            | Recording Moo<br>Pre-Event Rec<br>Scheduled Recor<br>Frame Rate/Ca   | le   |  |
| Browser<br>GUI                         | Pre-Event Rec<br>Scheduled Recor<br>Frame Rate/Ca  |  | Manual, Schedule including Event (Pre/Post), Emergency   |
| Browser<br>GUI                         | Scheduled Recor<br>Frame Rate/Ca   | ording   |  |
| Browser<br>GUI                         | Frame Rate/Ca  |  | Up to 15 minutes with dedicated HDD for Pre-Event.   |
| Browser<br>GUI                         | Frame Rate/Ca  |  | Shorter Pre-Event recording is possible without dedicated HDD.   |
| Browser<br>GUI                         |  |  | 8 programs, 6 time zones/day, Independent setup for each day of the wee  |
| GUI                                    |  |  | Up to 30 ips (Depending on the Camera)   |
| -                                      | Camera Contro  |  | Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mod  |
| -                                      | REC/Playback Control   |  | REC, PLAY, Rev PLAY, Pause, Stop, FF, REW, Prev Record, Next Record  |
| -                                      | Search Mode  |  | Prev Image, Next image, Goto Date, Goto Last (5 sec. ~ 5 min.), Area selec   |
| -                                      |  |  | Filtered search: Time date, Event type, Camera number  |
| -                                      |  |  | VMD search: one detection areas per search (works with supported i-Pro cameras and WJ-NT31   |
|  | Display Mode   |  | Spot/Quad (16 patterns) / Spot Sequence / Quad Sequence (Sequence: Live only   |
|  | Camera Grouping  |  | 8 groups each with 16 characters title   |
|  | Image Download   |  | Recorded data of selected camera and time range can be downloaded  |
|  | SD Memory Data   |  | to a PC. Viewer software can be downloaded separately.   |
|  | SD Memory Data   |  | Images recorded in the SD card in the i-Pro series cameras can be  |
|  | Download   |  | transferred to the recorder automatically.   |
|  | Copy<br>Camera Title   |  | Recorded data of selected cameras and time date range can be copied to the COPY partition  |
|  | Camera Title   |  | On the browser, Up to 16 Characters  |
|  | Clock Display<br>Alarm Control   |  | On the browser. Time: 12 H/24 H, Date: 3 formats (YY.MM.DD, MMM.DD.YY, DD.MMM.YY) Recet Suspend  |
|  | Alarm Control<br>Digital Zoom  |  | Reset, Suspend   |
|  | 0  |  | 2x, 4x   |
|  | System Log<br>System Setup   |  | Operator access (100), Network error (1,000), Error (100), Event (750)   |
| ŀ                                      | System Setup   |  | Setup page in English, French, Italian, Spanish, German, Russian, Chinese, Japanes<br>English, French, Italian, Spanish, German, Russian, Chinese, Japanese  |
|  | GUI Language<br>Supported OS   |  | Microsoft <sup>®</sup> Windows Vista <sup>®</sup> Bussiness 32 bit   |
|  | Supported US   |  | Microsoft <sup>®</sup> Windows <sup>®</sup> XP Home Edition SP2 Microsoft <sup>®</sup> Windows <sup>®</sup> XP Professional SP   |
|  |  |  | The language of the OS must be same as selected GUI language.  |
|  | Supported Browser  |  | Windows <sup>®</sup> Internet Explorer <sup>®</sup> 7.0 Microsoft <sup>®</sup> Internet Explorer <sup>®</sup> 6.0 SP2  |
|  | Alarm Source   |  | 32x Terminal inputs, 64x Camera alarms, Panasonic Alarm Protocol   |
| Event                                  | Alarm Source<br>Event Mode   |  | Alarm / Activity / OFF   |
| Lven                                   | Alarm Action   |  | Alarm recording, e-mail notification, Alarm message, Camera positioning, FTF   |
|  | AIAITH AUTUH   |  | image transfer, Terminal output, Panasonic alarm protocol output, Buzzer, LEI  |
|  | Alarm Control  |  | Reset, Suspend   |
|  | Event log  |  | 750  |
|  | , v  |  | Camera port: 10Base-T / 100Base-TX / 1000Base-T (RJ-45) Client port: 10Base-T  |
| Network                                | Network Interface  |  | 100Base-TX / 1000Base-T (RJ-45) Maintenance port: 10Base-T (RJ-45)   |
|  | Maximum Band Width   |  | Total 200 Mbps   |
|  |  |  | 32 K / 64 k / 128 k / 256 k / 512 k / 1,024 k / 2 M / 5 M / 10 M (bps) and unlimited   |
|  | Supported Protocol   |  | TCP/IP, UDP/IP, HTTP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, RT  |
|  | E-mail   |  | Upon Alarm or Warning  |
|  | E-mail<br>FTP Client   |  | Upon alarm or Periodic transfer  |
|  | No. of Simultaneous Users  |  |  |
|  | User Registration  |  | Up to 32 users   |
|  | User level   |  | 4 Levels (Programmable)  |
| H                                      | Partitioning   |  | User - Camera (View only, View & Control, No Access)   |
|  | Security Method  |  | User authentication (ID and password), Host authentication (IP address),   |
|  |  |  | Alteration detection, HTTP Port No. (1 ~ 65,535 except for reserved numbers  |
|  |  |  | FTP Port No. (1 ~ 65,535 except for reserved numbers)  |
| External                               | Alarm Connector  | Alarm  | Alarm input 1 ~ 7, 17 ~ 32*1   |
| Interface                              | (D-sub25pin)   |  | . F. J -   |
|  | Alarm/Control  | Alarm  | Alarm input 8 ~ 16*1, 1x Alarm output*2, 1x Alarm reset input*1, 1x Alarm suspend input  |
|  | Connector  | Control  | Emergency recording input*1, Power outage detection input*1, External  |
|  | (D-sub25pin)   |  | recording mode switching*1, Power outage recovery completion output*3,   |
|  |  |  | Time adjustment input/output*4, +5 V output*5  |
|  |  | Error/   | Network error output*2, Available disk space warning output*2,   |
|  |  | Warning  | HDD error output*2, Camera error output*2, Error output*2  |
|  | EXT Storage  |  | High-speed serial interface 1.5 Gbps (theoretical value) Only for WJ-HDE400 Extension Ur   |
| Other                                  | Time Synchron  | nization   | Terminal (Master or Slave), NTP (Server/Client)  |
| Functions                              | Summer Time  |  | User definable (using menu setup)  |
| HDD                                    | Туре   |  | 1x 3.5 inch Serial ATA HDD, Up to 9x HDDs can be installed.  |
|  | Maximum Capacity   |  | 54 HDD slots (with 5x WJ-HDE400 Extension Units, 9x HDDs installed in each unit  |
|  | RAID   |  | RAID 5/6 supported   |
|  | Partitioning   |  | Normal / Event / Pre-Event / Copy  |
| Viewer<br>Software                     | Playback Control   |  | Play, Rev Play, Pause, FF, REW, Prev Record, Next Record, Prev Image, Next image   |
|  | Additional Functions   |  | Alteration detection, Save as JPEG, Two times zoom, Print  |
|  | Supported OS, Language   |  | Same as browser GUI, Language of the software will be English  |
| General<br>Specifications              | Safety/EMC Standard  |  | UL (UL60065), FCC (Part15 ClassA), CE (EN60065, EN55022 ClassB,  |
|  |  |  | C-UL (CAN/CSA C22.2 No.60065), EN55024), GOST (R 51558), C-Ticl  |
|  |  |  | DOC (ICES003 ClassA)   |
|  | Power Source   |  | 120 V AC, 60 Hz 220 ~ 240 AC, 50 Hz  |
|  | Power Consumption  |  | approx. 170 W  |
|  | Ambient Operating Temperature  |  | +5 °C ~ +45 °C (41 °F ~ 113 °F)  |
|  | Ambient Operating Humidity   |  | F % 00 % (no condensation)   |
| -                                      |  |  |  |
| -                                      |  |  | 2,000 m (6,500 feet) above sea level   |
| -                                      |  |  |  |

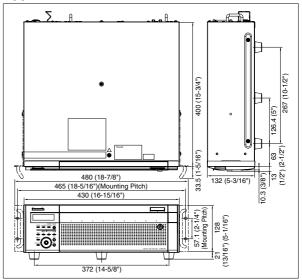
\*1: Non-voltage make contact, +5 V pull-up 150 Ω \*2: Open collector output, 24 V max., -100 mA
 \*3: High (+5 V ~ +12 V, 6.3 mA maximum) \*4: 52 kΩ, 5 V pull-up, -100 mA / make contact \*5: 200 mA at maximum

#### **DISTRIBUTED BY:**

#### **Part Names and Functions**



#### Appearance



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Important

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.
  - All TV pictures are simulated.
  - · Weights and dimensions are approximate.
  - · Specifications are subject to change without notice.

All product pictures are NTSC models.

