TURBOWIN+ USER MANUAL: Part 1

SOFTWARE DOWNLOAD, INSTALLATION & MINIMUM CONFIGURATION REQUIREMENTS

Turbowin+ Version 4.0.0

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- 1. These instructions refer to the installation of **TurboWin+** (hereafter referred to as **TW+)** This manual also describes the regular TW+ maintenance procedures during a ship inspection visit.
- TW+ is a user-friendly electronic logbook software developed as freeware by the Royal Netherlands Meteorological Institute (KNMI). The software is endorsed by the World Meteorological Organization (WMO) for use on voluntary observing ships and is developed with contributions from WMO and many national meteorological services. It can be used to log, code and send meteorological observations from ships.
- 3. Meteorological observations sent from ships and fixed sea stations are a substantial component of the World Weather Watch. Voluntary Observing Ships (VOS) are a key component of the Global Observing System and climate research. However, it was recognised that some of these observations were subject to keying and coding errors. TurboWin was developed to solve this problem. The user-friendly software automatically codes observations and contains over 200 built-in quality checks to minimise errors before transmission.

System Requirements

- 1. TW+ is available in various configurations to run on different operating systems:
 - TurboWin+ V4.0.0 JPMS (Windows 64 bit) [138 Mb*; no Java required]
 - TurboWin+ V4.0.0 JPMS (Windows 64 bit) [28 Mb**; no Java required]
 - TurboWin+ V4.0.1 (Windows 32 bit) [117 Mb; Java JRE 8 or higher required]
 - TurboWin+ V4.0.2 JPMS (Linux 64 bit) [149 Mb; no Java required]
 - TurboWin+ V3.3.0 (Linux 32 bit) [117 Mb; Java JRE 7 or higher required]

*all meteorological help files included

- ** meteorological help files via internet links
- 2. Minimum MS Windows requirements:
 - MS Windows XP/Vista/7/8.1/10.
 - High Colour (16-bits) or better screen setting
 - Screen resolution 600 x 800 (minimum)
 - 70 Mb available hard disk space (minimal install)
 - 510 Mb available hard disk space (full install)

- 3. The installation of **TW+** on a networked computer may require administrator privileges to ensure the installation, including the creation of desktop icons as described in this manual.
- 4. The screen images in this manual are used for illustration and may vary slightly depending on the version or operating system used.

Upgrading an Existing Installation

1. Previous versions of **TurboWin** should be **Uninstalled** prior to continuing with the installation of a newer version.

Downloading Turbowin+

- 1. TW+ is available for download from http://projects.knmi.nl/turbowin/download.html
- 2. There are several options available for either Windows or Linux machines. Some versions also require Java to be installed.
- 3. If you are unable to download the software, please contact your PMO who will be able to provide a version on a portable storage device.

Installing Turbowin+

- 1. Once the program has been downloaded, open the .exe file
- The TW+ setup wizard (Figure 1) will open and prompt you to follow the on-screen instructions. Click Next to continue.

Setup - TurboWin+ version 4.0 (64-bit)	- >
Select Destination Location	
Where should TurboWin+ be installed?	S.
Setup will install TurboWin+ into the following folder	
To continue, click Next. If you would like to select a different	folder, click Browse.
C:\Program Files (x86)\TurboWin+	Browse
At least 208.9 MB of free disk space is required.	
	Next > Cancel

Figure 1: Installation wizard screen 1

3. For a typical installation, please accept the default settings then click **Next** to proceed through the setup wizard (Figures 3&4).

Select Start Menu Folder Where should Setup place the progr	aram's shortcuts?
Setup will create the program	m's shortcuts in the following Start Menu folder.
To continue, dick Next. If you woul	Id like to select a different folder, dick Browse.
TurboWin+	Browse
Don't create a Start Menu folder	

Figure 2: Installation wizard screen 2

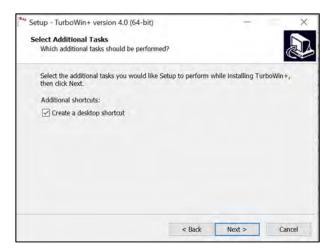


Figure 3: Installation wizard screen 3

4. The ready to install box will appear (Figure 4). Click **Install** to begin the installation process. This may take several minutes.

Setup - TurboWin+ version 4.0 (64-bit)		Ť.	×
Ready to Install Setup is now ready to begin installing Turb	oWin+ on your co	omputer.	
Click Install to continue with the installation change any settings.	, or click Back if y	ou want to revie	w or
Destination location: C:\Program Files (x86)\TurboWin+ Start Menu folder: TurboWin+			-
Additional tasks: Additional shortcuts: Create a desktop shortcut			
¢			2
	< Back	Install	Cancel

Figure 4: Installation wizard screen 4

5. Once installation is complete, the Setup Complete box will appear. Tick the Launch Turbowin+ check box and then click **Finish**.

Create SOT-ID

- 1. An SOT-ID is necessary for transmission of observations to the GTS.
- 2. To obtain an SOT-ID, go to the OceanOPS website: <u>https://www.ocean-ops.org/</u>
- 3. Log in (if required, request your credentials again with the corresponding button or ask the Ship-TC.
- 4. Click on the Submit/Platform menu and select SOT.
- 5. Enter the relevant details:
 - a. Program: VOS-XX where XX is your country code
 - b. Network: VOS
 - c. Class: NMHS recruited
- 6. Tick the check box 'Request new GTS-ID' and then click Next (figure 5).

	STEP 2		^ _ □ X
Networks	Main details	Deployment	Sensors
	Enter main	information	
VOS-FR			× *
i (*)	IOS		
35 - VOSC	lim (AWS)		
		Request new 0	ats-ID
UNKNOW	/N * =	Telecom number	
Old form	2. Upload	Fix errors C P	revious Next >

Figure 5: Enter program details

- 7. Skip the next page by clicking Next.
- 8. Then enter the name of the ship. If the ship is not already in the database, follow the link for ship registration.
- 9. To register a ship, enter the ship name, country of registration and ship type as a minimum (figure 6).

ICES Code:	IMO numb	er:	
Name:	Call Sign:		
Country:	✓ Type:		~

Figure 6: Register ship

10. Once registered, select the ship and the installation date then click Next (figure 7).

dd Platform			- F
			^_D
		STEP 3	STED 4
Networks	Main details	Deployment	Sensors
	Enter deployme	nt information	
2019-12-12 11	:51:31		曲
Latitude		Longitude	
TAPORO 8			× *
	n list please <u>add it here</u>		
# ship is not found i			
	dividuals concerned		
	dividuals concerned	l.	
	dividuals concerned	1	
	dividuals concerned	I	
	dividuals concerned	L	
	dividuals concerned	l	
	d)viduals concerned	I	

Figure 7: Select ship from database

11. Leave fields on this page blank and click Submit (figure 8).

Add Platform	A A A O .040		∧_□
sten i Networks	ste≓ia Main details	STERS Deployment	STEP 4 Sensors
	Add sensors	(optional)	
Sensor m	odel - type in here a model i	name, type or manufactur	er 👻
Data link	URL		
Serial nur	nber	i Height	
		•	Add to list
Sensor model	Serial N ¹	Data URL	Height
List of added s	ensors		
Old form	🕹 Upload	K P	revious Submit
	11.0		

Figure 8: Submit SOT-ID request

12. An SOT-ID will be generated for the station and will displayed in the ref./SOT-ID field (figure 9).

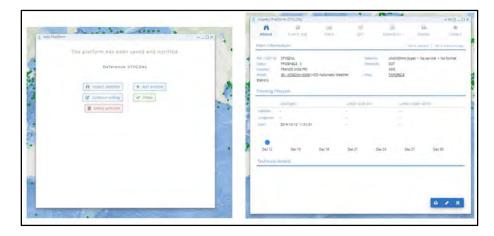


Figure 9: SOT-ID

Initial Setup

1. Double click on the TW+ **desktop icon** shown in Figure 10. Alternatively, select TW+ from the program group on the **Start** menu.



Figure 10: TurboWin+ desktop icon

2. The message box shown in Figure 11 will be displayed each time TW+ is started, until the **Station Data** is set.

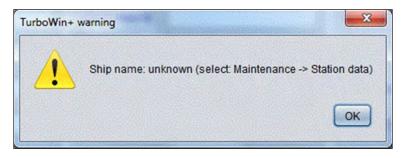


Figure 11: TurboWin+ warning - station data missing

3. Confirm that the date and time are correct (Figure 12). The PC can be set to either Local Time (LT) or Coordinated Universal Time (UTC).

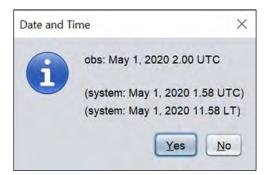


Figure 12:Date and Time check

Entering Station Details.

1. From the menu bar, select **Maintenance** >> **Station data** (Figure 13). Enter the administrator password (see Annex 1) to login.

Station data		- The second sec	
Emda setungs	ADE ADE	AWER	
Log files settings			_
Call sign Obs format setting Serial / USB / LAN device setting	Seawater temp	Present weath.	
WOW / APR / APTR / AWSR set	tings		
Station ID Server settings	True wind	Past weath: 1st	
GUI settings	Apparent wind	Past weath, 2nd	-
Observers	representation million	T GOT HOURT, ENV	
Position Captains Move log files to (USB) disk	(Wind) wave per	CI	
Move log files by Email			
Course & Spe Show all maintenance data	(Wind) wave ht	Cm	
Pressure (rea	1st swell dir		
Import all maintenance data	ISI Swell Cir	Ch	
Pressure (MSL)	1st swell period	Total cloud cov	
Pressure tendency	1st swell height	Amount Ci (Cm)	
Char. press. tend.	2nd swell dir	ht lowest cloud	
Nr temp	2nd swell period	teing	
Vet-bulb temp	2nd swell height	ice	
Dew point	Visibility	Observer	
addin	g data: input menu, popup menu, toolbar icons or o	lick on the text labels or fields	
indefined			
HIM CARINOV			

Figure 13: Maintenance menu - Station Data

2. The window shown in Figure 14 will be displayed.

ship data	wind meta data
ship name IIIII IIII IIIII IIII IIII IIII IIII	estimated; true speed and true direction measured; apparent speed + app. dir. (OFF THE BOW, clockwise)* measured; true speed and true direction
masked station ID* station ID*	max. height deck cargo above SLL** (metres, [0 - 100], rounded) difference SLL and WL (water line) (metres, [-10 - 50]****, rounded)
* only to be used with the agreement of your Met. Service recruiting country YEMEN YE	wind speed units source (estimated/measured) knots m's* wind speed units display (graphs/dashboards) knots m's average height anemometer above WL (metres, [0-100], rounded)***
ZAMBA ZM ZIMBABIWE ZW	* Inter alia when an AWS is connected ** Summer Load Line *** only when an AWS is connected **** negative if SLL is below WL
temperatures meta data	air pressure meta data
air temp exposure sea water temp exposure sling psyctrom. Intake "through hull"sensor marine screen bucket radiation them. bucket balt tanks them. trailing themistor other	height of the barometer above SLL (metres, e.g. 20.8) distance of bottom of the keel to SLL (metres, e.g. 9,1) does the reading indicate MSL pressure" yes on of " always "no" when a barometer or an AWS is connected

Figure 14: Station details form

- 3. Enter all station details from the ship's particulars; including Station ID (SOT-ID), country of recruitment and equipment metadata specific to the type of installation on the ship.
- 4. Ensure that you select either 'Yes' or '**No'** for the field '**does the reading indicate MSL pressure**'. Check with your PMO to confirm which selection applies.

Ship to Shore Data Format

 From the menu bar, select Maintenance >> Obs Format Setting (Figure 15). Enter the administrator password (see Annex 1) to login.

4 63 🗠	Station data Email settings Log files settings	🖱 🖣 🏝 🏫 🔒 🗊 APR	AVYSPR	
Call sign Station ID Date & Time of Position Course & Spe	Obs format satting Serial / USB / LNN device settings WOW / ARP / APF / AWSR settings Server settings GUI settings Observers Captains Move log files to (USB) disk Move log files to (USB) disk Move log files to atta	Seawater temp True wind Apparent wind (Wind) wave per (Wind) wave ht	Present weath. Past weath. 1st Prest weath. 2nd Cl Cl	
Pressure (rea	Export all maintenance data Import all maintenance data	1st swell dir	Ch	
Pressure (MS		1st swell period	Total cloud cov	
Pressure tend Char. press. tr		1st swell height	Amount CI (Cm)	-
Air temp	-	2nd swell period	Icing	
Wet-buib temp		2nd swell height	ice	
Dew point		Visibility	Observer	
undefined	adding data:	input menu, popup menu, toolbar icons or c	ck on the text labels or fields	_

Figure 15: Obs Format Setting from the Maintenance menu

Then select the required data format as directed by your National Meteorological Service (Figure 16).

-	Format	-	
	obs format		
	O FM13		
	O 101 (semi compressed)		
	O EUCAWS connected		
	please change this setting only with the prior agreement of your National Meteore	ological Service	
	format 101 call sign encryption		
	format 101 call sign encryption		
	⊖ yes		

Figure 16: Obs format setting

3. If selecting Format 101 (semi compressed), you will also need to indicate whether call sign encryption is being used. Consult with your National Meteorological Service for details. In addition to this, you will need to specify whether the Format 101 message is included in the body of an email or as an attachment. This can be done on the Email Settings page.

Log File Settings

1. From the menu bar, select **Maintenance** >> **Log File Settings** (Figure 17). Enter the administrator password (**see Annex 1**) to login.

Email settings	💁 🔿 🚔 🔒 🗊 🗛 🖉	AWSR	
Log files settings			
Call sign Obs format setting Serial / USB / LAN device settings WOW / APR / APTR / AWSR settings	Seawater temp	Present weath	
Station ID Server settings GUI settings	True wind	Past weath. 1st	-
Observers Captains	Apparent wind	Past westh 2nd	_
Position Move log files to (USB) disk Move log files by Email	(Wind) wave per	ci	
Course & Spe Show all maintenance data	(Wind) wave ht	Cm	-
Import all maintenance data	1st swell dir	Ch	-
Pressure (MSL)	1st swell period	Total cloud cov	
Pressure tendency	1st swell height	Amount CI (Cm)	
Char, press, tend.	2nd swell dir	ht lowest cloud	
Vir temp	2nd swell period	long	
Wet-builb temp	2nd swell height	ice	
Dew point	Visibility	Observer	
adding data:	input menu, popup menu, toolbar icons or c	ick on the text labels or fields	
Indefined			_

Figure 17: Log File Settings from the Maintenance menu

2. You do not need to make any changes in the configuration. Log files should be downloaded by the Port Meteorological Officer on a routine basis (preferably every 6 months or less).

3. Take note of the instructions provided for downloading log file (Figure 18).



Figure 18: Log Files folder location and download instructions

- 4. PMOs have the option to setup the transfer of log files via email. To do this, go to the Email Settings page and enter the required email address into the appropriate field.
- 5. Once configured, log files can be transferred by going to the Maintenance menu and selecting 'Move log files by email'.
- 6. Alternatively, log files can be moved to a portable storage device by selecting 'Move log files to (USB) disk...'.

Minimum Configuration

- 1. Restart the application for the above changes to take effect.
- 2. You have now met the minimum requirements for TW+ setup and can proceed to recording your first weather observation.

Annex 1:

The Turbowin+ administrator password is JWS01