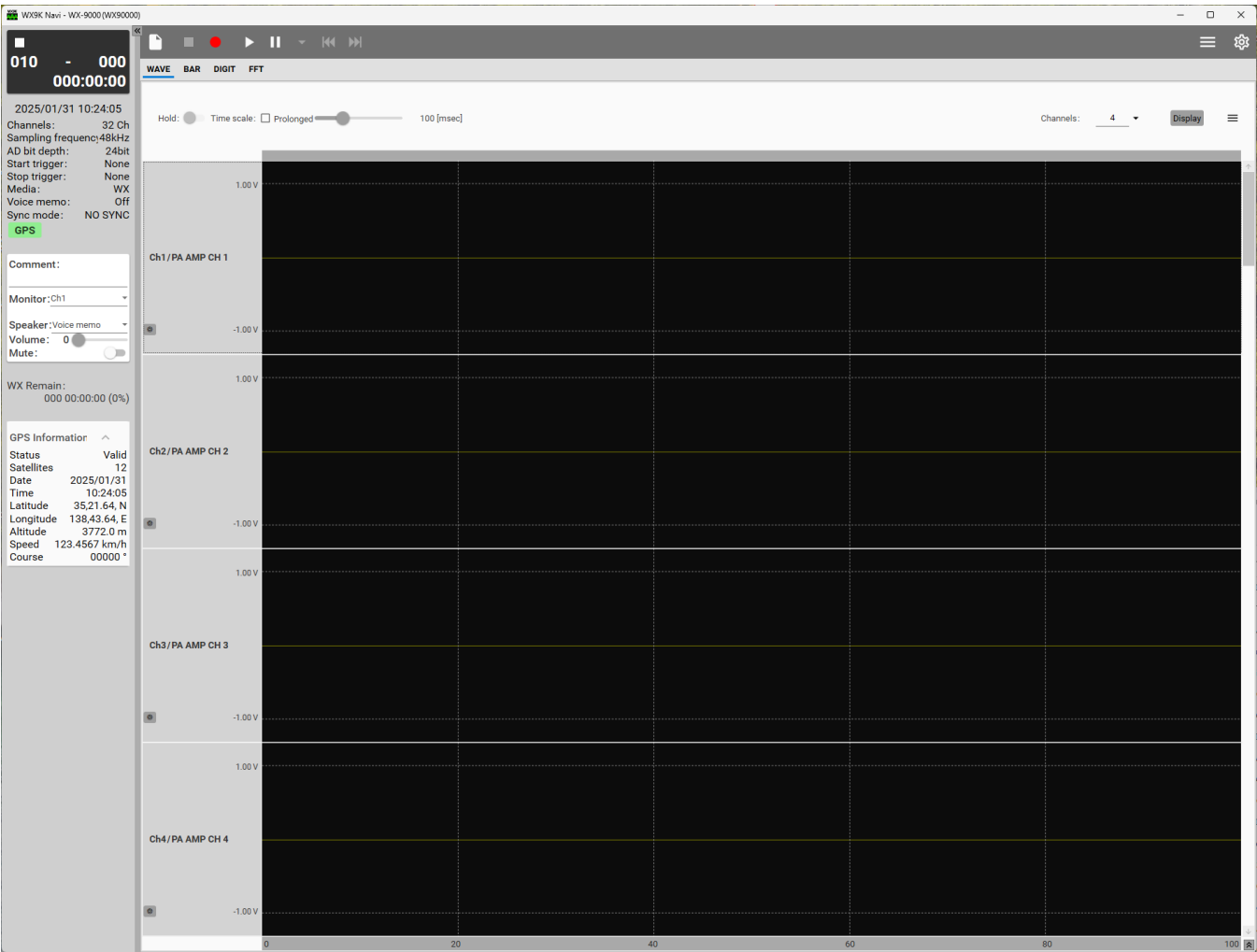




WX9K Navi

Instructions for Use



Contents

END USER LICENSE AGREEMENT	3	2-5.Setting triggers	23
Introduction.....	5	Trigger recording.....	23
Disclaimers	5	Recording starting conditions	24
Operating environment.....	5	Pre-trigger	24
Requirement for .NET Framework.....	5	Recording stopping conditions.....	24
Installation	6	Post-trigger	24
Installing over existing versions	6	Number of repetitions.....	24
Notice about security software.....	7	Interval recording	24
Setting the IP address.....	7	Start time	25
Setting the IP address of the WX-9000.....	7	Recording time.....	25
1.Basic operation	8	Interval time	25
1-1.Device Selection Screen.....	8	Number of repetitions.....	25
1-2.Home Screen	9	Scheduled recording.....	26
1-2-1.Settings by view.....	11	2-6.Starting recording.....	26
1-2-1-1.Cursor properties	12	2-6-1.Event mark	26
1-2-1-2.Channel Property List	12	2-7.Stopping recording	26
1-3.FFT Screen	14	2-7-1.Deleting recorded files	26
1-4.Settings Screen	15	2-8.Recording format	27
1-5.Status changes.....	16	2-8-1.Media folder structures.....	27
1-5-1.Explanation of status change diagram entry .	16	Folder structure example	27
1-5-2.Status change diagram	16	3-1.Order of procedures.....	28
1-6.Recording and playing data	17	3-2.Setting playback conditions.....	28
1-6-1.ID explanation.....	17	3-3.Playback	28
1-6-2.Waveform overview	17	3-3-1.Searching operation.....	28
Selecting waveforms to show	17	4-1.Basic operation.....	30
Resetting the waveform display	17	Menu structure	30
Changing the waveform display order.....	18	4-2.System Settings	31
Overlaying display of waveforms	18	4-2-1.General	31
Prolonged (longer time) display	19	4-2-2.GPS	32
1-7.Synchronization function.....	19	4-2-3.Time	33
1-7-1.Synchronized recording settings.....	19	4-2-4.Monitoring	34
1-7-2.Synchronized playback settings.....	20	4-2-5.Sync.....	35
1-7-3.Limitations when using WX9K Navi	20	4-3.File.....	36
1-7-4.Checking synchronization connections	20	4-4.Channels.....	38
1-8.Placement of data display areas	20	4-4-1.Simultaneous editing.....	38
1-8-1.Placing display areas manually.....	21	4-4-2.Channel Settings Editing Screen.....	39
Placing areas freely	21	4-4-2-1.Analog input amplifier	39
Selecting positions for placement	21	4-4-2-2.Actual load calibration	40
2-1.Order of procedures.....	22	4-5.Trigger	41
2-2.Setting recording conditions	22	4-6.Load/Save.....	42
2-2-1.Auto range	22	4-7.Misc	43
2-3.Setting recording destination	23	4-7-1.Misc.....	43
2-4.Calibration	23	4-7-2.Version	44
2-4-1.Equivalent input calibration	23	4-7-3.Environment	45
2-4-2.TEDS calibration	23	4-7-4.License.....	46

NOTICE:

This SOFTWARE is protected by applicable copyright acts and international treaties. Unauthorized reproduction or distribution of this SOFTWARE, or any portion of it, may constitute infringement of any rights under applicable copyright acts, civil codes and other relevant laws and regulations, and further may result in criminal penalties or damages claimed.

This SOFTWARE is offered only on the condition that YOU agree to all terms and condition of the following End User License Agreement.

End User License Agreement

This End User License Agreement is an agreement between YOU and TEAC Corporation (hereinafter referred to as "TEAC") on the software, including computer programs, online or electronic documents, and if provided, any related record media, printed materials, and any software TEAC may provide as the updates, additions or customizations for specific individual customers (hereinafter collectively referred to as "SOFTWARE"). By installing the SOFTWARE, it is deemed that YOU have agreed to be bound by the terms of this Agreement. In case YOU will not agree to the terms of this Agreement, YOU may not be allowed to use the SOFTWARE.

1. GRANT OF LICENSE

TEAC grants YOU the right to use the SOFTWARE for using or processing the data recorded by qualified products that TEAC designates (hereinafter referred to as "PRODUCT").

2. RESTRICTIONS

- YOU may not delete the copyright notices or any other proprietary legends on the SOFTWARE;
- YOU may not copy or distribute the SOFTWARE to any third party without the permission of TEAC;
- YOU may not modify, reverse engineer, decompile, or disassemble the SOFTWARE;
- YOU may not rent or lease the SOFTWARE to any third party; and

- Only in case YOU transfer the SOFTWARE together with PRODUCT to the transferee perpetually, YOU may transfer YOUR rights under this Agreement to the transferee of the SOFTWARE, provided that the transferee agrees to comply with the terms and conditions of this Agreement.

3. TERMINATION

Without prejudice to any rights or claims to YOU, TEAC may revoke YOUR rights under this Agreement if YOU breach this Agreement. In such event, YOU must immediately cease using the SOFTWARE, and must completely delete them.

4. COPYRIGHT

Any and all titles and copyrights in and to the SOFTWARE are reserved to TEAC or the third parties who granted license to TEAC (hereinafter referred to as "SUPPLIER").

5. NO WARRANTY

YOU ACKNOWLEDGE AND AGREE THAT ALL INFORMATION SUPPLIED BY TEAC UNDER THIS AGREEMENT, INCLUDING WITHOUT LIMITATION THE SOFTWARE, IS PROVIDED BY TEAC "AS IS" AND WITHOUT WARRANTY OF ANY KIND. TEAC HEREBY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SOFTWARE AND ANY MODIFICATION THEREOF BY YOU, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF DESIGN, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE. TEAC DOES NOT WARRANT THAT THE FUNCTIONS CONTAINED IN THE SOFTWARE WILL MEET YOUR REQUIREMENTS, OR THAT OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE SOFTWARE WILL BE CORRECTED, OR THAT YOU WILL HAVE OUR SUPPORT FOR YOUR USE OF THE SOFTWARE. TEAC SHALL HAVE NO RESPONSIBILITY OR LIABILITY FOR ERRORS OR PRODUCT MALFUNCTION RESULTING FROM YOUR USE, MODIFICATION, COPYING, OR DISTRIBUTION OF THE SOFTWARE. YOU assume complete responsibility for decisions made or actions taken based on information obtained using the Software. Any statements concerning the utility of the Software are not to be construed as expressed or implied warranties.

END USER LICENSE AGREEMENT

6. NO LIABILITY FOR CONSEQUENTIAL DAMAGES

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL TEAC AND THE SUPPLIER BE LIABLE FOR ANY SPECIAL INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, DAMAGES FROM LOSS OF OR NON-OBTAINING OF BUSINESS INFORMATION OR DATA, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE, EVEN IF TEAC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN CASE ANY LAWS OR REGULATIONS IN SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE LIMITATION WILL NOT APPLY TO YOU.

7. MISCELLANEOUS

This Agreement shall be construed in accordance with the laws of Japan.

All disputes arising in connection with this Agreement shall be submitted to the exclusive jurisdiction of the Tokyo District Court of Japan.

Should you have any questions concerning this Agreement, or if you desire to contact TEAC for any reason, please write to the address or visit our website set forth below:

TEAC CORPORATION

1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan

TEAC Data Recorder site (Inquiry Form)

<https://datarecorder.jp/en/inquiry/>

Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Intel Core is a trademark of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

TEAC and TAFfmat are trademarks of TEAC CORPORATION, registered in the U.S. and other countries.

Other company names and product names are the trademarks or registered trademarks of their respective owners.

See "4-7-4. License" on page 46 for information about copyrights and licensing related to open source software.

Disclaimers

Information is given about products in this manual only for the purpose of example and does not indicate any guarantees against infringements of third-party intellectual property rights and other rights related to them. TEAC Corporation will bear no responsibility for infringements on third-party intellectual property rights or their occurrence because of the use of these products.

- In order to improve products, specifications and appearance could be changed at any time without warning.
- Illustrations in this document might differ in part from actual products.

Operating environment

Supported operating systems

Windows 10 (64-bit)

Windows 11

as of April 2025

System requirements

- CPU: 3.0GHz Intel® Core™ 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

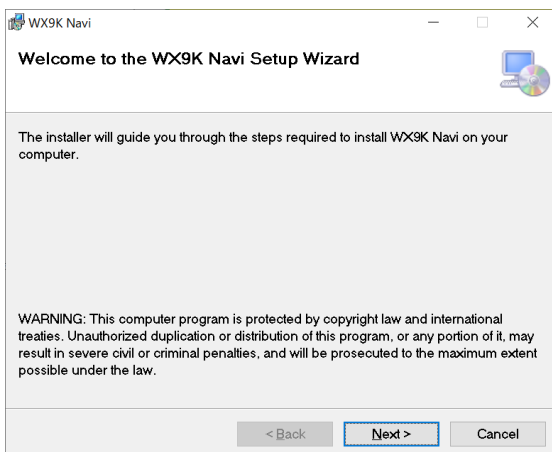
The screens used in this example are from Windows 10.

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

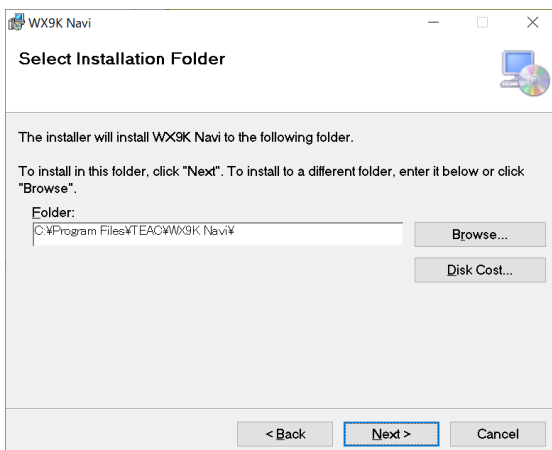
NOTE

If necessary, Microsoft Windows Desktop Runtime will be installed

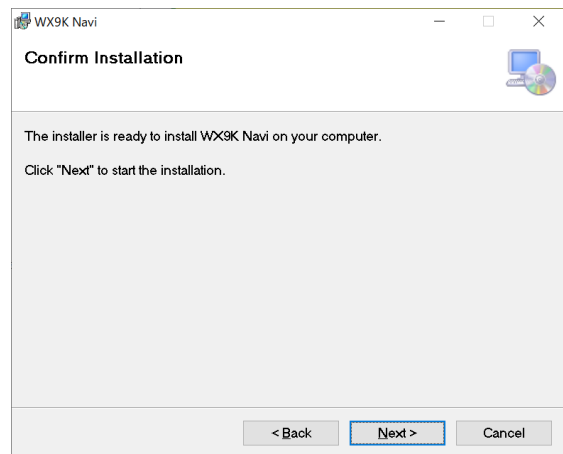
2 Click "Next".



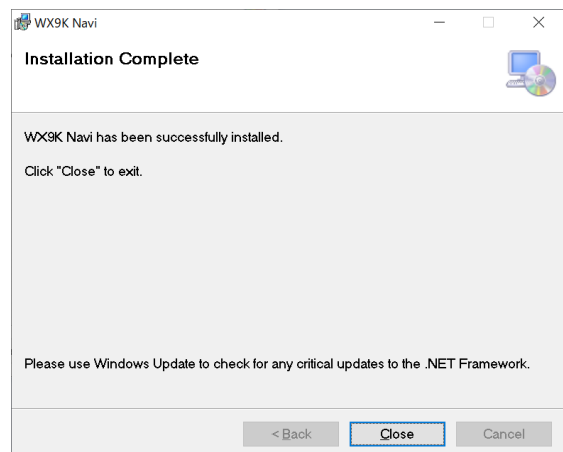
3 Select the installation folder, and click "Next".



4 Click "Next".

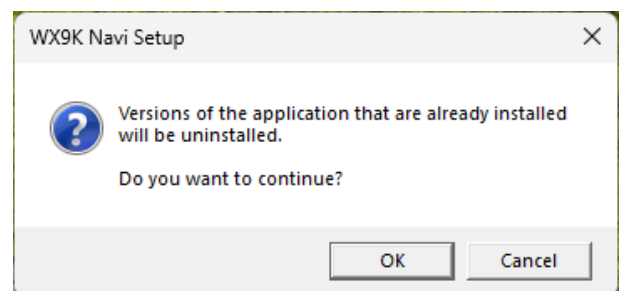


5 When the installation completion screen appears, click "Close" to finish the installation.



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.



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

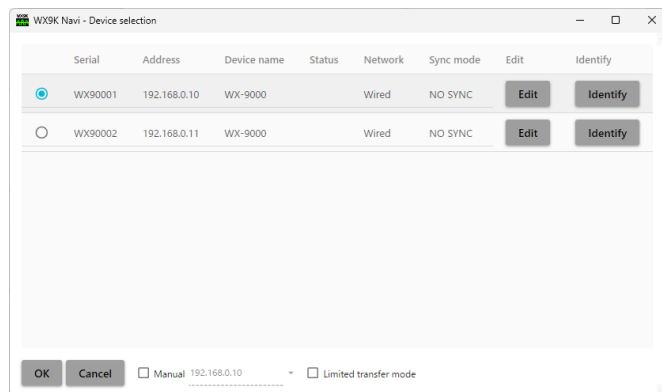
Follow these procedures to first set the IP address.

1 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.

2 Click the Start button and select TEAC - WX9K Navi.

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



4 Set the IP address and click the Apply button.

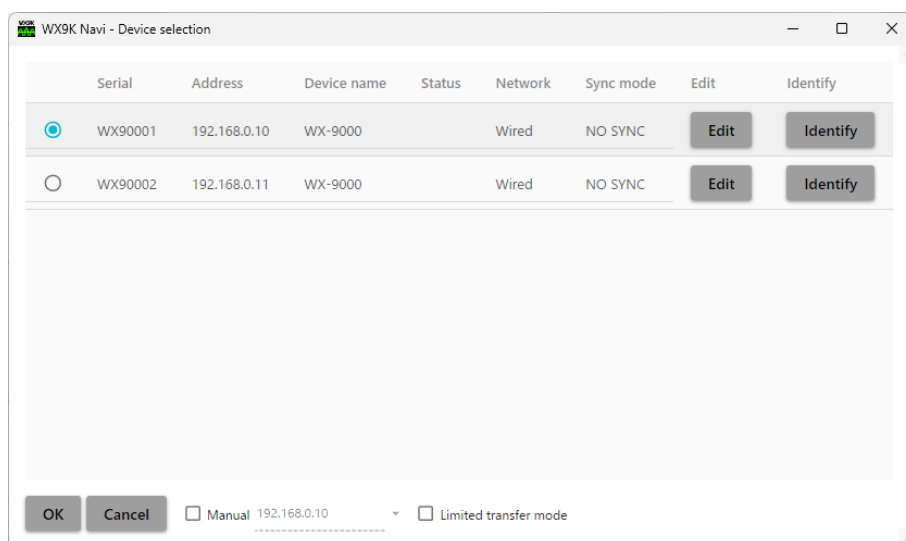
Change the name of the device if necessary.

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

1. Basic operation

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.

In 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.

Network

Wired

The wired network for the WX-9000 is enabled.

Sync mode

This sets the synchronized operation mode of the WX-9000 (page 16).

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

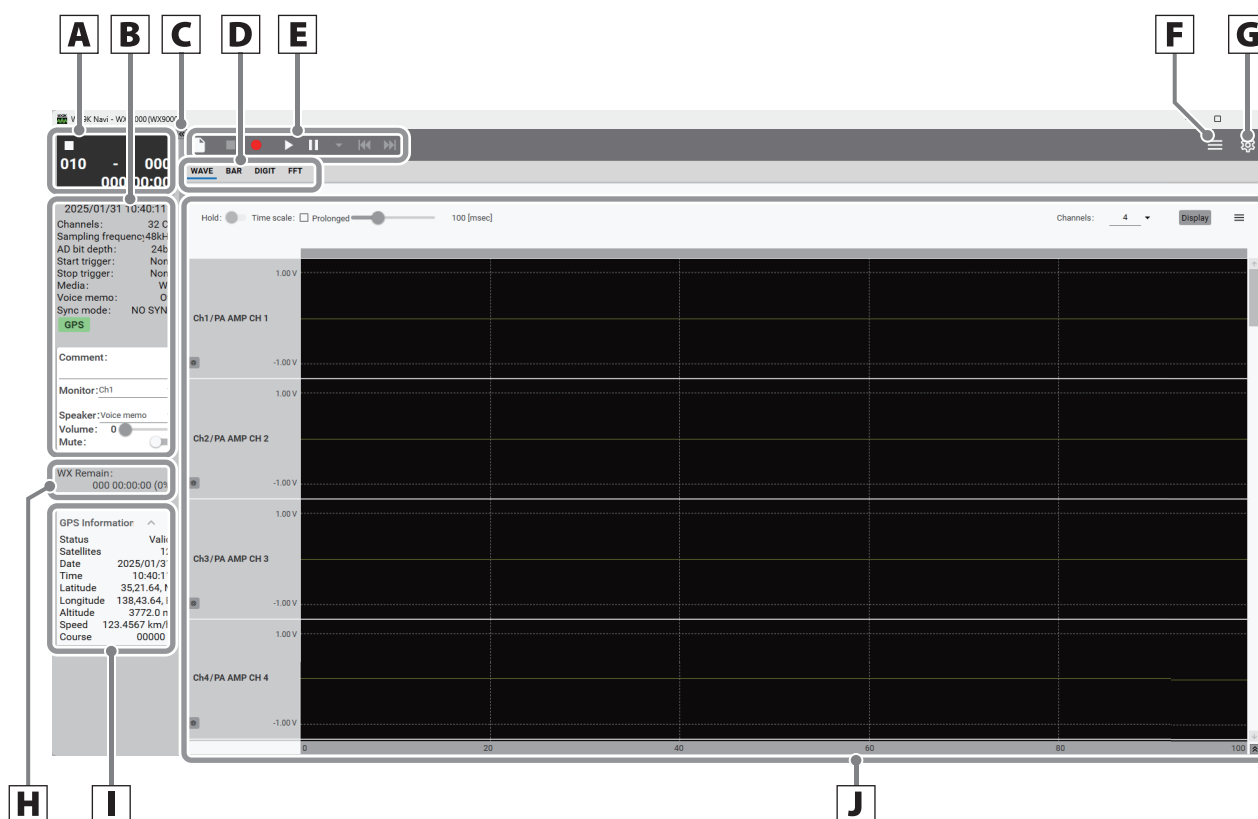
This mode restricts the quantity of transmission data on the network.

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
- || Record ready
- Recording (red) / Auto range execution in progress (yellow)
- ▶ Playing back
- ▶ || Playback ready

Recording/playback information

ID – event mark (pages 17 and 16)

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 16).

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 16).

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 16).

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 16).

- 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 << 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 ▼ 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 (◀◀/▶▶) 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 button

This opens a menu.

TEDS

"2-4-2. TEDS calibration" on page 23

Auto range

"2-2-1. Auto range" on page 22

File transfer

"5. File transfer" on page 47

Delete recorded file

"2-7-1. Deleting recorded files" on page 26

View layout

"1-8. Placement of data display areas" on page 20

Cooling fans

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 36).

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.

WAVE

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 longer time (page 16). • This cannot be used in limited transfer 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 16).

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 columns will be adjusted automatically according to the number of channels shown.

DIGIT

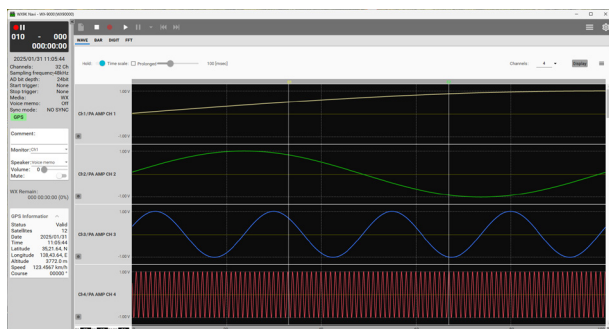
RMS	Check this to show root mean square values.
Hold	The values shown will be retained.
Columns	This sets the number of columns shown.
Auto	If this is checked, the number of columns will be adjusted according to the number of channels shown.
Display	This sets which channels to show.

FFT

See "1-3. FFT Screen" on page 14.

1.Basic operation

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.

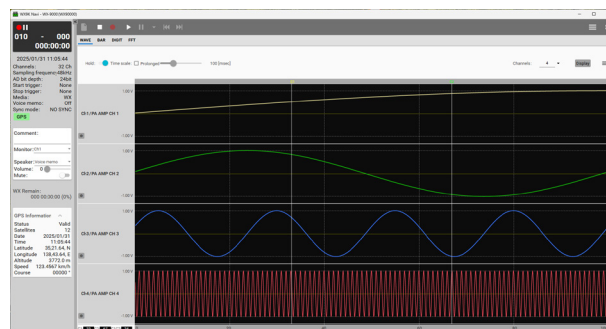
When Hold at the top left of the screen is turned on, the waveform display will stop and cursors will be shown. Drag a cursor to move it.

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 or 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

C1

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)

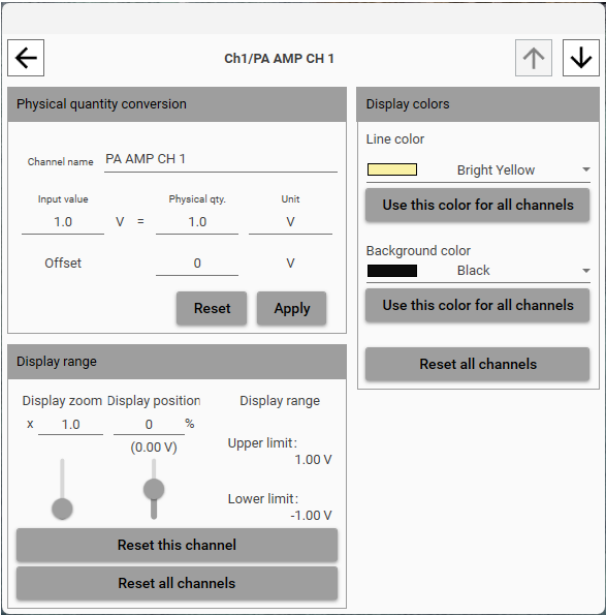
Minimum measured value between Cursor 1 and Cursor 2

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.



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.

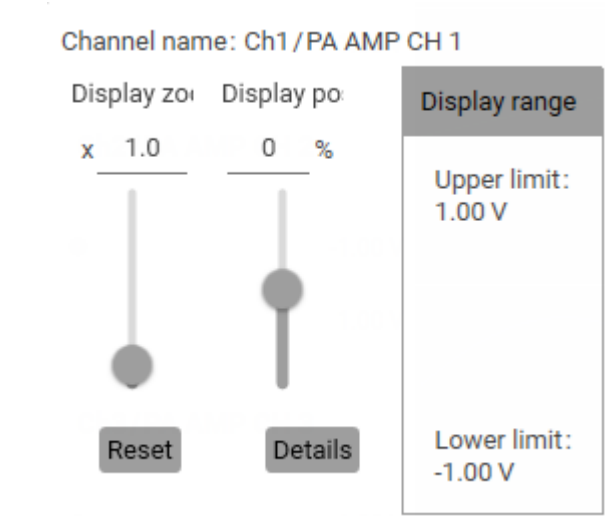
Display range

This sets the vertical display range.

Display colors

This sets the color of the line in the graph.

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



Reset

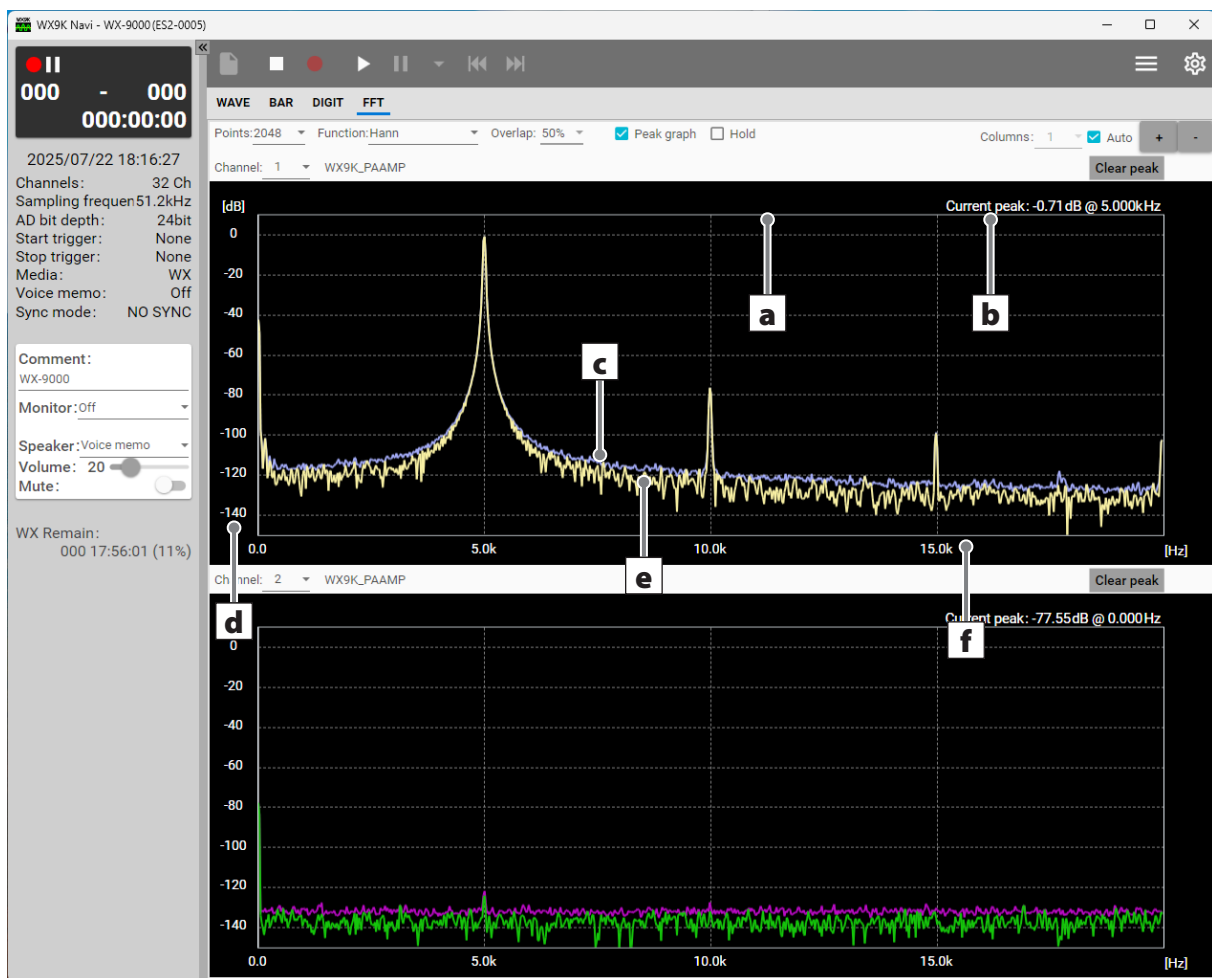
This sets Zoom to 1 and Position to 0%.

Details

This opens the Channel Properties editing Screen.

1.Basic operation

1-3. FFT Screen



a Cursor

Cursor position indicator

When the mouse cursor is over the graph, a cursor is shown at that position.

b Current peak

This is the FFT graph peak value.

c Peak value graph

These are the FFT graph maximum values.

This is shown if "Peak graph" is checked.

d Y axis (amplitude)

Click to switch between displaying linear and logarithmic display for the axis.

e FFT graph

This is the most recent FFT graph.

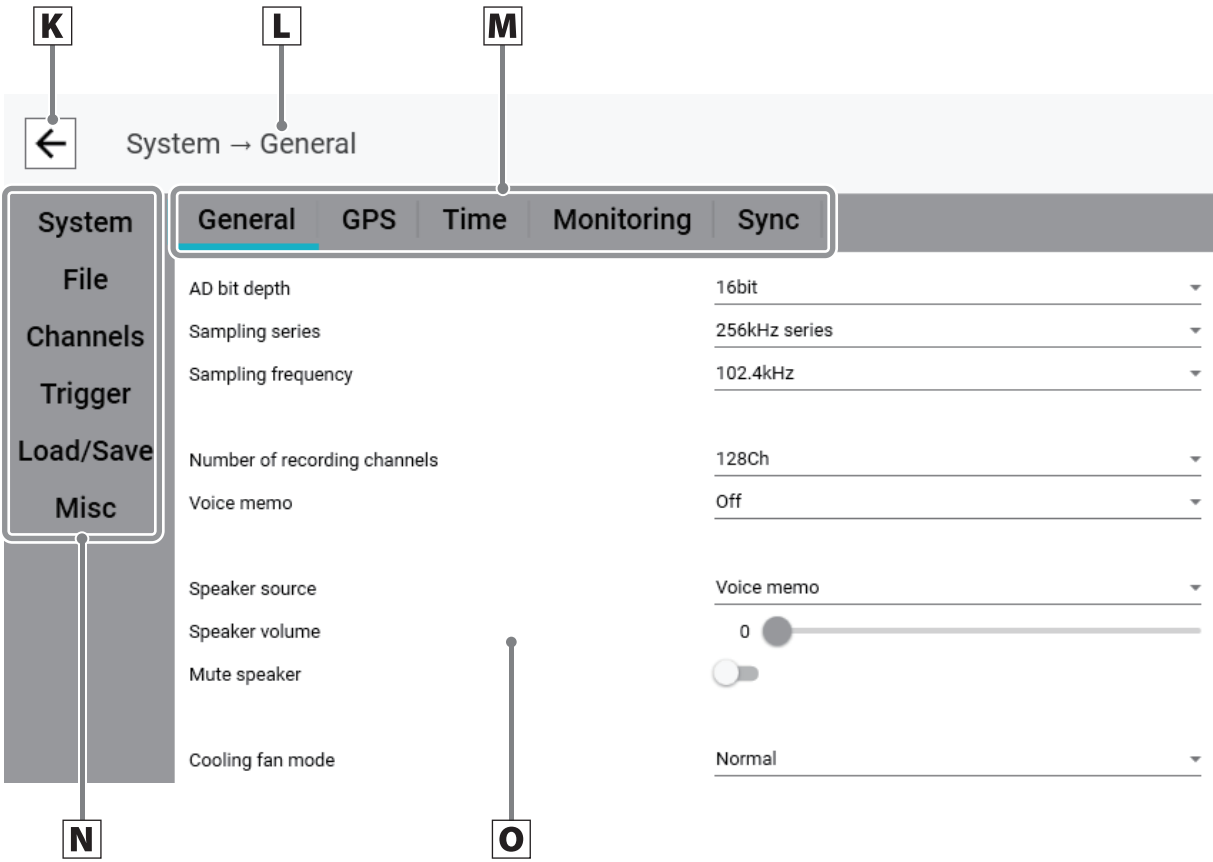
f X axis (frequency)

Click to switch between displaying linear and logarithmic display for the axis.

Points	This sets the quantity of data used for FFT calculations.
Functions	This sets the window function.
Overlap	This sets the overlap.
Peak graph	This turns on/off peak value display.*
Hold	When this is turned on, the waveform display will stop and cursors will be shown. ● Stopping waveform display will not pause playback operations.
Columns	This sets the number of columns shown.
Auto	If this is checked, the number of columns will be adjusted according to the number of channels shown.
+/-	Use these to add and remove windows. A maximum of 4 windows can be shown.
Channel	This sets which channels to show.
Clear peak	Click this to clear peak values.

*This shows the peak of the data shown with thinning out.

1-4. Settings Screen



Click the  button on the Home Screen to open the Settings Screen.
See page 16 for details.

G Back button

Return to the Home Screen.

H Settings menu level

This shows the current Settings menu level.

I Settings sub menus

Sub menus appear here when they are available.
These are the second level of the Settings menu.

J Setting items

Click a Settings menu item to open it.
These are the first level of the Settings menu.

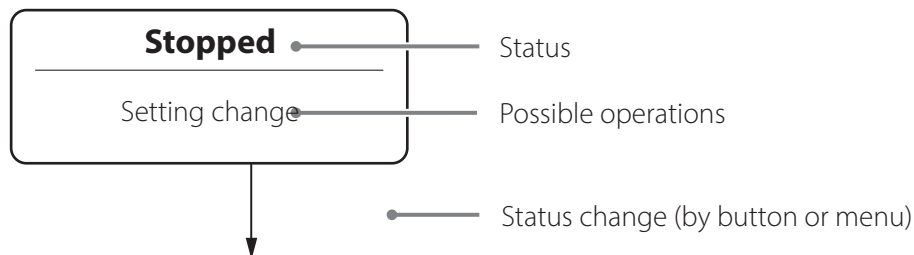
K Settings page

1.Basic operation

1-5. Status changes

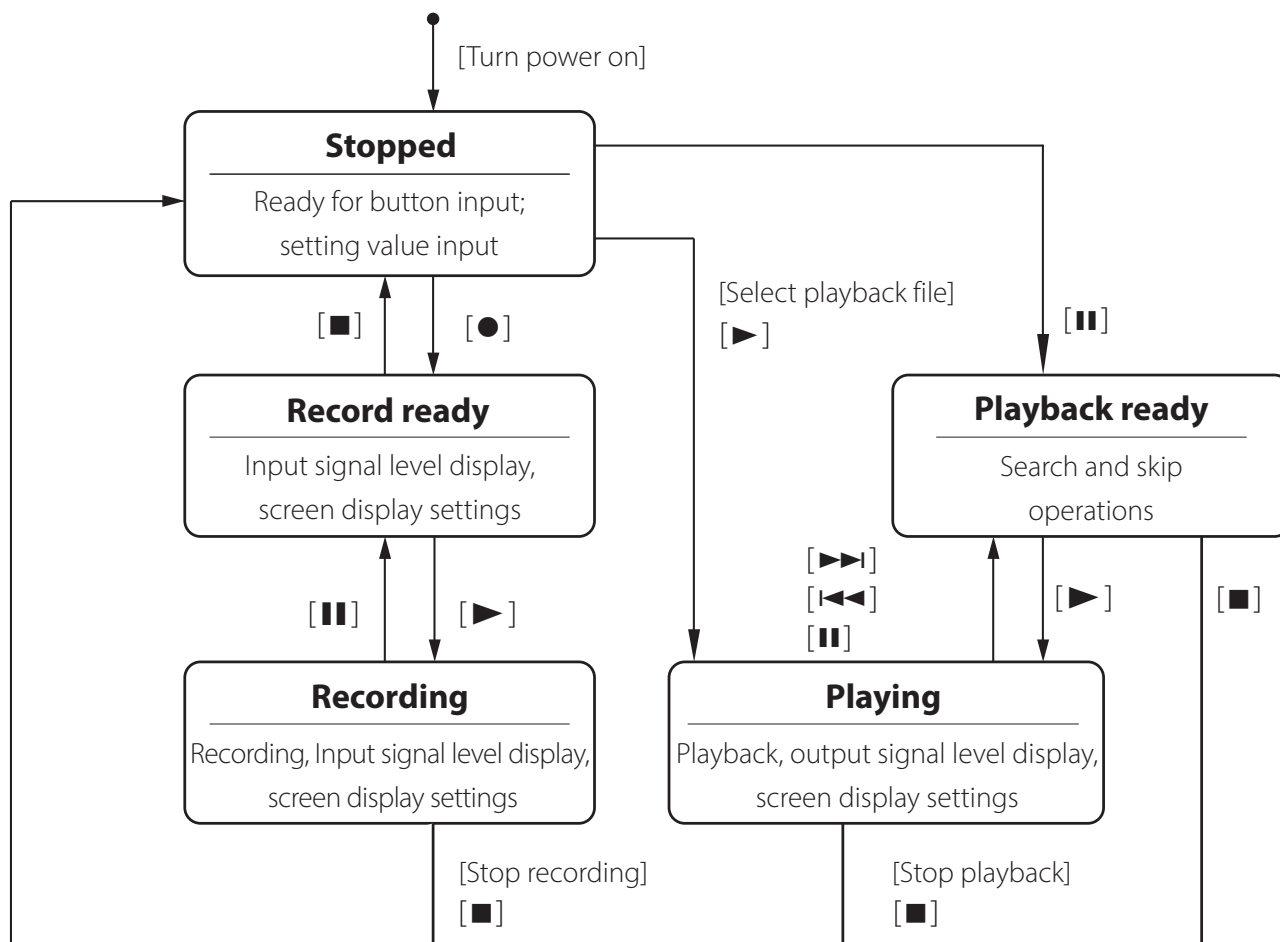
1-5-1. Explanation of status change diagram entry

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



1-5-2. Status change diagram

This application has the following states.



1-6. 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.

2 Click the Start button and select TEAC - WX9K Navi.

3 Select the WX-9000 to operate.

NOTE

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.

4 Set the measurement conditions or load them.

Click the  button to open the Settings Screen (page 16).

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  button (page 16).

ATTENTION

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

5 Record or play data.

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.

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 16).

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.

1-6-1. 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.

1-6-2. 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.

1.Basic operation

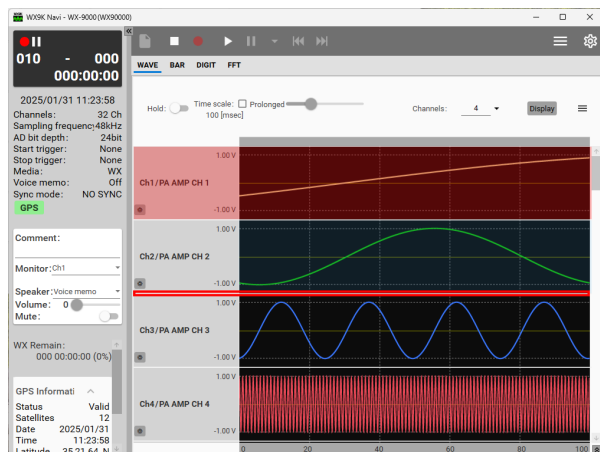
Changing the waveform display order

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

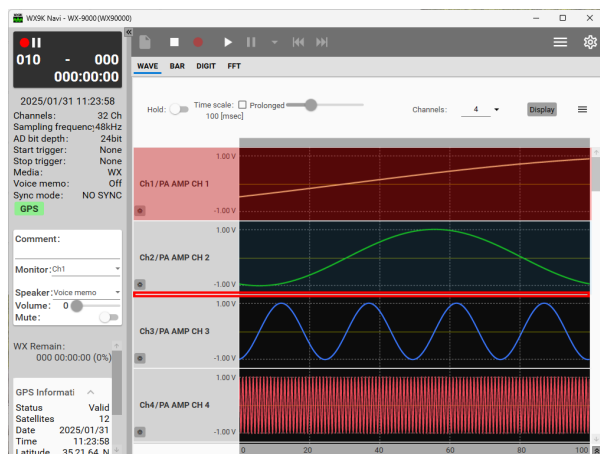
Operation example

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.

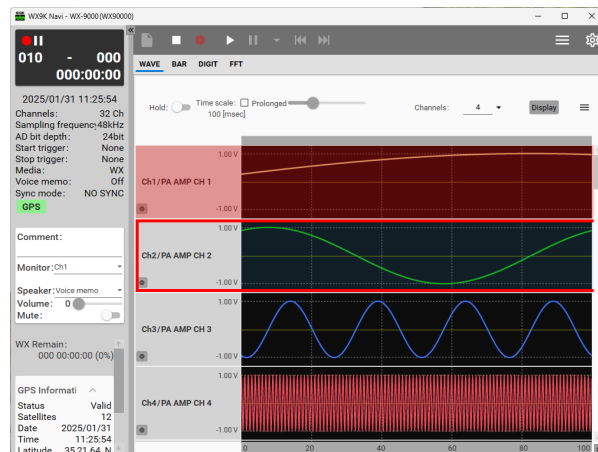
NOTE

- 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.
- ◀, ▶ and ✕ 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.

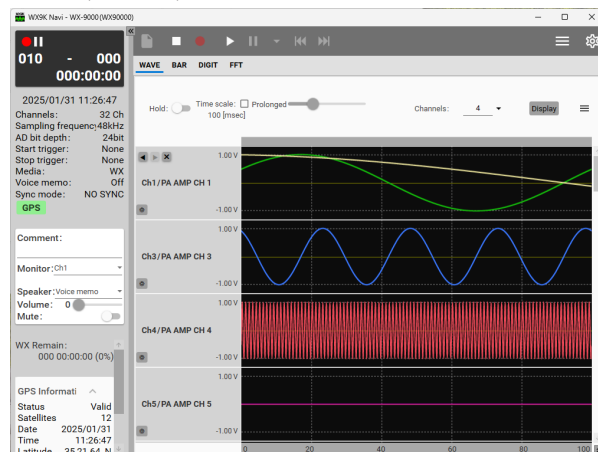
Operation example

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.



Release the left mouse button, dropping the waveform for overlay display.



Changing the overlay order

Click the ◀ and ▶ buttons to change the overlay order.

Ending overlay display

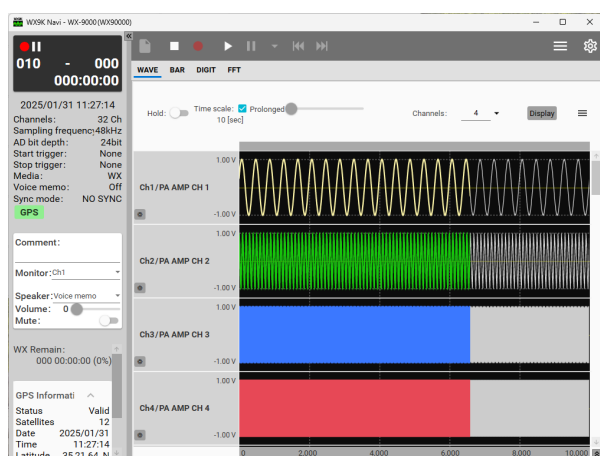
Click the ✕ button to remove the top waveform and show it in the next separate window.

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.



1-7. 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 35 for information about leader and follower device settings.

1-7-1. 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. Basic operation

1-7-2. 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.

1-7-3. 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.**

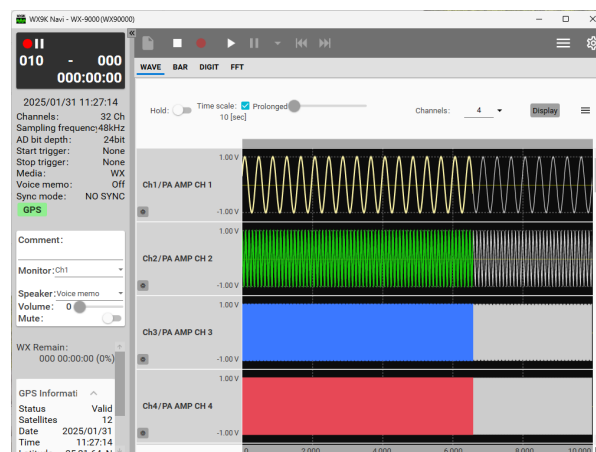
Only one system can be controlled from a single computer using WX9K Navi. Running multiple instances of WX9K Navi on a single computer and connecting them to multiple leader and follower systems for control is not supported.

1-7-4. Checking synchronization connections

The status can be checked on the System settings Sync page of the leader system (page 16).

1-8. Placement of data display areas

Use the  button to select “View layout” to control the placement of display areas for WAVE, BAR, DIGIT and FFT data.



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.

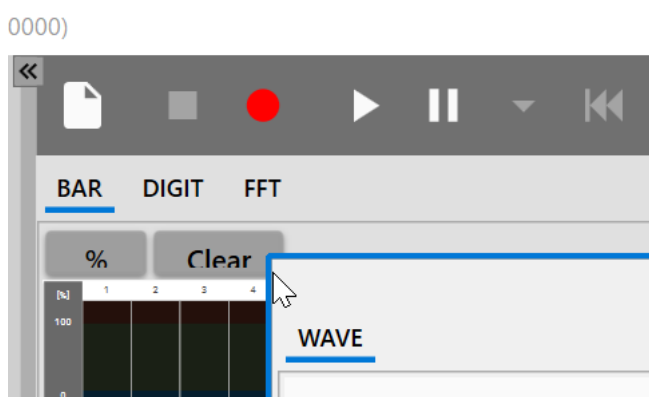
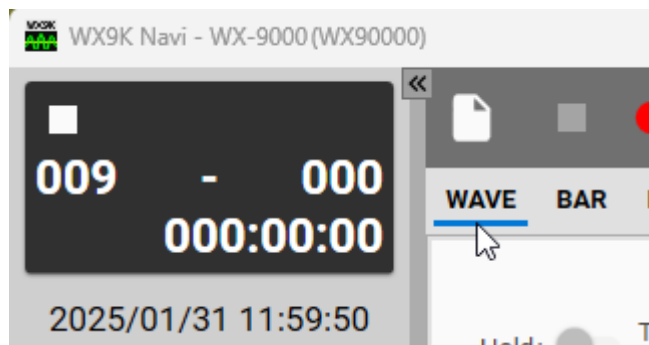
Recent

View previously used layouts and select them from a list.

1-8-1. 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.



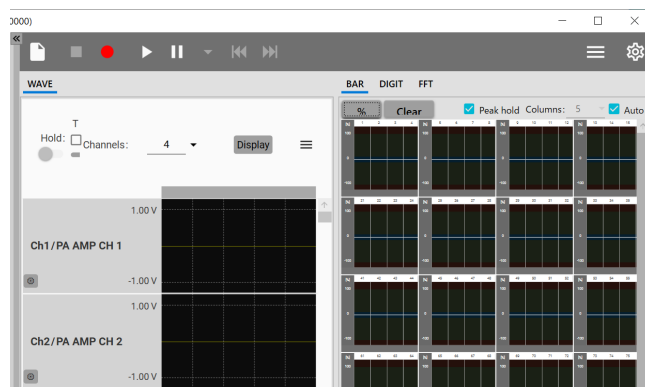
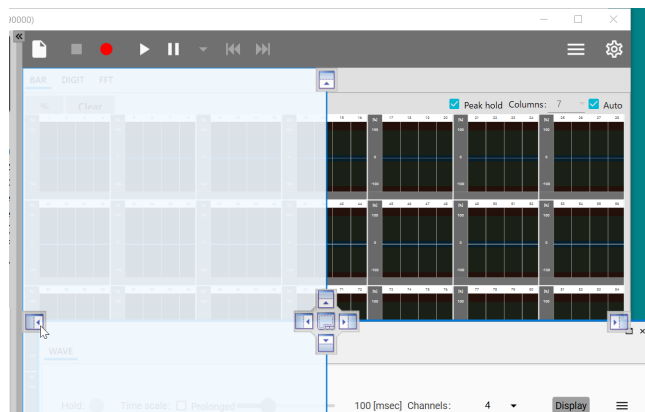
NOTE

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

Selecting positions for placement

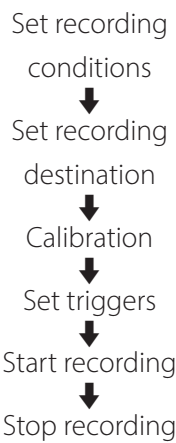
Following the procedures in "Placing areas freely" above, drag a data display area above a placement icon ( , for example) to highlight a placement position.

Drop it there to place the data display area in the high-lighted position.



2. Recording

2-1. Order of procedures



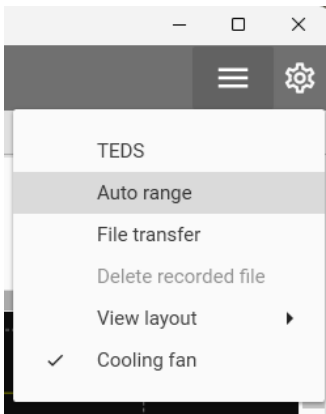
2-2. Setting recording conditions

On the System Settings Screen page 16, 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 16).

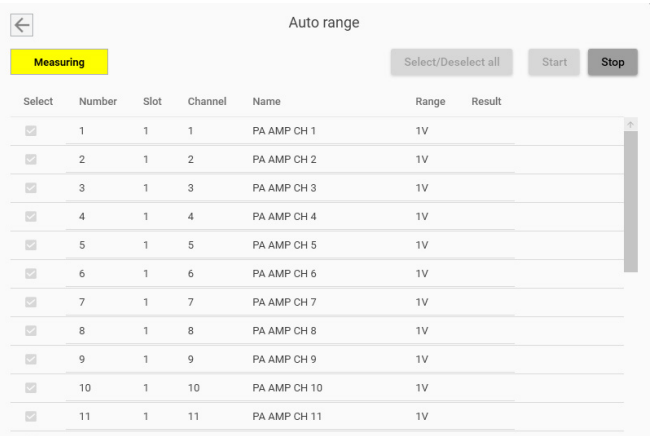
2-2-1. Auto range

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

1 Click the  button at the top right of the Home Screen and select “Auto range”.



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

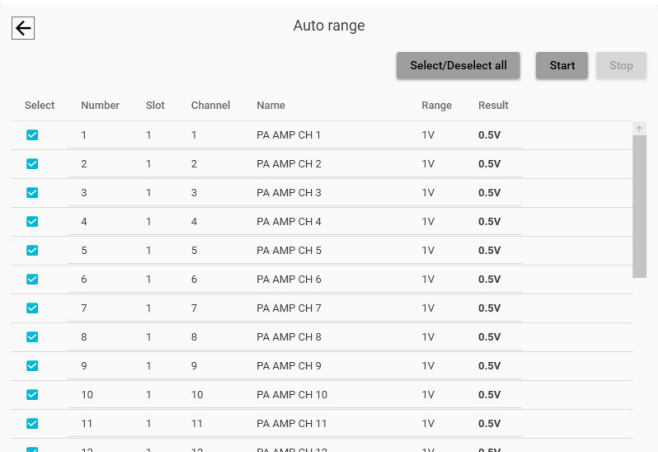
A screenshot of the 'Auto range' screen in the application. At the top, there is a title bar with a back arrow, the text 'Auto range', and buttons for 'Select/Deselect all', 'Start', and 'Stop'. Below the title bar is a table with columns: 'Select', 'Number', 'Slot', 'Channel', 'Name', 'Range', and 'Result'. The table contains 11 rows, each representing a channel. The 'Select' column has checkboxes, all of which are checked. The 'Range' column shows '1V' for all channels. The 'Result' column is empty. The table is titled 'Measuring' in a yellow box on the left.

Select	Number	Slot	Channel	Name	Range	Result
☒	1	1	1	PA AMP CH 1	1V	
☒	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	

3 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.

A screenshot of the 'Auto range' screen, similar to the previous one, but now showing results in the 'Result' column. The 'Range' column still shows '1V' for all channels, and the 'Result' column now shows '0.5V' for all channels. The table is still titled 'Measuring' in a yellow box on the left.

Select	Number	Slot	Channel	Name	Range	Result
☒	1	1	1	PA AMP CH 1	1V	0.5V
☒	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

5 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 16).
- 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 16).

- 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.

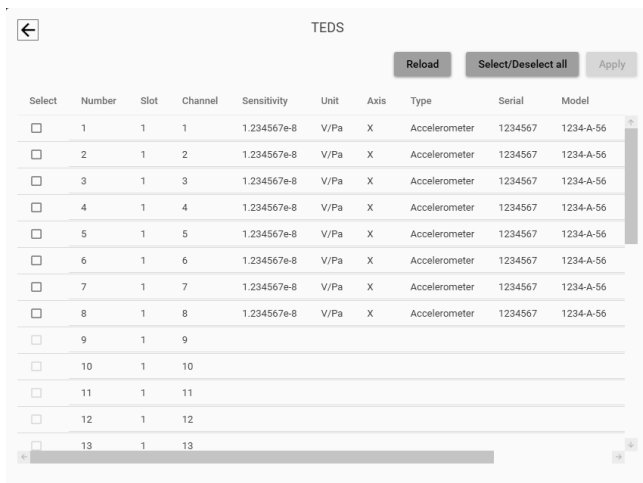
2-4-1. Equivalent input calibration

In the Physical quantity conversion field, set the rated output and rated capacity indicated in the sensor test report (page 16).

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 16).

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



Select	Number	Slot	Channel	Sensitivity	Unit	Axis	Type	Serial	Model
☐	1	1	1	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	2	1	2	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	3	1	3	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	4	1	4	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	5	1	5	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	6	1	6	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	7	1	7	1.234567e-8	V/Pa	X	Accelerometer	1234567	1234-A-56
☐	8	1	8	1.234567e-8	V/Pa	X	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 16).

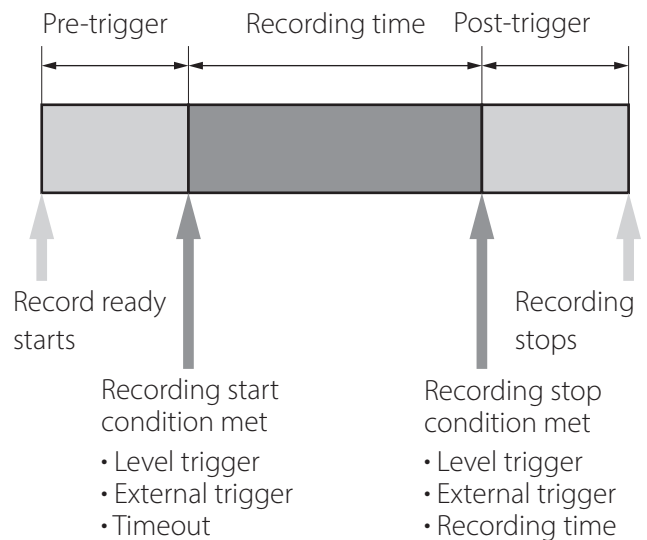
The trigger recording operations are explained below.

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).

2. Recording

Recording starting conditions

Level trigger

The number of times that the signal of the designated channel changes to the set "Level" according to the set "Edge" is counted. Recording starts when the set "Count" is achieved.

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

The number of times that the signal of the designated channel changes to the set "Level" according to the set "Edge" is counted. Recording stops when the set "Count" is achieved.

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.

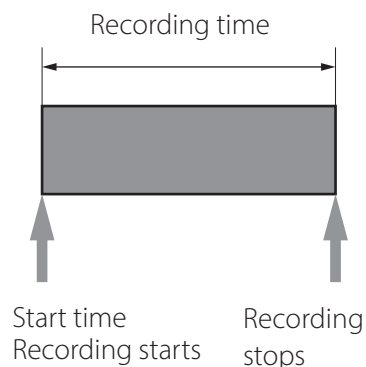
ATTENTION

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.

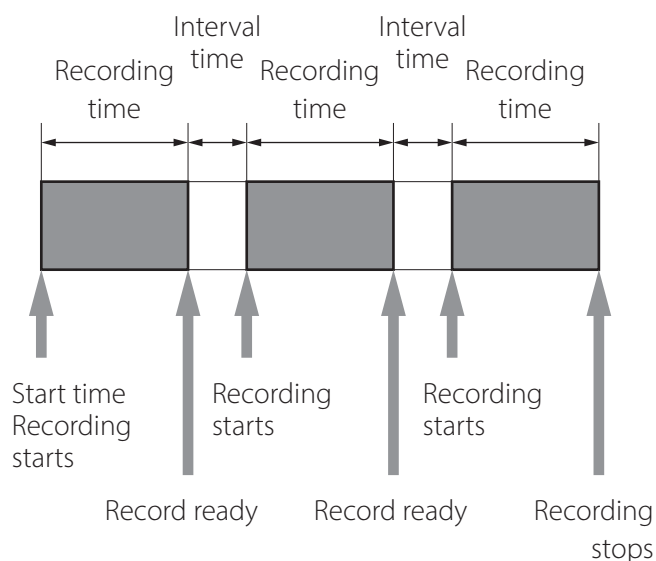
Interval recording

Example of one interval recording repetition



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.

Example of three interval recording repetitions



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.

2. Recording

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 ▼ 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 ≡ 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.

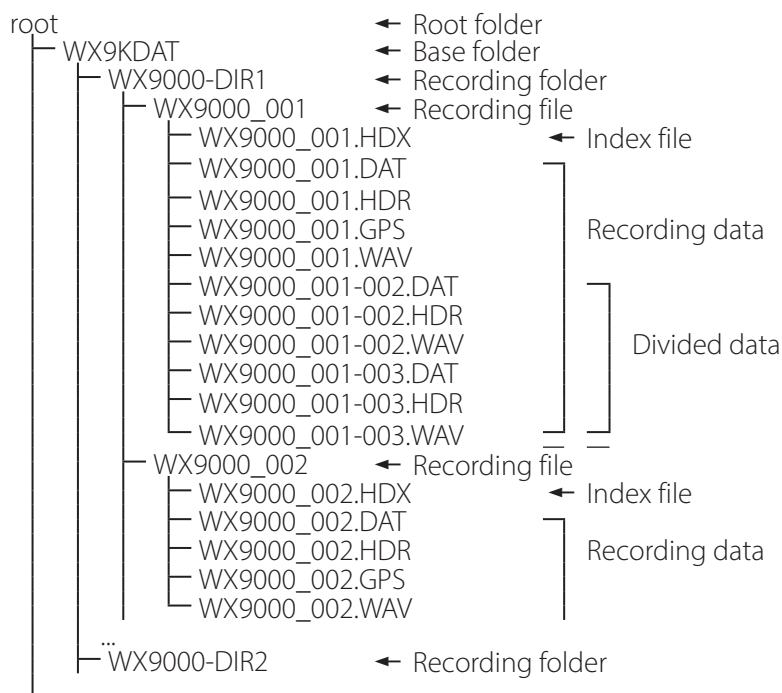
2-8-1. Media folder structures

Folder type	Name	Details
Base folder	WX9KDAT	This is created in the root folder. 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 !@#\$%^&()_+ -= '[]; , ~

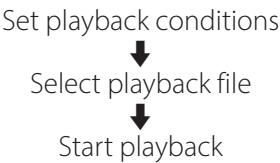
Folder structure example



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

3. Playback

3-1. Order of procedures



- 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

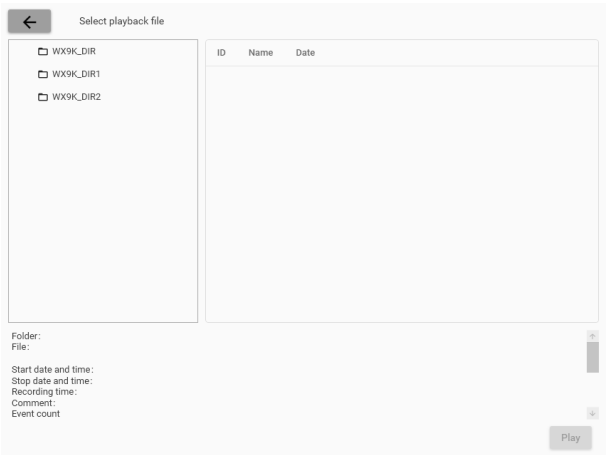
Make output unit settings (page 16).

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.

1 Click 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.

2 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 16).

3 Click the **■** button to stop playback.

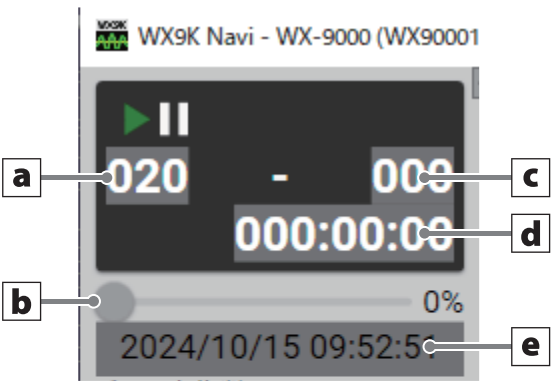
3-3-1. Searching operation

Searching is possible when in a playback ready state.

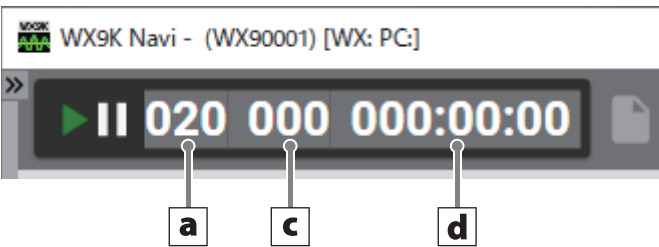
ATTENTION

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

1 Click the item to search.

The search position input window will appear.

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



2 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.

3 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.

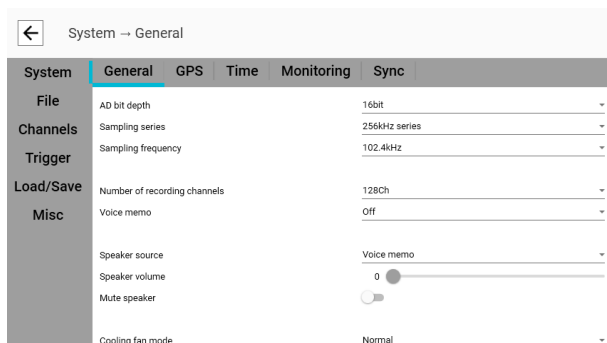
NOTE

If Behavior after searching is set to Pause, the system will pause after using a search function (page 16).

4. Settings

4-1. Basic operation

- 1 Click the  button on the Home Screen to open the Settings Screen.



- 2 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  button will appear if a lower level settings screen is available. Click the  button as necessary to make settings.

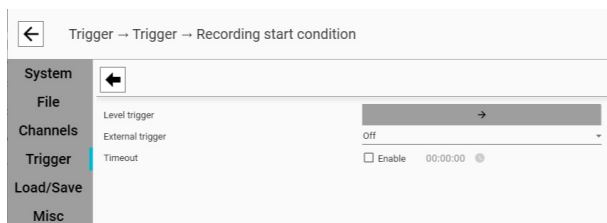
NOTE

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.



- 3 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

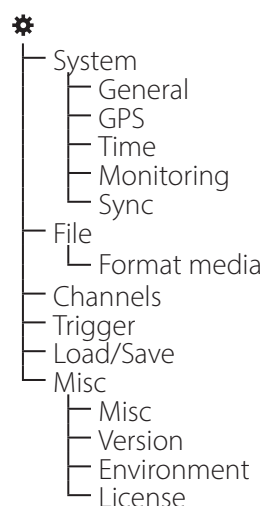
Number of channels

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

NOTE

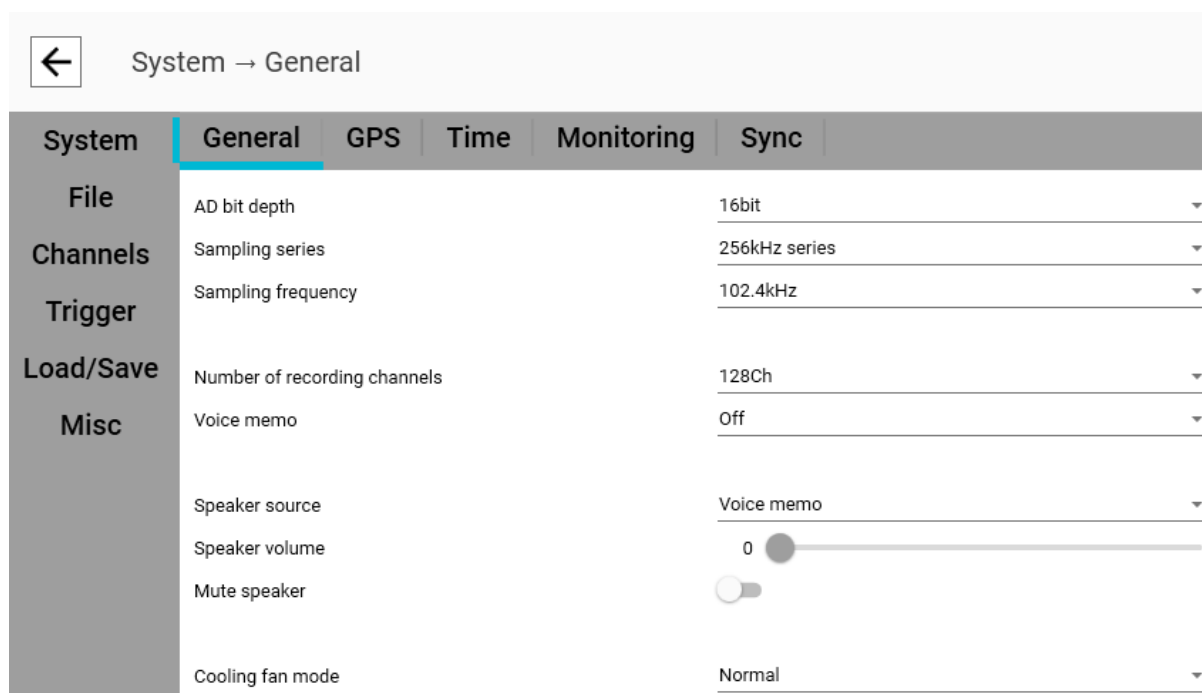
- See the "Number of channels that can be recorded simultaneously" in the Specifications of the WX-9000 Instructions for Use.
- Settings can be saved on the Load/Save Settings Screen.
- Data cannot be loaded if the saved settings are for an expansion unit configuration that is different from the current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

Menu structure



4-2. System Settings

4-2-1. General



← System → 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 recorded

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.

Continued on the next page ➡

4.Settings

- 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

←

System → GPS

System

File

Channels

Trigger

Load/Save

Misc

General

GPS

Time

Monitoring

Sync

Use

Baud rate

Data recording

On

38400 baud

On

GPS status

Status

Satellites

Date

Time

Latitude

Longitude

Altitude

Speed

Course

Valid

12

2025/01/31

13:38:24

35,21.64, N

138,43.64, E

3772.0 m

123.4567 km/h

00000 °

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

Date format

One of the following three date formats can be selected.
(YYYY: year, MM: month, DD: day)

YYYYMMDD

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

If the time difference is changed, the recording start/stop dates and times of files that have already been recorded might not be shown correctly.

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.

Set to PC time

Click to set it to the computer time at that instant.

Set to GPS time

Click to set it to the GPS time at that instant.

4.Settings

4-2-4. Monitoring

←

System → Monitoring

System

File

Channels

Trigger

Load/Save

Misc

General

GPS

Time

Monitoring

Sync

Target channel

Output voltage range

Ch1

3.3V

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

←

System → Sync

System

General

GPS

Time

Monitoring

Sync

File

Channels

Trigger

Load/Save

Misc

Mode

Number of synchronized systems

Check connection

Adjust time

Leader

2

Check connection

Adjust time

Sync Status

OK

	Device	Status
2	Leader	OK
3	Follower 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 “1-7. Synchronization function” on page 19.

Mode settings

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

4.Settings

4-3. File

← File

System
File
Channels
Trigger
Load/Save
Misc

Recording device: WX & PC

WX

Media type: No Device

Remain: 0 MB

Format media: →

PC

Base folder: My Documents
C:\Users\... \Documents\TEAC\WX-9000\DATA

Remain: 245,231 MB

Number of digits: 3

Recording folder: WX9K_DIR

Recording file: WX9K_

Comment:

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

NOTE

If the recording device is set to “WX & PC” and an error (including running out of open space) occurs when recording to PC:

- Recording to the WX-9000 recording media and data display will continue.
- Recording to the PC recording media will stop. Index files (hdx extension) will not be created on the PC recording media.
- To start recording again, quit WX9K Navi once and relaunch it.

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 27).

Format media

This appears when Recording device is set to WX.

To format the WX-9000 recording media, click the → 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.

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 27).
- Quit this application before deleting recorded data on a computer.

4.Settings

4-4. Channels

← Channels System File Channels Trigger Load/Save Misc	0 / 128 Select all Deselect all Edit all selected							
	Select	Number	Unit	Channel	Edit	Name	Input voltage range	Coupling
	☐	1	1	1	Edit	PA AMP CH 1	1V	AC
	☐	2	1	2	Edit	PA AMP CH 2	1V	AC
	☐	3	1	3	Edit	PA AMP CH 3	1V	AC
	☐	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

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.**
- 3 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.
- What is shown in “Name” 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

PA AMP CH 1			
Input voltage range	1V		
Coupling	AC		
IEPE current	Off		
Weighting	Flat		
HPF	Off		
TEDS	Load		
Actual load calibration	→		
Output voltage range	1.0V		
Output unit	1: Ch1~16		

Physical quantity conversion			
Input value		Physical quantity	Unit
1.0	V	= 1.0	V
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.Settings

4-4-2-2.Actual load calibration

Actual load calibration

Calibrator: Pistonphone

Calibration mode: RMS

Level: 74 dB

Measurement value: mV / 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/s², 9.8 m/s², 10.0 m/s²

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.

2 Select the value of the actual load to be applied to the sensor by the calibrator.

Set the calibrator, calibration mode and level.

3 After applying the actual load to the sensor by the calibrator, click the “Start” button to start measurement.

4 When the measurement value shown in the measurement value area becomes stable, click the “Apply” button.

4-5. Trigger

←

Trigger

System

File

Channels

Trigger

Load/Save

Misc

←

Mode

Recording start condition

Pre-trigger

Recording stop condition

Post-trigger

Number of repetitions

Trigger

→

Off

→

Off

☐ Endless 0

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

See "2-5. Setting triggers" on page 23 for details about Trigger settings.

4.Settings

4-6. Load/Save



- 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

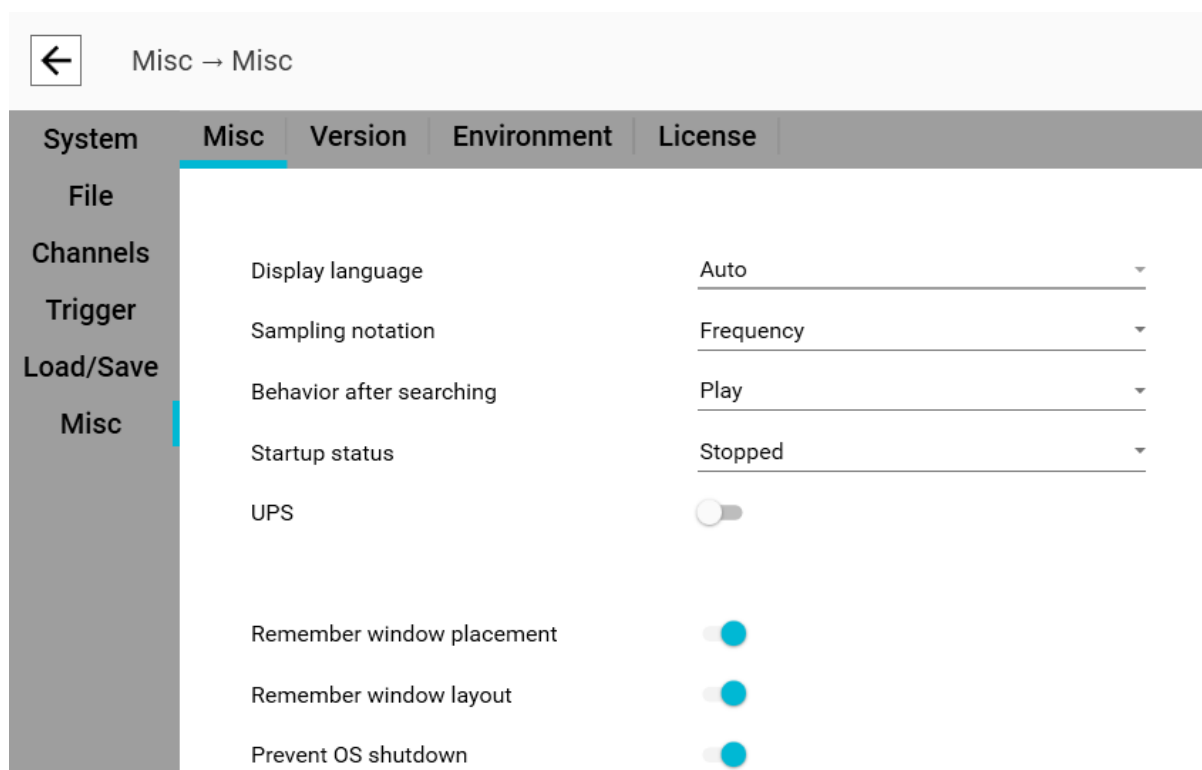
Save the current settings.

Initialize

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

4-7. Misc

4-7-1. Misc



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 16) 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.Settings

4-7-2. Version

← Misc → Version

System	Misc	Version	Environment	License																																																			
File	Application version			1.0.0																																																			
	Channels	Model			WX-9000																																																		
		Serial			WX90000																																																		
	Trigger	System			1.0.0																																																		
		OS			1.0.0																																																		
	Load/Save	Firmware			1.0.0																																																		
		GUI			1.0.0																																																		
		RTOS			1.0.0																																																		
	Misc	FPGA			1.0.0																																																		
		PLD			1.0.0																																																		
Update firmware			→																																																				
Expansion units			8 / 8																																																				
<table><thead><tr><th>Unit</th><th>Name</th><th>Type</th><th>FPGA</th><th>Firmware</th><th>Channels</th><th>Serial</th></tr></thead><tbody><tr><td>1</td><td>PA AMP</td><td>PA</td><td>1.0.0</td><td>1.0.0</td><td>16</td><td>AU90001</td></tr><tr><td>2</td><td>PA AMP</td><td>PA</td><td>1.0.0</td><td>1.0.0</td><td>16</td><td>AU90002</td></tr><tr><td>3</td><td>PA AMP</td><td>PA</td><td>1.0.0</td><td>1.0.0</td><td>16</td><td>AU90003</td></tr><tr><td>4</td><td>PA AMP</td><td>PA</td><td>1.0.0</td><td>1.0.0</td><td>16</td><td>AU90004</td></tr><tr><td>5</td><td>PA AMP</td><td>PA</td><td>1.0.0</td><td>1.0.0</td><td>16</td><td>AU90005</td></tr><tr><td>6</td><td>PA AMP</td><td>PA</td><td>1.0.0</td><td>1.0.0</td><td>16</td><td>AU90006</td></tr></tbody></table>							Unit	Name	Type	FPGA	Firmware	Channels	Serial	1	PA AMP	PA	1.0.0	1.0.0	16	AU90001	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
Unit	Name	Type	FPGA	Firmware	Channels	Serial																																																	
1	PA AMP	PA	1.0.0	1.0.0	16	AU90001																																																	
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																																																	

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

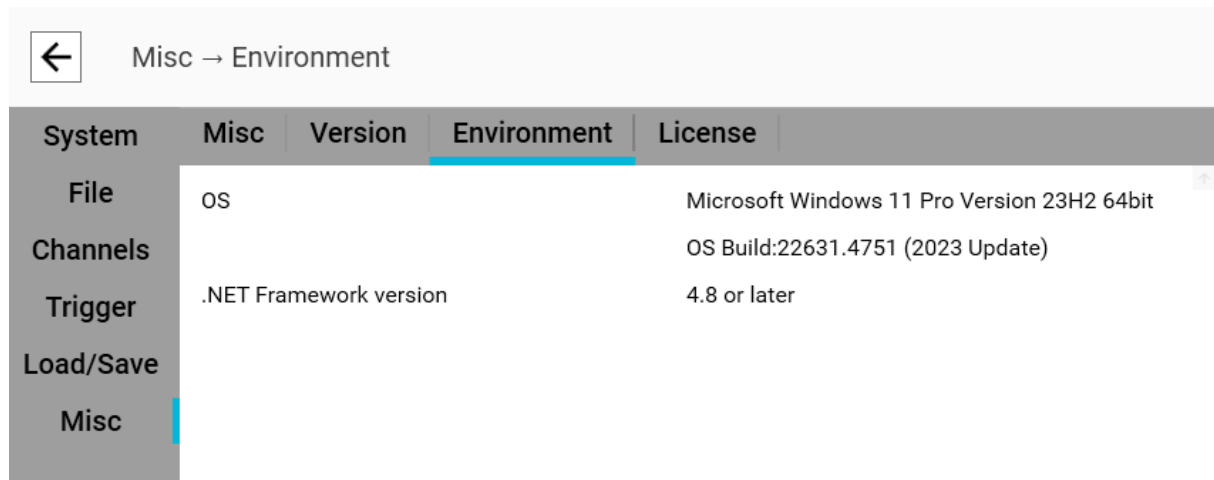
Use this to update the firmware of the WX-9000 and amplifier modules.

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



OS

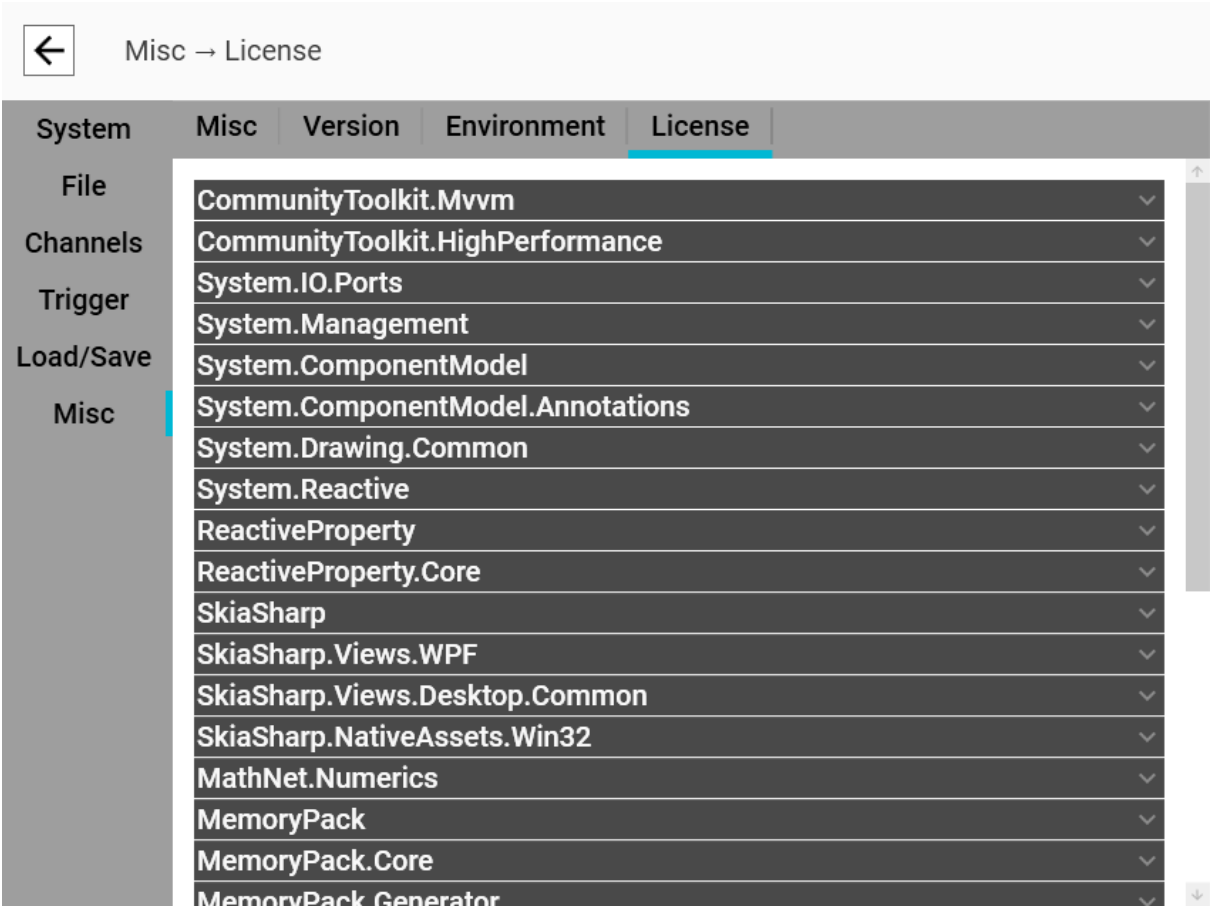
This shows information about the operating system of the computer that WXX Navi is running on.

.NET Framework version

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

4.Settings

4-7-4. License



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.

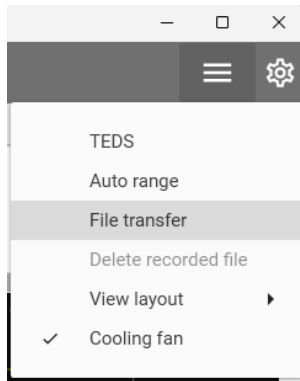
Software names, copyrights and licenses can be checked on this screen.

Click software names to show copyrights and licenses.

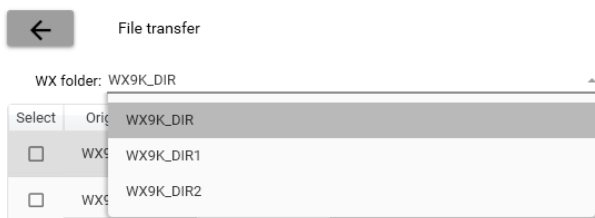
5. File transfer

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

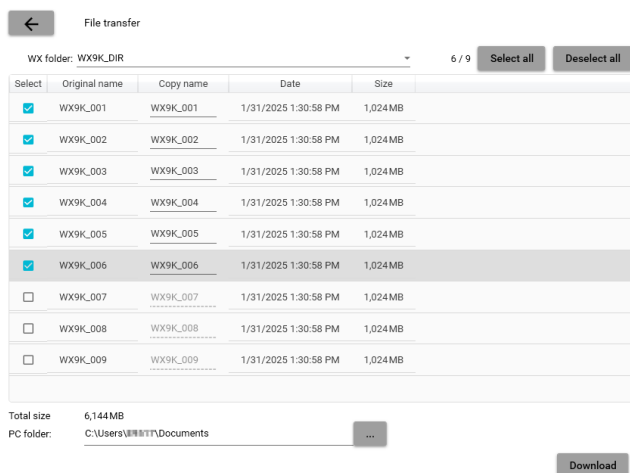
- 1 Click the  button at the top right of the Home Screen and select “File transfer”.



- 2 Click the name of the folder next to “WX folder:” and select the transfer source folder.



- 3 Put check marks next to files in the media data list to select them for transfer.



NOTE

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

- 4 Click the  button to the right of “PC folder:” and set the transfer destination folder on the computer.

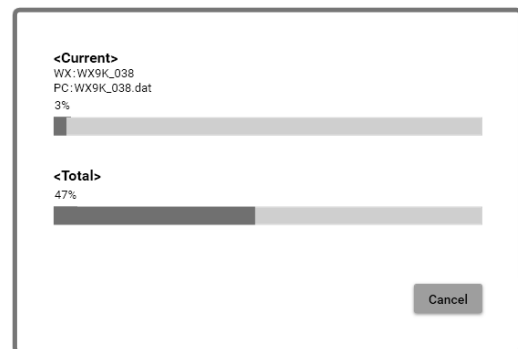
The default folder is the Documents folder on the computer.

NOTE

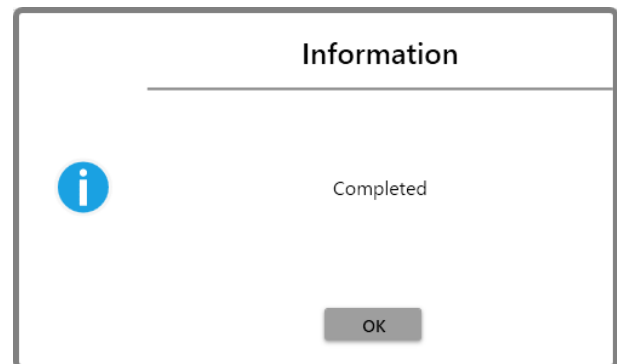
The last selected folder will be used as the default folder when transferring files the next time.

- 5 Click the Download button.

The following screen appears during transfer.



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



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 → WX9K_001(1) → WX9K_001(2) → WX9K_001(3) ...

TEAC

TEAC CORPORATION	1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan	Contact us https://datarecorder.teac.com/contact.html
TEAC AMERICA, INC.	10410 Pioneer Blvd. Unit #3, Santa Fe Springs, CA 90670, U.S.A.	
TEAC EUROPE GmbH. (EU Importer)	Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany	Download the Instructions for Use and request WX9K Navi from the following website.
TEAC SALES & TRADING (ShenZhen) CO., LTD.	Room 817, Xinian Center A, Tairan Nine Road West, Shennan Road, Futian District, Shenzhen, Guangdong Province 518040, China	 https://datarecorder.teac.com/support/download/

- Please be aware that addresses and URL could change without warning.