D01443110A

# TEAC

# WX9K Navi

**Instructions for Use** 

🗃 wask havi - Wickson (Wiskon) – 🗆 🗙							
■ 010 - 000		▶ Ⅱ → ₩ ₩					≡ \$\$
000:00:00	WAVE BAR DIGIT	FFT					
2025/01/31 10:24:05 Channels: 32 Ch Sampling frequenc;48kHz AD bit depth: 24bit	Hold: 🌑 🛛 Time scal	ile:  Prolonged  100 [msec	1			Channels: <u>4</u> • Di	splay 🚍
Start trigger: None Stop trigger: None Media: WX Voice memo: Off Sync mode: NO SYNC GPS	1.0	ο γ ····					· · · · · · · · · · · · · · · · · · ·
Comment:	Ch1/PA AMP CH 1						
Monitor:Ch1 • Speaker:Voice memo •		10 M					
Volume: 0							
Mute: 000 00:00:00 (0%)	1.0	0 V					
opo la farmativa							
GPS Information Status Valid Satellites 12 Date 2025/01/31 Time 10:24:05 Latitude 25 21 64 N	Ch2/PA AMP CH 2						
Longitude 138,43.64, E Altitude 3772.0 m Speed 123,4567 km/h	• -1.0	10 V					
Course 00000 °	1.0	10 V					
	Ch3/PA AMP CH 3						
	• -1.0	00 V					
	1.0	00 V					
	Ch4/PA AMP CH 4						
	-1.0						
		0 20	)	40 6	50	80	100 🖈

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#### **Operating environment**

#### Supported operating systems

Windows 10 (64-bit) Windows 11 as of April 2025

#### System requirements

• CPU: 3.0GHz Intel<sup>®</sup> Core<sup>™</sup> i5\* or faster with 4 or more cores

\*6th generation (Skylake) or newer

- Screen resolution: 1280x1024, 1440x900 or higher
- Memory: 8 GB or more (16 GB or more recommended)
- Storage (HDD/SSD): 1 GB or more open space
- 1000BASE-T Gigabit Ethernet port
- .NET Framework 4.7.2 or later (4.8 or later recommended)

#### Supported product

WX-9000

#### ATTENTION

- Operation with all computers that meet the above requirements is not guaranteed. Moreover, maintenance of continuous recording at high sampling speeds might not be possible depending on the combination of the activity of background applications, services, and other driver applications, as well as the speed of the hard disk and other factors.
- Do not change computer settings, including the time, while using this application.

#### **Requirement for .NET Framework**

If WX9K Navi is installed on a computer that does not have the above version of .NET framework installed and is not connected to the Internet, manual installation of .NET framework will be necessary.

#### NOTE

The above version of .NET Framework is installed by default for Windows 10 1803 (April 2018 Update) and later versions or Windows 11.

#### Installation

Follow these procedures to first install the WX9K Navi application. Installation must be conducted by a person with administrative privileges for the computer on which the application is being installed.

#### ATTENTION

- Restarting the operating system could be necessary during installation. Quit other applications before beginning installation.
- If a User Account Control window appears during installation, click "Yes" to proceed with the installation.

#### NOTE

The screens used in this example are from Windows 10.

# Double-click the Wx9kNaviSetup.exe file to open the installation wizard.

#### NOTE

If necessary, Microsoft Windows Desktop Runtime will be installed

#### **2** Click "Next".

🛃 WX9K Navi	-		×
Welcome to the WX9K Navi Setup Wizard			
The installer will guide you through the steps required to ins computer.	tall WX9K N	avi on yo	ur
WARNING: This computer program is protected by copyrigit treaties. Unauthorized duplication or distribution of this progr result in severe civil or criminal penalties, and will be prosec possible under the law.	nt law and in am, or any p uted to the r	ternationa portion of i maximum	l t, may extent
< <u>B</u> ack	<u>N</u> ext≻	Car	ncel

#### Select the installation folder, and click

#### "Next".

🕼 WX9K Navi	-		×
Select Installation Folder			5
The installer will install WX9K Navi to the following folder. To install in this folder, click "Next". To install to a different folder, en "Browse".	ter it b	pelow or	click
CVProgram Files¥TEACWW9K Navi¥		Browse Disk Co	ə st
< Back Next >		Ca	ncel

#### 4 Click "Next".

🖑 WX9K Navi		-		×
Confirm Installation			(	
The installer is ready to install V	WX9K Navi on your computer.			
Click "Next" to start the installati	ion.			
	< Back Ne	xt >	Cano	el

#### When the installation completion screen appears, click "Close" to finish the installation.

🕵 WX9K Navi			-		×
Installation Complete				(	
WX9K Navi has been success	fully installed.				
Click "Close" to exit.					
Please use Windows Update to	o check for any critical	updates to the .N	NET F	ramewo	ork.
	< <u>B</u> ack	<u>C</u> lose		Cano	el
5					

#### Installing over existing versions

The following message will appear if Wx9kNaviSetup. exe is used to install WX9K Navi when another version is already installed on the computer. Click "OK" to proceed with the installation.

WX9K Na	WX9K Navi Setup			
?	Versions of the application that are already installed will be uninstalled. Do you want to continue?			
	OK Cancel			

#### Notice about security software

Connection might not be possible if the computer being used has a firewall, antivirus software or other security software installed. Permit transmission on the following ports.

50176 (TCP), 49920 (UDP)

#### **Setting the IP address**

For connecting the WX-9000 and the computer, we recommend setting the same subnet mask for both, and setting the same IP address group as the computer. Set the IP address, for example, on the WX-9000 or the computer as necessary. Use IPv4 to make the setting. When using a WX-9000 connected to a network, make settings in consultation with the network administrator.

#### Setting the IP address of the WX-9000

The settings are as follows when shipped new from the factory.

IP address: 192.168.0.10 Subnet mask: 255.255.255.0 Gateway: 0.0.0.0 DHCP: disabled

Follow these procedures to first set the IP address.

# Turn the WX-9000 that is connected to the network on.

When connecting multiple WX-9000 systems to a network, connect them and set their IP addresses one at a time.

# Click the Start button and select TEAC WX9K Navi.

• On the Device Selection Screen, click the Edit button for the WX-9000 to be set.

WX9K	Navi - Device sel	ection					- 0
	Serial	Address	Device name	Status	Sync mode	Edit	Identify
۲	WX90001	192.168.0.10	WX-9000		NO SYNC	Edit	Identify
0	WX90002	192.168.0.11	WX-9000		NO SYNC	Edit	Identify

# Set the IP address and click the Apply button.

Change the name of the device if necessary.

W	(90001
DHCP	
IP address	192.168.0.10
Subnet mask	255.255.255.0
Gateway address	192.168.0.1
Device name	WX-9000
	Apply

To use DHCP, click the DHCP slide button to enable it.

W	X90001
DHCP	
IP address	192.168.0.10
Subnet mask	255.255.255.0
Gateway address	192.168.0.1
Device name	WX-9000
	Apply

#### **1-1. Device Selection Screen**

After launching WX9K Navi, a selection screen for connected WX-9000 systems will open.



WX-9000 systems that are on the same subnet mask as the computer will be shown.

Select the WX-9000 system to connect and click the OK button.

#### NOTE

- If the WX-9000 that was connected at the last time of operation is detected, it will be selected automatically. Click the OK button to continue.
- To directly specify the IP address of a WX-9000 to connect, put a check next to "Manual", input the IP address of the WX-9000, and click the OK button.

#### Status

#### No indication

Connection is possible.

#### ln use

Connection is not possible because it is connected with another computer or a remote control is connected. End the connection with the other computer or disconnect the remote control to enable connection.

#### Not reachable

Connection is not possible because of a problem with the IP address of the WX-9000 or the computer. Confirm that the IP addresses are set correctly.

#### Sync mode

This sets the synchronized operation mode of the WX-9000 (page 15).

#### Edit

Network settings and device names can be changed. See "Setting the IP address" on page 7 for details.

#### Identify

Devices selected on the Device Selection Screen can be identified.

Select one WX-9000 from the list on the Device Selection Screen. Then, click the Identify button to make the LED of the STANDBY/ON button blink for that WX-9000, showing it is selected.

#### Limited transfer mode

This mode restricts the quantity of transmission data on the network.

#### **Restrictions in limited transfer mode**

- "PC" and "WX & PC" cannot be selected as recording destinations.
- The maximum display time for waveform display is 200 msec.
- FFT display cannot be used when the sampling frequency is 2 kHz or less.
- Waveform display cannot be shown for a long time.
- The display refreshment interval will change according to network conditions.

• When the connection speed of a line is slow, delays could occur between use of the WX9K Navi screen and WX-9000 operations.

#### 1-2. Home Screen



#### **A** Information

The following information is shown in order from the top.

#### Status icons

- Stopped
- II Record ready
- Recording (red)/auto range function active (yellow)
- Playing back
- ▶ Playback ready

#### **Recording/playback information**

ID – event mark (pages 16 and 15) Recording/playback time • When pre-trigger is enabled, recording will start ahead by the amount of pre-trigger time.

#### **B** Measurement conditions

Content related to measurements set on the Settings Screen is shown here.

#### WX-9000 clock time

The display format can be set using the Time setting Date format (page 15).

#### **Trigger display**

If the mode is set to trigger and multiple triggers are set, they are shown in the following order of priority.

#### **1.Basic operation**

#### Start trigger

Priority	Trigger
1	Level
2	External
3	Timeout

#### Stop trigger

Priority	Trigger
1	Level
2	External
3	Time

#### **GPS** icon

Green: enabled

Gray: disabled (the necessary number of satellite signals is not being received)

Red: error (GPS not connected, for example)

• When the GPS setting is "Off", the GPS icon will not be shown.

#### Comment

This shows the comment entered on the File Settings Screen (page 15).

When stopped and ready for use, comments can be input directly into this field.

- Some characters cannot be shown correctly on the WX-9000.
- Only ASCII characters can be input with the WX-9000.

#### Monitor

The signal of the specified channel is converted from digital to analog and output from the WX-9000 MONITOR OUT connector (page 15).

#### Speaker

This outputs voice memos (when being played back) and monitoring signals.

#### Volume

This adjusts the volume of the built-in speaker on the side of the WX-9000 and the earphone. Select the signal output with "Speaker source" in the General Settings (page 15).

• When an earphone is connected to the EARPHONE jack, sound will be output from it instead of the speaker built into the side of the WX-9000.

#### Mute

This mutes the volume of the WX-9000 built-in speaker and the earphone.

#### **C** <</>>> buttons

The  $\langle \langle$  button closes the information and measurement condition display area on the left side of the window.

The >> button opens the information and measurement condition display area on the left side of the window when it has been closed.

#### **D** View setting

This sets the data display. WAVE: waveform display BAR: bar meter display DIGIT: digital value display FFT: FFT display

#### **E** Recording/playback control

#### STOP button

Click to stop recording and playback.

#### • REC button

Click when stopped to make it record ready.

#### Play ( **FWD**) button

Click when the system is stopped or playback ready to start playback.

Click when record ready to start recording.

#### II PAUSE button

Click when the system is stopped or playing back to make it playback ready.

Click when recording to make it record ready.

#### Event mark (♥) button

The  $\checkmark$  button can be clicked during recording to set an event mark.

• A maximum of 200 event marks can be added to a single data file. When the number of event marks would exceed 200, this button becomes disabled and cannot be clicked.

#### Search ( I◄◄ / ►►I ) buttons

Use them to search playback files.

• The highest ID that can be searched is 999.

#### 

Click when playing a file to make it playback ready at the beginning of the same file.

Click when playback ready to make it playback ready at the beginning of the previous file.

#### 

Click when playing back or playback ready to make it playback ready at the beginning of the next file.

#### F **E** button

This opens a menu.

#### TEDS

"2-4-2. TEDS calibration" on page 22

#### Auto range

"2-2-1. Auto range" on page 21

#### File transfer

"5. File transfer" on page 45

#### Delete recorded file

"2-7-1. Deleting recorded files" on page 25

#### View layout

"1-7. Placement of data display areas" on page 19

#### **Cooling fan**

Removing the check will stop the fans for up to ten minutes.

- The fans cannot be stopped if the temperature of the units is high. Wait for the temperature to decrease.
- If the temperature becomes high, the fans will restart before ten minutes have passed.

#### **G \*** button

Click to open the Settings Screen.

#### H Recording media information

This shows the amount of free space on the data recording destination.

This also shows the amount of available recording time in days, and hours: minutes: seconds.

Input the recording data destination on the File Settings Screen (page 35).

#### I GPS information

This shows GPS information.

- When the GPS "Use" setting is "Off", this item will not be shown.
- Clicking "GPS Information" will hide the information. Clicking it again will show the information.

#### J Data display

This shows measurement waveforms and measurement values.

#### 1-2-1. Settings by view

The following items are shown according to the display view.

Hold	When this is turned on, the waveform				
	display will stop and cursors will be				
	shown.				
	• Stopping waveform display will not				
	pause playback operations.				
Time scale	This adjusts the horizontal display				
	range.				
Prolonged	Check this to show the data for a lon-				
	ger time (page 15).				
	• This cannot be used in limited trans-				
	fer mode.				
Channels	This sets the number of channels				
	shown.				
Display	This sets which channels to show.				
*	This shows basic channel properties.				
≡/⋩	These open the Channel Property List.				

• The channel names are the names set on the Channel Settings Editing Screen (page 15).

#### BAR

%/dB	This changes the unit shown.
Clear	This clears peak values.
Peak hold	Check this to hold peak values.
Columns	This sets the number of columns
	shown.
Auto	If this is checked, the number of col-
	umns will be adjusted automatically
	according to the number of channels
	shown.

#### DIGIT

RMS	Check this to show root mean square
	values.
Hold	The values shown will be retained.
Columns	This sets the number of columns
	shown.
Auto	If this is checked, the number of col-
	umns will be adjusted according to
	the number of channels shown.
Display	This sets which channels to show.

#### **1.Basic operation**

#### FFT

Points	This sets the quantity of data used for
	FFT calculations.
Columns	This sets the number of columns
	shown.
Auto	If this is checked, the number of col-
	umns will be adjusted according to
	the number of channels shown.
+/-	Use these to add and remove windows.
	Up to four windows can be shown.
Channel	This sets which channels to show.

#### 1-2-1-1.Cursor properties



C1 and C2 at the bottom left of the window show the horizontal positions of each cursor.

C1C2 shows the distance between the two cursors.

When Hold at the top left of the screen is turned on, the waveform display will stop and cursors will be shown. Drag a cursor to move it.

#### ATTENTION

- Pausing during playback will automatically turn on the Hold function. Resuming playback will turn it off automatically.
- When stopped, the Hold function will turn off automatically and the Hold button will become disabled.

#### 1-2-1-2.Channel Property List

Click  $\blacksquare$  or  $\diamondsuit$  to open the channel property list at the bottom of the window.



#### Number

Channel number

#### Edit

Use this to edit channel properties.

#### Channel

Channel name

#### Range

Input range calculated for physical amounts (excluding offset)

#### Offset

Offset used for Physical Quantity Conversion

#### Zoom

Display magnification rate

Position

Offset of graph display position

#### **C**1

Measured value of Cursor 1 position on the horizontal axis

#### **C2**

Measured value of Cursor 2 position on the horizontal axis

#### **Abs (C1-C2)** Absolute difference in measured values of Cursor 1 and Cursor 2

**Min (C1-C2)** Minimum measured value between Cursor 1 and Cursor 2

Max (C1-C2) Maximum measured value between Cursor 1 and Cursor 2

#### 1-2-1-2-1. Editing channel properties

Click the Edit button for channel properties to open an editing screen.



#### $\wedge \psi$

Use these to change the channel being edited.

#### Physical quantity conversion

The physical quantity conversion setting can be changed without opening the System Settings Screen.

#### **Display range**

#### **Display Zoom**

This adjusts the amount displayed on the vertical axis.

#### **Display Position**

This changes the vertical range shown in the graph.

#### **Display range**

This sets the vertical display range.

#### **Display colors**

This sets the color of the line in the graph.

#### 1-2-1-2-2. Basic Channel Properties Screen

Click the , which is at the bottom left of each channel name, to open this Basic Channel Properties Screen.



#### Reset

This sets Zoom to 1 and Position to 0%.

#### Details

This opens the Channel Properties editing Screen.

1-3. Setti	ings	Screen						
K	Svs	L tem → Gene	ral	M				
Syste	em	General	GPS	Time	Monitorin	ig Sync		
File	e	AD bit depth				16bit		
Chan	nels	Sampling series				256kHz serie	25	<b>.</b>
Trigg	ger	Sampling freque	ncy			102.4kHz		*
Load/s	Save	Number of record	ding channe	ls		128Ch		Ŧ
Mis	sc	Voice memo				Off		•
	)							
		Speaker source						
		Mute speaker		Ī				
		Cooling fan mod	e			Normal		·
N	]			0				
Click the 🏶 bu	utton c	on the Home	Screen	to open	the K	Back butt	on	
Settings Screen	۱.					Return to th	e Home Screen.	
See page 15 for	r detail	S.			L	Settings n	nenu level	
						This shows	the current Settings mer	nu level.
					M	Settings s	ub menus	
						Sub menus	appear here when they	are available.
						These are th	ne second level of the Se	ttings menu.
					N	Setting it	ems	•.
						Click a Settii These are th	ngs menu item to open i ne first level of the Setting	it. as menu
						Settings r		5
						Jettings p	age	

#### 1-4. Status changes

#### 1-4-1. Explanation of status change diagram entry

Entries appear on the status change diagram in the following manner.



#### 1-4-2. Status change diagram

This application has the following states.



#### 1-5. Recording and playing data

Recording data can be saved to a WX-9000 media and/ or a computer.

#### ATTENTION

Data saved to a WX-9000 media can be played back. Data saved to a computer cannot be played back.

# **1** Turn a WX-9000 that is connected to the network on.

Click the Start button and select TEAC -WX9K Navi.

# Select the WX-9000 to operate.

When connecting to a WX-9000 that is not on the same subnet mask as the computer, check "Manual" on the Device Selection Screen and enter the IP address of that WX-9000.

### Set the measurement conditions or load them.

Click the **\*** button to open the Settings Screen (page 15).

To load measurement conditions that are saved on the WX-9000 recording media or a computer, click "Load/Save" on the Settings Screen and click the Load  $\rightarrow$  button (page 15).

#### ATTENTION

If the expansion unit configuration is changed, the measurement conditions will be reset.

#### B Record or play data.

#### Recording

Click the  $\bullet$  button to make the system ready to record.

If a start trigger has been set, recording will start when a trigger condition is met.

If no start trigger has been set, click the **>** button to start recording.

#### Playback

Click the ▶ button to start playback. This will start playback of the most recently recorded data. To play a specific file, click the △ button and select that file (page 15).

#### ATTENTION

Be careful of the following during recording and playback. Recording and playback could be interrupted.

- Do not allow the computer to go to sleep or suspend operation.
- Do not allow background tasks that put heavy loads on the system.

#### 1-5-1. ID explanation

IDs are consecutive file numbers inside folders being used for playback and recording. These do not always match the file name suffixes (3 digits for WX and 3–5 digits for PC).

• When the recording destination setting is "WX & PC", the consecutive numbers of WX-9000 files will be shown.

#### 1-5-2. Waveform overview

By default, waveforms are shown in channel number order.

#### NOTE

The vertical axis scales use the input range values of each channel.

#### Selecting waveforms to show

Click "Display" at the top right of the screen to open the "Display channels" list. All channels are shown by default. Remove checks next to the channels that do not need to be shown.

#### NOTE

Click "All" to check/uncheck all the channels at once.

#### Resetting the waveform display

Click "Display" at the top right of the screen and then click "Reset" at the bottom left to clear the customized waveform display and show all channels in numerical order.

#### Changing the waveform display order

Waveform windows can be dragged and dropped to change the order that they are displayed.

#### **Operation example**

#### Moving Ch1 to between Ch2 and Ch3.

Click the Ch1 waveform window and, without releasing it, drag it to between Ch2 and Ch3, causing a red line to appear between these channels.



Release the left mouse button, dropping the Ch1 waveform window between the Ch2 and Ch3 waveform windows.



#### **Overlaying display of waveforms**

Waveform windows can be dragged and dropped on top of each other to overlay their display.

#### NOTE

- The waveform that is dragged and dropped will appear on top.
- Even when waveforms are overlaid, they will be shown according to the properties of their individual channels. Nothing will make their display ranges or other properties consistent.
- The name of the channel for the waveform overlaid on top will be shown.
- $\blacktriangleleft$ ,  $\blacktriangleright$  and  $\times$  buttons appear at the top left of the channel display window during overlay display.
- Waveforms are drawn in order from the bottom channel. If waveforms are the same, only the top waveform will be shown.

#### **Operation example Overlaying Ch1 and Ch2 waveforms**

Click the Ch1 waveform window and, without releasing it, drag it on to the Ch2 waveform window, causing a red box to appear around it.







for overlay display.

#### **1.Basic operation**

#### Changing the overlay order

Click the  $\blacktriangleleft$  and  $\blacktriangleright$  buttons to change the overlay order.

#### Ending overlay display

Click the  $\times$  button to remove the top waveform and show it in the next separate window.

#### Prolonged (longer time) display

If the Prolonged checkbox is checked for the Time scale, the data will be shown for a longer time.

When the graph has been drawn to the right edge of the display range, the graph will become gray and new data will overwrite it.

• This cannot be used in limited transfer mode.



#### 1-6. Synchronization function

For details about leader and follower system connections, refer to "Synchronization function" in the WX-9000 Instructions for Use.

See "4-2-5. Sync" on page 34 for information about leader and follower device settings.

#### 1-6-1. Synchronized recording settings

If you set Sampling frequency, AD bit depth and Recording device (recording destination) for the leader system, they will also be set for follower system automatically. These settings cannot be changed on the follower system.

The number of recording channels can be set separately for the leader and follower systems. An error will occur if recording is conducted at a transmission rate higher than the follower systems can record.

Confirm that the number of recording channels on the follower system is suitable before starting recording.

- Setting triggers on the follower systems is not possible.
- Level triggers and external triggers become effective ten seconds after the system becomes record ready.
- If recording cannot be continued with a leader system because, for example, it does not have enough recording media capacity, recording will stop at that moment.

If recording cannot be continued with a follower system because, for example, it does not have enough recording media capacity, recording will stop only for that system. The other system will continue recording, but pausing will stop recording.

#### 1-6-2. Synchronized playback settings

After selecting files to play on the follower systems, select the file to play on the leader system.

If you select the file to play on the leader system first, search by ID for the files to play on the follower systems.

- If the file to play is selected on the leader system without selecting files to play on the follower systems, the last recorded/played files will be played.
- Searching by ID is the only search method that can be used from a follower system. Use the leader system for other search methods.
- REW and FFWD button operations of leader and follower systems are not linked. Use leader and follower systems individually for operations.

#### 1-6-3. Limitations when using WX9K Navi

Synchronized operation when using WX9K Navi has the following limitations.

• Do not connect WX-9000 systems other than the leader and follower systems being used for synchronized operation to the same subnet.

Operation on the same subnet is only supported for the leader and follower systems being used for synchronized operation. Operation of other WX-9000 systems connected to the same subnet is not supported.

• One computer is necessary for each WX-9000 system when connecting WX9K Navi to both leader and follower systems.

Only one system can be controlled from a single computer using WX9K Navi. Running multiple

instances of WX9K Navi on a single computer and connecting them to multiple leader and follower systems for control is not supported.

# 1-6-4. Checking synchronization connections

The status can be checked on the System settings Sync page of the leader system (page 15).

# 1-7. Placement of data display areas

WX9K Navi - WX-9000 (WX9000	3)					-	•
•11							
010 - 000 000:00:00	WAVE BAR DIG	IT FFT					
2025/01/31 11:27:14 Channels: 32 Ch Sampling frequenc;48kHz AD bit depth: 24bit	Hold: 🗩 Time	e scale: 🗹 Prolonge 10 [sec]	d		Channels:4	• Displa	y =
tart trigger: None top trigger: None fedia: WX 'oice memo: Off sync mode: NO SYNC GPS	Ch1/PA AMP CH 1	1.00 V -1.00 V		MW		WW	$\mathbb{N}$
Comment:	cha/DA AMD CH A	1.00 V					
Ionitor:Ch1 *	GN2/PA AMP CH 2	-100					
peaker:Voice memo * /olume: 0	-	1.00 V					
lute:	Ch3/PA AMP CH 3						
X Remain: 000 00:00:00 (0%)	۲	-1.00 V					
PS Informati		1.00 V					
tatus Valid	Ch4/PA AMP CH 4						
ate 2025/01/31 ime 11:27:14	۰	-1.00 V					
atitude 35.21.64 N		0	2,000	4,000	6,000	8,000	

#### Save

Save the current data display area placements.

#### Load

Load data display area placements saved using "Save".

#### Initialize

Restore the default data display area placements.

#### Preset

Place the data display areas according to layouts prepared in advance.

#### Recent

View previously used layouts and select them from a list.

#### 1-7-1. Placing display areas manually Placing areas freely

Align the mouse cursor with the waveform display name to be moved and drag it to the desired placement.



#### NOTE

Changing the placement will not change the display settings within the data display area.

#### Selecting positions for placement

Following the procedures in "Placing areas freely" above, drag a data display area above a placement icon (III, for example) to highlight a placement position.

Drop it there to place the data display area in the highlighted position.



0

0

Ch2/PA AMP CH 2

-1.00

#### 2-1. Order of procedures

Set recording
conditions
<b>↓</b>
Set recording
destination
Calibration
+
Set triggers
ŧ
Start recording
Stop recording

#### 2-2. Setting recording conditions

On the System Settings Screen page 15, make settings for the AD bit depth (analog-digital conversion bit depth), sampling series, sampling frequency, number of recording channels, voice memo activation and amplifiers (page 15).

#### 2-2-1. Auto range

Amp input ranges can be set automatically by inputting a temporary signal before recording.

### **1** Click the $\equiv$ button at the top right of the Home Screen and select "Auto range".



#### Put checks into the Selection boxes to select channels for the auto range function. Then, click the Start button.

				Auto range				
Measu	ring				Select/Des	select all	Start	Stop
Select	Number	Slot	Channel	Name	Range	Result		
~	1	1	1	PA AMP CH 1	1V			4
2	2	1	2	PA AMP CH 2	1V			
	3	1	3	PA AMP CH 3	1V			
	4	1	4	PA AMP CH 4	1V			
	5	1	5	PA AMP CH 5	1V			
	6	1	6	PA AMP CH 6	1V			
	7	1	7	PA AMP CH 7	1V			
	8	1	8	PA AMP CH 8	1V			
	9	1	9	PA AMP CH 9	1V			
	10	1	10	PA AMP CH 10	1V			
~	11	1	11	PA AMP CH 11	1V			

#### Input a signal.

#### 4 Click the Stop button.

From the input signal level, suitable ranges will be shown in the Result column, and ranges will be changed.

←				Auto range				
					Select/Des	select all	Start	Stop
Select	Number	Slot	Channel	Name	Range	Result		
	1	1	1	PA AMP CH 1	1V	0.5V		<b>†</b>
	2	1	2	PA AMP CH 2	1V	0.5V		
	3	1	3	PA AMP CH 3	1V	0.5V		
	4	1	4	PA AMP CH 4	1V	0.5V		
	5	1	5	PA AMP CH 5	1V	0.5V		
	6	1	6	PA AMP CH 6	1V	0.5V		
	7	1	7	PA AMP CH 7	1V	0.5V		
	8	1	8	PA AMP CH 8	1V	0.5V		
	9	1	9	PA AMP CH 9	1V	0.5V		
	10	1	10	PA AMP CH 10	1V	0.5V		
	11	1	11	PA AMP CH 11	1V	0.5V		
	10	1	10	DA AMID CH 12	11/	0.51		

# Click the ← button to return to the Home Screen.

#### ATTENTION

• Limitations on synchronization function use Execution of the auto range function is conducted from the leader system.

All channels for leader and follower systems are subject to auto range. Specific channels cannot be selected.

- Auto range result screens will not be shown on follower systems. Check the results on the Channels Settings Screen (page 15).
- If there are channels that have been AC coupled, measurement will not start for ten seconds after starting the auto range function. Input signals after ten seconds have elapsed.

# 2-3. Setting recording destination

Set the media and file name for recording.

Set the recording destination on the File Settings Screen (page 15).

 When WX is selected for Media, a "Format media" item is shown. Click the → button to format the media loaded in the WX-9000.

#### 2-4. Calibration

Set the value used to convert sensor output to physical quantities.

#### 2-4-1. Equivalent input calibration

In the Physical quantity conversion field, set the rated output and rated capacity indicated in the sensor test report (page 15).

#### 2-4-2. TEDS calibration

Click the TEDS Load button on the settings screen for an individual amplifier module to set its physical quantity conversion value (page 15).

To set TEDS data for multiple channels at the same time, click the  $\equiv$  button at the top right of the Home Screen and select "TEDS".

÷					TEDS				
							Reload Se	elect/Deselec	t all Apply
Select	Number	Slot	Channel	Sensitivity	Unit	Axis	Туре	Serial	Model
	1	1	1	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	2	1	2	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	3	1	3	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	4	1	4	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	5	1	5	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	6	1	6	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	7	1	7	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	8	1	8	1.234567e-8	V/Pa	х	Accelerometer	1234567	1234-A-56
	9	1	9						
	10	1	10						
	11	1	11						
	12	1	12						
÷	13	1	13						*

This shows a list of TEDS data for connected sensors. Put checks into the Select boxes for channels to set their TEDS data as physical quantity conversion values. Then, click the Apply button.

#### 2-5. Setting triggers

In addition to manually starting and stopping recording, you can also set the system to start and stop recording using triggers and intervals. Make these settings on the Trigger Settings Screen (page 15).

The trigger recording operations are explained below.

#### ATTENTION

- When using triggers and intervals to start recording automatically, put the system into a record ready state. The system will not detect triggers if just in a stopped state.
- If the fans have been stopped when recording, wait at least ten minutes before stopping the fans to record again. In particular, when using interval recording to record repeatedly, make sure the interval time is sufficient.
- The clock time and passage of time follow the clock of the WX-9000.

#### **Trigger recording**

Example of one trigger recording repetition



For trigger recording, you can set a combination of recording starting conditions (level trigger, external trigger or timeout) and recording stopping conditions (level trigger, external trigger or recording time).

#### Recording starting conditions Level trigger

Use a level change for the set channel as a trigger.

#### **External trigger**

Recording starts when the input through the external

trigger signal input (TRIG IN) connector becomes the L level (0.4 V or less).

#### Timeout

If the conditions set to start recording are not met within the set time, recording will be forced to start automatically.

#### Pre-trigger

By default, the system saves data from the time between when a recording starting condition occurs and when a recording stopping condition occurs. When a pre-trigger interval is set, data is recorded before a recording starting condition occurs, but only after the system is made record ready.

• Voice memos are not recorded during this time.

#### **Recording stopping conditions**

#### Level trigger

Use a level change for the set channel as a trigger.

#### **External trigger**

Recording stops when the input through the external trigger signal input (TRIG IN) connector becomes the H level (open or 2 V or more).

#### **Recording time**

Recording continues only for the set amount of time. Recording will not stop if 0 is specified.

#### Post-trigger

Even after recording stop conditions are met, recording will continue for the set amount of time.

• When recording is stopped manually, however, post-trigger recording will not occur.

#### Number of repetitions

Set the number of repetitions. If the number of repetitions is 2 or more, the system will become record ready after recording stops the first time. When the recording starting condition is realized, recording will start again. This will repeat for the number of repetitions. Then, recording will stop.

If "Endless" is checked, recording and pausing (becoming "record ready") will repeat until one of the following conditions is met.

• The recording capacity of the recording media becomes full

- The file name suffix exceeds the number of digits (3 for WX and 3–5 for PC)
- Recording is stopped manually

If "Endless" is checked and recording is conducted until the recording media becomes full, the data for the last recording might not be as long as the Recording time setting.

#### ATTENTION

Triggers cannot be monitored for about two seconds after becoming record ready, or after recording starting or stopping conditions occur.

During this time, nothing will happen even if trigger conditions occur.

#### **Interval recording**





With interval recording, when the Number of repetitions is set to 1, recording will start at the Start time and stop after the set Recording time has elapsed.



#### 2.Recording

When the Number of repetitions is set to 2 or more, recording will start at the Start time and become record ready after the set Recording time has elapsed. After the Interval time has elapsed, recording will start again, repeating for the set number of repetitions. Then, recording will stop.

If the Number of repetitions is set to "Endless", interval recording will repeat until one of the following conditions is met. Then, recording will stop.

- The maximum recording capacity of the recording media is reached
- The file name suffix exceeds the number of digits (3 for WX and 3–5 for PC)
- Recording is stopped manually

#### Start time

Recording starts at the set time.

#### ATTENTION

If the set time has already passed when the system is made record ready, recording will not start.

The system might take some time to become record ready if, for example, there are already many recorded files. Considering this, set the start time with sufficient spare time.

#### **Recording time**

Recording continues for the set amount of time. Recording will not stop if 0 is specified.

#### Interval time

If the Number of repetitions is set to 2 or more recordings, this is the amount of time that the system stays in a record ready state from the time one recording ends until the next recording starts.

#### ATTENTION

- Set the Interval time to at least six seconds.
- Even if the system has manually been put in a record ready state during the recording time, the next recording will start after the originally set recording time and interval time have elapsed.

#### Number of repetitions

Set the number of repetitions.

If "Endless" is checked, recording and pausing (becoming "record ready") will repeat until one of the following conditions is met.

- The recording capacity of the recording media becomes full
- The file name suffix exceeds the number of digits (3 for WX and 3–5 for PC)
- Recording is stopped manually

If "Endless" is checked and recording is conducted until the recording media becomes full, the data for the last recording might not be as long as the Recording time setting.

#### Scheduled recording

Recording can be scheduled for a set date and time or at a specific interval.

#### 2-6. Starting recording

Click the ● button to make the system ready to record. If a start trigger has been set, recording will start when a trigger condition is met.

If no start trigger has been set, click the **>** button to start recording.

#### 2-6-1. Event mark

The  $\checkmark$  button can be clicked during recording to set an event mark.

• A maximum of 200 event marks can be added to a single data file.

#### 2-7. Stopping recording

If a stop trigger has been set, recording will stop when a trigger condition is met.

If no stop trigger has been set, click the **■** button to stop recording.

#### 2-7-1. Deleting recorded files

Click the  $\equiv$  button at the top right of the Home Screen and select "Delete recorded file".

 Immediately after recording, the recorded file can be deleted from the WX-9000 recording media.
 Deleting the file will no longer be possible after recording if the system is made record ready or the WX-9000 recording media is replaced.

#### 2-8. Recording format

The format used for recording data is TAFFmat.

See the WX-9000 Instructions for Use for details about the TAFFmat format.

#### 2-8-1. Media folder structures

Folder type	Name	Details			
		This is created in the root folder.			
Base folder	WX9KDAT	Data is managed inside it.			
		The name is fixed.			
Recording folders	Name as assigned (Example: WX9000-DIR1)	These are created in the base folder. Their names can be set as desired.			
Recording files	Name as assigned (Example: WX9000_)	These are created in recording folders. Their names can be set as desired. Each time recording starts, a folder is created with a suffix added automatically (3 digits for WX or 3–5 for PC).			
Recording data	Same as recording file	When a recording is divided at 4 GB, a - followed by a three-digit suffix will be added to the name.			

• Characters that can be used for assigned names ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890 !@#\$%^&()\_+-=`'[];,~

#### Folder structure example



When saving recording data on a computer, the data will be saved in the set recording folder in the base folder.

#### 3-1. Order of procedures

Set playback conditions ↓

Select playback file

Start playback

• If you want to search for a playback position, first press the **II** PAUSE button to make the system playback ready and then search.

#### 3-2. Setting playback conditions

Make output unit settings (page 15).

#### 3-3. Playback

#### ATTENTION

- Data saved to a WX-9000 media can be played back. Data saved to a computer cannot be played back.
- Set the recording destination (Recording device) to WX or WX & PC.

#### Click <sup>△</sup> to open the Select playback file window.



A list of folders will appear on the left side. A list of the files in a folder appears on the right side.

Select a folder, select the playback file, and click the Play button to start playback.

Playback will start and playback data will be shown on the Home Screen.

During playback, the following buttons are enabled.

- Skip to previous recording data
- ►► Skip to next recorded data

#### NOTE

- Clicking the ► button on the Home Screen without selecting a file will play the most recently recorded or played data.
- If Behavior after searching is set to Pause, the system will pause after when playing files from a file list (page 15).

#### E Click the ■ button to stop playback.

#### 3-3-1. Searching operation

Searching is possible when in a playback ready state.

#### ATTENTION

Searching is not possible if no media is loaded in the WX-9000 or if the loaded media does not contain measurement data.

When searching is possible, the information display area at the top left of the window will change as follows.



When the information and measurement condition display area is not being shown on the left side of the window, it will change as follows.



The following items can be searched. The current playback position is shown for each item.

- a ID
- **b** Playback search bar
- c Event mark
- d Playback time (count)
- e Recording date and time

#### Searching

#### Click the item to search.

The search position input window will appear.

The example below shows the window when ID has been clicked.



#### Input the search position.

To input the search position, click ▲ or ▼, or click the number area and input the number directly. Click "Cancel" to close the window. Click "Reset" to return ID to the current position.

#### **B** Click "OK".

Playback will start from the search position. If ID search is conducted during synchronized playback, the system will enter a playback ready state at the search position.

#### NOTE

If Behavior after searching is set to Pause, the system will pause after using a search function (page 15).

#### 4-1. Basic operation

# Click the \* button on the Home Screen to open the Settings Screen.

$\leftarrow$ System $\rightarrow$ General					
System	General GPS Time	Monitoring	Sync		
File	AD bit depth		16bit	÷	
Channels	Sampling series		256kHz series	*	
Trigger	Sampling frequency		102.4kHz	*	
Load/Save	Number of recording channels		128Ch	*	
Misc	Voice memo		Off	Ŧ	
	Speaker source Speaker volume Mute speaker		Voice memo 0	-	
	Cooling fan mode		Normal	*	

### Select a setting menu item on the left side of the screen, and change settings.

Select a sub menu item if necessary.

When Mode is set to Trigger on the Trigger Settings Screen, for example, a  $\rightarrow$  button will appear if a lower level settings screen is available. Click the  $\rightarrow$ button as necessary to make settings.

#### NOTE

Settings can be changed only when the system is stopped (ready for use).

Settings can only be checked when in other states.



To go back from a lower level of Settings Screen, click the 🖛 button above the setting items.



# E Click ← at the top left of the window to return to the Home Screen.

#### ATTENTION

- If the expansion unit configuration is changed, the measurement conditions will be reset.
- The Settings Screen cannot be closed if the set measurement conditions exceed a maximum limit for the number of channels that can be recorded simultaneously.

Review the following settings.

Sampling frequency / sampling bandwidth\*

AD bit depth

#### Number of channels

\*This cannot be changed on follower systems in synchronized operation mode. To change this, change the setting of the leader system.

#### NOTE

- See the "Number of channels that can be recorded simultaneously" in the Specifications of the WX-9000 Instructions for Use.
- Settings can be saved on the Load/Save Settings Screen.
- Data cannot be loaded if the saved settings are for an expansion unit configuration that is different from the current one.

#### Menu structure



#### 4-2. System Settings

#### 4-2-1. General

$\leftarrow$ System $\rightarrow$ General							
System	General GPS Time Monitoring	Sync					
File	AD bit depth	16bit -					
Channels	Sampling series	256kHz series					
Trigger	Sampling frequency	102.4kHz -					
Load/Save	Number of recording channels	128Ch -					
Misc	Voice memo	Off •					
	Speaker source	Voice memo 👻					
	Speaker volume	0					
	Mute speaker						
	Cooling fan mode	Normal -					

#### AD bit depth

Set the analog-digital resolution (quantization bit depth).

#### Sampling series

Set the sampling frequency series.

#### Sampling frequency

Set the sampling frequency.

#### Number of recording channels

Set the number of recording channels. The options are the possible number of recording channels for the current system.

#### Voice memo

Set voice memo recording. The recording level is adjusted automatically.

Off: Not recorde

On: Recorded

Voice memos are not recorded during the pre-trigger interval.

When playing data recorded using the pre-trigger function, the beginning of the voice memo will be lined up with the recording data, so the voice memo and recording data playback positions will be shifted by the amount of pre-trigger data.

#### ATTENTION

The maximum file size of voice memo data is 4 GB. Voice memo data in excess of 4 GB will not be recorded, but normal recording will not be interrupted.

(For voice memo data to exceed 4 GB, it would take about six days.)

#### Speaker source

Voice memo Monitor

#### Speaker volume

This adjusts the volume of the WX-9000 speaker and the earphone. The minimum is 0, and the maximum is 100.

#### Mute speaker

This temporarily minimizes the volume.

#### Cooling fan mode

Set the operation of the fans.

The options are Normal and Stop on REC.

When set to Stop on REC, the fans will be kept off from the start of measurement for ten minutes or until recording stops if less than ten minutes.

• Set this to Stop on REC if the sound of the fans might affect measurements when, for example, measuring noise.

• If the fans have been stopped when recording, wait at least ten minutes before stopping the fans to record again. In particular, when using interval recording to record repeatedly, make sure the interval time is sufficient.

#### 4-2-2. GPS

$\bigstar System \rightarrow GPS$					
System	General GPS	Time Monitoring	Sync		
File	Use	o	)n 🔻		
Channels	Baud rate	3	8400 baud 👻		
Trigger	Data recording	<u>-</u>	ùn -		
Load/Save					
Misc	GPS status				
	Status	V	/alid		
	Satellites	1	2		
	Time	1	3:38:24		
	Latitude	3	5,21.64, N		
	Longitude	1	38,43.64, E		
	Altitude	3	772.0 m		
	Speed	1	23.4567 Km/n		
	000136	0			

#### Use

On: Use Off: Do not use

#### **Baud rate**

4800 baud 9600 baud 19200 baud 38400 baud 57600 baud 115200 baud Set this to 38400 baud usually.

#### Data recording

Off: Not recorded On: Recorded

#### **GPS** status

This shows the status of the GPS receiver.

#### 4-2-3. Time

$\leftarrow$ System $\rightarrow$ Time							
System	General	GPS	Time	Monitorir	ng Sync		
File	Date format				YYYYMMDD -		
Channels	Time difference	•			UTC +9 - Auto		
Trigger	Automatic adju	stment			Off •		
Load/Sav	e						
Misc	Manual adjustn	nent			2025/01/31 🖬 13:37:56 🕓		
					Set to the above time		
					Set to PC time		
					Set to GPS time		
Date format				50	at to PC time		
<b>Date format</b> One of the following three date formats can be selected.			n be sele	cted.	Click to set it to the computer time at that instai		
、	ionin, DD: day)			Se	et to GPS time		
					Click to set it to the GPS time at that instant.		

MMDDYYYY

DDMMYYYY

#### NOTE

This will be reflected on the display of the recording unit when WX9K Navi is quit.

#### Time difference

Enter the time difference from UTC.

Click the Auto button to load the operating system setting.

For example, input +9 for Japan.

#### ATTENTION

The time difference that was set at the time of recording will be used to show the recording start and stop times of files that have already been recorded.

#### Automatic adjustment

Off: The time will not be adjusted automatically. NTP: NTP will be used to adjust the time. GPS: GPS will be used to adjust the time.

#### Manual adjustment

Set the date and time of the WX-9000 clock. Set to the above time Input the date and time and click this button.

#### 4-2-4. Monitoring

$\bigstar System \rightarrow Monitoring$						
System	General	GPS Ti	ime	Monitoring	Sync	
File	Target channel				Ch1	Ŧ
Channels	Output voltage range				3.3V	 Ŧ
Trigger						
Load/Save						
Misc						

Measured values of the specified channel are converted from digital to analog and output from the MONITOR OUT connector.

• Only channels that have been assigned to input amplifier modules can be selected.

#### Target channel

Select the channel output from the MONITOR OUT connector.

Set this to Off when you do not want to output signals from the MONITOR OUT connector.

Nothing will be output when an unrecorded channel is selected.

Pulse input cannot be selected.

#### Output voltage range

This sets the voltage output when the input of the selected channel is 100% of the input range.

#### 4-2-5. Sync

<b>←</b> Syst	tem → Sync	;				
System	General	GPS	Time	Monitoring	Sync	
File	Mode				Leader	
Channels	Number of syn	chronized sy	vstems		2	
Trigger	Check connect	ion		Check co	nnection	
Load/Save	Adjust time				Adjust tin	ne
Misc						
	Sync Status					
	OK					
	De	vice	Status			
	2 Lea	ader	OK			
	3 Fo	llower 1	OK			

#### Mode

This sets the synchronized operation mode .

#### Number of synchronized systems

This shows the number of systems operating with synchronization.

Only 2 systems can be synchronized (1 leader and 1 follower).

#### **Check connection\***

Use to check connections between leader and follower systems.

#### Adjust time\*

This sets the time of the follower system to the time used by the leader system.

\*This is shown when the Mode is set to Leader.

#### NOTE

For information about synchronized operation, see "1-6. Synchronization function" on page 18.

#### **Mode settings**

Leader/follower will be set automatically according to the synchronization cable connections.

#### 4-3. File

← File		
System File	Recording device	WX & PC
Channels Trigger	<b>wx</b> Media type Remain	No Device 0 MB
Load/Save Misc	Format media	÷
	PC Base folder	My Documents  C:\Users\###11"\Documents\TEAC\WX-9000\DATA
	Remain Number of digits	245,231 MB 3
	Recording folder Recording file Comment	WX9K_DIR • WX9K_ •

#### **Recording device**

This sets the media where recordings are saved. WX: WX-9000 recording media PC: computer WX & PC: WX-9000 recording media and computer

#### Remain

This shows the amount of free space on the saving location.

#### Number of digits (PC only)

This sets the number of digits in the suffix (page 26).

#### Format media

This appears when Recording device is set to WX. To format the WX-9000 recording media, click the  $\rightarrow$  button.

#### **Base folder**

Set when saving to a computer.

Select the folder name from the list or select "Custom" and enter the name as desired to set another folder. We do not recommend saving to removable media or network drives because stable recording might not be possible.

#### **Recording folder**

Use this to set the name of the folder where recording data is saved.

#### **Recording file**

Set the beginning of the names given to recording data files.

#### Comment

Input a comment for recording data.

#### Folders where recording data is saved When Recording device is set to WX

Data will be saved in the folder set with "Recording folder" in the root directory of the recording media. With the settings in the screen shown above, data will be saved in ¥WX9K\_DIR.

Continued on the next page ightarrow

#### 4.Settings

#### When Recording device is set to PC

When saving recording data, the folder the data is saved in will be the set "Recording folder" inside the "Base folder".

With the settings in the screen shown above, data will be saved in the following location.

C:¥Users¥(user name)¥Documents¥TEAC¥WX-9000 ¥DATA¥WX9K\_DIR

#### When Recording device is set to WX & PC

Data will be saved to both the WX-9000 recording media and the computer as shown above.

#### NOTE

- If a folder that does not exist is set, it will be created.
- Recording folder and file name suffixes are 3 digits (fixed) for WX and 3–5 digits (settable) for computers (page 26).
- Quit this application before deleting recorded data on a computer.

← Cha	innels							
System					0/1	28 Select all	Deselect all Ed	it all selected
File	Select	Number	Unit	Channel	Edit	Name	Input voltage range	Coupling
Channels		1	1	1	Edit	PA AMP CH 1	1V	AC
Trigger		2	1	2	Edit	PA AMP CH 2	1V	AC
Load/Save		3	1	3	Edit	PA AMP CH 3	1V	AC
Misc		4	1	4	Edit	PA AMP CH 4	1V	AC
		5	1	5	Edit	PA AMP CH 5	1V	AC
		6	1	6	Edit	PA AMP CH 6	1V	AC
		7	1	7	Edit	PA AMP CH 7	1V	AC
		8	1	8	Edit	PA AMP CH 8	1V	AC
		9	1	9	Edit	PA AMP CH 9	1V	AC
		10	1	10	Edit	PA AMP CH 10	1V	AC

#### 4-4. Channels

Settings can be made for channels individually.

• This applies to channels enabled by the Number of recording channels setting.

#### 4-4-1. Simultaneous editing

Settings can be simultaneously made for multiple channels.

- 1 Check the Select boxes for channels to be set the same way.
- **2** Click the "Edit all selected" button.

# Make the necessary settings, and close the settings window.

- When making settings, items that have different values set will appear blank. Change settings to make them the same for all the selected channels at once. If nothing is done, individual setting values will not be changed.
- Channel names cannot be changed simultaneously.

#### 4-4-2. Channel Settings Editing Screen

On the Channels Settings List Screen, click the Edit button for the channel to be set to open its editing screen.

#### 4-4-2-1. Analog input amplifier

÷					
Name		PA AMP CH 1			
Input voltage range		1V	Ŧ		
Coupling		AC	<b>.</b>		
IEPE current		Off	Ŧ		
Weighting		Flat	<b>.</b>		
HPF		Off	Ŧ		
TEDS			Load		
Actual load calibration			$\rightarrow$		
Output voltage range		1.0V	*		
Output unit		1: Ch1~16	1: Ch1~16		
Physical quantity conversion					
Input value		Physical quantity	Unit		
V	=	1.0	•		
Offset	_	0.0	v		

#### Name

Set the input channel signal name.

#### Input voltage range

Select a range that covers the input signal changes.

#### Coupling

When using an IEPE sensor current, set Coupling to AC.

#### IEPE current

Set the IEPE sensor current.

Actual load calibration can be conducted unless "Off" was selected.

#### Weighting

Select the weighting filter. When using HPF, set Weighting to Flat.

#### HPF

Set the high pass filter.

#### TEDS

Click the Load button to load TEDS data from the connected

sensor and set the Physical quantity conversion values.

#### **Actual load calibration**

This is enabled when the sensor current is 4 mA or 0.5 mA.

#### Output voltage range

This sets the voltage output when the input of the selected channel is 100% of the input range.

#### Output unit

This sets the output unit during playback.

(The settings of other channels of the same unit will be changed at the same time.)

#### Physical quantity conversion

Set the parameters used to convert signals to physical quantities.

This is the unit after physical quantity conversion. This can be set to the desired characters.

#### 4-4-2-2. Actual load calibration

←	Actual load calibratio	on	
Calibrator	Pistonph	ione	*
Calibration mode	RMS		Ŧ
Level	74 dB		Ŧ
Measurement value		m	V / Pa
	Start	Apply	Cancel

#### Calibrator

Pistonphone: Select when calibrating a microphone. Exciter: Select when calibrating a piezoelectric transducer.

#### **Calibration mode**

RMS: Calibrate using RMS (root mean square) values. Peak: Calibrate using peak values.

#### Level

Use when the calibrator is a pistonphone 74 dB, 94 dB, 114 dB Use when the calibrator is an exciter 4.9 m/s<sup>2</sup>, 9.8 m/s<sup>2</sup>, 10.0 m/s<sup>2</sup>

#### **Calibration procedures**

**1** Attach the sensor to the calibrator.

To calibrate a microphone, connect it to a pistonphone. To calibrate a piezoelectric transducer, connect it to an exciter.

- Select the value of the actual load to be applied to the sensor by the calibrator. Set the calibrator, calibration mode and level.
- E After applying the actual load to the sensor by the calibrator, click the "Start" button to start measurement.
- When the measurement value shown in the measurement value area becomes stable, click the "Apply" button.

4-5.	4-5. Trigger						
	← Trig	iger					
	System	+					
	File	Mode	Trigger -				
	Channels	Recording start condition	<b>→</b>				
	Trigger	Pre-trigger	off •				
	55	Recording stop condition	<b>→</b>				
	Load/Save	Post-trigger	Off •				
	Misc	Number of repetitions	Endless     0				

When the Mode is Trigger or Interval, setting items for the mode are shown.

See "2-5. Setting triggers" on page 22 for details about Trigger settings.

#### 4-6. Load/Save

← Load/Save				
System				
File	Save location	● WX ○ PC		
Channels	Load	→		
Trigger	Save	→		
Load/Save				
Misc	Initialize	→ →		

• This affects settings related to the WX-9000 system.

#### Save location

Location for saving Settings data WX: WX-9000 recording media PC: computer

#### Load

Load settings.

Save

Save the current settings.

#### Initialize

Restore settings to their default values. Network settings are not initialized.

#### 4-7. Misc

#### 4-7-1. Misc

← Mise	c → Misc	;				
System	Misc	Version	Environment	License		
File						
Channels	Disp	olay language		Auto		Ŧ
Trigger	Sam	npling notatior	ı	Freque	ency	<b>.</b>
Load/Save	Beh	avior after sea	arching	Play		Ŧ
Misc	Star	rtup status		Stoppe	ed	*
	UPS	3				
				0		
	Rem	nember windo	w placement			
	Rem	nember windo	w layout			
	Prev	vent OS shutdo	own			

#### Display language

Auto	Japanese will be used if the operating system
	language setting is Japanese. Otherwise,
	English will be used.
日本語	Japanese will be used.
English	English will be used.

This setting is applied the next time the application is launched.

#### **Sampling notation**

Set the sampling notation used by this application.

#### NOTE

This will be reflected on the display of the recording unit when WX9K Navi is quit.

#### **Behavior after searching**

Select whether playback starts or pauses after using a search function (ID, playback search bar, event mark, playback time (count), recording date and time) as well as when playing files from a file list.

#### NOTE

During synchronized playback, the system will pause regardless of this setting.

#### Startup status

Select the initial state after startup.

#### NOTE

If the recording destination setting (page 15) is set to "PC" or "WX&PC", setting this to "Record ready" or "Record" will cause an error to appear when the WX-9000 starts up.

#### UPS

This sets whether or not to use UPS. Turn this on to use UPS.

#### **Remember window placement**

When this is On, window placement will be remembered and restored the next time the application is launched.

#### **Remember window layout**

When this is On, the Home Screen window layout will be remembered and restored the next time the application is launched.

#### **Prevent OS shutdown**

Turning this on will prevent the OS from shutting down while this application is running.

Turn this off if shutting down the OS is necessary when a signal is received during a power outage, for example.

#### 4-7-2. Version

← Mis	c → Ver	sion							
System	Misc	Versi	on	Environ	ment	License			
File	Applica	ation versio	on			1.0.0			
Channels Trigger	Model Serial System	ı				WX-9000 WX90000 1.0.0			
Load/Save	OS Firmwa GUI	are				1.0.0 1.0.0 1.0.0			
Misc	RTOS FPGA PLD					1.0.0 1.0.0 1.0.0			
	Update	firmware						$\rightarrow$	
	Expans	ion units				8 / 8			
	Unit	Name	Туре	FPGA	Firmware	e Channels	Serial		
	1	PA AMP	PA	1.0.0	1.0.0	16	AU90001		$\uparrow$
	2	PA AMP	PA	1.0.0	1.0.0	16	AU90002		
	3	PA AMP	PA	1.0.0	1.0.0	16	AU90003		
	4	PA AMP	PA	1.0.0	1.0.0	16	AU90004		
	5	PA AMP	PA	1.0.0	1.0.0	16	AU90005		
	6	PA AMP	PA	1.0.0	1.0.0	16	AU90006		4

#### **Application version**

This is the WX9K Navi version.

#### Model

This is the model communicating with the application. "WX-9000" will usually be shown.

#### Serial

This is the recording unit serial number.

#### System

OS

Firmware

GUI

RTOS

FPGA

#### PLD

These show the corresponding versions.

#### Update firmware

Use this to update the firmware of the WX-9000 and amplifier modules.

To update the firmware, follow the documentation included with the new firmware.

#### **Expansion units**

This shows information about input/output units connected to the recording unit.

#### 4-7-3. Environment

$\bigstar Misc \rightarrow Environment$								
System	Misc	Version	Environment	License				
File	OS			Microsof	ft Windows 11 Pro Version 23H2 64bit			
Channels				OS Build	:22631.4751 (2023 Update)			
Trigger	.NET Fra	mework versio	on	4.8 or lat	er			
Load/Save								
Misc								

#### OS

This shows information about the operating system of the computer that WXK Navi is running on.

#### .NET Framework version

This shows the .NET Framework version installed in the computer operating system.

#### 4-7-4. License

← Misc	- → License						
System	Misc Versi	on Environment	License				
File	CommunityTo	olkit.Mvvm				~	
Channels	CommunityTo	olkit.HighPerforman	се			~	
Trigger	System.IO.Po	ts				$\sim$	
inggei	System.Mana	gement				~	
Load/Save	System.Comp	onentModel				$\sim$	
Misc	System.ComponentModel.Annotations						
	System.Drawi	ng.Common				$\sim$	
	System.React	ive				$\sim$	
	ReactivePrope	erty				$\sim$	
	ReactivePrope	erty.Core				$\sim$	
	SkiaSharp					$\sim$	
	SkiaSharp.Views.WPF v						
	SkiaSharp.Views.Desktop.Common ~						
	SkiaSharp.Na	iveAssets.Win32				$\sim$	
	MathNet.Num	erics				$\sim$	
	MemoryPack					$\sim$	
	MemoryPack.	Core				$\sim$	
	MemoryPack	Generator				~ ~ ~	

#### Notice regarding third-party software

This product includes the software that TEAC Corporation has received permission to use from third parties either directly or indirectly.

Software names, copyrights and licenses can be checked on this screen.

Click software names to show copyrights and licenses.

The data on the media inserted in the WX-9000 can be transferred to a computer.

# **1** Click the $\equiv$ button at the top right of the Home Screen and select "File transfer".



# Click the name of the folder next to "WX folder:" and select the transfer source folder.

÷		File transfer	
WX f	older: W	VX9K_DIR	<u>_</u>
Select	Oriç	WX9K_DIR	ĺ.
	WXS	WX9K_DIR1	1
	WXS	WX9K_DIR2	J

### **E** Put check marks next to files in the media data list to select them for transfer.

WX f	older: WX9K_DIR			-	6/9	Select all	Deselect all
Select	Original name	Copy name	Date	Size			
	WX9K_001	WX9K_001	1/31/2025 1:30:58 PM	1,024 MB			
	WX9K_002	WX9K_002	1/31/2025 1:30:58 PM	1,024 MB			
	WX9K_003	WX9K_003	1/31/2025 1:30:58 PM	1,024 MB			
	WX9K_004	WX9K_004	1/31/2025 1:30:58 PM	1,024 MB			
	WX9K_005	WX9K_005	1/31/2025 1:30:58 PM	1,024MB			
	WX9K_006	WX9K_006	1/31/2025 1:30:58 PM	1,024MB			
	WX9K_007	WX9K_007	1/31/2025 1:30:58 PM	1,024MB			
	WX9K_008	WX9K_008	1/31/2025 1:30:58 PM	1,024MB			
	WX9K_009	WX9K_009	1/31/2025 1:30:58 PM	1,024 MB			
otal size	6,144 MB			_			
C folder	C:\Users\III	IIITT\Documents					

#### NOTE

The copy destination file name can be changed. After selecting a file, edit the file name in the Copy name column.

#### Click the button to the right of "PC folder:" and set the transfer destination folder on the computer.

The default folder is the Documents folder on the computer.

#### NOTE

The last selected folder will be used as the default folder when transferring files the next time.

#### **5** Click the Download button.

The following screen appears during transfer.

<current> WX:WX9K_038 PC:WX9K_038.dat</current>	
3%	
<total></total>	
	Cancel

When all files have been transferred, the following screen will appear.

	Information
0	Completed
	ОК

#### NOTE

If a file or folder with the same name already exists at the copy destination, "(1)" will be added to the end of the file name when saving.

If the same name with "(1)" added already exists, the number will be increased to, for example, "(2)" to prevent duplicate names.

Example WX9K\_0001  $\rightarrow$  WX9K\_001(1)  $\rightarrow$  WX9K\_001(2)  $\rightarrow$ WX9K\_001(3) ...



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