# FURURO OPERATOR'S MANUAL

# LIVE PLAYER PRO

MODEL VR-5034

(Applicable to VR-5000 software version 3.00 or higher) (Applicable to VR-3000/S software version 1.00 or higher)



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- If this manual is lost or worn, contact your dealer about replacement.
- The contents of this manual and equipment specifications are subject to change without notice.
- The example screens (or illustrations) shown in this manual may not match the screens you see on your display. The screen you see depends on your system configuration and equipment settings.
- This manual is intended for use by native speakers of English.
- FURUNO will assume no responsibility for the damage caused by improper use or modification of the equipment or claims of loss of profit by a third party.
- Please carefully read and follow the operation procedures set forth in this manual.
- Store this manual in a convenient place for further reference.

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# FOREWORD

## A Word to the Owner of the Live Player

FURUNO Electric Company thanks you for purchasing the Live Player Pro VR-5034. We are confident you will discover why the FURUNO name has become synonymous with quality and reliability.

For over 50 years FURUNO Electric Company has enjoyed an enviable reputation for quality and reliability throughout the world. This dedication to excellence is furthered by our extensive global network of agents and dealers.

Please carefully read and follow the operation procedures set forth in this manual.

Thank you for considering and purchasing FURUNO.

## **Features**

This "Live Player Pro" software is installed to a PC and functions as follows:

- Replaying (Playback)
  - Data recorded in Capsule/Backup Hard Disk
  - Data retrieved from Capsule and Backup Hard Disk
- Live Playing
  - All the data being recorded can be observed in real times with user-customizable pages

# 1. INSTALLATION

# 1.1 Requirements

#### VR-5034 components for VR-5000

- Program CD(version 3.00 or higher)
- IEEE1394 repeater
- AC adapter
- IEEE1394 cable (6 pin 4 pin)
- USB dongle (for software protect)
- Document

#### VR-5034 components for VR-3000/3000S

- Program CD (version 3.02 or higher)
- IEEE1394 cable (6 pin 4 pin)
- LAN cable
- Document
- CPU: Pentium 4 (1.8 GHz) or higher

**Recommended specifications for Replay PC** 

- RAM: More than 256MB (More than 512MB recommended for Windows XP)
- HDD: As much as possible (i.e., 20GB, 40GB)
   (6 to 10 GB needed to store the 12-hour data recorded in the Capsule)
- Screen Resolution: VGA or higher (More than SXGA (1280x1024) recommended)
- Operating System: Windows 2000 Professional SP4, Windows XP Professional SP2, English or Japanese OS only
- CD-ROM drive, LAN port: Mandatory
- USB port: Mandatory for VR-5000
- IEEE1394a 4 pin port: Required for play back of data in the DRU or Backup HDD. If PC's connector has 6 pins, 6Pin-6Pin IEEE1394 cable is required.
- Direct x 9.0 or higher

## 1.2 Software Installation

#### Live Player Pro

Two programs are provided in this software: Live Player Pro and Live Player Backup.

1. Set the Live Player Pro software CD in the CD drive.

The Setup-Live Player Pro wizard appears. If the wizard does not appear, double-click MY COMPUTER, Live Player Pro (CD) and "setup" icon in order.

2. Follow the directions of the wizard.

If you need the backup program, check "Live Player Backup" in the wizard. If you check "Create a desktop icon" in the wizard, Live Player Pro icon (and Live Player Backup icon) appears on the desktop of the PC after completion of the installation.

#### Driver software for the USB dongle

- 1. Open the Live Player Pro software CD from the My Computer icon.
- 2. Double-click the HASP folder and decompress the HHL HASPUserSetup.zip file.
- 3. Double-click HASPUserSetup.exe icon.
- 4. Follow the directions of the wizard.

When the installation is completed, the message "HASP HL Drivers successfully installed" appears.

#### Starting up the Live Player Pro

- 1. Insert the USB dongle to the USB port of your PC.
- 2. Double-click the Live Player Pro icon to open the initial window of the Live Player Pro.



#### Live Player Pro desktop icon

	Pro Locis Options		or <u>W</u> indows	Help set into Mare			
where state, T		50m 5	-		All and a second		
	tatus Monitor	VR-5000 Seriel	Monitor				
Analog AN07	_	ANIS		Power	(VD01) • -		
ANDE	_	ANT4	_				
AN05		AN13					
AND4		AN12					
AND3	_	ANIT					
AND	-	AN10		-91			
ANO1		ANOS	N09 000		No Image on (VD01)		
ANDO		ANOS					
Digital							
DC15	DC31	DC47	DO63				
DC14	DC30	DC46	DC62				
DC13	DC29	DC45	DO61				
DC12	DC58	DC44	DOSE				
DC11	DC27	DC43	DC59		SystemLog		
DC10	DC26	DC42	DC58	CONTACT			
DC09	DC25	DC41	DC57	ONLY			
DC08	DC24	DC40	DC56				
DC07	DC23	DC39	DOSS				
DC86	DC22	DC38	DC54				
DC05	DC21	DC37	DC53				

Initial window

**Note 1:** In case of VR-5000, if you start the Live Player Pro without the dongle, the error message "Error 7: HASP HL Key not found" appears. Therefore, attach the dongle to use the software. Also, if you remove the dongle while the software is running, the same message appears. Attach the dongle securely and click the OK button in the error message box. Note however that the Live Player Backup software functions without the dongle.

**Note 2:** If the software version of the VR-5000/VR-3000/VR-3000S provides multi-cast function, the live play can be done on multiple PCs simultaneously.

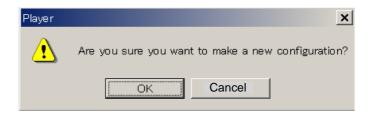
# 2. PLAYER CONFIGURATION

The user can configure the layout and data to display. The configuration can be saved and copied as a file, which can be loaded on another PC to share the same layout with other PCs. In addition, the configuration can be saved in the Capsule for use as the default layout for Replay and Live Play.

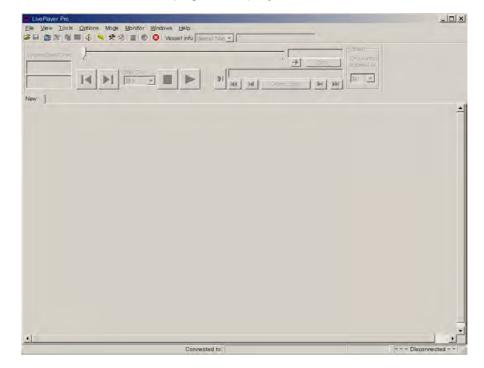
## 2.1 How to Create a New Configuration Page

To create a new player configuration page, follow the procedures below. The window title bar complies with the general standard for Microsoft GUI.

- 1. Double-click the Live Player Pro icon.
- 2. Click the **File** menu in the menu bar and then click **New**. The confirmation message appears.



3. Click the **OK** button. A new page is displayed.

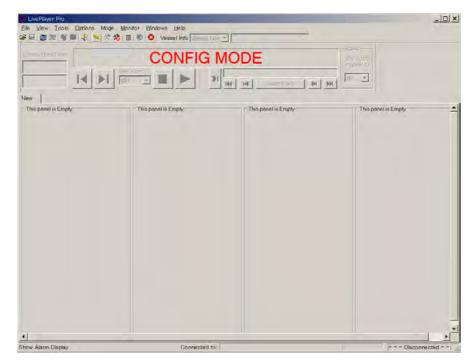


4. Click the Turn Configuration Mode ON button.

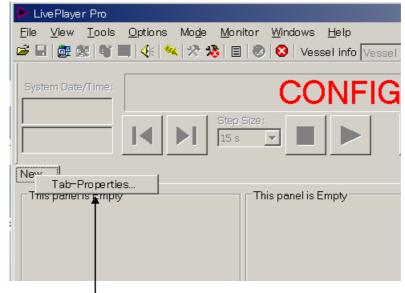


Turn Configuration Mode ON bu

The data window changes as below.



5. Right-click on the New tab. The Tab-Properties button appears.



Tab-Properties button

6. Click the **Tab-Properties** button. The Tab Page Organizer dialog box appears.

idden Tab Pages :			Shown Tab I	Pages :	
		- (PP			<u></u>
		*			
Add Properties	. Dele	te	Add	Properties.	Delete

7. Click the **Properties** button. The Tab Page Properties dialog box appears. If you want to add a new page, click the **Add** button instead of the **Properties** button.

ab Page Properties	_	[
Tab Icon:	Title :	
(none)	New	
— Change Tab type	to: (All settings on the Pag-Page will be Delete)-	
Empty Tab		-
Example:		

8. If necessary, choose the tab icon from the drop-down list in the Tab Icon box.

Tab Page Properties X
Tab Page Properties       Tab Icon:       Title :       (none)       Main       Main       Arrow Up       Arrow Down       Arrow Left

- 9. Enter tab name in the Title box.
- 10. Check the Change Tab type to check box.
- 11. Click arrow mark below the check box to show the drop-down list.

Tab Page Properties		×
Tab Icon:	Title :	Tab is static
(none)	New	
(none)         ✓         Change Tab type to: (All set         Empty Tab         Data-Logger Tab         Graphical Display (1 Panel)         Graphical Display (2 Panels)         Graphical Display (3 Panels)         Graphical Display (4 Panels)         Graphical Display (Full-Page Gr         Sequential Log Tab         Standard Tab         VR-5000 Serial Status Tab         VR-5000 Status Tab	, ettings on the Pag-f	Page will be Delete)
ОК		Cancel

12. Choose page layout template from the drop-down list. The selected page layout template is shown in the example field. Select a suitable one, referring to the example field.

	Tab Page Properties			
	Tab Icon:	Title :		
	Main	Furuno		
	Change Tab type	to: (All settings on th	e Pag-Page will be De	lete)
ge layout template -	Standard Tab			
	Example:			
Example field -		=	= =	
	E		EE	
		8	= =	
	ОК			Cancel

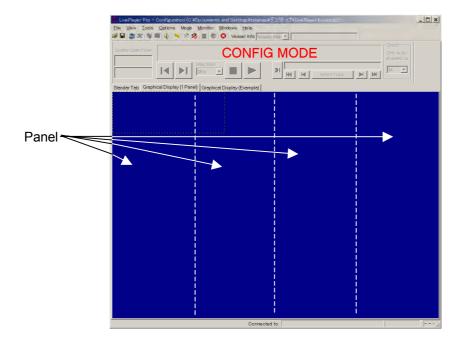
13. Click the **OK** button. The following confirmation message appears.



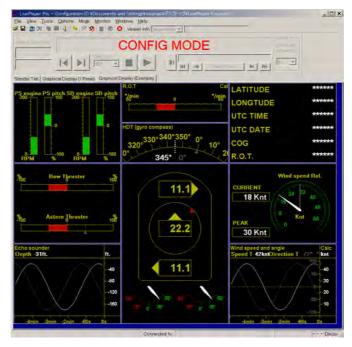
- 14. Click the **OK** button. The Tab Page Properties dialog box closes. The title name appears in the **Shown Tab Pages** field in the Tab Page Organizer dialog box.
- 15. Click the **OK** button. The new data window appears.

Tab name →	Let-Part 13           Differ 10           Differ 10	A MODE	k Die
	Ē		LELE

Example of "Standard Tab" (4 standard panels)



Example of "Graphical Display (4 panels)"



Example of "Graphical Display (Example)"

16. Go to next section to set each data box.

## 2.2 Making a User-specified Digital Form

To make a user-specified form, do the following.

#### For Serial data, do as follows:

1. Right-click a box you want to define to show the date setting menu and click the **Properties** button to show the Standard-Object Properties dialog box.

	Mo <u>d</u> e <u>M</u> onitor <u>W</u> indows <u>H</u> elp 4   ※ 18   圖   ⑧   8   Vessel Info   Vessel Nam 🔽
System Date/Time:	CONFIG M Step Size:
Furuno	Properties
	Copy Config Paste Config
	Test Positiv Trend (DblClk-R) Test Negativ Trend (DblClk-M)
	Panel-Properties
Rig	ht-click here.
-	Data setting menu
dard-Object properties	ld Colors 🚫 Trend 🚫 Alarm Display

C Normal	C Separator	Hidden	Color	
Source © No Source	Cha	annel		
C Analog	(none)		V	
C Digital	(none)		-	
C Serial	(none)		~	
Use label fro	ım VR–5000 configu	ration ——		
🗖 Add to LOG				

- 2. The General tab opens. You can change Mode Type, Source, Color or label in the dialog box.
  - Mode field

Normal: Specified data is displayed. Separator: This is used to divide a panel. Hidden: Data is not displayed. • Color field

Choose color of data box.

• Source field

**No Source:** Used primarily for template where the data source may be unknown.

**Analog:** The data source is an analog input. Choose input port from the drop-down list in the Channel box.

**Digital:** The data source is a digital input. Choose input port from the drop-down list in the Channel box.

**Serial:** The data source is a serial NMEA input. Choose input port from the drop-down list in the Channel box.

Label

Enter a label name; alternatively if you want to use the label name which has been set at installation, check the "Use label from VR-5000 configuration" check box.

For example, when the input data is serial, input channel is SI01 and label is named "Latitude", set as follows.

Standard-Object properties	×
🖬 General 📆 Data Format 🤹 Field Colors 🚫 Trend 🏁 Alarm Display	
Mode Normal     C Separator     C Hidden       Source     C hannel       C No Source     C hannel       C Analog     (none)       C Digital     (none)       © Serial     (SI01) - (SI01)	
Use label from VR-5000 configuration	
OK Cancel	Apply

3. Click the Data Format tab.

Standard-Object properties		×
Mala General 😳 Data Format	🔹 Field Colors 🚫 Trend 🏁 Alarm Display	
Decoding Selected decoder : Sub-library file : Sub-library file : Description:	Sentence formater:	
Use Checksum	Use timeout       Timeout       60       Seconde       Action:       Dimm data	
	OK Cancel Apply	

- 4. Set the data to be displayed as follows:
- a. Click the Library button. The Decoder Library dialog box appears.
- b. Click a data (NMEA sentence) desired in the decoder library (left-hand field of the Decoder Library dialog box). All the sentences specified in IEC 61996 are supported by this library. If a sentence which is not supported by this library is input to the VR-5000, you can create and edit a new decoder for the sentence. See chapter 5 for how to create a new decoder.
- c. Click the **OK** button. The data sentence is displayed in the Standard-Object Properties dialog box.

Sort By	
F Decoder Group F Sentence Formatter F Decoder Name	Decoder Information     Decoder Group     Write Protected
C Empty Decoder	Ships position¥
🗀 Echo sounder	Input Type: Sentence Formatter:
🗅 Engine	MMEA QLL
🛄 Rudder	Decoder Output:
Ships position	Text
- 🙀 Lavouda (GLC) (🖳 Lavouda (GLC)	Decoder Description:
( Latit de (BMC)	-
(GLongtude (GGA) (GL) (GL) (GL) (GNS)	
- (K Longitude (GNS)	
Econglude (RMC)	
Time and Date Wind speed and direction	-
a who speed and direction	
	Sub-Litrary MandatoryDecoders
	- Information
	Spectation
	Edit
	OK Cancel
	Click <b>OK</b> button.
	Click <b>OK</b> button.
	Click <b>OK</b> button.
ard-Object properties	Ļ
ard-Object properties	Ļ
ard-Object properties General 📆 Data Format 🕵 Field Colors 🕅	Ļ
ird-Object properties General <sup>™</sup> Data Format <b>%</b> Field Colors ( Decoding	Ļ
nd-Object properties General (1996), Data Format (1996), Field Colors (1 Decoding Selected decoder : Latitude (GLL)	Ļ
ird-Object properties General <sup>™</sup> Data Format <b>%</b> Field Colors ( Decoding	Ļ
nd-Object properties General (1996), Data Format (1996), Field Colors (1 Decoding Selected decoder : Latitude (GLL)	Trend Kalarm Display
ard-Object properties General 📆 Data Format 🔹 Field Colors r Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders	Trend Kalarm Display
ard-Object properties General (1996) Data Format (1996) Field Colors (1997) Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form	Trend Kalarm Display
ard-Object properties General 📆 Data Format 🔹 Field Colors i Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form NMEA GLL	Trend Kalarm Display
ard-Object properties General 📆 Data Format 🔹 Field Colors i Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form NMEA GLL	Trend Kalarm Display
ard-Object properties General 📆 Data Format 🔹 Field Colors i Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form NMEA GLL	Trend Kalarm Display
ard-Object properties General 📆 Data Format 🔹 Field Colors i Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form NMEA GLL	Trend Kalarm Display
ard-Object properties General (1999), Data Format (1990), Field Colors (1 Decoding Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form NMEA GLL Description:	Trend Kalarm Display
ard-Object properties  General Type: Sentence form Input Type: Sentence form NMEA GLL Description: Use timeout	Trend Kalarm Display
ard-Object properties General 1999, Data Format Selected decoder : Latitude (GLL) Sub-library file : MandatoryDecoders Input Type: Sentence form NMEA GLL Description: Use Checksum	Trend  Alarm Display  Edit  Ater: Save In Library Library

The information of the chosen sentence appears.

**Selected decoder:** The name of the currently selected decoder. **Sentence formatter:** The NMEA sentence formatter for the currently selected decoder.

**Edit button:** Opens the Decoder Editor (see section 5.3). **Save In Library:** Saves the currently selected decoder in the library.

Use Checksum: If you use checksum, check this box.

**Use Timeout:** If you use timeout, check this box, enter timeout time (seconds) and set the action among Delete data, Dimm data and "TIME OUT".

5. Click the Field Colors tab. The following dialog box is displayed.

Standard-Object properties >
💶 General 🕮 Data Format 🌻 Field Colors 💠 Trend 🍇 Alarm Display
Greater than $(x > a)$ : Value (a): Less than or equal to $(x \le b)$ : Value (b): (Digital: Set a = 0.5 & b = 0.5)
OK Cancel Apply

For example, ship's speed can be displayed in color when it becomes higher or lower from limitation set. Enter the upper limitation in the upper box and set the color. Enter the lower limitation in the lower box and set the color.

6. Click the **Trend** tab and the following dialog box appears.

Standard-Object properties	×
🌆 General 🕮 Data Format 😻 Field Colors 💠 Trend 🍇 Alarm Display	
Decoder output: Text	
C Trend Pair (Analog Style)	
Trend Type : 🔊 NO TREND 🔽	
G Transf Course (Dishel On to)	
• [Trend Sexarate (Digital Style)]	
Positiv Trend Type : 🚫 NO TREND 🔽	
Negativ Trend Type : 🚫 NO TREND 🔻	
Threshold : 0.000	
OK Cancel Apply	

a. Choose the **Trend Pair** (Analog Style) or **Trend Separate** (Digital Style) radio button.

b. Choose an appropriate trend mark (arrow marks) in each drop-down list.
 The trend which values are increasing or decreasing, are shown by trend mark (arrow, etc.) in the data window.

	o menu beparate (bigitar bityle)
	Positiv Trend Type : 🚫 NO TREND 💌
• Trend Pair (Analog Style)	Negativ Trend Type : SNO TREND
Trend Type : SNO TREND	Arrow Down
C Trend Separate (D Arrow Up/Down	Arrow Left Arrow Right Dot
Positiv Trend Type : Arrow Left/Right	Select trend mark for digital
coloci dona many for analog	Delect trend mark for digital

c. Set the sensitivity of the trend indicator in the Threshold box.

After setting, you can test the trend mark defined as follows.

- a. Right-click the box defined to show the data setting menu (see page 9).
- b. Click "Test Positive Trend" or "Test Negative Trend". The trend mark appears in right side of the box.
- Click the Alarm Display tab. The following dialog box is displayed. For example, a message and an alarm icon can be displayed when the ship's speed, etc. exceeds limitation set.

Check for alarm fur	nction.	
Ente	er alarm message.	
	<ul> <li>Choose alarm icon: trumpets icon,</li> </ul>	
	arrow icons, anchor icons, etc.	
	Check for prepending	
	object label to the alarm t	ext.
Standard-Object properties .		×
Mein General 🔆 Data Format 4	Field Colors Trend Alarm Display	
	OK Cancel A	oply
	Choose upper limit or low	er limit.
Enter al	larm value.	
Choose this	item to	
activate ala		
new data ar	rives.	

8. After setting, click the **OK** button. The Standard-Object Properties dialog box disappears and the data window is updated as follows.

	4 2 <b>X</b> II O			
end	1973 m			
er 🛛	Mines pa			
1				
Furuno				
et ruse				
	12	Connected to	11	Disconnected

Newly defined data box

- 9. You can copy and paste this configuration to other data box.
  - a) Right-click the box configured to show the data setting menu (See page 9).
  - b) Click the Copy Config.
  - c) Right-click a box you want to define and click the Paste Config (Standard).
- 10. Set all other items as required.

#### For Analog data

 In the data window (page 7), right-click the box you want to define and click **Properties** button to show Standard-Object Properties dialog box. The General tab opens. Click the **Normal** and **Analog** radio buttons and choose a data input channel (for example "(AN00)-(AN00)") in the Channel drop-down list.

Mode	a Format 👒 Field Colors 💠	Color	
<ul> <li>Normal</li> </ul>	O Separator O Hidden		
Source			
○ No Source ⊙ Analog	Channel		
_	(AN00) - (AN00)		
C Digital	(none)		
C Serial	(none)	<b>V</b>	
Use label fro	m VR-5000 configuration ——		
☐ Add to LOG			

General M Data Format S Field Color Heading Text Positiv values: Zero/Null values: Negativ values:	Format String: 0.00
Trailing text:	
22.00	22.00

2. Click the **Data Format** tab. The following dialog box is displayed.

 Heading and trailing text output format for the data may be configured. A real time "test facility" is located beneath the configuration fields.
 Example 1

Heading Text       Positiv values:       Zero/Null values:       Negativ values:       Trailing text:	
Test data format Value used for test: Output : 3	aa 3.00 rpm

With check mark at "Use same text for all" check box, the header text "aa" and trailing text "rpm" are attached to value "3". The format string is 0.00, then, the display shows "aa 3.00 rpm" at the Output box.

#### Example 2

Heading Text       Positiv values:     port       Zero/Null values:     zero       Negativ values:     stbd       Trailing text:     deg	Use same text for all	Format String: 0.0 Display absolute value
Test data format Value used for test: 15	Output :	ort 15.0 deg

Without check mark at the check box, "port" is attached to positive value for header and "stbd" is attached to negative value. The trailing text is fixed to "deg". The value used for test is 15 and format string is 0.0, then the output shows "port 15.0 deg".

4. Click the **Field Colors** tab. The following dialog box is displayed. See page 12 for settings.

Standard-Object properties	×
📠 General 🕮 Data Format 🤹 Field Colors 💠 Trend ٰ 🍇 Alarm Display	
Greater than ( $x > a$ ) :	
Value (a): 0.5 Color:	
Less than or equal to ( x <= b ) :	
Value (b): 0.5 Color:	
(Digital: Set a = 0.5 & b = 0.5)	
OK Cancel Apply	

5. Click the Trend tab. The following dialog box is displayed.

Stand	dard-Object pro	operties	×
Main	• General 🔎	Data Format 😻 Field Colors 💠 Trend 🍇 Alarm Display	
	Trend Type :	NO TREND	
	Threshold :	0.000	
		☐ Reverse Indication	
		OK Cancel	Apply

Trend Type: Chooses the type of graphical representation.

Threshold: Sets the sensitivity of the trend indicator.

**Reverse Indication:** The normal indication is that an increase corresponds to up or right, checking this box will reverse the behavior, i.e., an increase corresponds to down or left.

- 6. Click the Alarm Display tab. See step 7 on page 13 for settings.
- 7. After setting, click the **OK** button. The Standard-Object Properties dialog box disappears and the data window is updated (see page 14).
- 8. Set all other items as required.

#### For digital data

1. In the data window (page 7), right-click the box you want to define and click the **Properties** button to show Standard-Object Properties dialog box. The General tab opens. Click the **Normal** and **Digital** radio buttons and choose a data input channel(example for "(DC00)-(DC00)") in the Channel list box.

Mode Normal	C Separator	C Hidden	Color	
Source				
O No Source	Cha	annel		
O Analog	(none)		~	
<ul> <li>Digital</li> </ul>	(DC00) - (DC00)	)	•	
C Serial	(none)		~	
Use label fro	m VR-5000 configu	iration ———		
☐ Add to LOG				

2. Click the **Data Format** tab. The following dialog box is displayed.

🕬 General 🎹 Data Format 🤹 Field Colors 💠 Trend 🏁 Alarm Display
General 🕰 Bada Format 📲 Field Colors 👻 Frend 🔍 Alarm Display
DIGITAL Use text from VR5000-configuration
Active text: OPEN
Inactive text: CLOSE
OK Cancel Apply

3. The text may be configured. The default setting uses text from the VR-5000 configuration.

#### Example

For alarm signal of Normal Close:

Active text to "Normal"

Inactive text to "General Alarm" or "Fire Alarm"

For steering gear run indicator signal of Normal Open:

Active text box to "Run"

Inactive test box to "Stop"

4. Click the **Field Colors** tab. The following dialog box is displayed. See page 12 for settings.

andard-Object properties	
🖬 General 🕮 Data Format 🌻 Field Colors 💠 Trend 🏁 Alarm Display	
Greater than ( x > a ) :	
Value (a): 05 Color:	
Less than or equal to ( x <= b) :	
Value (b): 0.5 Color:	
(Digital: Set a = 0.5 & b = 0.5)	
OK Cancel Appl	1

5. Click the **Trend** tab. The following dialog box is displayed.

Standard-Object properties		×
🛤 General 🎹 Data Format 🔹 Fiel	ld Colors 💠 Trend 🏁 Alarm Display	
Positive / Active value	OPEN	
Positive / Active trend type :	NO TREND	
Negative / Inactive value : Negative / Inactive trend type :		
	Concol   Apr	
	OK Cancel App	ЛУ

**Positive/ Active trend type:** The symbol displayed when data is shifting from "0" to "1".

**Negative/ Inactive trend type:** The symbol displayed when data is shifting from "1" to "0".

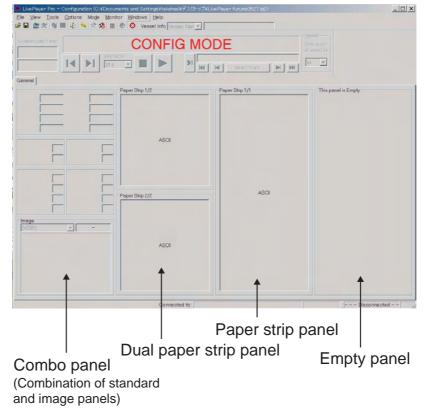
- 6. Click the Alarm Display tab. See step 7 on page 13 for settings.
- 7. After setting, click the **OK** button. The Standard-Object Properties dialog box disappears and the data window is updated (see page 14).
- 8. Set all other items as required.

#### **Changing panel properties**

- 1. Right-click a data box in the data window to show the data setting menu (page 9).
- 2. Click the Panel-Properties.

Panel Properties	×
Panel	
Change panel type to: (All settings on the panel will be deleted)	
A Empty Panel	
Example:	
OK Cancel	

3. Enter check mark and choose a panel as appropriate from the drop down list. There are five kinds of panel: Empty panel, Combo panel, Dual paper strip panel, Paper strip panel and Standard panel (See page 7.)



Example of panel of the data window

#### Setting for Paper Strip panel

1. Right-click a paper strip panel and left-click the Properties to show the Paper-Strip Properties dialog box.

Paper-Strip Properties.	×
Paper-Strip   🙀 Alarm Display   Channel	
(SIOO) - (SIOO)	
MMEA ▼ The Paper-Strip will show the NMEA lines. <cr><lf> or \$ start's a new line. Max Line with is 82 characters</lf></cr>	
OK Cancel	Apply

- 2. Choose a channel of the serial data from the drop-down list in the Channel field.
- 3. Choose an output format among ASCII, NMEA and BIN in the Data Format field.
- 4. To set alarm items, click Alarm Display tab. For details about setting, see page 13.

Active Active	Prepend Object Labe
Alarm Icon :	🍇 Trumpets 📃
C Level Alarm	• Over (input > level)
0	O Under (input < level)
New-Data ,	Alarm (Alarm on any new data)

5. After setting, click OK to close the Paper-Strip Properties.

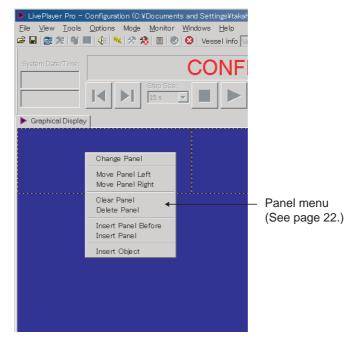
# 2.3 Making a User-specified Graphical Form

### 2.3.1 Arranging graphical object

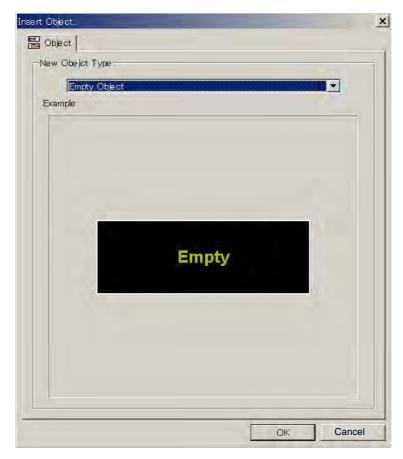
There are four templates and one example for graphical display, as shown in the previous section.

To create a graphical form, do the follows:

1. Right-click on an empty panel to show the panel menu.

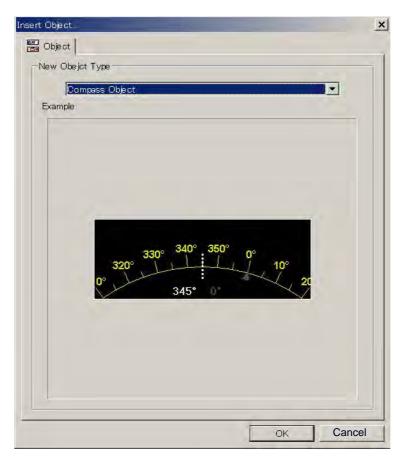


2. Click the Insert Object to show the Insert Object dialog box.



3. Click the arrow mark on the drop-down list and choose (click) an object desired you wish to display. In the 2<sup>nd</sup> example below, the compass object is chosen.



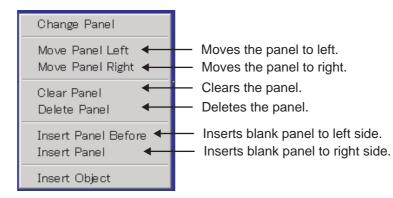


4. Click the **OK** button. In the example shown below, the compass object is displayed in the data window.

No. 1 Star Discourse Days	0		D - 44%	w≓n bk w÷tvi tra piaca	
File View Tools		Monitor Windo		si¥デスクトップ¥Live Playe	r Turun00527.ip
🖻 🖬 🎯 😻 🖤	 		— ·	sel Nam 💌	
1				,	
System Date/Time:		C	ONFI	g mode	
		Step Size:		) HI H	Select Track
🅨 Graphical Displa	y				
340° <sup>350</sup>	)° 0° 10°	20° 30°			

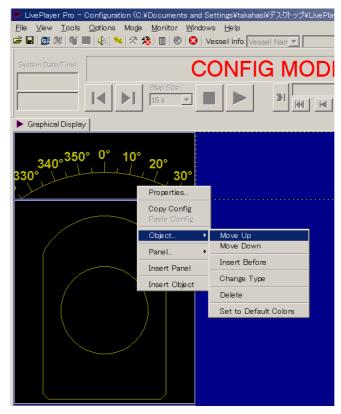
5. Right-click on an empty panel again to show the panel menu and repeat the step 2 to 4 several times to choose other objects. There are 11 objects: Compass object, Dial meter object, Doppler log object, Dual dial meter object, Graph object, Horizontal bar object (up to two bars), Horizontal ruler object, Numeric data display object, Pitch and Roll object, Rudder object and Vertical bar object (up to four bars).

#### About panel menu



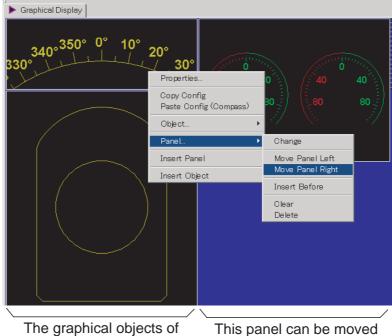
The position of an object within a panel may be changed, i.e., the object may be moved up and down as follows:

- 1. Right-click on a graphical object to show the sub-menu.
- 2. Click Object and then Move Up or Move Down.



A graphical object cannot be moved to another panel, i.e., to the left or to the right. However a panel (or column) can be moved to left or right.

- 1. Right-click on a graphical object to show the sub-menu.
- 2. Click Panel and then Move Panel Left or Move Panel Right.



to left.

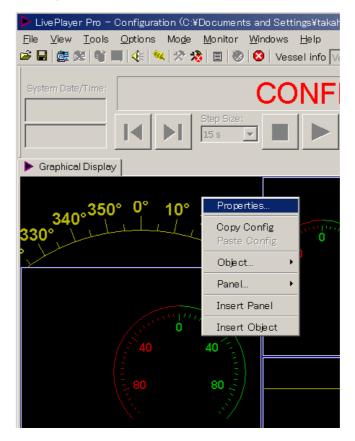
this panel (column) can be moved to right.

#### Numeric data display Horizontal bar Vertical bar Dial meter Compass -9¥I in Windows Hel Options Mode i 🖬 🗯 📲 🍕 🛠 🗏 🗉 🧶 😣 Vessel ir sel Info CONFIG MODE 21 -14 1 HH | 福 VR-5 al Disp \$6P VR-5000 I Monite 101 LATITUDE PS pitch SB en e SB pitch °/ngji LONGTUDE \*\*\* UTC TIME \*\*\*\* IDT (avro co ass 320°330°340° Wind ed Rel 350 0 10° CURRENT 2 18 Knt 345° Kn PEAK 11.1 30 Knt Vind speed and an Speed T 42kntDir Cal knt 22.2 -40 -30 -20 Pitch 10 11.1 orizo 0 20 40 60 8010 Doppler log Rudder Pitch and roll Dual dial meter Horizontal ruler Graph

#### Example of panel layout

#### 2.3.2 Configuration of graphical object

There are 11 objects. Configure each graphical object as described in the next several paragraphs. To display each Properties dialog box, right-click each object and choose Properties.



#### 2.3.3 Compass object

#### General tab

Compass Object Properties
General Compass
Alignment : ເ⊂ Left © Center © Right Gauges I Show Compass
Frame
ОК Сапсе Арріу

The first tab page, called "General", contains the most common parameters for a graphical object.

Title: Enter text that is displayed in the graphical object.

**Gauges**: Check the checkbox for enabling the display of gauges defined for that graphical object.

**Frame**: The boundary of a graphical object is indicated (default) with four thin lines. A number of graphical objects may be grouped by removing the adjacent lines. This is purely a visual effect. A line may be disabled / enabled by double clicking its position on the squared symbol located in this field.

#### Compass tab

Compass Control Properties	×
General Compass	
Scale	
Format : 0	
Sources	
Primary : Source Diabled	Setup
Secondary : Source Diabled	Setup
Colors Primary Indicator Color Secondary Indicator Color Set to Del	fault
OK Cancel	Apply

#### <u>Scale</u>

**Format:** is used to define the format of the figures on the compass dial, see paragraph 2.3.14.

#### <u>Sources</u>

**Primary:** Set the primary data source to control the rotation of the compass dial. **Secondary:** Set the secondary (optionally) data source to control a small triangle circling the compass dial.

Click the **Setup** button to display the source setting dialog box.

Doppler Log – Longitud	linal Speed Source	×
Main Source Type	🗄 Settings 🚫 Field Colors	
Source		
C No Source	Channel	
C Analog	(AN00) - (AN00)	
O Digital	(none)	
<ul> <li>Serial</li> </ul>	(SI00) - (SI00)	
Use Factor -		
	1	
	1	
<u>.</u>		
		OK Cancel

**Source:** The source field is used to select the proper source for the gauge. **Use Factor:** The operator may apply a factor (multiplier) to the original data, e.g., knots may be converted to m/s.

Doppler Log – Longitudinal Speed Source	×
Mah Source Type 🕮 Settings 🚫 Field Colors	
Serial	
De coding Selected de coder : COG (RMC)	
Sub-library file : Mandato ryDe coders	
Input Type: Sentence formater:	
NMEA RMC Save In Library	
Description:	
Use Checksum	
Timeout 60 Seconds	
	-
OK Cancel	

See section 2.2 for setting.

#### <u>Colors</u>

The parameters in this field control the appearance of the compass dial. The **Set to Default** button may be used to reset all the colors to the default definition. See paragraph 2.3.13.

#### 2.3.4 Dial Meter object and Dual Dial Meter object

The setting of **General** tab is almost the same as in paragraph 2.3.3.

Labels Dial Title : Wind speed Unit : Knt	Vse Peak indicator Peak timeout : 60
Scale Start Value : 0 End Value : 60 Format : 0 Show Matematical Sign	Angle : 270 Rotation : 0 Scale resolution : MEDIUM
Sources Primary : Serial - Aneor Secondary : Source Diable	
Colors	olor Positiv Scale Color

#### Dial Meter tab

#### <u>Labels</u>

Dial Title: Text located immediately over the dial meter.

Unit: Text located inside the dial.

**Use peak indicator:** The peak indicator will show the maximum reading for a specified time (peak timeout). This is useful when measuring wind speed, for example.

#### <u>Scale</u>

This field contains the parameters for controlling the geometry and resolution of the dial.

**Start value:** The start value corresponds to the most anticlockwise point on the dial.

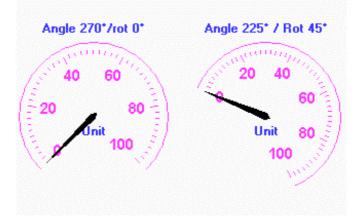
**End value:** The end value corresponds to the most clockwise point on the dial. **Format:** Format is used to define the format of the figures on the dial, see paragraph 2.3.14.

**Show mathematical sign:** The parameter controls whether figures on the dial are displayed signed or unsigned.

Angle: Defines the extent of the dial

**Rotation:** The dial will per default be oriented like a typical speedometer in a car, i.e., the axis of symmetry is vertical. The operator may change the orientation by entering a value other than 0 in this field.

Scale Resolution: This parameters control the graduation of the dial.



Example of settings for dual dial meter

#### Sources

Primary: Input to the pointer for the dial meter.

**Secondary:** Input to the secondary indicator for the dial meter. The secondary indicator is shown as a small triangle. The secondary indicator is typically used for displaying the "commanded value" while the main indicator shows the actual value.

The **Setup** button will open a dial box where the source data may be defined. See the previous paragraph.

#### <u>Colors</u>

Parameters in this field control the appearance of the dial meter. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.5 Doppler log object

The setting of General tab is almost the same as in paragraph 2.3.3.

### Doppler Log tab

Doppler Log Object Properties	x
General Doppler Log	
Numeric Output Unit : Knt Format : Show Matemati	0.0 cal Sign
Sources	
Longitudinal Speed : Analog - Speed Log	Setup
Stern Transverse Speed : Analog - (None)	Setup
Aft Transverse Speed : Analog - (None)	Setup
Relative Wind Direction :	
Serial - Aneometer	Setup
Backward Indicator Color Right In	icator Color dicator Color Default
OK Cancel	Apply

#### Numeric Output

**Unit:** Text displayed after all numeric outputs, e.g., KNT. **Format:** Format is used to define the format of the numeric outputs. See paragraph 2.3.14.

**Show mathematical sign:** The parameter controls whether the numeric outputs are displayed signed or unsigned.

# Sources

Four inputs may be applied to the Doppler log object.

Longitudinal speed:	is shown as numeric data in the center of the
	object.
Stem transverse speed:	is shown as numeric data at top of the object.
Aft transverse speed:	is shown as numeric data at bottom of the object.
Relative wind direction:	is shown as a triangle circling the center of the
	object.

# <u>Colors</u>

Parameters in this field control the appearance of the object. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.6 Graph object

The setting of General tab is almost the same as in paragraph 2.3.3.

### Graph tab

Graph Control Properties		×
General Graph		
Graph Type	Resolution Time Span : 1h	
🔘 (1x) X / Y - graph	Sample Interval : 4s 💌	
Labels		
Primary (Y1) Label : Speed	Secondary (Y2) Label : Direction	
Unit : knt	Unit :	
Scale Primary (Y1)	Secondary (Y2)	
Min Value : 0	Min Value : 0	
Max Value : 100	Max Value : 360	
Format : 0	Show Secondary (Y2) Scale	
Show Matematical Sign Sca	ale resolution : MEDIUM	
Sources Primary (Y1) : Serial - Aneo	meter [Wind speed   Setup	
Secondary (Y2) : Serial - Aneo	meter [Wind directic Setup	
Colors Primary Indicator Color Secondary Indicator Col	or Set to Default	
ОК	Cancel Apply	

# Graph type

The field is used for defining the input to the X-coordinate for the graph object. **Time/Y graphs:** The primary and secondary will be used as Y-coordinate for two independent graphs. The time will be used as X-coordinate for both graphs. **X/Y graph:** The primary input will be used for the X-coordinate and the secondary for the Y-coordinate.

# **Resolution**

The field is used for defining the resolution of the graph(s). Small values for "Time Span" and "Sample Interval" provide a graph with high resolution while high values provide a graph that covers a large time span.

# Labels

Label: Labels for numeric output

**Unit:** Text displayed after numeric output and Y-axis, and X-axis if X/Y graph is selected.

# <u>Scale</u>

The field is used for defining resolution for the Y-axis and the X-axis in case of X/Y graph and Y-axis in case of Time/Y graph.

#### <u>Sources</u>

Primary: Set the primary data source for Y1 axis or Y axis. Secondary: Set the secondary data source for Y2 axis or X axis.

#### <u>Colors</u>

Parameters in this field control the colors of the graph. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.7 Vertical bar object

The setting of General tab is almost same as in paragraph 2.3.3.

#### Vertical Bar tab

Vertical Bar Object Properties 🗙
General Vertical Bar 1 Vertical Bar 2 Vertical Bar 3 Vertical Bar 4
Labels
Top Label : PS engine
Bottom Label : RPM
Scale
Start Value : 0 Format : 0
End Value : 300 Show Matematical Sign
Mirror Horizontally
Sources
Primary : Analog - PS Prop - RPM Setup
Secondary : Source Diabled Setup
Colors Positiv Bar Color (Primary)
Negativ Bar Color (Primary)
Triangle Color (Secondary) Set to Default
OK Cancel Apply

#### **Labels**

A vertical bar has two labels, one at each end. One of them is typically used as description while the other indicates units.

#### <u>Scale</u>

**Start value:** The start value corresponds to the bottom of the bar. **End value:** The end value corresponds to the top of the bar.

**Mirror horizontally:** Two adjacent bars are per default two symmetrical instances of the bar object. i.e. bar 1,2 and 3,4 form two pairs. The operator may change this by e.g. "horizontally mirror" bar object 1 and 3.

**Format:** Format is used to define the format of the figures for the bar object. See paragraph 2.3.14.

**Show mathematical sign:** The parameter controls whether figures related to the bar object are displayed signed or unsigned.

# Sources

Primary: Input to the main indicator for the bar object.

**Secondary:** Input to the secondary indicator for the bar object. The secondary indicator is shown as a small triangle. The secondary indicator is typically used for displaying the "commanded value" while the bar shows the actual value.

# <u>Colors</u>

Parameters in this field control the appearance of the bar object. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.8 Horizontal bar object

The setting of **General** tab is almost the same as in paragraph 2.3.3. To display two horizontal bars, check two check boxes in the Gauges field in the General tab.

The parameters for the horizontal bar correspond to the parameters for vertical bar. An extra label (middle) has been added.

General Horizontal Bar 1 Horizontal Bar 2	
Labels	
Left Label : 🛛 %	
Middle Label : Bow Truster	
Right Label : %	
Scale	
Start Value : -100 Format :	0
End Value : 100 Show Mate	matical Sign
Mirror vertically	
Sources	
Primary : Serial - Thrust 1 Order	Setup
Secondary : Source Diabled	Setup
Colors Positiv Bar Color (Primary) Negativ Bar Color (Primary) Triangle Color (Secondary) Set to D	efault
OK Cancel	Apply

# 2.3.9 Horizontal ruler object

The setting of General tab is almost the same as in paragraph 2.3.3.

#### Horizontal ruler

Horizontal Ruler Object Properties	×
General Horizontal Ruler	
- Labels	
Left Middle Right	
Top : C Rudder Angle	
Bottom :	
Scale	
Start Value : -60 Format : 0	
End Value : 60 Show Matematical Sign	
Scale resolution : FINE	
Sources	11
Primary : Analog - (None) Setup	
Secondary : Analog - (None) Setup	
Colors	
Primary Indicator Color Positiv Scale Color	
Secondary Indicator Color Megativ Scale Color	
Set to Default	
OK Cancel Apply	

# <u>Labels</u>

A horizontal bar has 6 labels.

# <u>Scale</u>

**Start value:** The start value corresponds to the far-left point of the ruler. **End value:** The end value corresponds to the far-right point of the ruler. **Format:** Format is used to define the format of the figures on the ruler object. See paragraph 2.3.14.

**Show mathematical sign:** The parameter controls whether figures related to the ruler object are displayed signed or unsigned.

Scale resolution: Close the scale resolution among Course, Medium and Fine.

#### Sources

**Primary:** Input to the main indicator for the bar object. The main indicator is shown as a triangle above the ruler.

**Secondary:** Input to the secondary indicator for the bar object. The secondary indicator is shown as a triangle below the ruler. The secondary indicator is typically used for displaying the "commanded value" while the primary indicator shows the actual value.

# <u>Colors</u>

Parameters in this field control the appearance of the ruler object. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.10 Pitch and roll object

The setting of General tab is almost same as in paragraph 2.3.3.

Pitch and Roll Object Properties	×
General Pitch and Roll 1 Pitch and Roll 2	
Gauge Title : Roll Type : Roll	
Scale Format : 0 Show Matematical Sign	
Sources Source : Serial - (None) Setup	
Colors Positiv Scale Color Ship Color Set to Default	
OK Cancel Apply	
OK Cancel Apply	

### Roll and pitch indicator

# <u>Gauge</u>

Title: Text shown above the gauge.

**Type:** Used to select gauge type (roll or pitch). Roll is default for gauge 1 and pitch is default for gauge 2.

# <u>Scale</u>

**Format:** Format is used to define the format of the numeric outputs. See paragraph 2.3.14.

**Show Mathematical Sign:** The parameter controls whether figures on the dial are displayed signed or unsigned.

# Sources

**Source:** The data source controls the pointer; the typical input is data from the rudder angle sensor.

# <u>Colors</u>

Parameters in this field control the appearance of the object. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.11 Rudder object

The setting of General tab is almost the same as in paragraph 2.3.3.

Horizontal Ruler Control Properties	×
General Rudder 1 Rudder 2	
Title :	
Scale Rudder Max Angle Show Matematical Sign 90  Scale resolution : FINE	
Sources       Primary :     Source Diabled       Secondary :     Source Diabled	
Colors Primary Indicator Color Secondary Indicator Color Set to Default	
OK Cancel Apply	

# Rudder Indicator tab

# <u>Labels</u>

Title: Text shown beneath the rudder indicator.

# <u>Scale</u>

**Rudder Max Angle:** This parameter controls the extent of the dial for the object. It is recommended that a value equal to the maximum rudder angle for vessel is used.

**Show Mathematical Sign:** The parameter controls whether figures on the dial are displayed signed or unsigned.

# Sources

**Primary:** The primary data source controls the pointer; the typical input is data from the rudder angle sensor.

**Secondary:** The secondary (optionally) data source controls a small triangle circling the dial. The typical secondary input is "Commanded rudder angle"

# <u>Colors</u>

Parameters in this field control the appearance of the object. The **Set to Default** may be used to reset all the colors to the default definition. See paragraph 2.3.13.

# 2.3.12 Numeric data display object

Numeric Data Display Object Properties	×
General	
Title Alignment : © Left © Center © Right	
✓ Show Graphical Standard Object 1           □ Use label from VR-5000 configuration           ↓	t : Color : Set Default
Source : Source Disabled	Setup
✓ Show Graphical Standard Object 2         ✓ Use label from VR-5000 configuration         20         Source :         Source Disabled	t : Color : Set Default Setup
Show Graphical Standard Object 3 Use label from VR-5000 configuration Limit Source : Source Disabled	
Frame	
ОК Са	ncel Apply

The Numeric Data Display does not display any gauges. Three smaller "objects" for displaying numeric data or text are displayed instead. These smaller objects, called "Graphical standard objects", are almost identical to the non-graphical standard objects defined for showing data in tabular form.

Note that the overall title for the graphical object may interfere with the "Graphical Standard Object" #1.

The color of the label text for a "Graphical Standard Object" is determined by the default color definition (Text/Outline Color) see paragraph 2.3.13. The "Primary indicator color" is used as default for the displayed data but may be set by the operator.

A number of Numeric Data Displays may be linked by removing adjacent lines.

# 2.3.13 Default color definition

To open the Color Definitions dialog box, click **Options** on the menu bar and then click **Color Definitions**.

Color Defini	itions			X
Graphical [	Data Display			
_ Global (	Colors			
	Background Color		Object Frame Color	
	Object Background Color	· 📃	Text/Outline Color	
Default	Colors			
	Positiv Bar Color		Positiv Scale Color	
	Negativ Bar Color		Negativ Scale Color	
	Primary Indicator Color		Secondary Indicator Color	
			Set to Default	
		ОК	Cancel Apply	

The **global colors** define the overall color scheme used for the graphical data display(s).

- The **Background Color** is the color of the window used for a graphical data display. The background color will be visible because there is a small space between objects (unless they are merged).
- The **Object Frame Color** indicates the border of an object.
- The **Object Background Color** is background color used for objects.
- The **Text / Outline Color** is color for static text (e.g. labels) and for outline of most gauges.

Changes to Global color take affect immediately after the **OK** or **Apply** button is clicked, even when the Player is not in the configuration mode.

The **default colors** are the colors of dynamic elements in a graphical data display, e.g., the indicator for a dial meter. Changes to default colors will only take affect for new objects. The colors for an existing object may be set to new default colors by right-clicking on the object (in configurations mode) and selecting **Object** -> **Set to Default Colors**.

# 2.3.14 Formatter syntax

Figures displayed by the graphical objects may be formatted, i.e., the number of digits after the decimal point and leading zeroes may be defined.

The formatter syntax is identical to the syntax defined for formatting output from an NMEA decoder.

Example: The figures 7.5 and 10 will be displayed like this depending on the formatter.

Formatter	7.5	10
0	7	10
0.0	7.5	10.0
000	007	010

# 2.4 Saving the Configuration

To save the configuration created to the PC:

- 1. Click **File** -> **Save as** in the menu bar.
- 2. Choose a directory where to save.
- 3. Enter file name and click the **Save** button.

To save the configuration to the DRU (Capsule) and/or the backup HDD:

- 1. Connect the PC as shown in the figure in paragraph 3.1.1, 3.2.1 or 4.1.
- 2. Open the Player configuration created.
- 3. Click the **Connect** button in the tool bar.

- 40	Online Backu	Jps:			
Backup	test				
straction	Track inform	ation:		Analyze	Refresh
Live	Track	Start	End		

- 4. Click the DRU, Backup or Live icon depending to the hardware connection.
- 5. Click **Connection** button in the dialog box displayed.
- 6. Click **Tools** in the menu bar.
- Click the Player configuration management -> Save Player-Configuration to Source in the menu displayed. Then, the configuration created is saved to the DRU and/or the backup hard disk.

🕨 Live Player	r Pro – Configuration (C:¥Documents and	Settings¥takahasi¥デスクトップ¥1234.lp2)
<u>F</u> ile ⊻iew	<u>T</u> ools <u>O</u> ptions Mo <u>d</u> e <u>M</u> onitor <u>W</u> indo	ows <u>H</u> elp
🖻 🔚 🎯 🖇	Log	<b>'essel info</b> Vessel Nam <u>▼</u>
System Date	<u>A</u> udio Alarm Displa⊻	
	<u>C</u> onnect	ONFIG MODE
	<u>D</u> isconnect	
1	Player configuration management	VR-5000 configuration source: (default)
】 調 VR-5000	VR-5000 configuration management →	VR-5000 configuration source: (default) Load Player-Configuration from Source
1111	VR-5000 configuration management → Decoder Library Extractor	Load Player-Configuration from Source
Analog	<u>V</u> R-5000 configuration management Decoder Library	Load Player-Configuration from Source Save Player-Configuration to Source

If you are using another PC, you can load the configuration from the DRU.

# 3. REPLAY (PLAYBACK)

The replay function is specially designed for data analysis after an incident. Since accessing the data recorded in the DRU is NOT allowed while the VDR is recording, in accordance with IEC regulations, replay is only possible by direct connection with the DRU or Backup HDD, when stopping recording.

Note that the recording is terminated only:

- During essential maintenance purposes while the vessel is in port.
- When the vessel is laid-up.

To stop recording, turn off the BATTERY BACK-UP, DC SUPPLY MAINS and AC SUPPLY MAINS switches in DCU in this order. DO NOT turn off the system by the main breaker while the BATTERY switch is on. If this is done, the system operates on the batteries. The system stops after running on batteries for two hours.

There are three ways to replay the data recorded:

- 1) Reading the data recorded in the DRU (Capsule) by accessing the data stored in DRU directly without retrieving.
- Reading the data recorded in a Backup HDD by accessing the data stored in a Backup HDD directly without retrieving.
- 3) Reading the data retrieved from the DRU or Backup HDD.

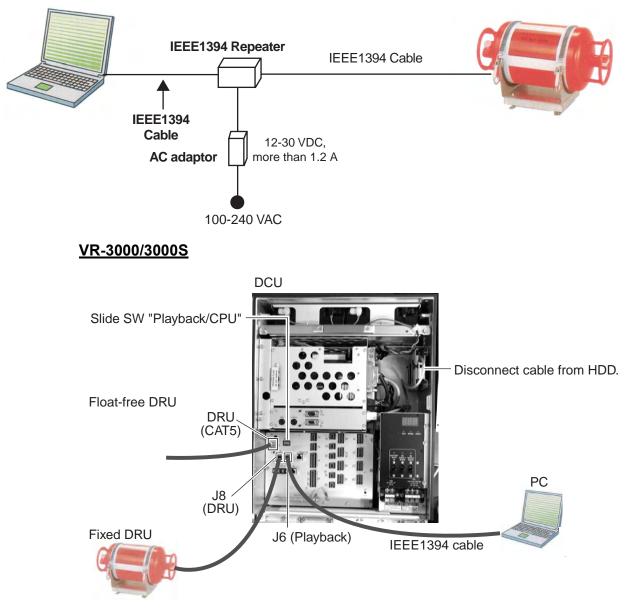
# 3.1 Reading the Data Recorded in DRU (Capsule)

In this paragraph, we explain how to access the data recorded in the DRU (Capsule) directly without retrieving it.

Normally, it takes more than one hour to retrieve the recorded data from the DRU to the Replay PC. Using this Live Player Pro software, however, the data recorded in the DRU can be read to replay it without copying the data into the Hard Disk of the Replay PC. This feature is very useful for testing equipment function when installing the VDR, to check if all the data input to the VDR is recorded properly in the DRU.

**Note:** Please contact a FURUNO dealer if you cannot read data from the DRU, because it is damaged. In this case disassembly of the DRU is necessary in order to retrieve data.

# 3.1.1 Wiring VR-5000/DRU Only



Connect the units as follows:

- 1. Turn off the DCU.
- 2. Connect the IEEE1394 cable between J6 in the DCU and PC.
- 3. Set the slide switch to "PLAYBACK" in the DCU.
- 4. Disconnect the cable from the HDD. Leave the cable connected at J8.
- 5. Turn on the DCU.

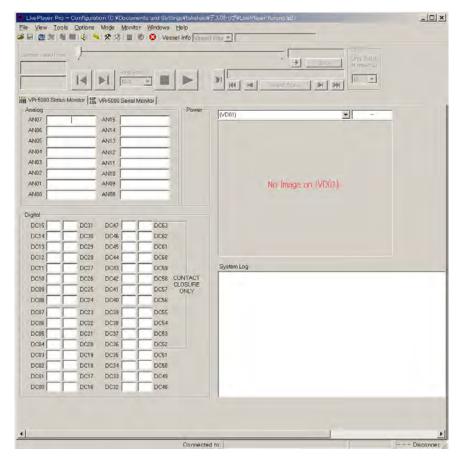
After replaying data, restore cable connection and switch setting as follows:

- 1. Turn off the DCU.
- 2. Disconnect the IEEE1394 cable between DCU and PC.
- 3. Set the slide switch to "CPU" in the DCU.
- 4. Connect cable disconnected at step 4 above to HDD.
- 5. Turn on the DCU.

# 3.1.2 How to replay data

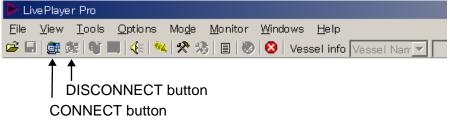
To replay data recorded in the Capsule, simply select source of data and push the start button.

1. Start the Live Player Pro software. The data window appears.



Example of data window

2. Click the **Connect** button in the tool bar.



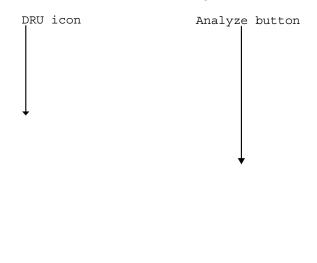
Connect button

The Connect dialog box appears as shown in the figure on next page.

3. If the **DRU** button is not selected, click it.



4. To see memory track information in the DRU, click the **Analyze** button. The track information appears in the connect dialog box.

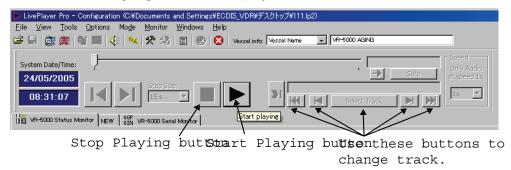




 Click the DRU icon and Connect button in the Connect dialog box. After completion of connection with the DRU, the Connect dialog box disappears.

If you want to load the player configuration data from the DRU, click **Tools** -> **Player configuration management** -> **Load Player-Configuration from Source**.

6. Click the Start Playing button to display the data recorded in the DRU.



For example, various data is displayed as shown in the data window. Click a tab to change the data display window to see various data.

- 7. To stop displaying data, click the **Stop Playing** button.
- 8. To disconnect the line, click the **Disconnect** button in the tool bar (see the figure which follows step 2). The confirmation message appears. Click the **OK** button to disconnect.

The figure below shows an example of the data window.

Example of data window

	yer Pro - Configuration (CXDocuments and SettingsYECDIS_VDRVデスクトップが111.62)	
	sw Iools Options Mode Monitor Windows Help ﷺ 💐 🛍 🔳 🔆 🚧 🎌 🧏 🗒 🥘 🧭 🔇 Vesselinto Vessel Name 🔽 VR=4000 AGM/G	
24/0	Soldef Time:	
	000 Status Manitor   NEW 3 0 Vin-6000 Serial Manitor	
Serial		
SIOO	▼ 08:42:36 ¢IIVBW,7.0,0.0,A,7.0,0.0,A,0.0,A*43	
SI01	▼ 08:42:36 ¢IIVBW,7.0,0.0,Å,7.0,0.0,Å,0.0,Å,0.0,Å*43	
SI02	▼ 08:42:36 ¢IIVEW,7.0,0.0,Å,7.0,0.0,Å,0.0,Å,0.0,Å*43	
SI03	▼ 08:42:36 €IIVBW,7.0,0.0,A,7.0,0.0,A,0.0,A,0.0,A*43	
SI04	▼ 08:42:36 €IIVBW,7.0,0.0,A,7.0,0.0,A,0.0,A,0.0,A*43	
SI05	▼ 08:42:36 €IIVBW,7.0,0.0,A,7.0,0.0,A,0.0,A,0.0,A <sup>+</sup> 43	
SI06	▼ 08:42:36 ¢IIVBW,7.0,0.0,A,7.0,0.0,A,0.0,A,0.0,A*43	
SI07	▼ 08:42:36 €IIVBW,7.0,0.0,A,7.0,0.0,A,0.0,A,0.0,A <sup>+</sup> 43	
SI08		
SI09		
SI10	T	
SI11		
SI12		
SI13		
SI14	T	
SI15		
	Connected to: Remote Address : IP10.00.100 Playing (LIVE) Connected [Master]	

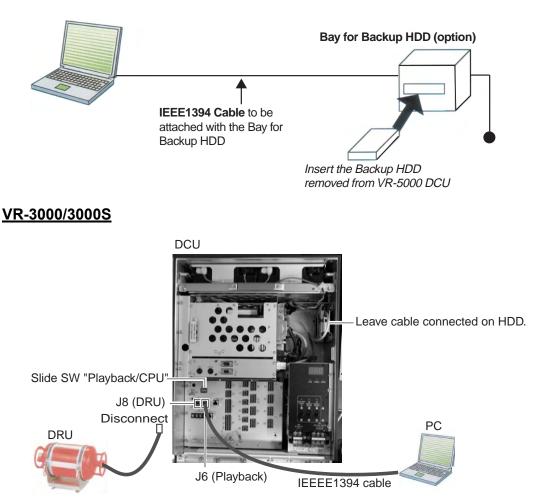
Example of serial data monitor

# 3.2 Reading the Data Recorded in Backup HDD

In this paragraph, we explain how to access and read the data recorded in the Backup HDD without retrieving the data from the hard disk.

Normally, it takes more than one hour to retrieve the recorded data from the Backup HDD to the Replay PC. Using this Live Player Pro software, however, the data recorded in the Backup HDD can be read for replay without copying the data into the hard disk of the Replay PC. This feature is very useful for testing equipment function when installing the VDR, to check if all the data input to the VDR is recorded properly in the Backup HDD.

# 3.2.1 Wiring VR-5000



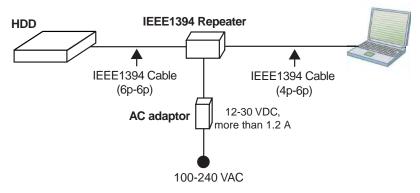
Connect the units as follows:

- 1. Turn off the DCU.
- 2. Connect the IEEE1394 cable between J6 in the DCU and PC.
- 3. Set the slide switch to "PLAYBACK" in the DCU.
- 4. Disconnect the cable at J8. Leave the cable connected on HDD.
- 5. Turn on the DCU.

After replaying data, restore cable connection and switch setting as follows:

- 1. Turn off the DCU.
- 2. Disconnect the IEEE1394 cable between DCU and PC.
- 3. Set the slide switch to "CPU" in the DCU.
- 4. Connect the cable disconnected at step 4 above to J8.
- 5. Turn on the DCU.

# **Connecting directly to HDD**



# 3.2.2 How to replay the data

To replay the data recorded in the Backup HDD, simply select source of data and push the start button.

- 1. Start the Live Player Pro software.
- 2. Click the **Connect** button in the tool bar.

The Connect dialog box appears.

3. Click the **Backup** button and choose a backup media.

	Online Backu	ips:			
Backup	test				
Extraction	Track inform	ation:		Analyze	Refresh
			1 - 1		
Live	Track	Start	End		
Live	Track	Start	<u>End</u>	1	
Live	Track	Start	End		
Live	Track	Start	End		
Live	Track	Start	End		

# Connect dialog box

4. To see memory track information in the Backup HDD, click the **Analyze** button.

The track information appears in the Connect dialog box.

5. Click the **Connect** button in the Connect dialog box.

After completion of connection with the Backup HDD, the Connect dialog box disappears.

- 6. Click the **Start Playing** button to display the data recorded in the Backup HDD. The data appears in the data window.
- 7. To stop displaying the data, click the **Stop Playing** button.
- 8. To disconnect the line, click the **Disconnect** button in the tool bar. The confirmation message appears. Click the **OK** button to disconnect.

# 3.3 Reading the Data Retrieved from DRU or Backup HDD

The data recorded in the DRU and the Backup HDD can be copied to the hard disk of the Replay PC and replayed by using the Live Player Pro software. The data copied can be replayed by another Replay PC. The wiring necessary to retrieve the data is the same as shown in paragraph 3.1.1 and 3.2.1.

To retrieve the data from the DRU (or the Backup HDD):

- 1. Click the **Connect** button in the tool bar. The Connect dialog box appears.
- 2. Click the DRU button or Backup button, depending on from where to retrieve data.
- 3. Click the **Connect** button in the Connect dialog box.
- 4. Click the **Extractor** button in the tool bar.



Extractor button

Frack	Start	End	Selected		Extraction Progress		
Track 1	00:40:29 18/10/2004	01:45:59 18/10/200			Exclaction Progress		
Track 2	02:11:25 18/10/2004	02:25:25 18/10/200					
Track 3	03:48:53 18/10/2004	03:49:53 18/10/200					
Track 4	03:51:31 18/10/2004	05:36:31 18/10/200					
						_	
•	•	Duration:		End extract	ion:	<b>_</b>	
_	_' ↑	Duration:	]	End extract	ion:		
art extraction	_' ↑	Duration:		End extract	Extraction Browser.		
art extraction	_' ↑	Duration:		End extract	Extraction Browser.		

5. Choose the tracks you want to retrieve, referring to the Start Extraction time, Duration, and End Extraction time. Also, the Start Extraction time, Duration, and End Extraction time can be changed. 6. Click the **Extraction Browser** button. The Extraction Browser dialog box appears.

📐 Extraction Browser			×
File Edit			
	Extraction Inform	nation	
C Extractions	Track	Start	End
	Hint It is a good idea extraction.	to create a folder for the vesse	I and a subfolder for each
Selected extraction:			OK Close
,			

- 7. Choose **Edit** and **New Extraction** from the menu bar on the Extraction Browser dialog box and enter a file name.
- 8. Click the **OK** button. The Extraction Browser dialog box disappears.
- 9. Click the **Extract** button in the Extractor dialog box. The bar graph which indicates retrieving status appears. When the extraction is completed, the message "Extraction Completed Successful" appears.
- 10. Click the **OK** button and then click the **Close** button.

To replay the data retrieved and copied into the HDD of the PC:

- 1. Click the **Connect** button in the tool bar. The Connect dialog box appears.
- 2. Click the **Extraction** button.

DRU	Selected ext	raction:			
Backup	Select player	r configuration:			5 to the Design
Extraction	l Track inform	ation:		<u> </u>	Extraction Browser
Live	Track	Start	End		1

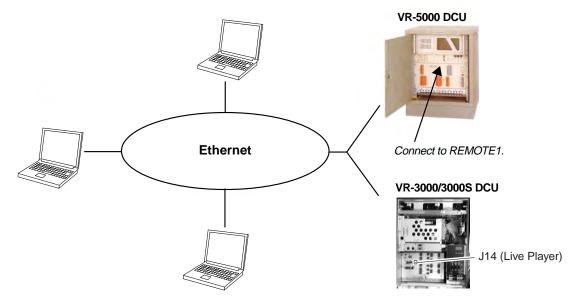
- 3. Click the **Extraction Browser** button on the Connect dialog box. The Extraction Browser appears.
- 4. Choose a file to replay and then click the **OK** button.
- 5. Click the **Connect** button on the Connect dialog box.
- 6. Click the **Start Playing** button. The data is displayed in the data window.

# 4. LIVE PLAY

In addition to its replay functions, this software has a "Live Play" capability when the Replay PC is connected to the VDR via an Ethernet cable. The Live Player allows monitoring all the data input to the VDR in real time at a remote location. This is useful for checking the current status of all devices connected to the VDR.

# 4.1 Wiring

Any PC in the network installing this software can access the VDR. Also, a number of PC can communicate with the VDR since the VDR (VR-5000 version 3.00 or higher, VR-3000/S version 1.00 or higher) can distribute the Live Play data in multi-cast. However, the multi-cast via router cannot be guaranteed.

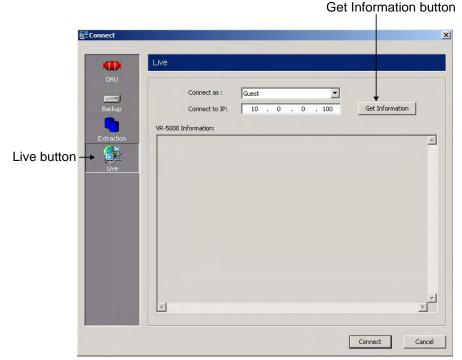


- **Note1:** After powering the DCU, the following occurs for max. four minutes. Do not connect the Live Player during this period. If the connection command is executed, FATAL ERROR may occur.
  - VR-5000: NORMAL LED and ERROR LED in the RAP (VR-5016) are lit simultaneously. Also, DCU OK LED in the DCU is lit in orange or off.
  - **VR-3000:** The LED display on the RAP and DCU shows 888.
- **Note2:** The DCU's Fail Safe function may execute Process Restart, which could disconnect the Live Player from the DCU. If this occurs, reconnect the Live Player.
- **Note3:** To use the multi-cast function, consult a FURUNO dealer for how to enable it in the VR-5000/VR-3000/VR-3000S.

# 4.2 How to Operate

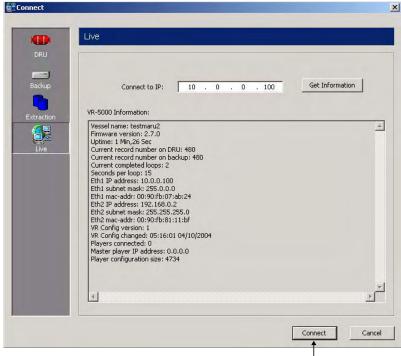
To execute Live Player, simply select source of data and push the start button.

- 1. Start the Live Player Pro software.
- 2. Click the **Connect** button on the tool bar.
- 3. Click the Live button in the Connect dialog box.



- 4. Choose Guest or Master in the "Connect as" field.
- 5. If necessary, click the **Get Information** button.

Shortly thereafter, the VR-5000 information appears in the Connect dialog box as follows.



Connect button

6. Click the **Connect** button.

If the password has been set in the VR-5000 configuration at installation, the password entry box appears.

7. Enter master password or guest password and click OK.

After completion of connection with the VR-5000, the Connect dialog box disappears.

8. Click the **Start Playing** button to display real time data.



Stop Playing button Start Playing button

The data appears in the data window.

- 9. To stop displaying the data, click the **Stop Playing** button.
- 10. To disconnect the line, click the **Disconnect** button in the tool bar. The confirmation message appears. Click the **OK** button to disconnect.

# 5. DATA DECODER

The decoder library is used to organize the decoders. A decoder is a small script which describes how information is decoded and retrieved from a specific NMEA sentence. This means any sentence can be decoded and displayed in a user-specified form with this software if the sentence fully meets the NMEA standard (proprietary sentence is also accepted).

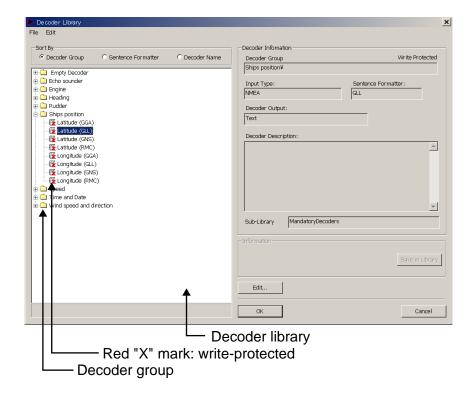
# 5.1 Opening Decoder Library

- 1. Click the **Tools** menu in the menu bar and choose **Decoder Library**. The Decoder Library dialog box is displayed. See paragraph 5.2.
- 2. Choose a sentence from the left box and the information of the chosen sentence appears at the right side. All the sentences specified in IEC 61996 are supported by this library.
- 3. Click the Edit button.

The confirmation message appears. Click the **OK** button in the message. The NMEA Decoder Editor is displayed. See paragraph 5.3.

If a sentence which is not supported by this library is input to the VR-5000, you can edit and create a decoder for the sentence. In addition, you can program the decoder so that a specified data field can be picked up and displayed on the Replay and Live Play window.

# 5.2 Decoder Library

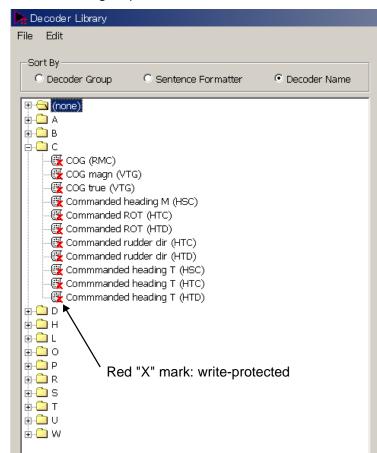


**Decoder Group:** A decoder belongs to a group, and all decoders in the same group are stored in the same folder. Groups have been defined corresponding to the data items to be recorded. User may establish new groups.

**Sentence formatter:** A decoder is only able to retrieve information from one specific NMEA sentence. A typical decoder is only able to retrieve information from one field in an NMEA sentence. Most NMEA sentences contain many fields, hence a number of decoders may be needed for retrieving all the information from one sentence.

隆 Decoder Library		
File Edit		
Sort By	~	
C Decoder Group	Sentence Formatter	O Decoder Name
🕀 🔄 (none)		
Depth (DPT)		
- 🐺 Offset (DPT)		
Range (DPT)		
DTM		
GGA		
⊞ 🛄 GLL ⊞ 🛄 GNS		
HSC		
🗄 🛄 HTC		
🗄 🛄 HTD		
🕀 🛄 MWD		
E C RSA		
🕀 🧰 Undefined		
🗄 🧰 VBW		
E 🔁 VHW		
±⊇ ZDA		
I T		
Sentence formatte	er	

**Decoder name:** A decoder must be assigned a name, and the name must be unique within the decoder group.



**Write-protected decoders:** A number of standard decoders (protected decoders) have been defined. These decoders are write-protected and cannot be changed or deleted by the user. These are indicated with a red "X" mark as shown above. However, the operator may use one of these decoders as a template for a new decoder.

**Sub-library:** The Player will at startup "compile" the library from a number of library files each containing a number of decoders. The standard decoders are stored in one file and another file is used to store the user-defined decoders. The user is not able to add or delete the sub-library files.

**Decoder output:** The output from a decoder may behave like analog data, digital data or a text string. This information may be indicated for a decoder. However, this information is only informative and will not be used by the Player. **Input type:** The input type of the standard decoders defined are all NMEA. A unique input type can be defined for a decoder.

#### Drop down menus

File->import: Imports decoders from an external file. The imported decoders will be added to the user defined sub-library file.

File->export: Exports decoders to an external file.

File->Save in library: Saves decoder in library.

File->Close: Closes the window. Corresponds to cancel.

Edit->New decoder: Adds a new decoder to the library.

Edit->New folder: Adds a new folder to the library.

Edit->Copy: Makes a copy of the selected decoder.
Edit->Edit: Opens the decoder edit window.
Edit->Rename: Renames the selected decoder or folder.
Edit->Delete: Deletes the selected decoder or folder.

### **Decoder library**

The decoder library is shown to the left. The "radio buttons" at the top define how the library is organized.

Pop-up menu will appear if the user right-clicks on a folder or a decoder. This menu will enable the user to add, rename, copy and delete folders and decoders.

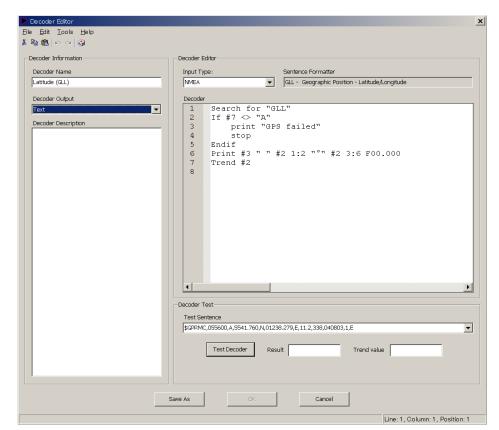
It is possible to create a new "root folder" by right-clicking on the empty space beneath the "library tree".

### **Decoder description**

The remaining decoder properties, for the selected decoder, are shown in decoder description located to the right of the decoder library window.

# 5.3 Decoder Editor

You can edit a decoder which has been defined, in the Decoder Editor screen. The Decoder Editor may be opened from either the decoder library (see next page) or from the object configurator (Edit button on the "Standard-Object propertied" dialog box on page 11). Select a decoder in the Decoder Library dialog box or Data Format tab in the Standard-Object Properties dialog box and click the **Edit** button.



# Drop-down menus

A number of drop-down menus are located at the top of the window. **File->Save as:** Closes the editor window and opens the decoder library window where a new name and folder (group) may be defined.

**Tools->Insert symbol:** Enables the user to insert a symbol normally not found on a keyboard.

# <u>Tool bar</u>

A tool bar is located below the drop-down menus. The tool bar contains short cuts (icons) to the most commonly used items from the drop-down menus.

# General buttons

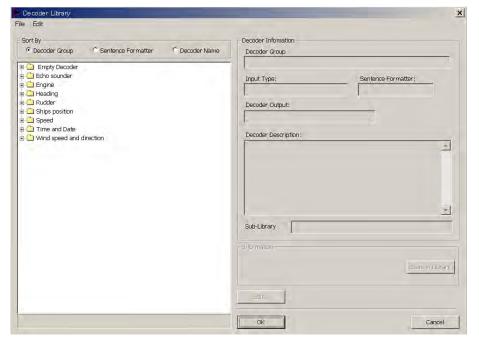
**"OK" button:** Changes made will be stored after the editor window is closed. The previous version of the decoder is overwritten.

"Cancel" button: Closes the editor window; any changes made will be ignored and lost.

**"Save As" button:** Closes editor window. Changes made may be saved if the "Save As" button in the decoder library is activated. This will give the operator an opportunity to save the changes using a new name/folder while maintaining the previous version of the decoder. The Save As button is only enabled if the editor is opened from the library (i.e., disabled when opened from the GUI configurator).

To make a new decoder, do as follows:

- 1. Click the **Tools** menu in the menu bar and choose **Decoder Library** to show the Decoder Library dialog box.
- 2. Choose the **Decoder Group** radio button in the Sort By field.



- 3. Right-click on the empty space beneath the library tree in the Decoder Library. The **New Folder** button is displayed.
- 4. Click the **New Folder** button and enter a name for the folder (For example: Contact Signal).

- 5. Right-click the new folder (named Contact Signal) and click **New Decoder** in the menu displayed.
- 6. Enter a name for the new decoder (for example: No.1 Door).

눩 Decoder Library			
File Edit			
Sort By • Decoder Group	© Sentence Formatter	© Decoder Name	
🕀 🧰 Empty Decoder			
⊕ 🛄 Depth ⊕ 🛄 Echo sounder			
Engine			
Rudder			
	1		
Contact Signal -			_ New folder
			New decoder name

7. Double-click the new icon. The Decoder Editor dialog box is displayed.

Decoder Editor Elle Edit Iools Help ※ 명의 문제 또 것 같아?	<u>×</u>
Belle or or      Construction     Decoder Information     Decoder Name     No.1 Door     Decoder Output     Undefined     Decoder Description	Decoder Editor
	Decoder Test Test Sentence \$GPRMC,055600,A,5541.760,N,01238.279,E,11.2,338,040803,1,E Test Decoder Result Trend value
	Save As OK Cancel

8. Choose and enter items as follows.

Decuder Information	Decoder Editor	
Decoder Name	Input Type:	Sentence Formatter
No.1 Door	NMEA	PWATD01 - Unknown Sentence Formatter
Decodor Output	Decoder	
Context signal for No.1 door Choose from the drop-down list.	<pre>1 Search for ' 2 if #3="CLOS' 3 print "CLOS' 4 stop 5 endif 6 if #3="OPEN" 7 print "OPEN" 8 stop</pre>	Environment
Describe some explanat or the decoder.	non	Enter test sentence in MMEA format.
	non	
	non	
or the decoder.		
or the decoder.	LION	
or the decoder.		NMEA format.

9. Click the **Test Decoder** button. The decoder may be tested against an NMEA sentence. The test results are displayed in the Result box and the Trend Value box and the message "Compilation Successful" is displayed. This is only meaningful if the NMEA sentence formatter in the test sentence matches the NMEA sentence formatter in the decoders search for statement.

	Decoder Editor	
Decoder Name	Input Type:	Sentence Formatter
N0.1 Door	NMEA .	PWATD01 - Unknown Sentence Formaliter
Decoder Output	Decoder	
Digital  Contact signal for No.1 door	is	

- 10. Click the **Save As** button. The Decoder Editor dialog box disappears.
- 11. Click the **Save As** button in the Decoder Library dialog box. The confirmation message appears.
- 12. Click the **OK** button twice.

# 6. OTHER SETTINGS

# 6.1 Alarm Panel

# 6.1.1 Opening the Alarm display dialog box

Click **Tools** and **Alarm Panel** on the menu bar or click on the <sup>44</sup> icon on the Player window tool bar to activate the alarm display window.

🙀 Alarm Display		
File Functions Options		
Acknowledge All Alarms	Delete All Alarms	Acknowledge Audio
	ALARM	
Description	Time	Ack Delete
Wind speed over 23knt	04:29:42 26/05/2004	+ <u>A</u> X
Number of Alarms: 1		Close

# Acknowledge All Alarms:

This function will acknowledge all alarms on the list. An alarm may be acknowledged individually by clicking on the  $\triangle$  icon for that alarm.

# **Delete All Alarms:**

This function will delete all alarm from the list. An alarm may be acknowledged individually by clicking on the  $\times$  icon for that alarm.

# Acknowledge Audio:

This function will mute the audio until a new alarm is generated.

# Drop-down menu

# **Options -> Disable Sound:**

This option will mute the audio related to the alarms panel completely. **Options -> Disable Popup:** 

This option will prevent the alarm window from popping up when a new alarm is generated.

# Easy localization of alarms source

Double clicking on the text for an alarm will bring the tab page from where the alarm is generated in front. The object that has generated the alarm will flash in red for a few seconds.

# 6.1.2 Default setting for alarm panel

The default settings for the alarm panel may be set from the Player's main window by selecting **Options** -> **Preferences**.

Preferences	×
Directory settings Date settings Alarm Display settings Port Settings	_
Select Alarm Sound File (.wav):	
C:\Programmer\LivePlayerPro\Alarm.wav	
🗖 Loop Sound	
Use Alarm sound	
Pop-up User Alarm Display on new alarms	
OK Cancel Apply	

# Configuration of objects for alarms

See page 13 for configuring objects for alarms.

An extra page has been added to the properties for these objects.

# 6.2 Data Log

The data log function is able to log data from selected objects in to a CSV file.

# 6.2.1 Creating directly columns of the data log

- 1. Click the Turn Configuration ON button in the tool bar.
- 2. Right-click on a tab for a tab page and then select **Tab Properties** to show the "Tab page organizer" dialog box.
- 3. Click on Add and select "Data Logger Tab" from the drop-down list.
- 4. Enter title and click the **OK** button twice.
- 5. Right click on the title bar for the columns next to "Timestamp".

🕨 Data Log			
	Output file:	Peters Log.csv	
Logging Active			Max file size : 2N
Timestamp		Add Coumn	-
		N ridd coolinir	

5. Click on Add Column and a list of relevant objects appears.

Select Object	×
(DC36) (StandardObject) (DC37) (StandardObject) (DC38) (StandardObject) (DC39) (StandardObject) ROT (ShortStandardObject) Heading (ShortStandardObject) (DC32) (StandardObject) (DC33) (StandardObject) Datum (ShortStandardObject) COG (ShortStandardObject) Lat. (ShortStandardObject)	
Long. (ShortStandardObject) Date (ShortStandardObject) Wind speed (ShortStandardObject) Speed (ShortStandardObject) Rel. direction (ShortStandardObject) (DC00) (StandardObject) (DC02) (StandardObject) (DC01) (StandardObject) (DC54) (StandardObject) (DC52) (StandardObject) (DC53) (StandardObject) (DC11) (StandardObject) (DC09) (StandardObject)	T
ОК	Cancel

6. Select an object and click the **OK** button.

Set Column Title	×
Latitude	
ОК	Cancel

7. Enter the title and click the **OK** button. A new column is created.

🕨 Data Log			
Logging Active	Output file:	Peters Log.csv	
			Ма
Timestamp		Latitude	

# 6.2.2 Creating indirectly columns of the data log

- 1. Create the data log tag as described in paragraph 6.2.1.
- 2. Open a data tag and right-click a data box to open the sub menu.

Navigation/propulsion	Main Alarms	Flood	Protection	Fire System	VR-5000
Position receiver					3
Lat.	Long.		Propert	ties	
COG	SOG		Copy C Paste (	-	
Date	Time		Pascel	Lonnig	_
· · · · · · · · · · · · · · · · · · ·	_		Panel-P	Properties	
Datum				נטכטון	_
Gyro compas				(DC02)	
Heading				(DC00)	

3. Click Properties.

Mode Normal	Type Color C Type-1 (Long Label, Short Field)	
C Hidden	Type-2 (Short Label, Long Field)	
Source		
C No Sou	rce Channel	
C Analog	(AN00) - (AN00)	
C Digital	(DC00) - (DC00)	
<ul> <li>Serial</li> </ul>	(SI10) - (SI10)	
Use labe	I from VR-5000 configuration	
Long.		

4. Check **Add to LOG.** A new column is created in the data logger page.

Data Log				
🗖 La serie e Astive	Output file:	Peters Log.csv		
Logging Active				Max file size : 2MB
Timestamp		Latitude	Long.	í Coumn Title
				Add Coumn Remove Column

5. Change the title if needed. Right-click on the title, select **Column Title** and enter a new title.

🕨 Data Log				
	Output file:	Peters Log.csv		
Logging Active			Max file s	ize
Timestamp		Latitude	Longitude	

### 6.2.3 Organizing columns

In configuration ON mode, right-clicking on the title for a column will open a menu with miscellaneous commands.

Generally, the width and order of the column can be changed in the same manner as for many other Windows programs, e.g., using "click drag and drop" on the column title may shift columns around.

### 6.2.4 Maximum number of columns

The maximum number of columns that can be handled depends on the PC. A PC that meets the general requirements for Live Player Pro will be able to handle 25 columns without any noticeable performance degradation.

### 6.2.5 Saving log data to a file

The program will store the data to a user-defined output file.

🕨 Data Log							
	Output file:	Peters Log.csv				Change	Sample interval
Logging Active			Max file	e size :	2MB	eset log-file	5s 💌
Timestamp		Latitude	Speed	COG	Longitude		

The library path for the log files is defined by the preferences for the Player. See paragraph 6.2.6.

#### Max file size

Maximum file size is user defined. Data logging will stop when the file is full. The file may then be reset (or renamed/moved using Windows Explorer).

#### Sample interval

The sample interval is user defined. Fast sampling (small intervals) requires lots of disc space.

#### 6.2.6 Preferences

#### **Directory path for log files**

The library path for the log files is defined by the preferences for the Player (Player main window, **Options** -> **Preferences** -> **Directory settings**).

#### Disable data logging at connect

Data logging without explicit acknowledge from the operator can be inhibited (Player main window, **Options -> Preferences -> Data Logger**).

On: The operator must start data logging manually.

**Off:** Data logging will start automatically if configuration with "data logger enable" is loaded.

Prompt: (Default) The operator will be prompted before data logging will start.

#### 6.3 **Audio Setting**

The audio can be set from the menu bar.

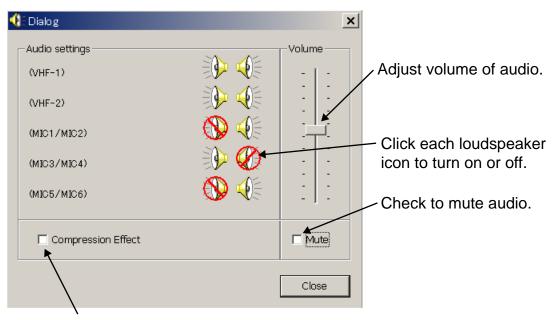
Click the **Tools** menu in the menu bar and then click **Audio**, or click the Audio icon. •



Audio icon

If a password has been defined at installation, enter the password.

The following audio setting dialog box is displayed. Set each item as shown in the figure below.



Check to compress audio data.

# 6.4 Displaying Log

The log for the player program may be displayed. This may be used for troubleshooting.

Click the **Tools** menu in the menu bar and then click **Log**. The following log window is displayed.

E Log Window	
2 06:36:52:459 CToolsPlayerConfig:UnpackPlayerConfig:995 ; ZjpType=0 ; ZLIB1 unsucessfull	
0 06:36:52:509 CRealtimeEngine::InitInstance:292 : ConnectVR5000 AfxSocketInit Succeeded 2 06:59:11:224 CPlayerControl::DoForcedDisconnect:1835 : Desconnected	
	ŀ

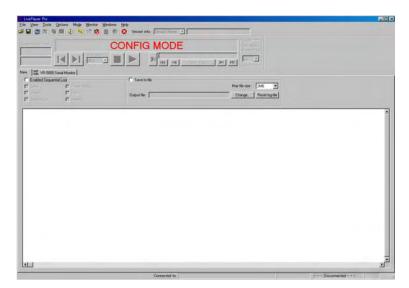
# 6.5 Sequential Log

Input data can be displayed sequentially on the screen. Further, its data can be saved as log file. To do so, you must first create a new configuration page for the sequential log.

1. Referring to section 2.1, do steps 1 to 10 and choose "Sequential Log Tab" at step 11.

ab Page Properties		×
	Tab is	s static
Tab Icon:	Title :	, sedere
Time Status Page	SeqLog	
Empty Tab	settings on the Pag-Page will be Delete) —	
Empty Tab Data-Logger Tab Graphical Display (1 Panel) Graphical Display (2 Panels) Graphical Display (2 Panels) Graphical Display (4 Panels) Graphical Display (Example) Graphical Display (Full-Page Gi Sequential Log Tab	īraph)	
Standard Tab VR-5000 Serial Status Tab VR-5000 Status Tab		
ок	Ca	ncel

2. Do steps 12 to15 to create a sequential log configuration.

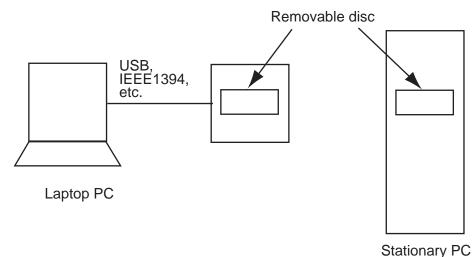


- 3. Set details for the sequential log configuration as follows.
  - 1) Check "Enabled Sequential Log."
  - Check data item to be displayed/saved as sequential log. For "Serial", choose a channel of data (you can choose plural channels). "Image" is under development.
  - 3) To save log data to a file, check "Save to file", click **Change** button and then specify both where to save file and file name.
  - To set a file size, choose suitable one from the dropdown list of "Max File size."
  - Note: The details for the sequential log configuration can be changed at **Configuration Off Mode.**
- 4. Click **Turn Configuration Mode Off** button on the tool bar, click **Yes** button and then specify both where to save configuration file and file name.
- 5. To display sequential log data, click **Connect** button on the tool bar, **Live** button at Connect dialog box and then **Start playing** button. The input data is displayed sequentially as shown in the figure below. To reset the log file, click **Reset log-file** button.

Jame Tools Opians Mage Marcine Windows Heat		E
The Iton Grant hap grant grant int		
a - W a a 4		
iter Dats/Free		
8/09/2008		
	1	
90 State Lange Ave.   20. Victor Lange Loop		
Timble Grounnillog		
	1- 114	
Image Dyce District The District of Setting District of District o	Rewit Kig MA	
Filipaten Log IT Analog		
0:00:27.0 26/09/2006-1700 - 47906A,400422,00,9000.0.8,00000.0.8,0.00,0.0.9,0.8,0.0.0.0.8,0.0.8,0.0.0.0.0.0.0.0.0.0		
0:00:24.1 26/09/2008: 3107 - 1090L1,0000.0,8,00000.0,8,100823.14,A,A*A5		
0:08:24.1 26/09/2008c HINO - 409204,100822.25,26,09,2006,00,00*61		
0:08:24.8 26/09/2008: 3100 - 409034,100823.00,0300.0,8,00000.0,8,0,00.0,0,0,0,0,0,0,0,0,		
0:00:25.0 36/09/IN06: 3100 - 46FGLL,0000.0,8,00000.0,8,100023.14,4,4464		
0:00:25.2 36/09/2006: 3100 - 469204,100823.25,26,05,2006,00,00*60		
0:00125.0 E0/09/2006: Fower Statut: AC(0R) - DC(NOT_PRETRNT) - Datesry(FALMED)		
0:00:25.9 26/09/2006: 1100 - 459054,100824.00,0000.0,%,00000.0,%,0,00,0.0,0,0,0,0,		
0:00:26.1 26/09/2008: 3100 - 40F0L5,0000.0,W,00000.0,E,100824.14,A;A*63		
0:08:26.3 26/09/2005: 1100 - (59204,100824.25,26,09,2006,00,00*67		
0108126.9 26/09/2006: 3100 - 459054,100825.00,0000.0.%,00000.0.%,0.0.0.0.0.0.0.%,0.0.%,0.0.%,0.0.000970		
0:00:27.1 36/09/2006- 3750 - 469GLA,0000.0,8,00000.0,8,100025.14,A,A*60		
0108127.1 26/09/2006: 3100 - 1622D4.100825.25,26.09.2006.00.00765		
0:08:27.9 28/09/2006: 1100 - 169604,100826.00,0000,0,8,00000.0,E,0,000.0,0,0,0.0,8,0.0,8,0.0,000/7E		
0:08:28.1 26/09/2006: 1100 - 44F0L1,0000.0,N,00000.0,X,100826,14,A,A*61		
0:00:20.2 06/09/2006: 4000 - 469004.100826.25,26.05,200.00,00465		
0:00:20.9 16/09/2006: 1200 - 167954,100827.00,0000.0,#,00000.0,#,0,00,0,0,0,0,0,0,		
0:00128.1 26/09/1006= 3100 - 469011.0000.0.M.00000.0.K.100827.14.A.A*00		
0:00129.2 26/09/2000: 3100 - 4092D#,100827.25,26,09,2006,00,00*62		
0:06:30.0 26/09/2006: 3100 - #3F05A,106525.06,0000.0,%,00000.0,%,0,09,0.0,0,0,0,0,0,0,0,0,0,0,0,0,0000*70 0:06:30.1 26/09/2006: 3100 - 46F05A,0000.0,%,00000.0,%,100000.14,A,A*6F		
0:00:40.0 26/09/2006: HIGO - 46922A.100428.25.28.09.2006.00.00*42 0:00:40.0 26/09/2006: Yowar Status: AC(02) - DC/NOT PRESENT) - Datasty(FALLED)		
0:00:01.0 26/09/2006: 5100 - 167004,100829.00,0000.0,#,00000.0,E,0,00.0,0.0,0.0,E,0.		
0:00:01.1 16/09/2006: 3100 - 469014,100025,00,00000,0,8,10000,0,2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0		
0:09:31.1 36/09/2006: 3100 - 409204.100829.25.26.09.2006.00.00*64		
0:00:01.9 16/09/2006: 3100 - 169054,100830.00,0000.0,#,00000.0,E,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0		
0:00:12.1 16/09/2006: 3100 - 46FGL2.0000.0,1.00000.0,E.100030.14.A.4466		
0:00152.1 0:/09/2006: 3100 - 10:002,0000.0,0,00000.0,0,00000.0,0,4,4,4,4,0		
0:00102:2 10/03/2000: 3100 - 100204,100030,02,00,000,0,5,00000,0,5,0,00,0,0,0,0,0		
0:08:32.3 19/09/2008: 5100 - 40FGL,0000.0,8,0000.0,2,0000.0,2,0,00,0,0,0,0,0,0,0,0,		
0:08:33.1 19/09/2008: 3100 - 469234,100831.25,26,09,2006,00,00*63		
violetas, e anverravene acou - gerrang comat, espanyong menjangon se		
		21
Committed in Financial Publication	Figure UVD Company	

# 7. LIVE PLAYER BACKUP

The Live Player Backup program is an independent program. The program is able to use an internal disc in a PC, however it is strongly recommended that a disc bay with a removable disc is used for this purpose. The disc will be formatted in a special way and will not be available for the Windows operating system. The capacity of an available hard disk is 6 GB to 250 GB.



It is started from the desktop by double-clicking on its associated icon 📓 or from the Windows start menu (Live Player Backup).

**Note:** Do not start the backup program and live-player program simultaneously. If these programs are started simultaneously, the processor will be overloaded, and then the backup or live-play may function abnormally.

Live Player Backup Tools Actions Help	
Connection Properties	0.100
Disk Infomation > Selected Disk NOT Present < Disk Name: test6gb3 Jser ID: FEC Jnig,Key : 0x0699F47F Disk Progress	System Information End-of-disk: Wrap/Continue Connected at: (Unknown) Last VR5000 info: Vessel Name: N/A
Program Log: 31-05-2005 07:40:30:660 UTC Li	vePlayer Backup program started
	Program log is

Program log is displayed each 15 seconds during backup.

# 7.1 Disc Organizer

A disc must be selected before the backup can start. The Disc Organizer is opened by selecting **Tools** -> **Disc Organizer**.

Live Player Backup Disk Organizer		×
Attached Disks	Disk Properties Remote Backup Disk Tecording Time: 83.1 Days Progress: (0 / 478608) User: No User Remote IP: 0.0.0 Local IP: 0.0.0 Disk Name: LpRB Disk	Select Disk and Close Select For Backup Disk Operations Initialize Disk User Settings Set Properties
Refresh		Close

### 7.1.1 Creating and formatting disc partitions

The disc must be in initialized (i.e., partitioned and formatted correctly) before the backup program can use it. All data on the disc will be lost during this process.

The left window in the disc organizer shows all discs that program is able to access.

Discs are divided into 3 groups:

#### Possible system disc:

This indicates a disc that is formatted differently from the format used by the backup program. System discs must normally not be formatted (note 1). However, a disc that has been used for another purpose (and is going to be used as a backup disc) will often be marked as "Possible system disc". Great care must be taken before the disc is formatted.

- 1. Write down the characteristics (e.g., disc size and number of partitions) of all discs in the system before the new disc is added.
- 2. Add the new disc and click on refresh (note 2).
- 3. Make a positive identification of the new disc.
- 4. Initialize the new disc.

**Note 1** The program is prohibited from formatting the first disc in the system, which is properly the Windows OS system disc.

Note 2 The PC will need a shutdown and restart if a permanent disc is added.

#### Disc ready for partitioning:

This indicates a disc that is completely new. A new disc can be securely initialized.

#### Live Player backup disc:

This indicates a disc that is ready to be used unless is it full.

### 7.1.2 Disc properties

The properties for a disc must be set after it has been formatted. Click the **Set Properties** button.

Live Player Backup Disk Organizer		×
Attached Disks Attached Disks	me / ID :	Select Disk and Close Select For Backup Disk Operations Initialize Disk
Refresh	Cancel	User Settings Set Properties Close

**User name / ID:** May be used to indicate the initials of the person who formatted the disc.

Disc name: Typically used to indicate the name of the vessel.

# 7.2 Duration of Backup

A typical VDR system will generate 3G bytes of data each day, i.e., a 120G byte disc will be able to store data for about 40 days.

### 7.3 Starting the Backup Process

- A disc must be selected for back up before the backup process can start. Open the Disc organizer, click on an appropriate disc marked with an asterisk and then click the Select For Backup button. After processing, click the close button.
- The IP address of the VR-5000 must be set correctly. Click Tools ->
   Connection Setup -> Connection/Network to open the Live Player Backup
   Properties dialog box for this purpose.

📔 Live Pl	ayer Ba	ckup P	rope	ertie	25				×
General	Connec	tion / N	etwo	rk					
IP Add	ress :	10 .	0		0	. 100		Query	
									-
						OK	]	Cance	

- 3. Enter the IP address for the VDR, click the **Query** button to test the connection and click the **OK** button.
- 4. Click **Actions** -> **Start Backup** from the main menu to start the backup process.
- 5. Enter password if the operator will be prompted for master password when attempting to start the backup process if the VR-5000 is password protected (master password).
- 6. The backup begins. You can see the program log in the lowest line in the Live Player Backup dialog box.

To stop backup operation, click the **Actions -> Stop Backup**.

#### Stop/Wrap Around at end of disc

When the end of the disc is reached, "stop" or "wrap around" can be set.

Click **Tools** -> **Connection Setup** -> **Connection/Network** to open the Live Player Backup Properties dialog box.

Live Player Backup Properties	x
General Connection / Network	
OK Cancel	

Check Stop Recording to stop when the disc is full.

Check **Wrap around and continue** to continue even if the disc is full - the oldest data will be overwritten.

# 7.4 Settings After Restart of Program

The Live Player Backup program will store its settings upon exit. The program is therefore ready to resume the backup process (Note1) under the condition that disc that was used for backup last time the program was running is still available.

- **Note1:** The operator just needs to start the backup process (**Actions->Start Backup**).
- **Note2:** This backup program will continue to store data automatically after recovery of lines or restart of the VDR.

# 7.5 Replaying the Backup Data

- 1. Start the Live Player Pro software.
- 2. Click the **Connect** button in the tool bar. The Connect dialog box appears.
- 3. Click the **Backup** button in the left side. The backup media icon with \* mark appears.

DRU	Backup				
=1	Online Backu	ips:			
Backup	UNDEFINE (*)	D			
Extraction	Track inform	ation:	(*) Large Backup	Analyze	Refresh
Live	Track	Start	End		

#### Connect dialog box

- 4. To see memory track information in the backup hard disk, click the **Analyze** button. The track information appears in the Connect dialog box.
- 5. Click the **Connect** button in the dialog box. The Connect dialog box disappears.
- 6. Select a track as appropriate to replay by track selection buttons.
- 7. Click the **Start Playing** button to replay the backup data. The replaying will start.
- 8. To stop replaying, click the **Stop Playing** button.
- 9. To disconnect the line, click the **Disconnect** button in the tool bar. The confirmation message appears. Click the **OK** button to disconnect.

# 7.6 Extracting the Backup Data and Replaying

The data recorded in the backup hard disk can be copied to the hard disk of the Replay PC and replayed by using the Live Player Pro software.

To extract the data from the backup hard disk:

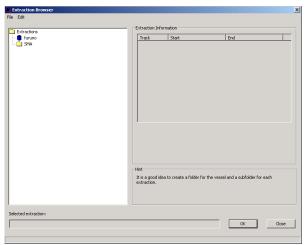
- 1. Click the **Connect** button in the tool bar. The Connect dialog box appears.
- 2. Click the **Backup** button.
- 3. Click the **Connect** button in the Connect dialog box.
- 4. Click the Extractor button in the tool bar.

Extracto	or button		
LivePlayer Pro - onfiguration (UNK) File View Tools O tions Mode Monito			
	or windows Help 🛠 🎭 🗐 🛞 😵 Vessel info: Vessel Name	▼ UNDEFINED	
		Spe	ad
System Date/Time:		05:41:37 10/06/2005	y Audio
10/06/2005 05:41:37 10/06/2005		2:37 10/06/2005 → Goto at sp 5:41:37 10/06/2005)-(05:42:37 10/06/	peed 1×
		Select Track	
Fi Fatra	actor		×
WR-5000 Status Monitor	ct Tracks		
Analog Extrac		Selected	traction Progress
	rack 1 05:41:37 10/06/2005 05:42:37 10/06		traction Progress
	rack 2 07:20:22 10/06/2005 07:26:37 10/06		
	rack 3 07:28:52 10/06/2005 07:30:37 10/06		
	rack 4 07:30:52 10/06/2005 07:32:07 10/06 rack 5 07:32:22 10/06/2005 07:33:07 10/06		
	rack 6 08:44:37 10/06/2005 08:48:37 10/06		
	rack 7 08:49:07 10/06/2005 08:51:22 10/06		
	rack 8 08:52:07 10/06/2005 08:54:37 10/06 rack 9 08:58:37 10/06/2005 08:59:37 10/06		
	rack 9 08:58:37 10/06/2005 08:59:37 10/06/ rack 10 07:53:22 13/06/2005 07:56:37 13/06		
Digital			
DC15 DC31 I			
DC14 DC30 I			
DC13 DC29 I			
DC12 DC28 I			
DC11 DC27 I			-
DC10 DC26 I			
DC09 DC25 I Start e	extraction: Duration:	▲ End extraction	
DC08 DC24 I		<b>↑</b>	
DC07 DC23 I Extrac	ction Target		
DC06 DC22 1			
DC05 DC21 I			Extraction Browser
DC04 DC20 I			
DC03 DC19 I			
DC02 DC18 I			xtract Cose
DC01 DC17 I			
_	ח י	uration	
Start Extra	action time		I End Extraction time
		Extraction B	rowser button

5. Choose the tracks you want to retrieve, referring to the Start Extraction time, Duration, and End Extraction time. Also, the Start Extraction time, Duration and End Extraction time can be changed.

#### 7. LIVE PLAYER BACKUP

6. Click the **Extraction Browser** button. The Extraction Browser dialog box appears.



- 7. Choose **Edit** and **New Extraction** from the menu bar on the Extraction Browser dialog box and enter a file name.
- 8. Click the **OK** button. The Extraction Browser dialog box disappears.
- 9. Click the **Extract** button in the Extractor dialog box. The bar graph which indicates retrieving status appears. When the extraction is completed, the message "Extraction Completed Successful" appears.
- 10. Click the **OK** button and then click the **Close** button.

To replay the data retrieved and copied into the HDD of the PC:

- 1. Click the **Connect** button in the tool bar. The Connect dialog box appears.
- 2. Click the **Extraction** button.

ORU DRU	Extraction				
_	Selected ext	raction:			
lackup					
traction	Select player	r configuration:		<u> </u>	Extraction Browser
	Track inform	ation:			
Live	Track	Start	End		
Live	Track	Start	End		

- 3. Click the **Extraction Browser** button on the Connect dialog box. The Extraction Browser appears.
- 4. Choose a file to replay and then click the **OK** button.
- 5. Click the **Connect** button on the Connect dialog box.
- 6. Click the **Start Playing** button. The data is displayed in the data window.

# 8. **SERIAL OUTPUT FOR OTHER APPLICATIONS**

The Player is able to relay serial data for other applications.

#### 8.1 **Output Port Settings**

An output port on the PC for the serial data is needed and must be configured. These parameters are included in the Players preferences (Options -> Pret

ference	->	Port	Setting	s)

Jirectory settings   Regional settings	Alarm Display settings Advanced Port Settings
Communication Port COM1:	Name:
	Communication Port COM1:
	Туре:
	Output
	Description:
	Serial Communication Port
	Settings :
	COM1 - Baud:9600 Databit:8 Parity:None Stopbit:1 Flowcontrol:No
New Delete	Setup

To set output port:

- 1. Click New and enter name at Name field.
- 2. Click Setup to show the Setup COM dialog box.

Setup COM			×
Port	COM 1	-	
Baud-Rate	9600	<u>–</u>	
Data Bit	8 🔻	_	
Parity	None	-	
Stop Bit	1 🔻	_	
Flow Control	No		•
	Ĺ		. 1
ОК			Cancel

3. Enter each box as appropriate and click OK.

# 8.2 Configuration of Serial Output

The Player must be in the configuration mode to configure the serial output. A click on **Tools** -> **Setup Serial Output** will open the tool for configuring the sources for the serial output.

Selected	Name	Туре	Speed	Enabled	
ØĮ	PS Rudder Indicator	Nmea	4800	Enabled	
٥Ĵ	SB Rudder indicator	Nmea	4800	Enabled	
٥Ĵ	PS Propel Response	Nmea	4800	Enabled	
٥Ĵ	SB Propel Response	Nmea	4800	Enabled	
▣₰	Thrust 1 Order	Nmea	4800	Enabled	
	Thrust 2 Order	Nmea	4800	Enabled	
미┚	Thrust 1 Response	Nmea	4800	Enabled	_
▣₰	Thrust 2 Response	Nmea	4800	Enabled	
미골		Nmea	4800		
미골	DGPS Receiver	Nmea	4800	Enabled	
oy	Aneometer	Nmea	4800	Enabled	
Jumber of S	ielected Channels : 03	Maximum Input Biti	rate : 1440	00 bit/s	
ort:					Test
<b>1</b> -	ication P 🔻 🛛 Serial Communicat	ion Port			

Enter check mark to items to be output at the "Selected" column in the Input filed. Choose output port at "Port" drop down list in the Output field. The operator may select a number of data sources and one output port.

#### Merging of data

The program is designed to handle NMEA sentences, i.e., two sentences will not be interleaved but sent one at a time. The program may fail to relay ASCII or binary data depending on the properties of the data.

# 8.3 Data Output

### Enable/Disable output

The Enabled/Disable Serial Output icon on the Players tool bar is used to output data. This can be done while the Player is playing/replaying data.

#### **Overflow on serial port**

The serial output port may overflow if the combined inputs exceed the capacity of the output port. The operator will be warned if this happens. The operator may suppress the message. This will be in force until output is disabled and then enabled.

#### Serial output and step

The Player is able to generate serial output while stepping. However the output port may be congested and steps may take very long time to process.

# 9.1 Display Layout



**Note:** The presentation mode is always North-up (true bearing). See below for description of display items. Default AIS channel is "SI01" (VR-3010, CH2, TB15). To change the default, click "Turn Configuration Mode ON" button on the tool bar, click "Tool" on the menu bar and select "Setup AIS Data Input" to show "AIS Data Setting" daialog box. The default setting can be changed in this dialog box.

#### 1: AIS Graphic window

Displays AIS transponder equipped vessels.

- Concentric circles are range rings. You can change range by clicking Zoom IN or Zoom Out button. You can display this window in full screen by double clicking the AIS window.
- Radial line extending from screen center is own ship's heading.
- AIS target is marked with a triangle. Symbol appearance changes with target status. The display can show max. 500 targets (nearest targets from own ship) simultaneously.

#### **(2): Own Ship Information**

Latitude, Longitude, SOG (speed over ground), COG (course over ground) of own vessel is shown. You can display detailed information by clicking the Details button.

#### 3: Target Data box

A target is selected by left-click on the graphic area. Click it again to deselect. The data of three targets may be shown simultaneously. To clear data, click the close button. Other ships' data includes Name, Call sign, SOG, COG, TCPA and CPA. To display detailed data, click the Details button.

#### 4: Target List

Lists all targets, in range order from own ship.

Label: The label A, B or C are attached to targets selected for Target Data Box.
MMSI: MMSI number of target
Name: Ship's name of target
Call sign: Call sign of target
Range: Distance from own ship to target
Bearing: Bearing from own ship to target
X Target: X means total number of receiving targets. Status of target (dangerous or lost) is also indicated.

To display detailed data about a target, select it from the list and click the details button.

#### **<u>(5): Cursor Data</u>**

Bearing and range from own ship to cursor position.

#### 6: Settings

Press Setting button to display the following dialog box and set necessary items.

CPA threshold:	1.5	NM	(0 - 10.0)
TCPA threshold:	20	min	(0 - 60.0)
ROT threshold :	20	°/min	(0 - 720.0)
Scale of Distance		N C C	)FF

CPA threshold: Set further distance for which to classify a target as a dangerous target.

TCPA threshold: Set max. time for closest point of approach for which to classify a target as a dangerous target.

ROT threshold: Display condition of ROT direction. Set highest ROT value for which to display ROT line on target.

Scale of Distance: Turn range ring distance indication on or off.

# 9.2 Target Symbol

AIS target	symbol	Description of symbol
		An isosceles, acute-angled triangle with its centroid representing the target's reference position. The most acute apex of the triangle is aligned with the heading of the target, or with its COG, if heading information is not available.
Normal AIS target	A.	The COG/SOG vector is displayed as a dashed line starting at the centroid of the triangle.
	1/	The heading is displayed as a solid line of fixed length staring at the apex of the triangle.
	1	A flag on the heading indicates a turn and its direction in order to detect a target maneuver without delay.
		When ROT is larger than the set values, the symbol below is displayed.
Selected target		A square indicated by its corners is drawn around the target symbol. Either of A, B or C label is displayed in the selected target.
		When CPA and TCPA are smaller than a set value, this symbol is displayed on red color.
Dangerous target		A red line clearly distinguishable from the standard lines is used to draw the symbol. The target is displayed with vector, heading and rate of turn indication. If a value of TCPA becomes negative, the dangerous target becomes normal target.
Lost target	$\checkmark$	The target changes into a lost target when the signal cannot be received for three minutes. Further, the lost target disappears when the signal is not received for an additional three minutes.

# 9.3 Display Range

Display range may be chosen by clicking the Zoom In or Zoom Out button. The table below shows the available ranges.

Range (nm)	0.125	0.25	0.5	0.75	1	1.5	2
Range ring interval (nm)	0.025	0.05	0.1	0.125	0.2	0.25	0.4
Number of Range rings	5	5	5	6	5	6	5

3	4	6	8	12	16	24	48	96
0.5	1	1	2	2	4	4	8	16
6	4	6	4	6	4	6	6	6
		(Dofoult	· 6nm)					

(Default: 6nm)

# 9.4 **Ownship Details Window (detailed information)**

Press Details button in the own ship information area to show details data. Figure below shows the Own ship Details window. "---" is shown where there is no data.

Description	Data
MMSI	123456789
IMO no.	987654321
Name	NAME000000999999999
Callsign	C599999
LAT	35°00'45.71" N
LON	140°00'26.66" E
SOG	5.00kt
COG	30.0°
HDG	0.0°
ROT	4.5°/min R
Status	0: Under way using engine
Туре	35: Vessel: Engaged in military operations
Destination	DESTINATION999999999
ETA	25/JUN 09:30
Length	130m
Beam	30m
Device	1: GPS
Draught	1.0m
Accuracy	Low

Ownship Details window

# 9.5 AIS Target Details Window

Press Details button in the target data box to show details data of a target. Figure below shows the Target ship data window. "---" is shown where there is no data.

Description	Data	3
MMSI	1	
IMO no.	100	
Name	NAME000000000000000000000000000000000000	
Callsign	C500001	
LAT	35°00'00.00" N	
LON	139°57'03.93" E	
SOG	10.00kt	
COG	270.0°	
HDG	180.0°	
ROT	-40.2°/min R	
Status	0: Under way using engine	
Туре	30: Vessel: Fishing	
Destination	DESTINATION00000001	
ETA	1/JUL 02:03	
Length	40m	
Beam	10m	
Device	2: GLONEASS	
Draught	0.3m	
Accuracy	Low	
Bearing to ship	252.8°	
Distance to ship	2.96nm	
TCPA	-13m23s	
CPA	0.10nm	

Target ship data window

# 9.6 Log Windows

#### Receive message log

Press "Rx log" button in the target list area to show the receive message log (VDM sentence).

RX log window

MMSI: MMSI number of a message sending station.

Time/Date: Time and date which the VDR records the meaasge.

- ID: Message ID (ID6 or ID12: addressed message, ID8 or ID14 broadcast message)
- Message: 20 charactors in the beginning of a receive message are dispalyed.

To show the full message in the lower box, select one in the list. Press Close button to erase the Rx log window.

#### Transmit message log

Press "Tx log" button in the target list area to show the transmit message log (VDO sentence).

ID 6 8 12 12 12	Message TEXT_MESSAGE0000000000000000000000000000000000	
8 12 12	TEXT_MESSAGE0000000000000000000000000000000000	
12		
12		
14	SAFETY RELATED TEXT000000000000	
	SAFETY_RELATED_TEXT0000000000000	
0000000	0000000000	
1	0000000	000000000000000000000000000000000000000

TX log window

MMSI: MMSI number of a message receiving station. "Broadcast" means broadcast message.

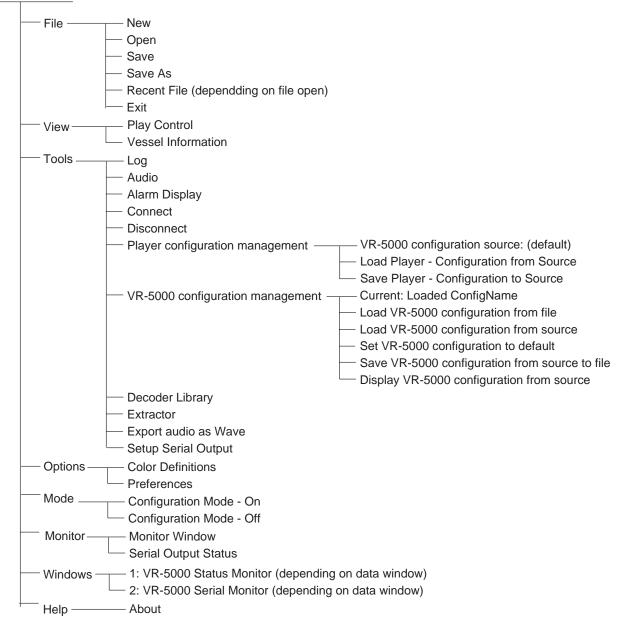
Time/Date: Time and date which the VDR records the meaasge.

- ID: Message ID (ID6 or ID12: addressed message, ID8 or ID14: broadcast message)
- Message: 20 charactors in the beginning of a transmit message are dispalyed.

To show the full message in the lower box, select one in the list. Press Close button to erase the Tx log window.

# APPENDIX

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