

# How to record Scanmar data on board RV "Heincke"

How data from the net monitoring system Scanmar can be acquired and recorded

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#### 1 Introduction

The Scanmar net monitoring system on board RV "Heincke" is used to monitor opening widths, positions and depths of a fishing net. For later analysis and research it is important to continuously record these data during a trawl. From now on this is possible on board RV "Heincke" via the ship-wide intranet. What the data look like and how to achieve and convert them is described in the following chapters.

#### 2 Scanmar settings

The Scanmar data is made available via a terminal server. To access the data use any TCP/IP client program e. g. PuTTY or Hyperterminal.

Terminal server IP address:	192.168.150.2	21
Terminal server TCP Port for Scanmar data:	4010	
Scanmar NMEA output configuration:	Extrapolation	OFF
	Filtering	ON



## 3 Record data using PuTTY

PuTTY (if not digitally attached to this document) is available for download at: <a href="http://www.chiark.greenend.org.uk/~sgtatham/putty/">http://www.chiark.greenend.org.uk/~sgtatham/putty/</a> For use in Windows 2000/XP/Vista/7/8.

- 1. Open PuTTY
- 2. As host address enter the IP address 192.168.150.21 and as port 4010
- 3. Choose Connection type [x] Raw
- 4. To record data select the category *Logging* on the left.
- 5. Set Session logging to [x] Printable output
- 6. Set a Log file name
- 7. Click *Open* to open the connection and store Scanmar NMEA data. Please make sure in the Windows Explorer that the file has been created and grows continuously.

ategory:		Category:			
Session Logging Terminal Keyboard Bell Features Window Appearance Behaviour Translation Selection	Basic options for your PuTTY sess	ion Session	Options controlling session logging		
	Specify the destination you want to connect to Host Name (or IP address) 192.168.150.21 Connection type: Baw Telnet Blogin SSH Serial Window		Session logging: 5 None Frintable output All session output SSH packets SSH packets and raw data		
	Load, save or delete a stored session Saved Sessions	Appearance Behaviour Translation Selection	Cog file name can contain &Y, &M, &D for date, &T fo time, and &H for host name)		
Colours Connection Data Proxy Telnet	Default Settings	Load Colours Connection Save Proxy Delete Teinet	Always overwrite it     Always append to the end of it     Ask the user every time     Isush log file frequently		
⊷ Rlogin ⊕- SSH Serial	Close window on exit: Always Never Only on clea		Options specific to SSH packet logging  Omit known password fields  Omit session data		



#### 4 Record data using Hyperterminal

Hyperterminal is pre-installed on Windows 2000/XP. For Windows Vista/7/8 download the Hyperterminal Private Edition in the internet.

- 1. Open Hyperterminal
- 2. Select menu File / New Connection
- 3. As Connect using choose TCP/IP (Winsock)
- 4. As host address enter the IP address 192.168.150.21 and as port 4010
- 5. Click OK and afterwards Connect/dial @
- 6. Data telegrams in NMEA format should appear on the screen

Preincke Scanmar - HyperTermina     Oatal Bearbeiten Ansicht Anufer	Übertragung ?		×
D\$ \$\$ 02 B	Verbinden mit	9 8	
3	Heincke Sc	annar	
	Geben Sie Informat	ionen für den anzurufenden Host an:	
	Hostadresse:	192.168.150.21	
	Anschlussnummer:	4010	
	Verbindung herstellen über:	TCP/IP (Winsodk) + 3	
		OK Abbrechen	
	C		
Verbindung getrennt Aut	o-Erkenn. Autom.	Erkenn, RF GROSS NUM Aufzeichnan	D

- 7. To record data choose menu Transfer / Capture Text
- 8. Choose a folder and a file to save the data to, press Start
- All received Scanmar NMEA telegrams will now automatically be stored to the given file. Please make sure in the Windows Explorer that the file has been created and grows continuously.

Datei Bearbeiten Ansicht Anrufen	Übertragung ?
D ≇ ⊜ ॐ ⊪b ≞ ≊'	Datei senden Datei empfangen
	Text aufzeichnen (7)
	Textdatei senden
	Am Drucker aufzeichnen



## 5 Convert recorded data to table / Excel

The data recorded from Scanmar is in NMEA format and looks like this:

```
$PSCMGLL,5331.381,N,00834.825,E,124820.00,A,A*70
$PSCMVTG,161.25,T,0.00,M,0.02,N,0.04,K,A*3e
$PSCMZDA,132832.00,24,05,2013,00,00*76
$PSCMDBS,,f,,M,,F*35
$PSCMSM2,132832.00,V,TEY,1,O,,0*7a
$PSCMSM2,132832.00,V,TEY,1,C,,0*76
$PSCMSM2,132832.00,V,TMP,1,,,0*34
```

To convert that data to a table you can use the digitally attached program KonvScanbas.exe.

1. Start KonvScanbas.exe



- 2. Choose a quality filter setting (Sett Kvalitet filter) and press Ok; recommendation is 6
- 3. Choose the file to convert which must contain NMEA data (Fil som skal formateres)
- 4. Press Start



5. The results are two files which are created in the same folder, the original file is located in. They have the name *<original-file>Semi.txt* and *<original-file>Tab.txt*. One contains a semicolon-separated and one contains a tab-separated data table.

HE374_Scan	mar_2012-04-23Se	mi.txt - Editor					X
Datei Bearbei	iten Format An	sicht ?					
LengdeG; Br 5331.381N; 5331.381N; 5331.381N; 5331.381N; 5331.381N;	eddeG;Kurs;Sp 00834.825E;16 00834.825E;15 00834.825E;18 00834.825E;17	Deed; Tid; D 51,25;0,02 58,10;0,03 54,99;0,02 78,39;0,02	ag; EkkoD; TEY ;13:28:32; 24 ;13:28:33; 24 ;13:28:34; 24 ;13:28:35; 24	-1-0;TEY-1-C;T .05.2013;0,0;; .05.2013;0,0;; .05.2013;0,0;; .05.2013;0,0;;	EY-1-F;TEY-1-	H; TMP-1-; DF	P-1-; 🖍
HE374_Scan	mar_2012-04-23Ta	b.txt - Editor	-				2 23
Datei Bearbei	ten Format An	sicht ?					
LengdeG 5331.381N 5331.381N 5331.381N 5331.381N 5331.381N 5331.381N	BreddeG 00834.825E 00834.825E 00834.825E 00834.825E 00834.825E	Kurs 161,25 158,10 184,99 178,39 249,50	Speed 0,02 0,03 0,02 0,02 0,02 0,01	Tid 13:28:32 13:28:33 13:28:34 13:28:35 13:28:35	Dag 24.05.2013 24.05.2013 24.05.2013 24.05.2013 24.05.2013	EkkoD 0,0 0,0 0,0 0,0 0,0	TE

6. To import the data to Excel open Excel and choose menu *File / Open File*. Set the file type filter to *Text files (\*.txt, \*.csv)* and select the converted *<original-file>Semi.txt*.