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„easyTRX Link 2AIS “
SOFTWARE

Class B AIS CS Transponder
Produkt Nr.: A023
Rev-1

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PLEASE READ THIS FIRST!

WEATHERDOCK GENERAL WARNINGS

All marine Automatic Identification System (AIS) units utilize a satellite based system such as the Global Positioning Satellite (GPS) network or the Global Navigation Satellite System (GLONASS) network to determine position. The accuracy of these networks is variable and is affected by factors such as the antenna positioning, how many satellites are used to determine a position and how long satellite information has been received for. It is desirable wherever possible therefore to verify both your vessels AIS derived position data and other vessels AIS derived position data with visual or radar based observations.

The Link2AIS software is intended for use as an installation and configuration tool. The application is not a navigation tool and should not be used as such.

LICENSING

IMPORTANT: In most countries the operation of an AIS unit is included under the vessels marine VHF license provisions. The vessel on to which the AIS unit is to installed must therefore possess a current VHF radiotelephone license which lists the AIS system and the vessel Call Sign and MMSI number. Please contact the relevant authority in your country for more information. In accordance with a policy of continual development and product improvement the EASYTRX hardware and software may be upgraded from time to time and future versions of the EASYTRX may therefore not correspond exactly with this manual. When necessary upgrades to the product will be accompanied by updates or addenda to this manual. Please take time to read this manual carefully and to understand its contents fully so that you can install and operate your AIS system correctly.

Information contained in this manual is liable to change without notice. Weatherdock AG, Inc. disclaims any liability for consequences arising from omissions or inaccuracies in this manual and any other documentation provided with this product.

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This software uses components and source code developed by other companies or groups.

Microsoft .Net Framework V2.0: Copyright © 2005 Microsoft Corporation

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Revision of the software manual

Rev. 1

Congratulations!

Thanks to purchase a unit from the Weatherdock AG. This testifies your high technical competence, because you purchased the best available product on the market

1. PREREQUISITES

The easyTRX Link 2 AIS application is designed to operate with Microsoft Windows® 2000 (SP 3), XP (SP 2) and above. Recommended minimum system requirements are:

- Microsoft Windows® 2000 SP3 or Microsoft Windows® XP SP2
- Display resolution of at least 1024 x 768
- At least one RS232 serial port (or USB to serial converter already installed)
  When using a USB to serial converter please ensure it is fully installed before proceeding.
- A pointing device (mouse or equivalent)

This software uses the Microsoft .NET Framework V2.0. The framework will be installed automatically during setup if not already present on the system. To install the framework, the Microsoft Installer 3.1 is required and will also install automatically.

The .NET framework requires the Microsoft Internet Explorer, version 5.01 (or later) to be installed. This program is not part of the automatic installation and must be obtained separately.

2. INSTALLATION

2.1. New connection

To use this program for monitoring or configuring your easyTRX, the Link2AIS program must be connected to your easyTRX.

Before installing a new version, make sure the old version is removed from your PC. The program can be removed (uninstalled) at any time with the Windows® Control Panel's applet to "Add or Remove Programs".

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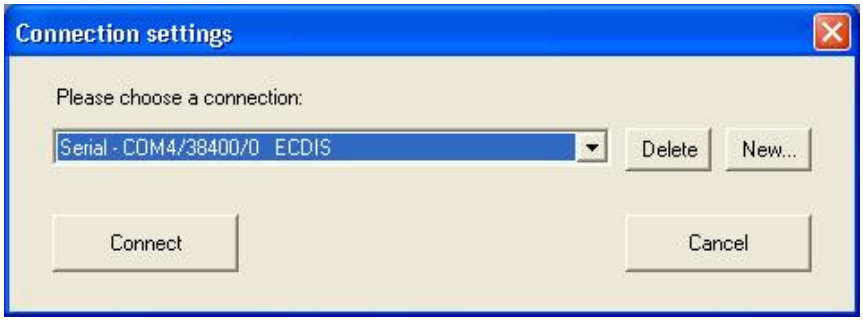
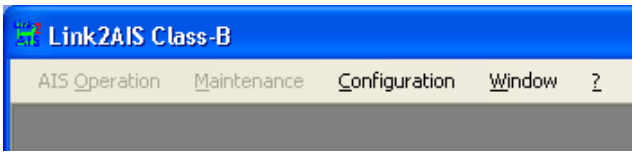
- Insert the installation CD.
- When the installation does not start automatically, locate the file "setup.exe" on the CD-ROM drive and double click on this file it to start the installation process.
- Follow the screen prompts to install the .NET Framework V2.0 and the Installer 3.1 if required
- The installation process of the application starts with the Welcome screen:
- Next you can choose the folder in which the program shall be installed. Also, select whether you want the program to be visible only for you or for everybody who uses the computer:
- Now the program is ready to install:

When starting the program, you have to select a connection. You may later disconnect at any time and then re-connect to the same or any other device on one of your communication ports. There is no need to disconnect before terminating the program.

To use this program with your easyTRX, make sure it is properly connected to your easyTRX.



You will notice that the menu items are not selectable when no connection has been made.



Select one of the already defined connections or define a new connection by pressing the “New…” button. If you are using the program for the first time on this computer, there will not be any settings stored in the list, so you have to create a new connection (see below).

You may also remove any existing entry from the list by clicking the "Delete" button.

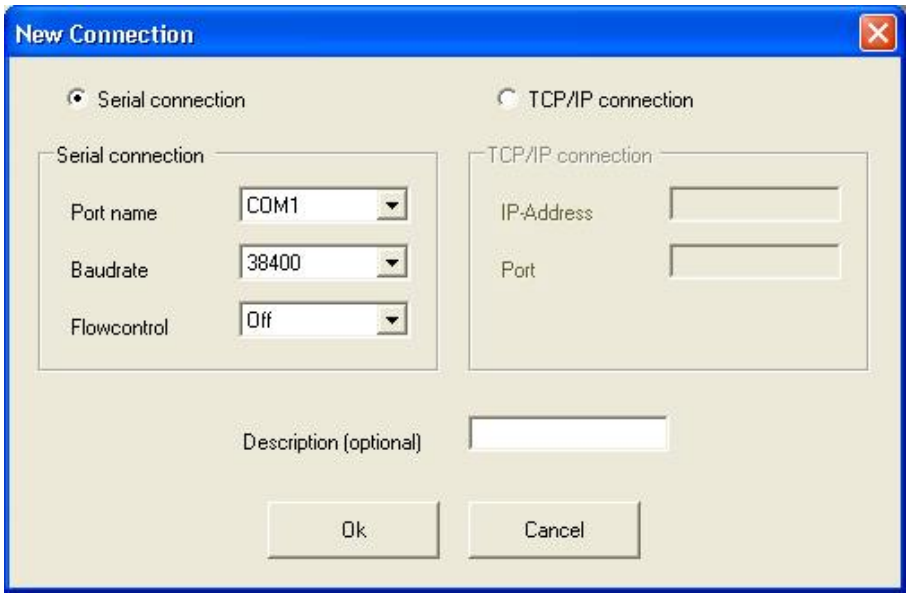
After selecting a connection from the drop down list click "Connect". Now the PC will establish the connection, which may take a few seconds.

As soon as a successful connection has been established between the easyTRX and the Link2AIS, a green icon and the text “Connected” will appear in the bottom left corner of the main screen. When the connection is possible but the easyTRX cannot be found, the icon will remain amber. When no connection is possible (e.g. the communication port is not available) the icon will stay red.

2.2. Creating a New Connection

Click the button "New..." in the connection dialog to open the "New Connection" dialog.

Select either “Serial Connection” or “TCP/IP”. Enter or select the connection parameters to establish a valid connection between the easyTRX and your PC. You should also enter a short description for your connection for easier reference. Press "OK" to save the connection settings.



- Serial - Connect to the easyTRX via a serial RS232 connection
  - Port name: COMx (select from the drop down list)
  - Baud rate: 38400
  - Flow control: default is off

- TCP/IP - Connect to the easyTRX via TCP/IP
  - IP-Address: address of the easyTRX; e.g. 10.10.10.100
  - Port: port number of the easyTRX; e.g. 10001

When a connection is established, you will see a green light in the bottom left corner of the main window and the message “Connected”. If a connection cannot be made, a warning message will appear.

The device requires a MMSI to be entered. When connecting to a AIS device the first time, the MMSI is most likely not defined. You have to enter the data

CAUTION:

For security reasons the MMSI of the vessel cannot be changed once programmed. Do not program the MMSI unless you are certain you have the correct information. Please check the entered number carefully. If the programmed MMSI is incorrect the AIS transponder will need to be returned to the supplier for factory reset.

The light will remain red and the message will read “Disconnected”.

Then the application will install automatically in the folder you chose.

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3. SOFTWARE MENU STRUCTURE

This program is a tool for the easyTRX maintenance.

It provides commands for basic and advanced configuration, monitoring and message handling. New user to Link2AIS program please read the following chapter carefully.

When starting the program, it welcomes you and asks for a connection (see also “New connection”):

Select one of the already defined connections in the drop-down list or define a new by clicking the “New…” button. When the selection has been made, press “Connect” to start the program.

When you press “Abort Program” or have chosen a connection (currently) not available, the program will not be able to communicate with the device. The following message appears to warn you about this state:

Once connected, you can choose any of the pages selectable from the menus.

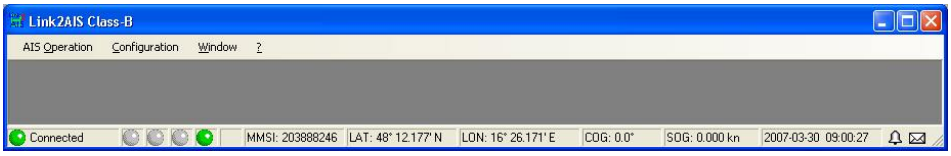
Many settings will be stored on your PC. When you start the program again, most appearances will be the same as when you last used the program.

By pressing the button "Clear all settings", all settings regarding this program will be removed from your PC and the program stops execution. This function is useful when you want to completely remove the program from your computer. It is not necessary to remove the settings when you merely want to update the program. The new version is capable of interpreting the settings as stored by the previous version.

After pressing the button to remove the settings, you will be informed on what happened:

Many controls have “Tool Tips” attached to them. To see what an item is about, let the cursor hover on an item and wait until a short description for this item pops up. You can easily test this in the status bar.Main Window

The main window will hold all views and dialogs of the program. There are some additional controls and indicators to simplify operating this program.



In the title bar there is the control menu on the far left, the title of the program and the state buttons on the far right where the program area can be maximized, minimized or the program terminated.

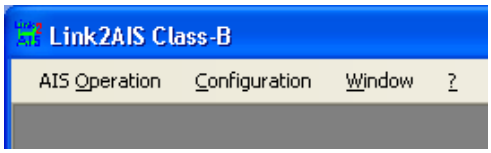
Just below the title bar there is the menu bar that will be described in the chapter “Menu Structure”.

On the bottom there is the status bar with miscellaneous information of the program and your transponder. The status bar will be described in the chapter “Status Bar”.

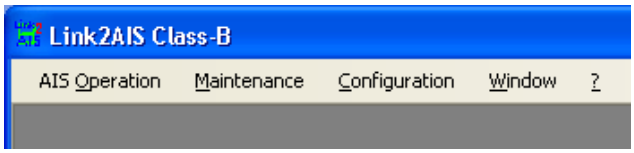
3.1. Configuration

The menu is organized hierarchically. Almost all of the functions open a window. The position, size and state (e.g. maximized) of the windows will be stored on your PC. When you re-open one of the windows it will appear on the same position, size and state as when you last used this window.

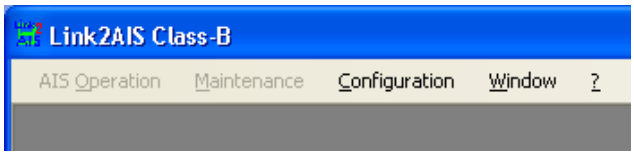
Note that the menu has two states: the normal user state and the expert state. The expert state should only be used when special functionality contained in the menu "Maintenance" is required. The standard menu looks like this:



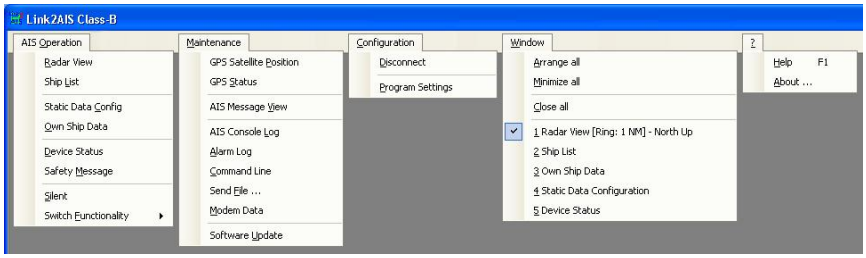
When the expert mode has been selected, it looks like this:



The items in the menu bar appear shaded when the functions are not available for some reason, for instance when no connection to the AIS device is presently active.



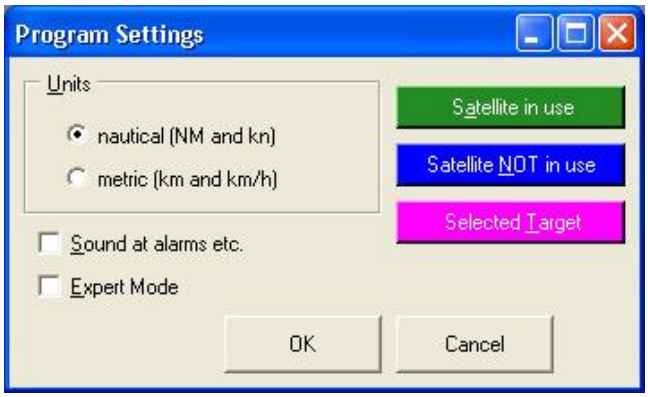
The functions are as follows:



3.1.1. Program Settings

This dialog lets you change the default program settings.

You can select the units of measure (nautical miles and knots or kilometers and kilometers per hour), whether or not an alarm shall sound when an alarm or a text message is received by the program and the colors in the GPS views and the color of a selected target.



The settings will be stored on your PC.

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3.1.2. Configuring the transponder

To configure the transponder all of the data fields must be completed and saved to the AIS.

CAUTION:

For security reasons the MMSI of the vessel cannot be changed once programmed. Do not program the MMSI unless you are certain you have the correct information. Please check the entered number carefully. If the programmed MMSI is incorrect the AIS transponder will need to be returned to the supplier for factory reset.

Enter the vessel's information in the appropriate fields:

- MMSI number: enter the vessel's Maritime Mobile Service Identity number (9 digits)
- Ship's name: enter the name of the vessel (20 characters maximum)
- Call Sign: enter the vessel's radio call sign (7 characters maximum)
- Select the most appropriate vessel type from the drop-down list.
- Enter the vessel's dimensions as follows (all dimensions to the nearest meter):
  - Dimension A: distance from the GPS antenna location to the bow
  - Dimension B: distance from the GPS antenna location to the stern
  - Dimension C: distance from the GPS antenna location to the port side
  - Dimension D: distance from the GPS antenna location to the starboard side

CAUTION:

If no MMSI is entered (MMSI is set to oooooooo) then the AIS transponder will operate in receive only mode. The vessel's own position will not be transmitted. An MMSI must be entered to allow the AIS transponder to transmit its own position to other vessels.

- When you have entered all the vessel's data click the "Save" button to program this configuration into the AIS transponder.
- A warning will be displayed asking you to verify the MMSI number.
- Please check the number displayed is correct before proceeding.
- If the number is incorrect click the "No" button to cancel programming the MMSI.
- Click the "Yes" button when you are sure the MMSI is correct.
- The static data window will be updated to show the newly programmed vessel information.

You may re-program all data except the MMSI when needed.

Converting feet to meters

Below is a feet-to-meter conversion table for your convenience. To convert feet to meters, go down the lines until the tens match the value you need, then go to the column indicating the remaining feet. The resulting field contains the converted value in meters.

feet	0	1	2	3	4	5	6	7	8	9
10	3	3	4	4	4	5	5	5	5	6
20	6	6	7	7	7	8	8	8	9	9
30	9	9	10	10	10	11	11	11	12	12
40	12	12	13	13	13	14	14	14	15	15
50	15	16	16	16	16	17	17	17	18	18
60	18	19	19	19	20	20	20	20	21	21
70	21	22	22	22	23	23	23	23	24	24
80	24	25	25	25	26	26	26	27	27	27
90	27	28	28	28	29	29	29	30	30	30

For your information: 1 meter measures 3.28 feet and 1 foot is equivalent to 0.3048 meter.

3.2. AIS Operation

This menu contains all primarily used functions that you may use. Included are functions to define or view the own ship's status and data, to view ships and to control the VHF transceiver.

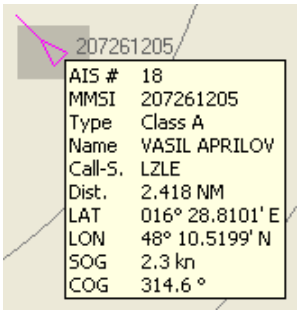
3.2.1. Radar View

This menu item shows the received targets (AIS devices of other ships, base stations etc.) graphically.

You can zoom in (shortcut: Ctrl+I) and zoom out (shortcut: Ctrl+O) as required.

The title bar shows the zoom factor (distance between two adjacent rings) in square brackets and the orientation mode.

The zoom factor and the orientation are stored on your PC.



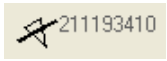
Each target is identified with the ship's name if it is known. When the name is empty or is '?' in the ship list, the MMSI is shown instead.

You can select a target by clicking on it. A text field with the ship's relevant data will pop up. When there are multiple targets overlaying each other, click again until the required data are shown. Note that a selected ship will also be marked as selected in the "Ship List". To make this text field disappear, click anywhere but on a ship. The example shows a moving ship with its info-tag.

The different targets have different symbols assigned:

- 

a ship standing still
- 

a moving ship
- 

a ship shown as lost target (see below)
- 

an aircraft (SAR)
- 

a (stationary) base station
- 

a (stationary) navigational aid (AtoN)

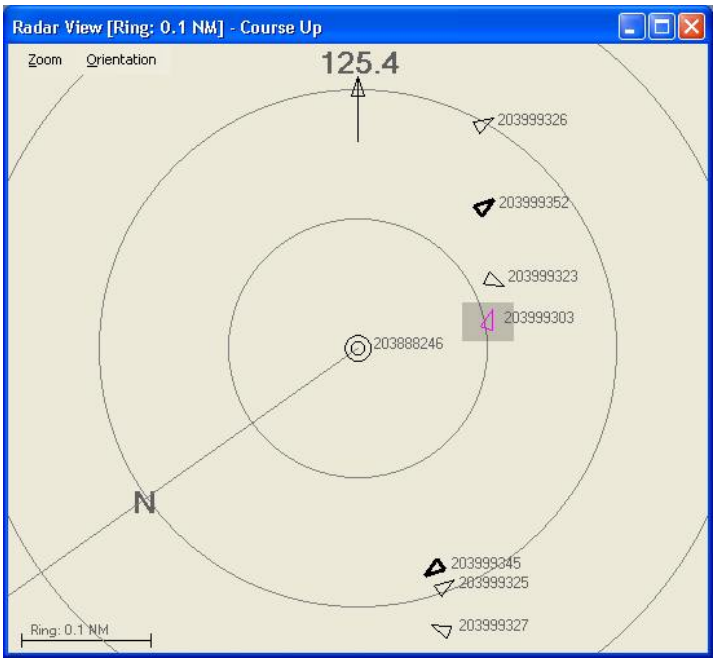
The symbols are shown in magenta color when selected. Ships are drawn with a thick line when defined as buddy (see later in this manual).

When the transponder has not received a message for 360 seconds (6 minutes) from one of the targets it is market as “lost target” (strike out in the Radar View) and after 10 minutes it will disappear from both, the radar view and from the ship list.

Due to the way AIS operates the information for each individual target may take some time to appear (up to several minutes).

The radar view shows the targets as “viewed from top”. You can choose between “North Up” (shortcut: Ctrl+N) and “Course Up” (shortcut: Ctrl+C). The default display mode is “North Up” as shown in the picture, where north, that is o°, is always on top.

The example shows also a selected target (magenta on a semi-transparent gray box) and two buddies (shown with thick lines). How to define buddies will be described in the chapter “Buddy”.



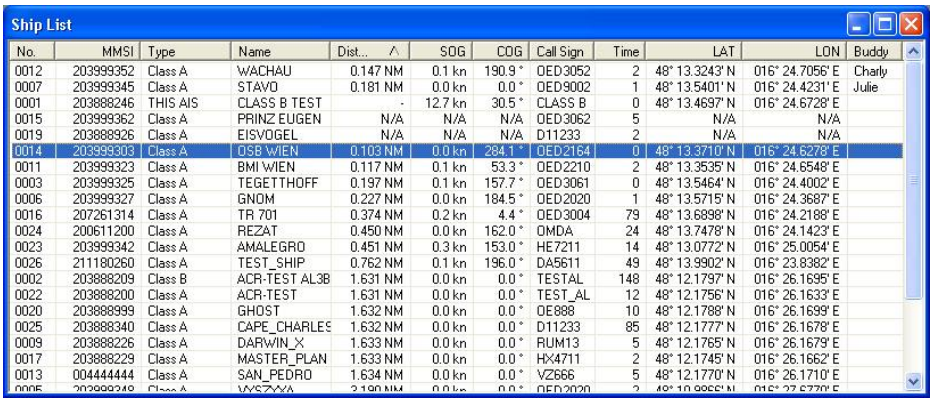
When “Course Up” is selected your boat always points up and the north direction is rotated as required. In the “north position” your current

course over ground is shown (the arrow pointing up in the picture).

3.2.2. Ship List

This menu item shows the received targets (AIS devices of other ships, base stations etc.) as a list.

This window shows information received from other AIS equipped targets



No.	MMSI	Type	Name	Dist...	SOG	COG	Call Sign	Time	LAT	LON	Buddy
0012	203999352	Class A	WACHAU	0.147 NM	0.1 kn	190.9 °	OED3052	2	48° 13.3243' N	016° 24.7056' E	Charly
0007	203999345	Class A	STAVO	0.181 NM	0.0 kn	0.0 °	OED9002	1	48° 13.5401' N	016° 24.4231' E	Julie
0001	203888246	THIS AIS	CLASS B TEST	-	12.7 kn	30.5 °	CLASS B	0	48° 13.4697' N	016° 24.6728' E	
0015	203999362	Class A	PRINZ EUGEN	N/A	N/A	N/A	OED3062	5	N/A	N/A	
0019	203888926	Class A	EISVOGEL	N/A	N/A	N/A	D11233	2	N/A	N/A	
0014	203999303	Class A	OSB WIEN	0.103 NM	0.0 kn	284.1 °	OED2164	0	48° 13.3710' N	016° 24.6278' E	
0011	203999323	Class A	BMI WIEN	0.117 NM	0.1 kn	53.3 °	OED2210	2	48° 13.3535' N	016° 24.6548' E	
0003	203999325	Class A	TEGETTHOFF	0.197 NM	0.1 kn	157.7 °	OED3061	0	48° 13.5464' N	016° 24.4002' E	
0006	203999327	Class A	GNOM	0.227 NM	0.0 kn	184.5 °	OED2020	1	48° 13.5715' N	016° 24.3687' E	
0016	207261314	Class A	TR 701	0.374 NM	0.2 kn	4.4 °	OED3004	79	48° 13.6898' N	016° 24.2188' E	
0024	200611200	Class A	REZAT	0.450 NM	0.0 kn	162.0 °	OMDA	24	48° 13.7478' N	016° 24.1423' E	
0023	203999342	Class A	AMALEGRO	0.451 NM	0.3 kn	153.0 °	HE7211	14	48° 13.0772' N	016° 25.0054' E	
0026	211180260	Class A	TEST_SHIP	0.762 NM	0.1 kn	196.0 °	DA5611	49	48° 13.9902' N	016° 23.8382' E	
0002	203888209	Class B	ACR-TEST AL3B	1.631 NM	0.0 kn	0.0 °	TESTAL	148	48° 12.1797' N	016° 26.1695' E	
0022	203888200	Class A	ACR-TEST	1.631 NM	0.0 kn	0.0 °	TEST_AL	12	48° 12.1756' N	016° 26.1633' E	
0020	203888999	Class A	GHOST	1.632 NM	0.0 kn	0.0 °	OE888	10	48° 12.1788' N	016° 26.1699' E	
0025	203888340	Class A	CAPE_CHARLES	1.632 NM	0.0 kn	0.0 °	D11233	85	48° 12.1777' N	016° 26.1678' E	
0009	203888226	Class A	DARWIN_X	1.633 NM	0.0 kn	0.0 °	RUM13	5	48° 12.1765' N	016° 26.1679' E	
0017	203888229	Class A	MASTER_PLAN	1.633 NM	0.0 kn	0.0 °	HX4711	2	48° 12.1745' N	016° 26.1662' E	
0013	004444444	Class A	SAN_PEDRO	1.634 NM	0.0 kn	0.0 °	VZ666	5	48° 12.1770' N	016° 26.1710' E	

in the area (ships, base stations etc.).

The columns show the information of a target which takes up one line:

- Sequential number
- MMSI of the target
- Type of AIS
- Name of the target (if assigned)
- Approximate distance to the target.

This is only shown when the connected unit has a GPS fix and when the coordinates are valid.

Please note that this is an approximate distance for indication only!

- Speed and course over ground
- Call sign of the target (if assigned)
- Time since the last received message from this AIS

The column shows the number of seconds since the last received message from this target. After 360 seconds (6 minutes) the target is market as “lost” and after 10 minutes it will disappear.

- Latitude and longitude
- Buddy name if assigned (see chapter “Buddy”)

Note that when you click in a line, the ship becomes selected. It will also be selected in the “Radar View” when it is visible. To undo a selection, click in a line without a target or to the right of the rightmost column.

Fields containing a “?” have not or not yet been received, meaning that the fields have not been filled with valid data. A “N/A” indicates that the content of this field has been transmitted with no value or the default value or cannot be computed (e.g. distance with faulty or invalid coordinates).

The column's widths can be adjusted by dragging the right border of the appropriate column. The columns can also be rearranged by dragging a column to a different position in the table. These settings are stored on your PC.

All columns can be sorted in ascending or descending order by clicking the column header. When opening the ship list window, the default sort order is ascending distance. Ships with a distance “N/A” are put on top right after the own ship because they may be a pending danger to all other ships, as their position is unknown.

3.2.3. Buddy

A Buddy can be defined by double-clicking either on a ship in the "Radar View" or on a line in the "Ship List". The following dialog appears to let you define the buddy text:

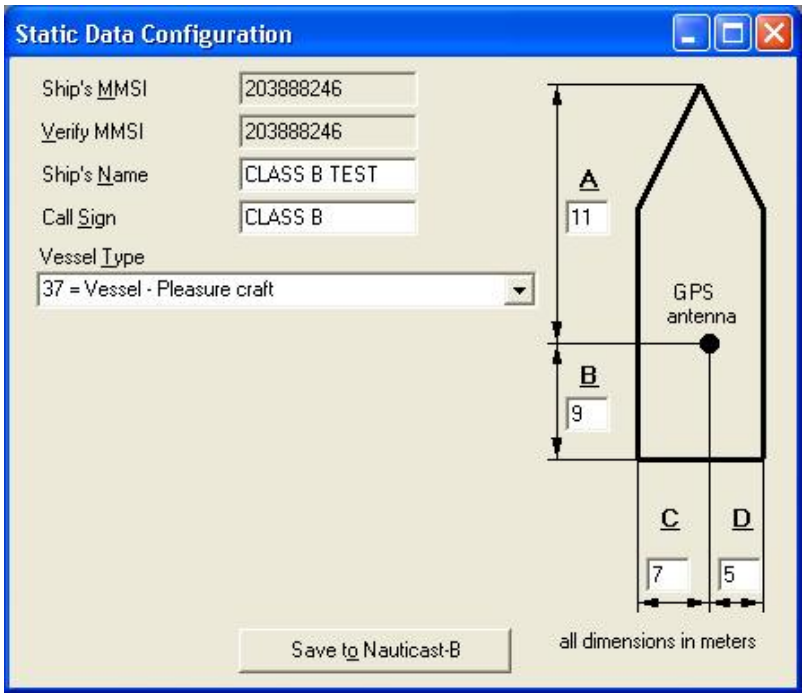
You may enter a text describing the buddy. This text appears in a tag in the "Radar View" and in a separate column in the "Ship List". To delete a buddy, delete the text ant the ship will revert to normal (not being a buddy). The names are stored on your PC, provided that the ship has been displayed when the program is terminated.

3.2.4. Static Data Configuration

This window shows the current configuration of the AIS transponder and allows the configuration to be programmed during installation. When an AIS transponder not yet configured is connected for the first time (no MMSI received by the program) this window will open automatically after a short while.

All configuration data of the easyTRX will be read out in advance to make changes more convenient. By pressing the "Save" button all settings will be sent to the easyTRX. You will be warned when there are any invalid data and the data will not be sent to the transponder. For instance, the dimensions must be in the valid range.

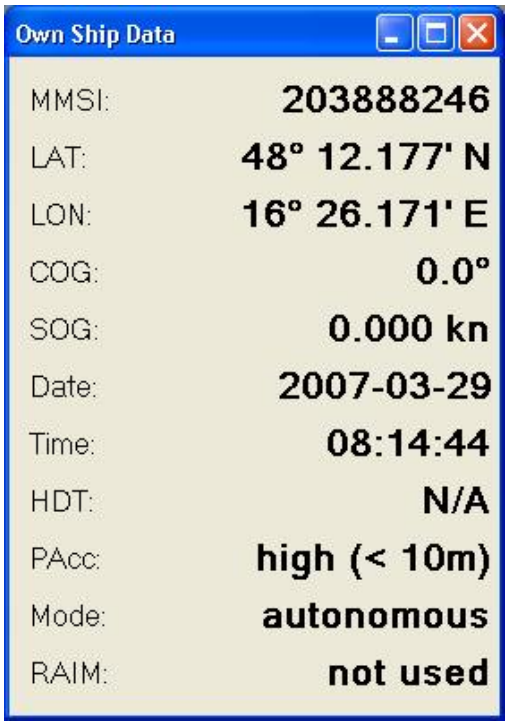
A typical AIS transponder connected to this program will show something like this:



How to configure your easyTRX will be described next.
rs.

3.2.5. Own Ship Data

This window shows information on the current state of your AIS transponder. A typical response looks like this:



3.2.6. Device Status

The Device Status window shows key status information of the AIS transponder. This information can be used to quickly verify that the transponder has been installed properly and is operational. It also shows the software versions of the easyTRX.

- A tick next to the items indicates correct operation.
- If a red cross is shown instead, some action may be required:
  - No tick at "MMSI valid" – check the MMSI of the unit is configured by selecting the 'Static Data' window and verifying that a valid MMSI has been entered. If the MMSI is oooooooo then it has not been programmed or the connection is not working properly or the transponder is not designed to work with this program.
  - No tick at "GPS position fix" – the GPS has not acquired a position fix. Allow up to 5 minutes for a fix to be acquired. If the cross is still present after several minutes check the GPS antenna position and connection and the clear sky visibility.
  - No tick at "Pos. Report Tx'd" – the AIS has not yet transmitted its position. Please allow up to 5 minutes after GPS fix has been acquired for the green tick to appear. When the cross is still present after several minutes please refer to the active alarms section. The AIS will not transmit unless it has acquired GPS fix and has a valid MMSI programmed.

- No tick at “Pos. Report Rx’d” – the AIS has not yet received a position report from another vessel. If there is no other AIS equipped vessel in the area the cross will remain until another position report is received. If other AIS equipped vessels are present and the cross remains please check the VHF antenna and its connections.

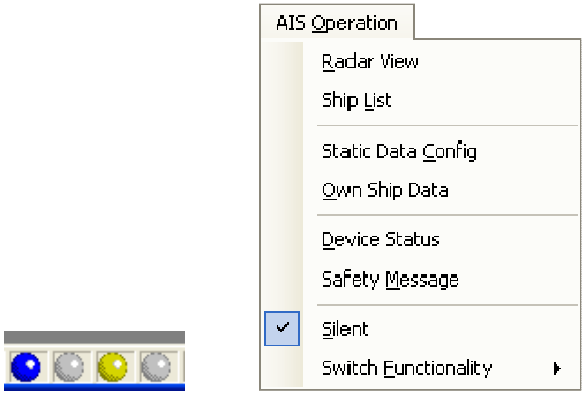
3.2.7. Safety Message

To send a safety related message in a distress situation, click this menu item. Select the message you need to send from the drop-down list. Then press the “Transmit” button.

The message will be sent as a “Safety Related Broadcast Message”.

3.2.8. Silent

With this command you can stop transmissions by using the silent mode. When the AIS device is in silent mode the LEDs indicate that and the menu item will be checked.



Clicking again on "Silent" reactivates the transmissions. The easyTRX will still receive messages from other stations when it is in silent mode but will not transmit anything.

3.2.9. Switch Functionality

Here you can select which of the functions the switch connected to your AIS device will take.

- No switch or no action – the switch has no function.
- Switch fitted and sends SRM – a safety related message ("MAYDAY MAYDAY") is sent once per minute as long as the switch is active.
- Switch fitted and disables transmitter – the device will not transmit anything as long as the switch is active.
- Switch fitted and toggles Tx on/off – the silent mode of the device is turned on or off when the switch is activated for a short time period.

3.3. Maintenance

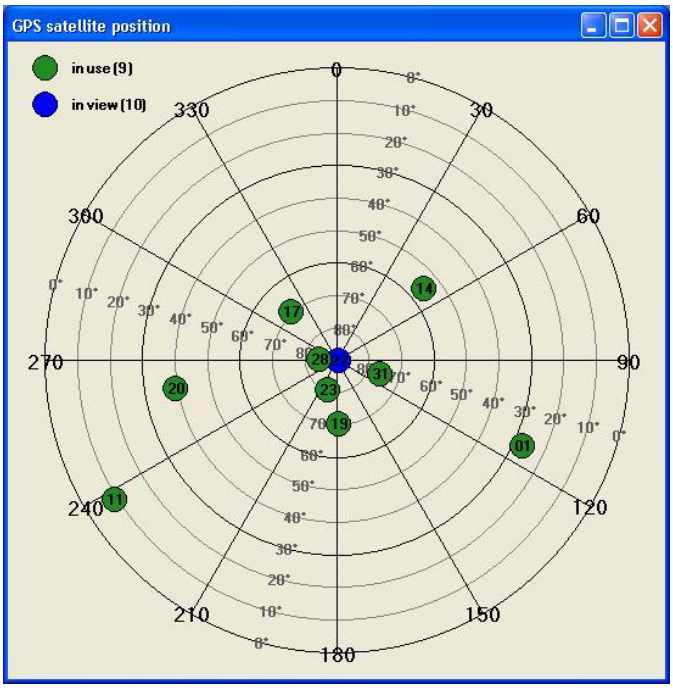
This menu contains rarely used items. It is turned off by default for not to confuse you with too much information. This menu can be turned on in the "Program Settings" dialog by entering the Expert Mode. Most of the menu items are only of use to a trained technician.

3.3.1. GPS Satellite Position

The Figure below represents a 2 coordinate system with the numbers on the outside representing your standard coordinates of a Compass Rose.

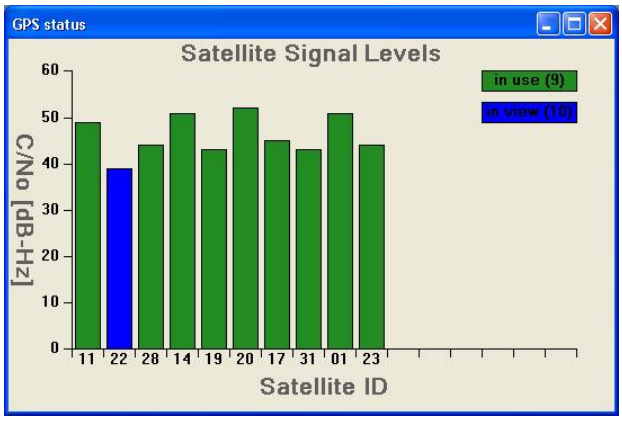
The Degrees of declination coming from the outer ring coordinates rise from each Horizon to 90 degrees being directly over head.

The filled circles represent the satellites with the satellite number inside the circle. The satellites actually used for computation are shown in a different color (see legend on the graph). It is quite normal to display a combination of used and unused satellites. Note that the colors can be changed in the "Program Settings" menu to your taste.



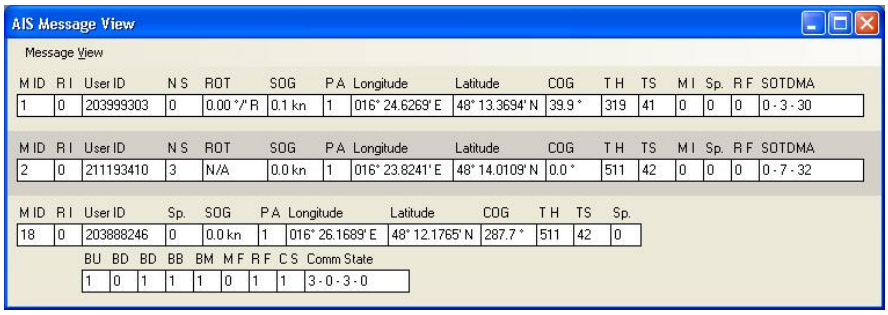
3.3.2. GPS Status

This window shows the status of the internal GPS receiver. A bar chart of satellite signal strength is provided. The information in this window is intended for use during installation of the AIS transponder to verify placement and connection of the GPS antenna. Each bar represents a satellite with its number noted below the bar.

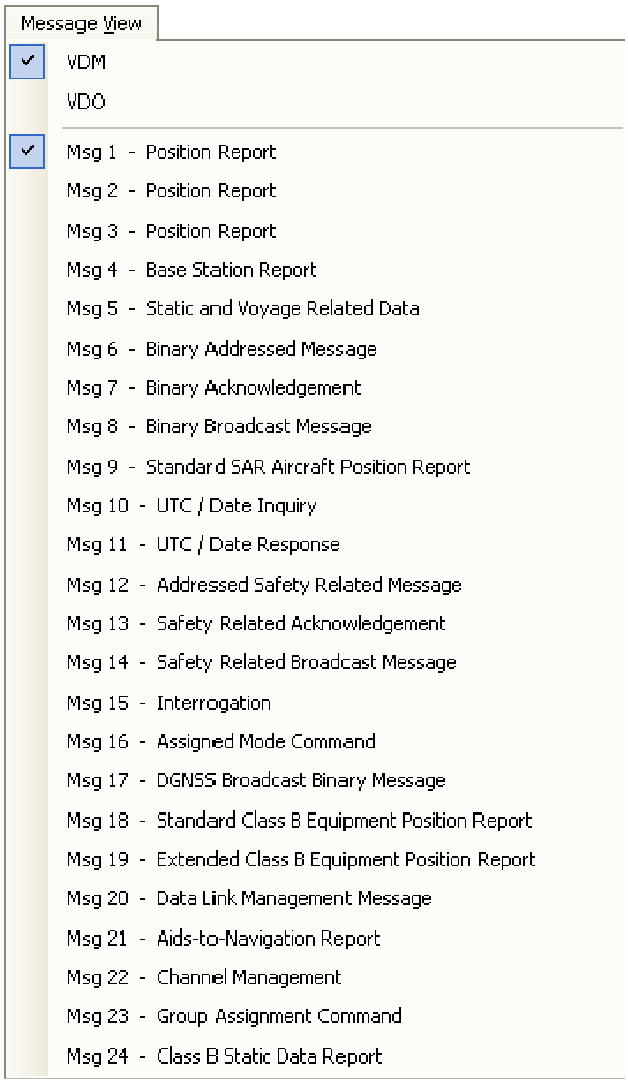


3.3.3. AIS Message View

A way to monitor AIS messages is the Message View window is provided with this function. In the menu "Message View" you can select the messages you want to monitor and display them in an easy to read form.



The menu looks like this:



- VDM (Received Data from other Vessels) / VDO (Data from your own Vessel)

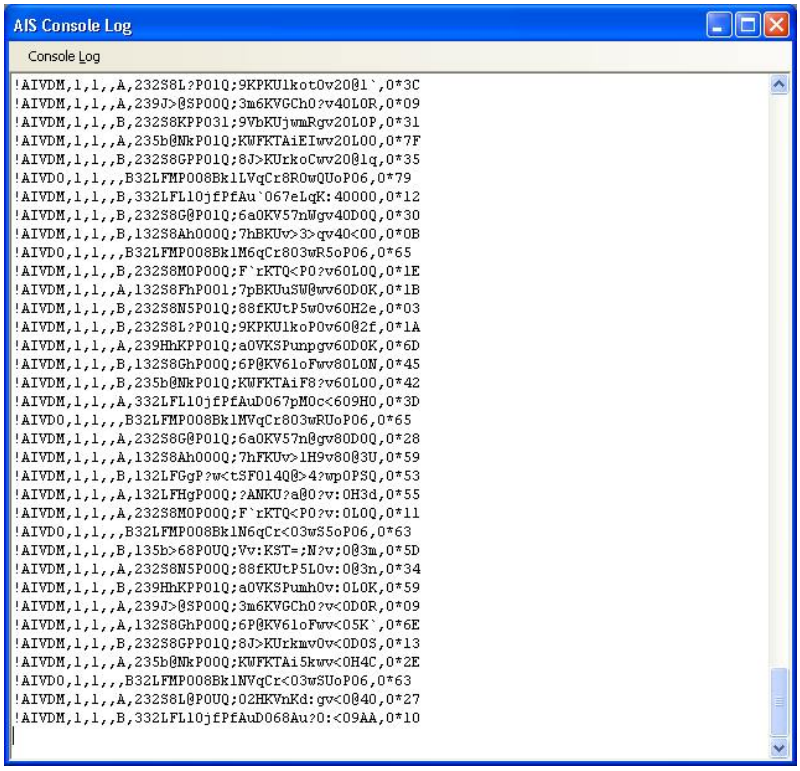
  Choose which messages should be displayed. The default is VDM (received messages) only.
- Message number

  Choose the message number(s) to be displayed. The default is the message 1 only (position reports from mobile Class A stations).

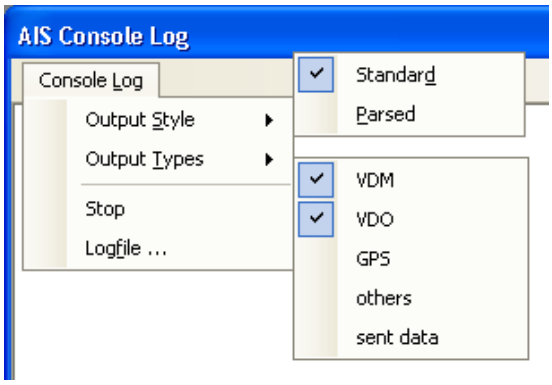
The selections in this menu are stored on your PC.

3.3.4. AIS Console Log

The Console Log is a powerful tool for monitoring AIS traffic. As soon as the window opens it starts displaying the information provided by the easyTRX.



When this window is active, a menu will be visible in the window where you can select what should be shown. The selections in this menu will be stored on your PC.



- Output Style

Switch between two different output styles.

  - Standard – means raw data, i.e. the same output style as on an ECDIS port.
  - Parsed – VDO and VDM messages are shown as comma separated values. The messages are split up for easy reading and import on a spreadsheet program. All other messages are shown the same way as in standard style.

- Output Types

The type of messages that will be displayed can be selected here. When the menu item is checked, this type of message will be shown. You can select and deselect them independently.

  - VDM: Toggle display VDM messages on/off
  - VDO: Toggle display VDO messages on/off
  - GPS: Toggle display GPS messages on/off
  - Others: Toggle display other messages on/off
  - Sent Data: Toggle display of sent data on/off

- Stop / Start

Stop or Start if incoming messages are processed by the Console Log. This also affects logging to a file.

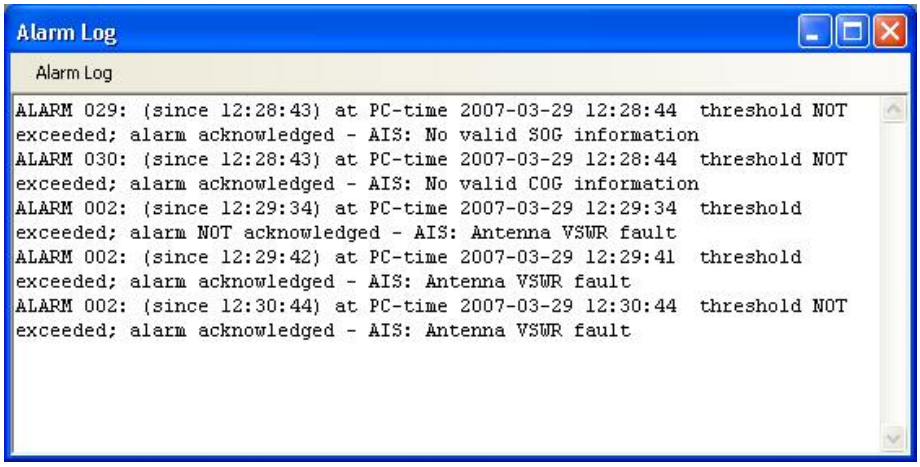
Note that this setting is valid only for the current Console Log, not for any other window.

- Logfile…

When you open a log-file, all messages shown in the Console Log window will also be written to the selected file. The messages will be appended to the file, so the last in the file is the newest. When you close the Console Log window, the file log will also be stopped.
Note that this setting is valid only for the current console log and not for any other window!

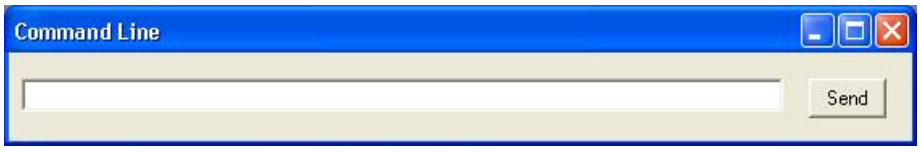
3.3.5. Alarm Log

This window shows all alarms that occurred since the program has been started. You can store the contents of this window to a file of your choice when clicking on the menu item “Alarm Log”.



3.3.6. Command Line

The command line is a tool for experienced users who want to manually enter sentences to be sent to the easyTRX. To do so, just enter the text in the edit field and click the “Send” button. The checksum will be added automatically if it is not present.

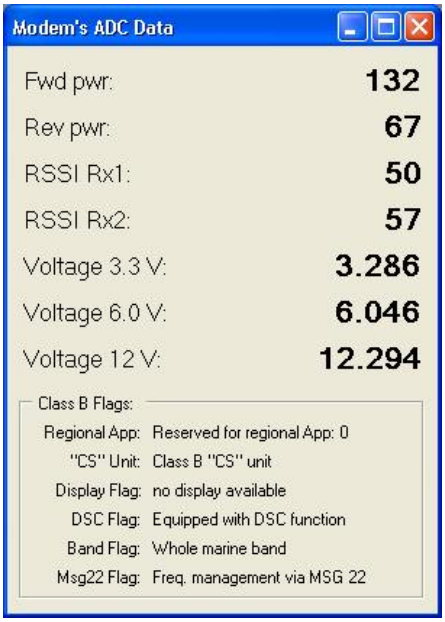


3.3.7. Send File

Use this function to load a set of commands from a file stored on your PC to your easyTRX. You can select the file from the dialog and submit its contents to the transponder.

3.3.8. Modem Data

This window shows the state of your easyTRX's internal state and the internal settings of the class B device.



3.3.9. Software Update

This window provides the facility to update the AIS transponder's internal software.

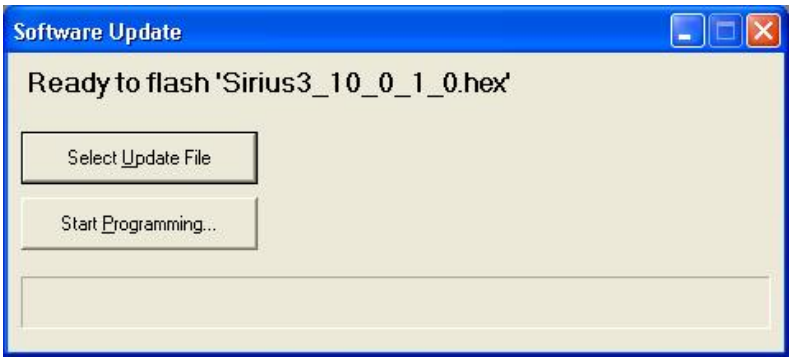
CAUTION:

Only perform a software update using an update file intended for use with the EASYTRX product.

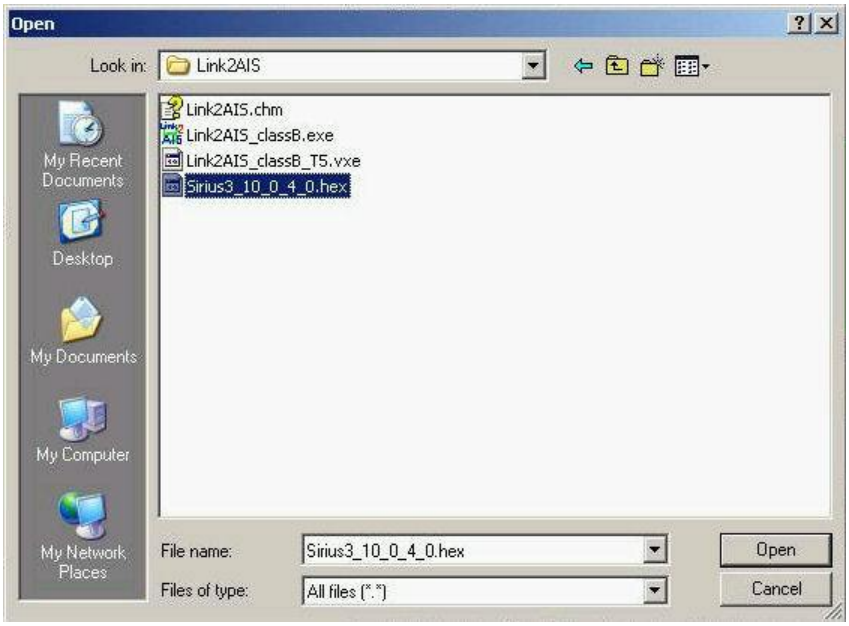
Do not interrupt the power to the unit or disconnect it from the PC during the update process unless instructed to do so by the program.

Here is a step-by-step instruction of how to update the program in your easyTRX:

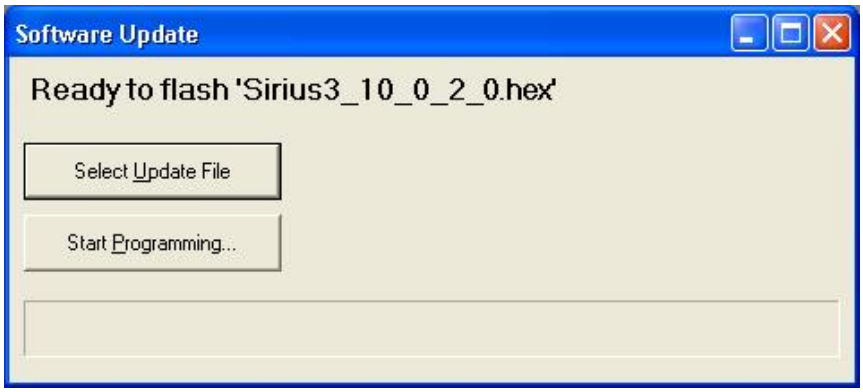
- When you click the menu item to update the software, you get the following dialog:



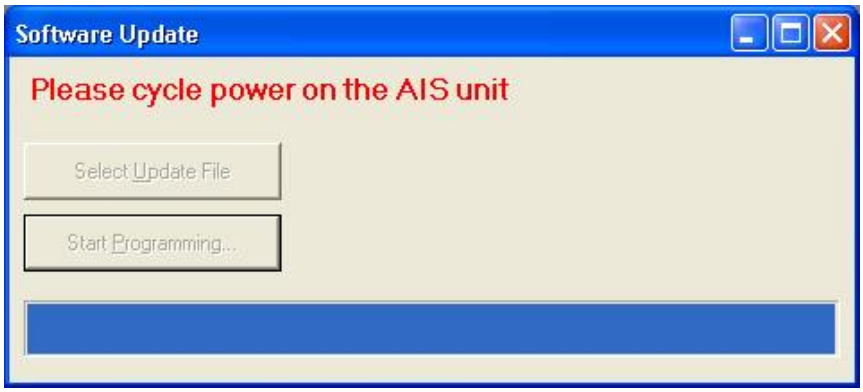
- Click the “Select Update File” button and navigate to the folder holding the update file. Select the update file. It has the extension “.hex”. You will usually want to select the most recent one.



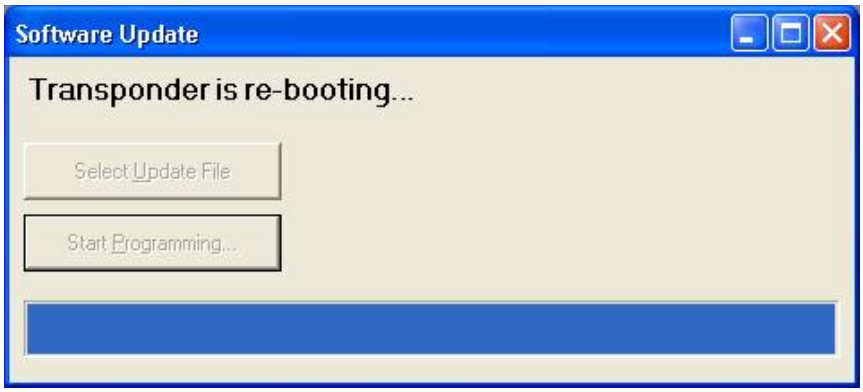
- When a file is selected, the file name is shown in the dialog and the button "Start Programming" is enabled.



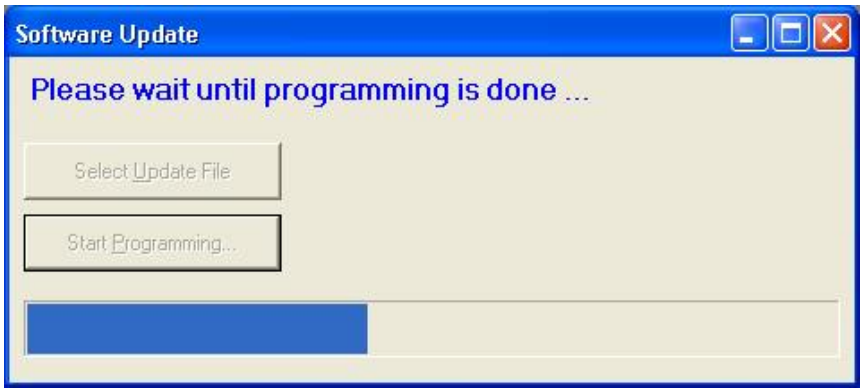
- Click the "Start Programming" button. When you see the following message, please wait for a few seconds, then turn the power to the device off and after a few seconds back on again. Newer software does the power cycling automatically. Do not disconnect the serial connection to the PC.



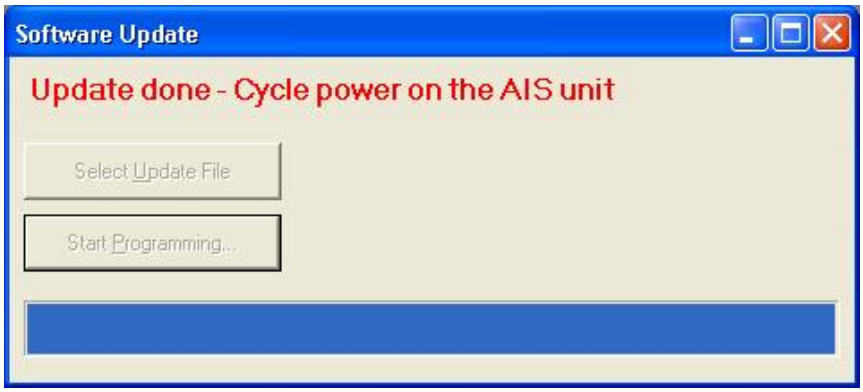
- The easyTRX re-boots and will be set into a special programming mode.



- Now the new program file is sent to the easyTRX. This takes a while and the progress bar informs you about the progress.



- When the file has been fully sent to the easyTRX, the device must re-boot again. Newer software does this automatically. When you see this message, wait a few seconds and then turn the power off and back on after some more seconds. Do not disconnect the serial connection to the PC.



- Once the program recognizes that the device is re-booting, the following message is shown:

- Once this message is shown, the transponder is ready for use.
- Please verify that the "Static Data Config" information shown is correct after every software update.

4. STATUS BAR

The status bar at the bottom of the main window displays important information of the program and your transponder.

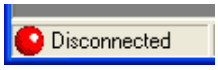
The fields, from left to right, contain the following information:

4.1. LEDs

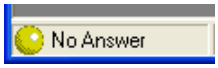
On the left side you'll notice icons resembling LEDs.

4.1.1. Connection Status

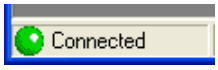
The LEDs on the far left reflect the status of the connection.



When you start the program you are not connected to the easyTRX device.



You have made a connection but the program does not (yet) recognize the device. With amber light: some actions (menu items) do not work until the light is green.



The program and the easyTRX are communicating properly – connection OK.

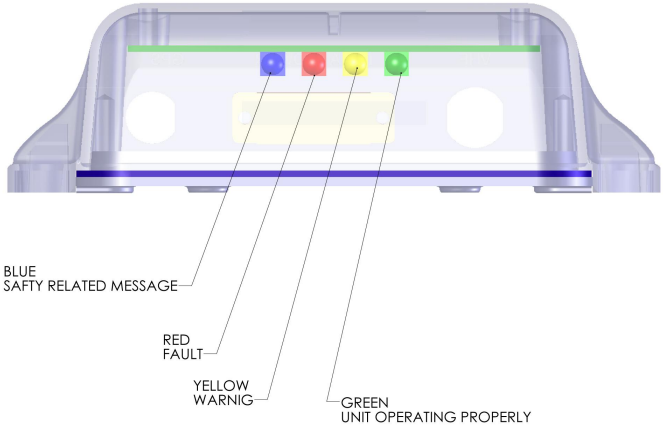
4.1.2. LEDs on your Transponder

These four LEDs show you which of the LEDs on your easyTRX are lit. Some possible patterns are:


The device is working and OK.


The “Silent” mode is active – nothing will be sent.


An error happened. Read the error message and solve the problem.



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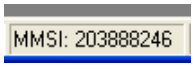
4.2. Data Fields

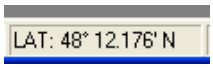
Most of the status bar is taken by fields that are duplicates of the "Own Ship Data".

4.2.1. MMSI



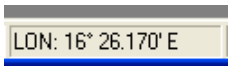
This is the MMSI (9 digit Marine Mobile Service Identity) of the transponder connected to your PC.

4.2.2. Latitude



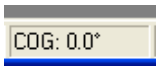
Your current latitude as computed by your GPS. The longitude and latitude are shown when the GPS receiver is able to determine your position. This is the same position as the one shown in the "Own Ship Data".

4.2.3. Longitude



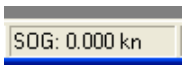
Your current longitude as computed by your GPS.

4.2.4. COG



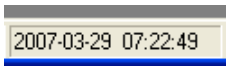
Your current COG (Course Over Ground) as computed by your GPS.

4.2.5. SOG



Your current SOG (Speed Over Ground) as computed by your GPS. The units can be selected in the "Program Settings" dialog.

4.2.6. Date and Time



The UTC date and time as transmitted by your GPS receiver. Note that the time may lag a few seconds.

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4.3. Alarms and Incoming Messages

On the far right there are two symbols. When you click on either of them, the appropriate window will open. White symbols indicate “no new messages to be read”.

When a message is received the corresponding symbol changes color as described below.

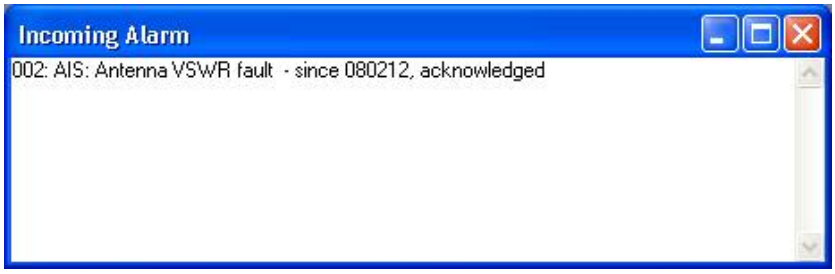
The audible alarm can be turned on or off in the “Program Settings” dialog for both message types.

4.3.1. Alarms

When the easyTRX sends an alarm, the bell icon in the bottom right corner will change to red and you will hear an alarm. Click the icon to open the alarm window and see all active alarms and their acknowledgement state.

All active alarm messages generated by the AIS unit are shown here. Alarms will be automatically acknowledged when the alarm window is open. This can be done by clicking on the bell symbol.

Note that alarms may take up to 1 minute to clear from this display once the cause disappears.



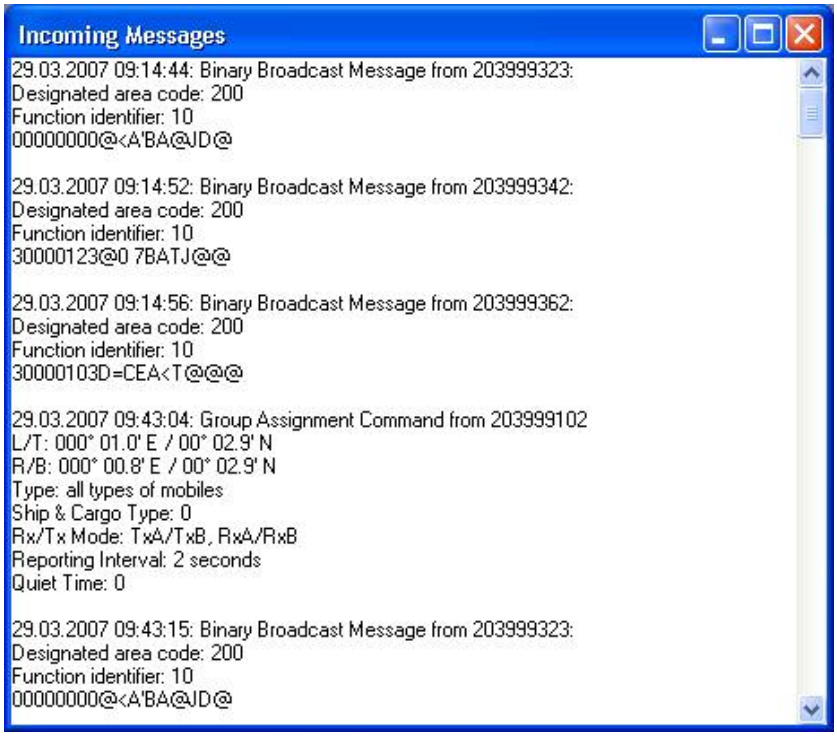
It is normal for GPS related alarms to be displayed when the AIS is first switched on. These alarms will clear automatically once a GPS position fix is acquired.

You can review all alarms of the current session by selecting the menu item “Alarm Log”.

Please refer to the troubleshooting section for a description of each alarm message.

4.3.2. Incoming Messages

When the easyTRX receives a safety related or binary message it will be sent to this program which colors the letter symbol amber in this case. By clicking on this icon a window will open. It contains a list of the last messages received.



4.3.3. Resizing Handle

In the status bar's bottom right corner there is a resizing-handle. By dragging the handle you can adjust the size of the main window to your liking.

5. TROUBLESHOOTING

Problem	Cause	Solution
Unable to connect to the easyTRX	Incorrect connection data	Verify data (IP-address, COM-Port, etc.). If not sure, contact your administrator
	Not connected to network or cable	Check if your computer and the easyTRX have connection to the network (IP-connection) or the same serial cable (serial connection)
	easyTRX not configured correctly	Contact your service partner
Config form settings not loaded	Enquiry not successful	Close form and re-open it
	Load settings not provided for this sentence	See standard for more information
Changes made to config form not accepted	Entries not valid	Correct the entries and transmit again

No output in Console Log or Message View	Not connected	Connect to the easyTRX
	No output types selected	Select output types

6. CONTACT AND SUPPORT INFORMATION

Although WEATHERDOCK strives for accuracy in all its publications; this material may contain errors or omissions, and is subject to change without prior notice. WEATHERDOCK shall not be made liable for any specific, indirect, incidental or consequential damages as a result of its use. WEATHERDOCK components may only be used in safety of life devices or systems, with the express written approval of WEATHERDOCK, as the failure of such components could cause the failure of the WEATHERDOCK device or system. If these fail, it is reasonable to assume that the safety of the user or other persons may be endangered.

Please contact first your local dealer for WEATHERDOCK AIS support.

Please see also our WEATHERDOCK Website: www.easyAIS.com

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7. WARRANTY

This Weatherdock product is warranted to be free from defects in materials or workmanship for 24month from the date of purchase. Within this period, Weatherdock will at its sole option repair or replace any components that fail in normal use Such repairs or replacement will be made at no charge to the customer for parts or labour, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident or unauthorized alteration or repairs.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE.

IN NO EVENT SHALL WEATHERDOCK BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT.

Weatherdock retains the exclusive right to repair or replace the unit or software or offer a full refund of the purchase price at its sole discretion. Such remedy shall be your sole and exclusive remedy for any breach of warranty.

If you choose to use the easyTRX and/or/or easySPLIT or both in a boat, it is the sole responsibility of the owner/operator of the easyTRX to secure the easyTRX so that it will not cause damage or personal injury in the event of an accident. It is the sole responsibility of the operator of the boat to operate the boat in a safe manner, maintain full surveillance of all boating conditions at all times, and never become distracted by the easyTRX to the exclusion of safe operating practices.

SOME VESSELS DO NOT CARRY AIS.
IT IS IMPORTANT AT ALL TIME TO KEEP A PROPER LOOKOUT.
THE “easyTRX” ARE NOT A SUBSTITUTE FOR GOOD SEAMANSHHIP

8. INDEX

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