#### **FURUNO**<sup>®</sup>

# **INSTRUCTION MANUAL**

# WEB CONFIGURATOR

# MODEL VR-3000/VR-3000S

This manual is solely for use by the installer.

Under no circumstances shall this manual be released to the user. The installer shall remove this manual from the vessel after installation.

This manual contains no password data. Obtain password data from FURUNO before beginning the installation.



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# **Record of Modifications Made in this Manual**

Pub No., Version No., Date of Modification	Software (Prog. No.)	Outline of Modification
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This manual describes how to setup VR-3000/S after installation. The outline of the setup is;

Step 1. Network setting on PC

- Step 2. Connection of PC
- Step 3. Software configuration
- Step 4. Making a backup copy of configuration data
- Step 5. Initialization of index file

After setting up, make a backup copy of configuration data onto the compact flash card and your PC. The system transfers the configuration data from compact flash card to the DRU if no configuration data is found in the DRU at startup.

#### Parts and Equipment needed

- 1) PC with web browser, Internet Explore 6.0.
- 2) Ethernet **cross** cable

# 1 Setup of PC

Before connecting to VR-3000/S, set the IP address and subnet mask of the PC as below. The IP address of VR-3000/S is 10.0.0.100.

Procedure for Windows 2000 / XP

- 1. Click Start, Settings, Control Panel and Network and Dial-up Connections.
- 2. Click Local Area Network, Properties and Internet Protocol (TCP/IP).
- 3. Click the Properties button.
- 4. Choose "Use the following address".
- 5. Enter IP address and subnet mask: IP address: 10.0.0.102 or 10.0.0.99 (other than 10.0.0.100) Subnet mask: 255.0.0.0
- 6. Click the OK button and then click it again.
- 7. Restart PC.

# **2** Connection

A PC is connected to the DCU as shown in Fig.2.1 for system setup.

A PC with a web browser is connected to J14, Live Player port in the DCU with an Ethernet **cross** cable.



# **3 Software Configuration**

The system configuration must be updated after installation. "VR-3000/S Web configurator" or Web setup utility, stored in the DCU (Data Collecting Unit), can be accessed by using a Web browser such as Internet Explorer.

The Remote Alarm Panel unit is disconnected until the software configuration is completed, otherwise alarm sound (i.e. Grabber failure or no radar video) is generated frequently.

The configuration data is stored onto the Flash memory in the DRU.

To configure VR-3000/S software by Web configurator;

- 1. Disconnect the RAP from the DCU.
- 2. Make sure that the PC and DRU are connected securely to the DCU.
- 3. Turn on the VDR and wait for about 3 minutes.
- 4. Open a web browser on the PC.
- 5. Enter the address, 10.0.0.100. (http://10.0.0.100/)

Note

Web configurator can be opened after VDR software runs.

Start page of VR-3000/S Web configurator appears. If not, check the connection of Ethernet cross cable and network settings on the PC.

- 6. Press "Connect" button. Main window appears.
- 7. Make sure that the flash memory size in the Data Recording Unit and the backup drive (hard disk) is displayed correctly in the Main window. See Fig.3.1.

If the memory size is zero, turn off the unit and on it again. If the memory size is still zero, check the connection of the DRU and/or the hard disk.

Example)

Flash memory in DRU: FlashdrivesDRU (3\*1959MB) – 6GB DRU FlashdrivesDRU (3\*2875MB) – 9GB DRU Backup drive (hard disk) in DCU: Backupdrive (1\*38154MB)-40GB HDD

Memory size in DRU Memory size of HD
VR3000 System Time(UTC syncronized): Tuesday,22.November 2005 13:55:22
FlashdrivesDRU(3+1975MB) Backupdrive(1+38154MB) PDUSTAT: AC_NDC_FBATT CONFIG_SRC: BF(MAINCFG_INI) - Config saved!
Main
Web-RAP Web-STATUS Web-DIAG ErrorCodes Login Show log Refresh

Fig. 3.1 Main Window of Web Configurator, Upper Part

8. Press Web-RAP button in Main window to show Web RAP window, and then press Start button. The system indicates errors. If any storage failure error messages including DRU failure error appear, eliminate the error before preceding the next step. Generally, Grabber Failure (no radar video signal) and RAP missing errors are in Pending errors list.

To stop alarm sound, press Ack button if the RAP is connected. Note that the ERROR display is always red regardless of absence or presence of error. The Backup button has no function.



This window opens on Internet Explorer 6.0.

Fig. 3.2 Web RAP window (Error indication)

- 9. Close the Web RAP by clicking X at upper right corner.
- 10. Press "Login" button in Main window. User and password boxes appear.
- 11. Enter user name and password to show Main menu.

Note

DO NOT disclose the password to any user, to discourage tampering.

Fig. 3.3 Main Menu

Logour	
System Version Submenu	: System version
Nodes Submenu :	Nodes
Audio Submenu :	Audio
Video Submenu :	Video
Serial Submenu :	Serial
Digital Submenu :	Digital
Analog Submenu :	Analog
NMEA Submenu :	NMEA
Vessel Submenu :	Vessel ID
UTC - POS Submenu :	UTC POS
Configuration Submenu :	Configuration
Password Submenu :	Passwords

Logout

12. Select a sub menu by pressing a desired button in Main menu.

13. In the sub (card) menu;

- 1. First, press "Channels" button.
- 2. Press "Next" button to select the channel for editing.
- 3. Press "Edit" button.
- 4. Edit as required. (Select "Submit" to save the change.)

**Note:** When Junction Box (IF-8530) is connected, checked the "Remote Junction Box selected" check box. And confirm the "**Eth 2 IP addr : 172.31.24.1**" and "**Eth 2 IP mask : 255.255.0.0**". Serial channel (SI08-SI15), Analog channel and Digital channel configuration become effective because it checks the "Remote Junction Box selected" check box.

Active:

Name:

Node id:

Audio codec:

Number of channels:

## 3.1 Audio (Audio Channel)

To configure audio channel;

 Select "Audio Channels" in main menu. The Audio Card menu appears, showing the status of Audio I/F card in the Data Processing Unit.

Fig.3.4 Audio card menu

 Press Channels button to show Audio Channel menu.

Aud	io Channel
Back	Monitor
First Previous Next Las	st Edit 0-4 Audio ch Goto
Active:	х
Channel#:	VHF1
Channel id:	
Sample rate:	15625 Hz
Source:	LEFT SIDE BRIDGE VHF
Sample data size: Source type:	8-bit Fixed
Note:	

Audio Card

Back

Edit

AD LINK 9111DG

Channels

Dynamic Range 64 codec

Х

1

5

3. Select a desired channel number by pressing Next or Previous button. Selectable channel numbers in the menu are VHF1, VHF2, MIC1/MIC2, MIC3/MIC4, and MIC5/MIC6. Buttons in the channel menu work as below.

Back:	Goes back to the previous menu.
Monitor:	Used for audio recording test.
First:	Goes to the first channel number.
Previous:	Goes back to the previous channel number.
Next:	Goes to the next channel number.
Last:	Goes to the last channel number.
Edit:	Used when editing the page.
Goto:	Goes to the page of the specific channel number. Enter the desired channel number in the box left to Goto button and press the Goto button.

4. Press Edit button to set up the page. It is not necessary to fill in all lines. However, label the input line clearly for ease of identification, using "Channel id," "Source" and/or "Source type" lines.

hannel -Edit
nit Back
x
MIC1/MIC2
15625 Hz Fixed
8-bit Fixed
х
х

Fig.3.6 Audio Channel Edit menu

Active: When the channel is used, check this box. Channel id: Enter a name to identify the sensor. (No.1 VHF for example) Source: Enter "Model name." (FM-8700 for example) Source type: Numeric field Note: Enter "Manufacture." (Furuno for example)

#### Audio channel test

Audio channel test is carried out to check whether audio is received clearly in adequate level or not. To do so;

- 1. Select a channel to be tested in Audio Channel menu using Next or Previous button.
- 2. Press Edit button.
- 3. Uncheck either "MIC X Active" line to test one microphone at a time, because audio from two microphones is recorded onto the same memory. After the test, both MIC x Active lines are checked to turn on both microphones.
- 4. Press Back button to go back to Audio Channel menu and press Monitor button. Audio Channel Test menu appears.



Fig. 3.7 Audio Channel Test menu

- 5. Press Recording start button to start recording.
- 6. Press Stop button to stop recording. Recording will stop automatically after approximately 30 seconds, if STOP is not pressed.
- 7. Press Play button to play the recorded data. If the audio is noisy or low level, reposition the microphone.

#### 3.2 Video (Radar video channel)

The system receives VESA (Video Electronics Standards Association) video signal.

Video signal level: 0.5 to 1 Vpp (Minimum sync signal is 50 mV when a composite sync signal is used.) Horizontal sync signal: Max. 91.146 kHz, positive or negative Vertical sync signal: Max. 85 Hz Receivable resolution: 640x480 to 1280x1024

Channel number or channel # corresponds to the label on the DCU : VD1 and VD2 to VD4 (optional).

To set up video channel for image registered as a radar type;

- 1. Open Video menu and select the channel to be edited.
- 2. Press Edit button.
- 3. Press Verify radar-data button and select the radar type.
- 4. Press Calibrate button to show the radar picture on the PC screen. Make sure that the radar image is displayed on the PC screen in correct size. If not, change menu setting.

To set up video channel for image non-registered as a radar type;

- 1. Open Video menu and select the channel to be edited.
- 2. Press Edit button to set up the menu.
- 3. Press Calibrate button to show the radar picture on the PC screen.
- 4. Change settings in the menu.
- 5. Press Test button to execute the change.
- 6. Repeat steps 4 and 5 until an adequate picture is obtained. Use the flow chart on page 14.

0.0.100 - Video Channel - Microso	itt Internet Explorer	
	Video Channe	I
	Back Calibrate	
	First Previous Next Las	t   Edit
	Framegrabber frontend data	
	Horizontal LOW Counter:	717
	Horizontal HIGH Counter:	51
	Vertical LOW Counter:	1063
	Vertical HIGH Counter: Hd/Vd Phase Counter:	3
	Hd/Vd Phase Counter:	161
Active:		
Save IMAGE to DRU:		
Save IMAGE to VR-5000 BAG	CKUP Disk: 🗹	
Transmit IMAGE to NETWOR	<:	
Channel#:	VD 1	
Channel id:	Test PC	
Source:	SXGA(60	
Source type:	1	
Radar Model:	(8) 8 -> SXGA(60)8 -	> SXGA(60)> Verify radar-data
Horizontal offset:	240	
Vertical offset:	38	
PII multiplier:	1688	
Horisontal sync polarity:	0 -> Positiv Hsync	
Vertical sync polarity:	0 -> Positiv Hsync	
Phase:	0	
Horizontal resolution:	1280	
Vertical resolution:	1024	
Pixel rate:	3 → 75 - 120 MHz	
Charge Pump Current:	1 → 0.5 mA	
Video Clock Polarity:	0 -> Through	
Counter Clock Selection:	0 -> 49 MHz	
Save image to web:	1 -> Saved as JPEG	
Color mask bit:	15 - bit (11111000 × 3	3)
Sample rate:	15 Secs Fixed	
Interlace type:	0 -> Not Interlaced	

Fig. 3.8 shows Video sub menu for SXGA video signal.

Fig. 3.8 Video Channel menu (1/2)

🗿 http://10.0.0.100 - Video Channel - Microsoft Intern	net Explorer	. DX
Color mask bit:	15 - bit (11111000 × 3)	^
Sample rate:	15 Secs Fixed	
Interlace type:	0 -> Not Interlaced	
Pulse Position Interlace Detection:	336	
Pulse Width Interlace Detection:	672	
Interlace Field Polarity:	0 -> Positive	
Sync type:	0 -> Seperate Sync	
Pulsewidth for VD detection:	272	
HDVD Sync Termination:	0 -> Open	
VCO Clock Hold:	0 → Off	
Contrast/GAIN Red:	58	
Contrast/GAIN Green:	58	
Contrast/GAIN Blue:	58	
Brilliance/OFFSET Red:	170	
Brilliance/OFFSET Green:	170	
Brilliance/OFFSET Blue:	170	
Black bottom level:	54	=
Note:	DPU VGA out	
		~
⑧ ページが表示されました	🖉 ብンターネット	



Following describes each item in video channel edit menu.

	Video Channel -	Edit		
	Submit Back			
	Framegrabber frontend da			
	Horizontal LOW Counter:	716		
	Horizontal HIGH Counter:	51		
	Vertical LOW Counter: Vertical HIGH Counter:	1063 3		
	Hd/Vd Phase Counter:	161		
Active:				
Save IMAGE to DRU:				
Save IMAGE to VR-5000 BACK				
Transmit IMAGE to NETWORK:				
Channel#:	VD 1			
Channel id:	Test PC			
Source:	SXGA(60			
Source type:	1	-		
Radar Model:	8 -> SXGA(60) 👽	 Load radar-data	Upload radardb.ini	
Horizontal offset:	240			
Vertical offset:	38	-		
PLL multiplier:	1688	-		
Horisontal sync polarity:	0 -> Positiv Hsync 🔻			
Vertical sync polarity:	0 -> Positiv Hsync			
Phase:				
Horisontal resolution:	1280			
Vertical resolution:	1024			
Pixel rate:	3 -> 75 - 120 MHz	~		
Charge Pump Current:	1 -> 0.5 mA ▼			
Video Clock Polarity:	0 -> Through 👻			
Counter Clock Selection:	0 -> 49 MHz V			
Save image to web	1 -> Saved as JPEG	~		
Color mask bit:	248 :> 15 - bit => 248			
Sample rate:	15 Secs Fixed			

Fig.3.10 Video channel Edit menu (1/2)

🗿 http://10.0.0.100 - Video Channel - Microsoft Internet I	Explorer
Color mask bit:	248 :> 15 - bit => 248(0%11111000) 🗸
Sample rate:	15 Secs Fixed
Interlace type:	0 → Not Interlaced 💌
Pulse Postion Interlace Detection:	336 Range: 0 - 4092
Pulse Width Interlace Detection:	672 Range: 0 - 4092
Interlace Field Polarity	0 -> Positive 🗸
Sync type:	0 -> Seperate Sync 💌
Pulsewidth for VD detection:	272 Range: 0 - 1020
HDVD Sync Termination:	0 -> Open 🛛 🗸
VCO Clock Hold:	0 -> Off v
Contrast/GAIN Red:	58 Range: 0 - 255
Contrast/GAIN Green:	58 Range: 0 - 255
Contrast/GAIN Blue:	58 Range: 0 - 255
Brilliance/OFFSET Red:	170 Range: 0 - 255
Brilliance/OFFSET Green:	170 Range: 0 - 255
Brilliance/OFFSET Blue:	170 Range: 0 - 255
Black bottom level:	54 Range: 0 - 255
Note:	DPU VGA out
🔊 ページが表示されました	

Fig.3.11 Video channel Edit menu (2/2)

**Horizontal offset:** Moves the picture horizontally. With a larger (smaller) value, the picture moves left (right). If the value is too high, the framegrabber cannot present a valid image, indicating a small red cross at the upper left corner in the Internet-explorer display.

**Vertical offset:** Moves the picture vertically. With a larger (smaller) value, the picture moves upward (downward). If the value is too high, the framegrabber cannot present a valid image, indicating a small red cross at the upper left corner in the Internet-explorer display.

**PLL multiplier:** This sets the frequency of PLL-oscillator to synchronize with Horizontal-sync signal, so that the framegrabber grabs pixels across each line correctly. If wrong, you will see distortion. With a smaller value, grabbed frame becomes narrow, and with a higher value, the frame becomes wider. You can analyze the image in a program like Paint Shop Pro. You can drag directly from browser-window to Paint Shop Pro.

**Horizontal and Vertical sync polarity:** The polarity of the horizontal and vertical sync signal is entered. VIDEO->Channels shows information about polarity. Set it according to this information.

**Phase:** Phase setting selects the phase of sampling clock relative to phase locked loop signal in 64 steps of 5.625 degrees. If Phase is not set correctly, any section of an image consisting of vertical lines may exhibit tearing.

**Horizontal resolution:** For example, if the image size is 1280x1024, the horizontal resolution is 1280.

**Vertical resolution:** For example, if the image size is 1280x1024, the vertical resolution is 1024.

**Pixel rate:** It is used to set a parameter to supply correct current to PLL-oscillator. This parameter is set according to resolution and horizontal frequency.

Save image to web: Leave the default setting "Saved as JPEG" unchanged.

#### Charge Pump Current: 0.5 mA fixed

Video Clock Polarity: Through fixed

#### Counter Clock Selection: 49 MHz fixed

**Color mask bit:** "Color mask bit" has a big influence on the size of the generated radar-image. If video is noisy, the image size becomes large. Color mask is used to filter "noise." If radar-picture is very noisy, reduce the Color Mask Bit to reduce image-size. The smaller the color mask bit, the less number of different colors.

21-bit: each RGB value is masked with 0xFE (254 – decimal).
18-bit: each RGB value is masked with 0xFC (252 – decimal).
15-bit: each RGB value is masked with 0xF8 (248 – decimal).
12-bit: each RGB value is masked with 0xF0 (240 – decimal).
9-bit: each RGB value is masked with 0xE0 (224 – decimal).
6-bit: each RGB value is masked with 0xC0 (192 – decimal).

#### Sample rate: 15 seconds fixed

#### Interlace type:

When the video image is interlace, select "Interlace" sampling mode. In Interlace mode, the even pixels are sampled on one frame and odd pixels are sampled on the other frame.

**Pulse Position Interlace Detection:** You need to set this parameter in the case of interlace signal. You should set that this parameter is a quarter of horizontal scanning term.

**Pulse Width Interlace Detection:** You need to set this parameter in the case of interlace signal. You should set that this parameter is a half of horizontal scanning term.

**Interlace Field Polarity:** You need to set this parameter in the case of interlace signal. Normally positive fixed.

#### Sync type:

Selects the type of video sync signal. Some video signals include embedded composite sync rather than separate horizontal and vertical sync signals, typically sync on green. Some video signals include embedded composite sync rather than separate horizontal and vertical sync signals. Options are Separate, Composite (embedded in video) and Sync on Green (SOG, Embedded in Green-analog-signal in RGB-lines).

**Pulsewidth for VD detection:** You need to set this parameter in the case of composite sync (Sync type = Hsync or Vsync) for separating HD and VD. You should set that this parameter is twice of Hsync width.

**HDVD Sync Termination:** You need to set 75 ohms in the case of composite sync (Sync type = Hsync or Vsync).

**VCO Clock Hold:** When you cannot get correct radar image in the case of composite sync or sync on green, you may get correct image with setting that this parameter is "off".

**Gain and Offset and black bottom level:** These adjust contrast and brightness by setting RGB values.

#### Frame Grabber Setup Flow Chart



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### 3.3 Serial channel (RS-422)

This menu sets channels for signal received by RS-422 IN terminal board (SI00 to SI07), and Junction Box IF-8530 (SI08 to SI15). The channel receives not only NMEA sentences but also binary and ASCII data.

Antenna position of the position sensor or GPS is entered in the following form. The length from the bow follows A, the length from the stern B, the length from the port C and the length from the starboard D. In the example of Fig. 3.11, A50B80C30D15 is entered as antenna position. <u>Never</u> leave Antenna position line blank.



The GPS or DGPS receiver is connected to SI00.

When the data is binary or ASCII, set "Serial input data type" line accordingly.

When the AIS is connected to the VDR, AIS is connected to SI01, the NMEA version is set to IEC 61162-2 and Baud rate is 38400 bps.

Timeout on SI00 cannot be set to no timeout.

To monitor the data strings, press Monitor button in the menu. The data being received is displayed at the lower half of the screen.

Back Test Clearview
This channel is used for UTC - information This channel is used for POSITION - information
Channel#. SI00
Antenna position:
Serial input data-type: □→NMEA ▼
Baudrate: 4800 V
Data bits: 8 💌
Parity bit: 0 none -
Stop bit. 1 💌
Note:
1SERIAL Started. Update enabled. No input
1 SERIAL Started. Update enabled. No input 1 SERIAL Started. Update enabled. No input
ISERIA Stated, Update enabled, No input
1 SERIAL Started. Update enabled. No input
1 SERIAL Started. Update enabled. No input
1 SERIAL Started. Update enabled. No input
1 SERIAL Started. Update enabled. No input
1 SERIAL Started. Update enabled. No input



### 3.4 Digital channel

Digital signal is connected via Junction Box, IF-8530 (optional for VR-3000S). **Receivable signal: 10 to 32 V voltage signal or contact signal** When voltage signal is connected, connect A and B input terminals. When Dry contact is connected, connect B and G input terminals. And be short-circuited between the 24 and A input terminals by the use of the jumper wire.

Channel number corresponds to the label, DC00 to DC31 and DC32 to DC63, on the DIGITAL IN terminal boards in the Junction Box.

In this menu, it is very important to enter the source name clearly in "Source" line so that the channel is identified easily later on. Open/Closed text is modified according to the connected sensor. For example, when Steering gear overload signal is connected, the text in state boxes are "Normal" and "Overload." When "M/E start air low pressure signal" is connected, "Normal" and "Low pressure" are entered into the boxes. To do so, press Calibrate button in the Digital Channel menu.

	Back Submit	
	Channel id: DC00 Source: UNDEFINED Type: Normal Inactive state: CLOSED Active state: OPEN Note: Swap Active/Inactive state values	
Value: CLOSED		
HEX(DC63 - DC00):80	000000000000	
BINARY(DC63 - DC00): 1000000	00 0000000 0000000 0000000 0000000 00000	

Fig.3.13 Digital Channel Monitor menu

Active/Inactive state of the sensor can be switched between "Close" (default) and "Open" (default) in Digital Channel Monitor menu, using "Swap Active/Inactive State values" button.

The signal being received is monitored at the lower part of the Digital Channel Monitor menu.

#### IMPORTANT!

Text entered in the "Channel id" line is shown on the playback display automatically.

# 3.5 Analog channel

Analog signal is connected via Junction Box, IF-8530 (optional for VR-3000S). **Receivable signal:** –10 to +10 V or 4 to 20mA

Connect V and G input terminals. When 4 to 20 mA signal is connected, be short-circuited between the V and I input terminals by the use of the jumper wire.

Channel number or channel # corresponds to the label, AN00 to AN15, on the ANALOG IN terminal board in the Junction Box. Analog channel must be calibrated by setting two points. To calibrate the analog channel;

- 1. Edit Analog Channel menu.
- 2. Press Calibrate button in Analog Channel menu. Analog Channel Calibrate menu appears.

	Back Submit Clear values	
S C C N	hannel#: AN00 ource: UNDEFINED abbration point 1: 0 Set 1 abbration point 2: 0 Set 2 fote: hannel calibrated: No	
Calibration is pending! Analog value: 0x12D9		
AN00 0x12D9   AN01 0x15AF   AN02	0x156F   AN03 0x17DA   AN04 0x1661   AN05 0x1639   AN06 0x0E87   AN07 0x0DE2	
AN08 0x160B   AN09 0x0F1D   AN10	0x1606   AN11 0x11F5   AN12 0x1804   AN13 0x13FE   AN14 0x0A1E   AN15 0x11B4	

Fig. 3.14 Analog Channel Calibrate menu

- 3. For example of engine pitch order calibration, set the pitch order handle to 8 forward.
- 4. Place the cursor onto the Calibration point 1 line and enter 8.
- 5. Press Set 1 button.
- 6. Set the pitch order handle to -7 astern.
- 7. Place the cursor onto the Calibration point 2 line and enter -7.
- 8. Press Set 2 button.

#### **IMPORTANT!**

Use a "minus" sign as below.

(1) Values referring to forward shall be positive and astern as negative (propeller pitch, order and indication).

(2) Values referring to starboard shall be positive and port as negative (rudder indicator and thruster order and indication).

The signal being received is monitored in Analog value line at the lower part of the Analog Channel Monitor menu.

#### NMEA

Select the NMEA version being input to the VDR.

#### Vessel ID (Vessel identification)

Approval of authority, Vessel name, Vessel IMO number, Vessel MMSI number and Vessel flag are entered in this menu.

#### UTC-POS (UTC and position source)

Generally, UTC and position source is GPS receiver connected to SI00 channel. Antenna position is the value entered in RS422 Serial Channel menu. If the UTC source is not SI00, this menu is changed accordingly.

#### Configuration

This menu is used to download and upload configuration data. This menu also erases data stored on the memory devices.

ErrorCodes	Show log Back
Index - handling:	
Show index>	1 => Drive 1 (DRU)
Clear index>	0 => All drives 💌
Config - handling:	
Show configinfo	
Clear config	
Status_display:	-
DISABLED	Enable
Select number of flash-drives in DRU:	-
Set NUM DRU Devices>	3 🗸
Handle CONFIG-file:	upload, download, sys-load and save
Handle CONFIG-file	
Microphone – testing:	
Test Microphone	
Web-Log :	
Clear Web-Log	
RUN_LEVEL - setting:	
Reboot VR-3000	
System run-level:	(6) SYSTEM_RUNNING
Last system run-level-request:	(9) SYSTEM_NET_PLAYSTOP_REQUEST

Fig.3.15 Configuration menu

# 4 Making backup copy of configuration data

For future reference, make a backup copy of the configuration data by following the instruction below. The configuration data file is opened up in WordPad or other editor (not Notepad).

#### 4.1 Copy to boot compact flash card

After software configuration is complete, make a copy of the configuration data on to the Compact Flash card in the DCU. If the configuration data in the DRU is accidentally erased, the configuration data stored onto the compact flash card is automatically transferred to the DRU at the next power on. The configuration data file created on the compact flash card is config.ini.

To save the data on to the compact flash card;

- 1. Go to Configuration menu.
- 2. Press Handle CONFIG-file button. Handle CONFIGRATION-file window appears. (Fig. 4.1)
- 3. Press CONFIGURATION to BOOTFLASH: Save button.

Handle CONFIGURATION-file		
Upload CONFIG-file to VR-3000 :		
Upload		
Load uploaded CONFIG-file as current in VR-3000 :		
Sysload		
Save CONFIGURATION :		
Save		
Save CONFIGURATION to BOOTFLASH:		
Save		
Download CONFIG-file from VR-3000 :		
Download		
Back to Configuration-Page		

Fig. 4.1 Handle CONFIGURATION-file window

#### 4.2 Copy to recording medium of the PC

The configuration data must be also copied onto the recording medium of the PC for future reference. The copied data can be used for another ship after editing in Wordpad.

It is recommended to leave the recording medium of the PC which contains the configuration data on board a ship for future service.

#### (a) CONFIG-file menu

To download the configuration data onto the PC;

- 1. Go to Configuration menu.
- 2. Press Handle CONFIG-file button. Handle CONFIGRATION-file window appears.
- 3. Press Download button. Windows file download window appears.
- 4. Press Save button, select the directory, and enter a desired file name (xxx.ini) it is recommended that the ship's name is included in a file name.
- 5. Then, press Save button to save the file onto the recording medium of the PC.

#### (b) 10.0.0.100/config.html

The configuration data can be download by addressing10.0.0.100/config.html in Internet Explorer.

- 1. Enter http://10.0.0.100/config.html in the Address box.
- 2. The "CONFIG-file is here." message appears.
- 3. Click on here.
- 4. Follow the on-screen instructions.

# **5 Software Configuration with file data**

The VR-3000/S can be configured by using the configuration data ("ini" file) on the recording medium of the PC in three steps: uploading the data to VR-3000/S, loading the data to the system, and then, saving the data to the DRU.

First, upload the file data from PC to VR-3000/S. To do so,

- 1. Go to Configuration menu.
- 2. Press Handle CONFIG-file button.
- 3. Press Upload button. CONFIG-file upload window appears.
- 4. Select the file, and then press UPLOAD button.
- 5. Press Back button to go back to Handle CONFIGRATION-file menu.

Next, load the data to VDR system.

- 6. Press Sysload button in Handle CONFIGRATION-file menu.
- 7. Make sure that no error message appears. Table below list the typical error messages.

Error message	Possible cause	Action
Unable to lock configuration before importing	System error	Reboot system.
Missing file	No data uploaded	Upload configuration data.
Illegal values in uploaded configuration file	Too many cards/channels in configuration data	Check configuration data for correct setting.
Unable to send reconfiguration-request to VR-3000/ S	System is not running properly.	Solve system error.

8. Press Back button to go back to Handle CONFIGRATION-file menu

And, then save the data onto the flash memories on the DRU and backup hard disk.

- 9. Press Save (Save CONFIGURATION) button.
- 10. Press Save (Save CONFIGURATION to BOOTFLASH) button.
- 11. Reboot VR-3000/S.

# 6 Initialization of index file

After changing software configuration, initialize the index file on the memory device. This procedure is also called "Index Clear" or "Clear Index."

#### **IMPORTANT!**

Initialize index file after software configuration.

Index clear is made through Configuration menu as below.

- 1. Go to Configuration menu.
- 2. Select "0; All device" in the pull-down menu.
- 3. Press Clear index button.
- 4. After clear index finished, reboot VR-3000/S. (Power Off-On) Don't use the Reboot VR-3000 button when normal operation. The Reboot VR-3000 button is only used for software debug.

ErrorCodes	Show log Back
Index – handling: Show index> Clear index>	1 => Drive 1 (DRU) 0 => All drives
Config - handling: Show configinfo Clear config	
Status_display: DISABLED	Enable
Select number of flash-drives in DRU: Set NUM DRU Devices>	3 💌
Handle CONFIG-file: Handle CONFIG-file	upload, download, sys-load and save
Microphone - testing: Test Microphone	
Web-Log : Clear Web-Log	
RUN_LEVEL - setting: Reboot VR-3000	
System run-level: Last system run-level-request:	<ul><li>(6) SYSTEM_RUNNING</li><li>(9) SYSTEM_NET_PLAYSTOP_REQUEST</li></ul>

Fig. 6.1 Configuration menu

When the index file is initialized successfully, the record number in the status monitor will be reset to zero.

### List of Web Configuration menu

#### Main menu

- System version Submenu
- Nodes Submenu
- Audio Submenu
- Video Submenu
- Serial Submenu
- Digital Submenu
- Analog Submenu
- NMEA Submenu
- Vessel Submenu
- UTC POS Submenu
- Configuration Submenu
- Passwords Submenu

#### System version submenu

System- firmware version: V0.12.03 System-config version: V0.12.03 Config last changed 15:04:31 22/11-2005

#### Node configuration

Location Eth 1 mac addr: Eth 1 IP addr: 10.0.0.100 Eth 1 IP mask: 255.0.0.0 Eth 2 mac addr: Eth 2 IP addr: 172.31.24.1 Eth 2 IP mask: 255.255.0.0 Enable multicast: x Multicast Group: 239.255.0.1 Valid multicast groups: Remote Junction Box selected: x

#### Audio card

Active: x Name: ADLINK 9111DG Node id: 1 Number of channels: 5 Audio codec: Dynamic Range 64 codec

#### Audio channel

Active: x Channel#: VHF X Channel id: UNDEFINED Sample rate: 15625 Hz Fixed Source: UNDEFINED Sample data size: 8-bit Fixed Source type: 0 Note:

#### Active: x

Channel#: MIC X / MIC X Channel id: UNDEFINED Sample rate: 15625 Hz Fixed Source: UNDEFINED Sample data size: 8-bit Fixed MIC X Active: x MIC X Active: x Source type: 0 Note:

#### Video card

Active: x Name: FG-3010 Node id: 1 Number of channels: 4

#### Video channel

Active: x Save IMAGE to DRU: x Save IMAGE to BACKUP Disk: x Transmit IMAGE to NETWORK: x Channel#: VD1 Channel id: UNDEFINED Source: SXGA(60) Source type: 1 Radar Model: (8) 8->SXGA(60) Horizontal offset: 240 Vertical offset: 38 Pll multiplier: 1688 Horizontal sync polarity: Negativ Phase: 0 Horizontal resolution: 1280 Vertical resolution: 1024 VCO range: 11 Save image to web: save as JPEG Debug level: None Color mask bit: 12-bit (11110000x3) Sample rate: 15 secs Fixed Interlace type: Not Interlaced Sync type: Separate SYNC Contrast/GAIN Red: 58 Contrast/GAIN Green: 58 Contrast/GAIN Blue: 58 Brilliance/OFFSET Red: 164 Brilliance/OFFSET Green: 164 Brilliance/OFFSET Blue: 164 Black bottom level: 55 Note:

RS422 serial card Active: x Name: CONTROL RS422#1 Node id: 1 Number of channel: 8

Active: x Name: RJB Node id: 2 Number of channel: 8

#### **RS422 serial channel**

Active: x Channel#: SI00 Channel id: UNDEFINED Serial input data type: NMEA data Antenna position: UNDEFINED Source type: 0 Time out: 10 sec Baud rate: 4800 Data bits: 8 Parity bit: 0 Stop bit: 1 NMEA Version: 8-IEC61162-1 Note:

Active: x Channel#: SI0X Channel id: UNDEFINED Serial input data type: NMEA data Source: UNDEFINED Source type: 0 Time out: no timeout Baud rate: 4800 Data bits: 8 Parity bit: 0 Stop bit: 1 NMEA Version: 8-IEC61162-1 Note: NO NOTES

#### **Digital card**

Active: x Name: RJB Node id: 1 Number of channels: 64

#### **Digital channel**

Active: x Channel#: DCXX Channel id: UNDEFINED Source: UNDEFINED Source type: 0 Type: Normal Sample rate (Hz): 2 Hz Fixed Note:

#### **Digital channel Monitor**

Channel id: DCXX Source: UNDEFINED Type: Normal Inactive state: CLOSED Active state: OPEN Note: Swap Active/Inactive values

#### Analog card

Active: x Name: RJB Node id: 1 Number of channels: 16

#### Analog channel

Active: x Channel#: AN00 Channel id: UNDEFINED Source: UNDEFINED Source type: 0 Sample rate (Hz): 2 Hz Fixed Analog calibration point 1: 0 Analog calibration point 2: 0 Note: Channel Calibrated: No

#### Analog channel calibrate

Channel#: AN00 Source: UNDEFINED Calibration point 1: Set1 Calibration point 2: Set2 Note:

#### **NMEA Version**

NMEA Version/IEC-61162-1->SI00: NMEA Version/IEC-61162-1->SI01: NMEA Version/IEC-61162-1->SI02: NMEA Version/IEC-61162-1->SI03: NMEA Version/IEC-61162-1->SI04: NMEA Version/IEC-61162-1->SI05: NMEA Version/IEC-61162-1->SI06: NMEA Version/IEC-61162-1->SI07:

#### Vessel ID

Approval of authority: Vessel name: Vessel IMO no: Vessel MMSI no: Vessel flag:

#### UTC and position source

UTC source – no checksum: UTC source: SI00 UTC Note: Antenna position: UNDEFINED

Position source: SI00 Position Note: Antenna position: UNDEFINED

#### **Configuration menu**

Show Index: 0=>All drives Clear Index: 0=>All drives Show config info Clear config Status display: Enable Select number of flush-devices in DRU : 3 Handle CONFIG-file Test Microphone Clear Web-Log Reboot VR-3000

#### Handle CONFIGURATION-file

Show Index: 0=>All drives Clear Index: 0=>All drives Show config info Clear config Status display: Enable Select number of flush-devices in DRU : 3 Handle CONFIG-file Test Microphone Clear Web-Log Reboot VR-3000



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