



INSTRUCTION MANUAL
SOFTWARE for
MULTI CHANNEL SIGNAL GENERATOR
MODEL SG-7040

NOISE LABORATORY CO., LTD.

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**Screens with OS Windows XP are used as reference figures in the Manual. The reference figures may be different from actual screen on your PC according to the OS setting.

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2. OUTLINE

○ Software operation environment

OS	Microsoft Windows 7 32bit Professional Operating System (Japanese version / English version)
PC	PC/AT compatible machine
Display	Resolution: More than 1024×768dot
Others	Having a pointing device (mouse etc.) Having connected with generators before starting up the remote software

○ Folders

Working folder→Project folder→ (Folder selected arbitrary)	「Waveform File」 folder 「Sequence File」 folder 「Combined Sequence File」 folder 「Test Data」 folder 「CSV Data」 folder
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○ Files

Files	Extension	
Waveform File	SQW	A set of Waveform Components
Sequence File	SQA	A set of Waveform Files
Combined Sequence File	SQS	A set of Sequence Files
Environment File	ENV	Environment File
CSV File	CSV	CSV File

○ Test execution

Test execution (output) is to be done by each Sequence File or each CSV File.

○ Remarks

When you start: Start up the application software after turning on the generator with making sure that cables are connected.

When you finish, turn off the generator after closing the application software.

3. STARTING SOFTWARE AND INITIAL SET UP

3-1. Preparation

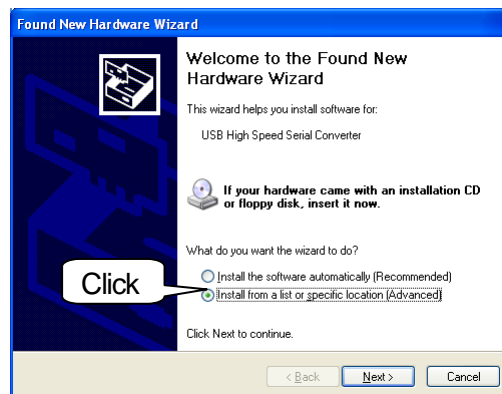
Installation of the driver

- 1) Connect USB cable to the connector for remote controlling on the generator.
- 2) Turn on the generator.
- 3) Install drivers when plug & play starts wizard.

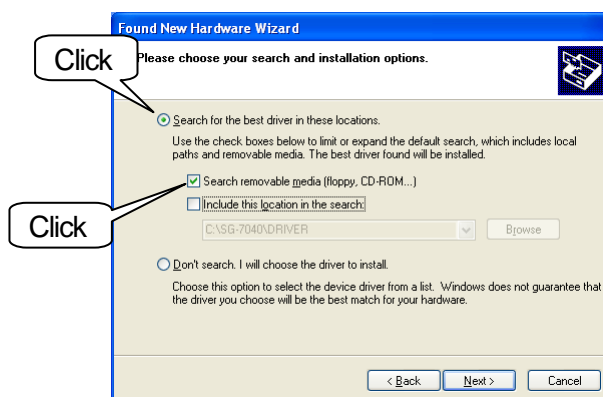
In case USB High Speed Serial Converter is recognized, the driver will be installed from DRIVER folder in the remote software CD-ROM.

Installation of USB driver

When the hardware is recognized by plug & play, the following screen is displayed. Set the attached CD-ROM.

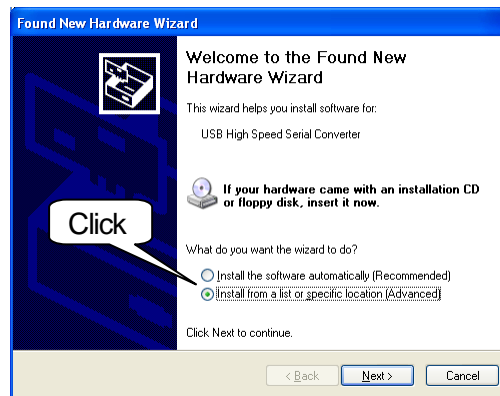


Select [Install from a list or specific location (Advanced)] and click [Next].



Select [Search for the best driver in these locations] and [Search removable media] and click [Next]. When “has not passed Windows Logo testing” message appears in the meantime, select [Continue Anyway].

After completing installation of USB driver, install a driver of serial converter.

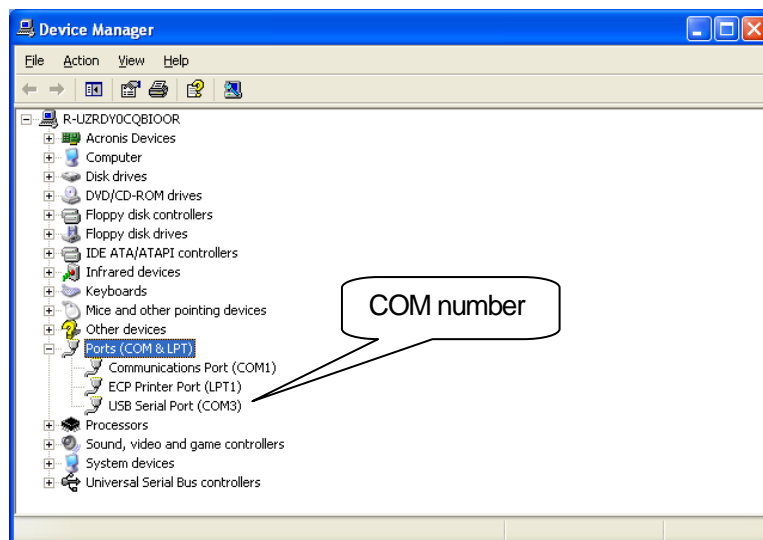


Select [Install from a list or specific location (Advanced)] and click [Next].

In same way as USB driver, select [Search for the best driver in these locations] and [Search removable media] and click [Next]. When “has not passed Windows Logo testing” message appears in the meantime, select [Continue Anyway].

If you should change the port to USB on PC, reinstallation of USB High Speed Serial Converter will be necessary. Besides, COM number will be changed and environment setup will be necessary also. For stable usage, keeping using the same port to USB is recommendable.

4) When installation finished, confirm COM number with Device Manager.



Select “START→My Computer→View system information” to display system property, select hardware tag and click device manager. Screen as above will be displayed.

- 5) Install arbitrary waveform software.

Insert the attached CD-ROM to CD-ROM drive and execute SETUP. EXE to start up installation program. Install according to instruction on screen.

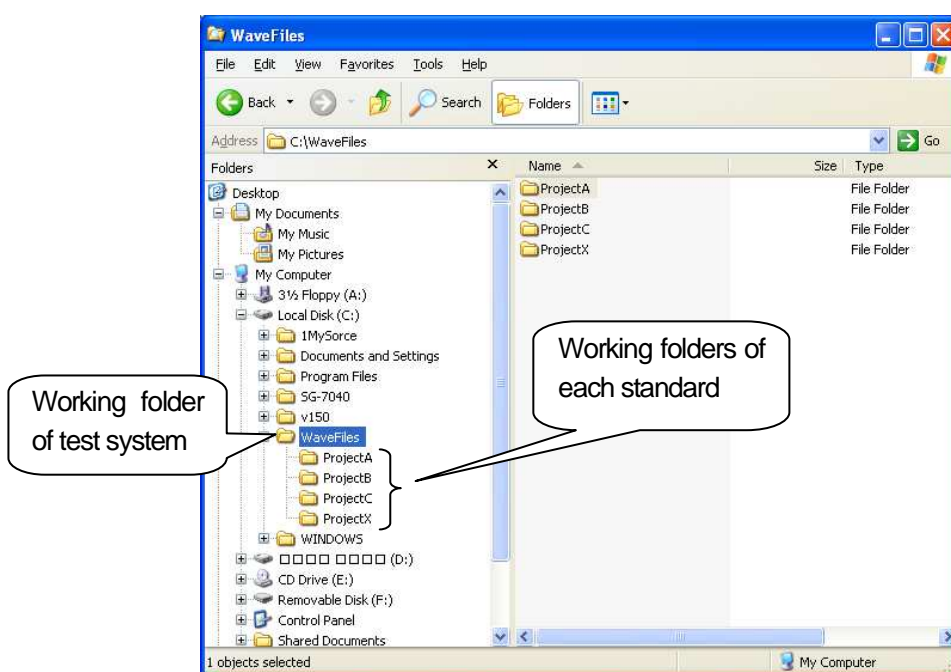
When the installation completed, [SG-7040RS] and [Uninstall] of Noiseken→[SG-7040RS] are registered at START→All Programs on task bar.

3-2. Making Working Folder

Working folder (user folder)

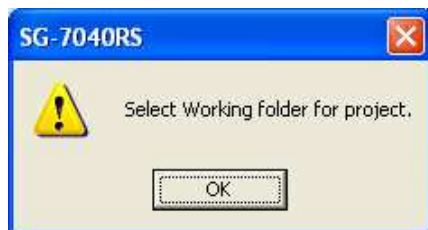
Make working folders storing waveform data, sequence files, test data, etc with a name at a place of user's convenience. WaveFiles of the attached CD-ROM includes ISO16750-2, ISO7637-2, Copy them to utilize them.

The following example shows having made folders of each standard in C:\WaveFiles.



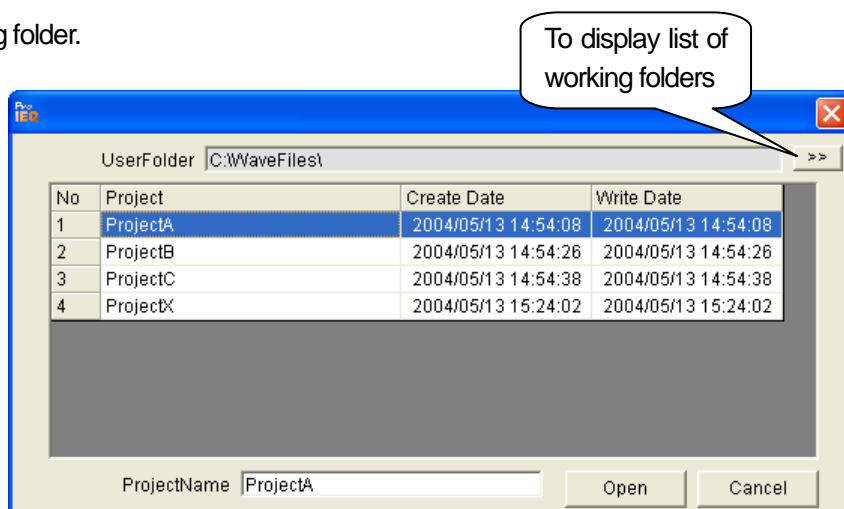
3-3. Starting up Software

Start up SG-7040RS with START→ALL Programs→Noiseken→SG-7040 RS. If you have a shortcut on desktop, click the icon.



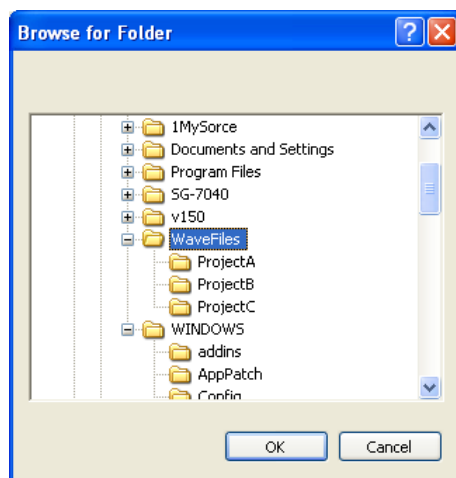
The above [Working folder confirming dialogue box] is displayed. Click [OK].

Select working folder.



Select the executing folder from the indicated folders and click [Open]. If you click [Cancel], the latest working folder (a folder selected in the latest use) will be selected.

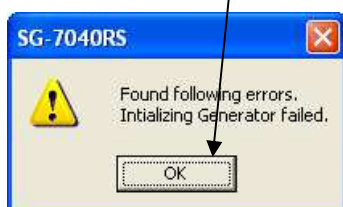
Working folder stores waveform data, sequence files, test data etc. In case of changing a selecting folder, click [>>] upper right and select a folder from [Browse for folder] as below.



Select a folder and click [OK].

In case of making a new working folder, input a file name into [Project Name]. The working folder is generated in the user folder.

Select a folder and click [Open]. Connected equipment will be initialized. If initialization fails, the box as under is displayed. After [OK] is clicked, [Unconnected] will be displayed on upper right of test screen.

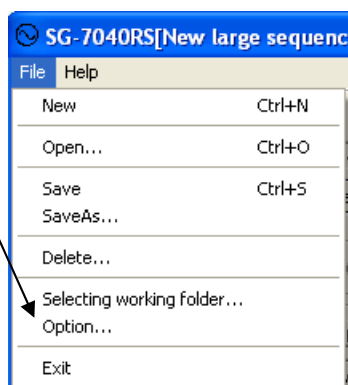


Unconnected

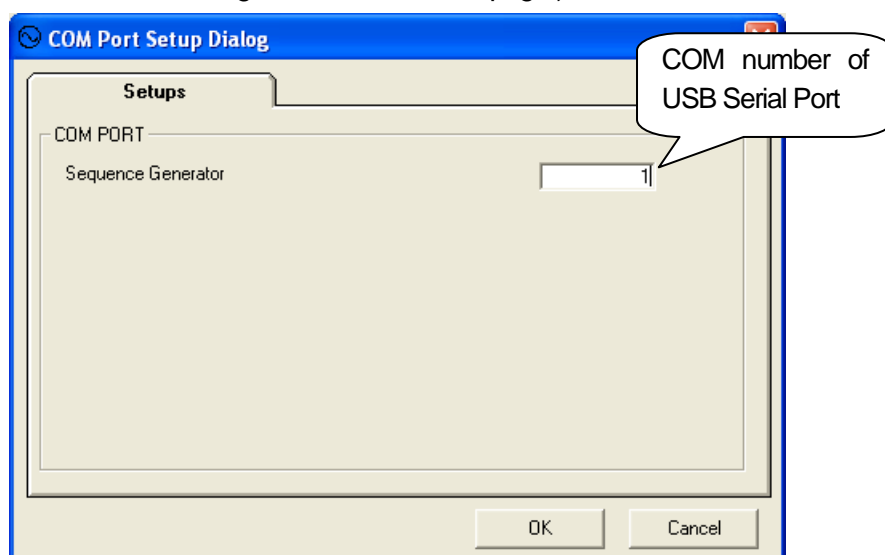
If an error occurs, set up environment as shown in the next section.

3-4. Setting up Environment of Connecting Equipment

Select [File→Option...] from upper left menu.



[Environment Setup Dialog] is displayed. Select COM port of [Sequence Generator].
(Confirm COM port with Device Manager. Refer to the next page.)



Click [OK] to complete operation. [Unconnected] will disappear when communication succeeds.

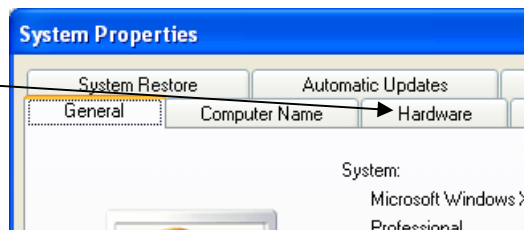
How to call Device Manager

Select [My Computer] from [START].

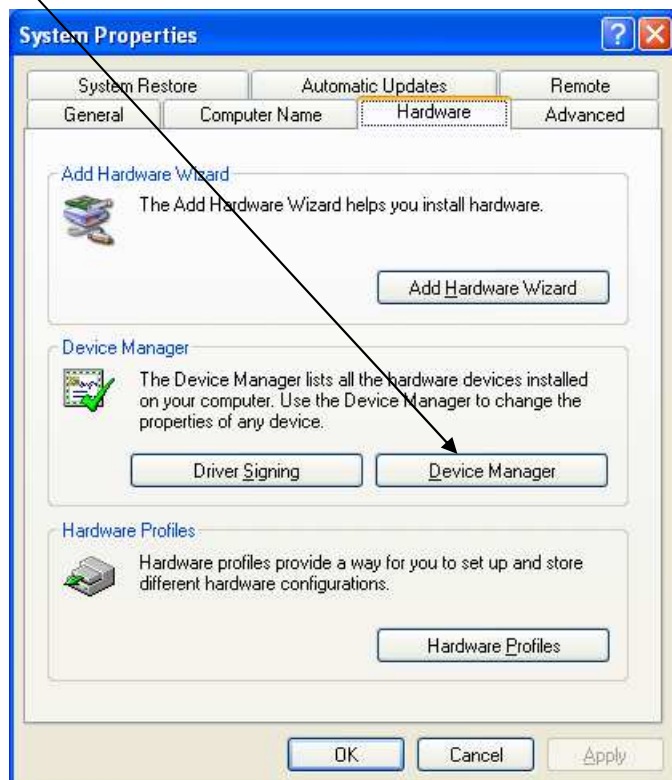
Click [View system information] to indicate System Properties.



Select [Hardware].



Click [Device Manager] to indicate list.



3-5. Connection to Generator

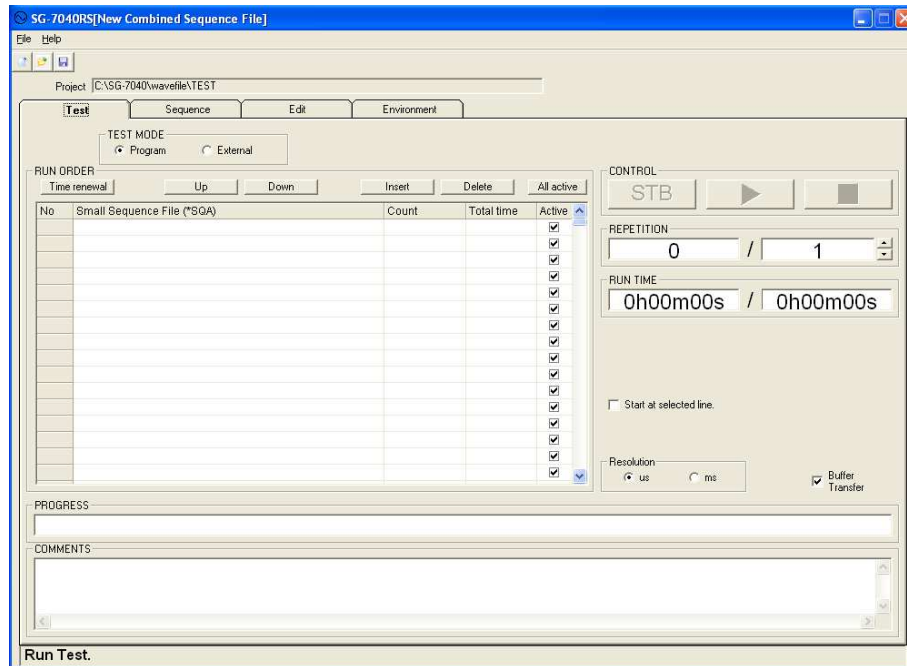
- 1) Make sure that power supply of the generator is OFF.
- 2) Connect USB cable to USB connector of the generator.
- 3) Connect USB cable to PC.
- 4) Turn ON the generator.

For connecting to the generator, read instruction manual of the generator also.

If you should change the port to USB on PC, reinstallation of USB High Speed Serial Converter will be necessary. Besides, COM number will be changed and environment setup will be necessary also. For stable usage, keeping using the same port to USB is recommendable.

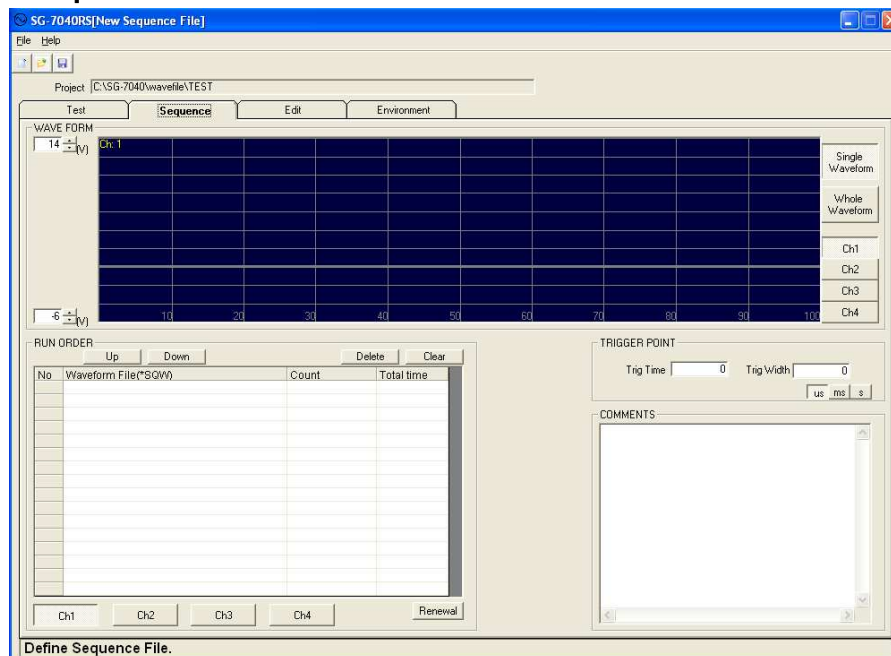
4. SCREEN LAYOUTS

Test execution screen



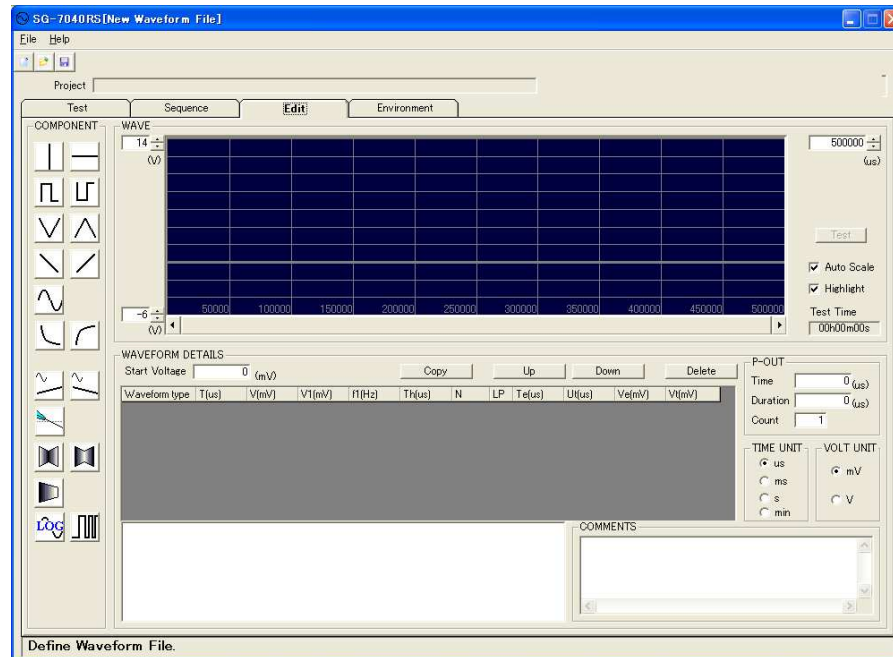
Controls starting, pausing and stopping of test. Also, orders sequence files and sets up CSV file. Can order maximum 1000 sequence files, maximum 10 CSV files.

Waveform sequence screen



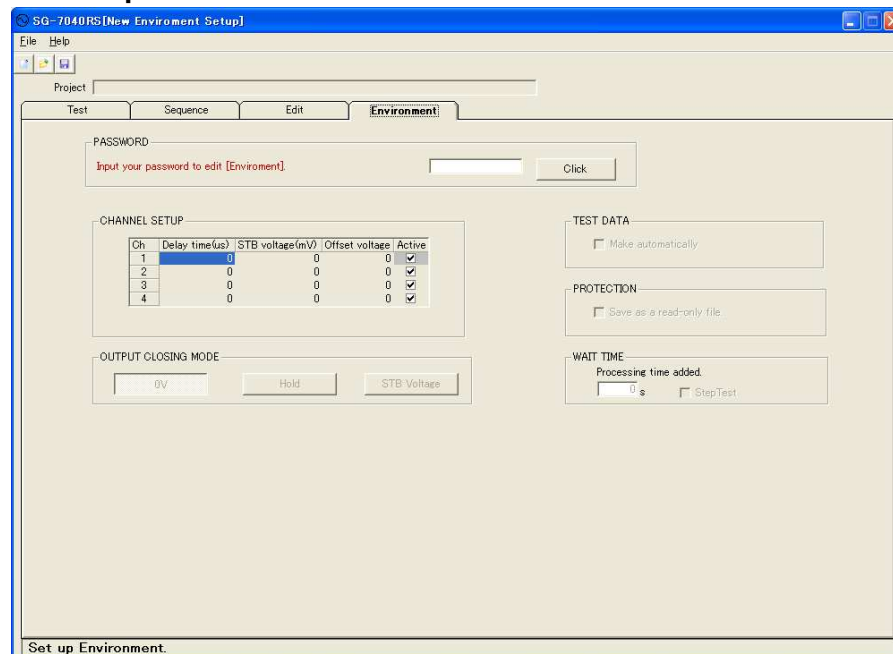
Sets up sequences with combining waveform files. Can order maximum 16 waveform files.

Waveform edit screen



Sets up waveform data with combining waveform components. One waveform can include maximum 31 components.

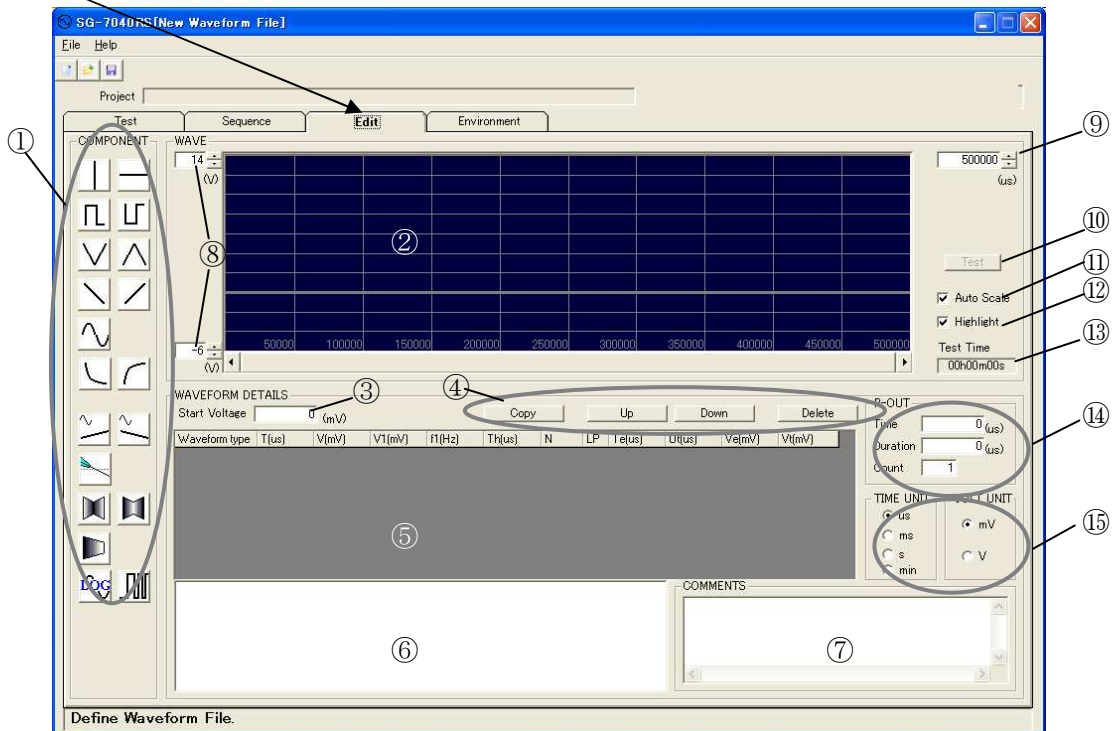
Environment setup screen



Sets up status after completing test, information of connected equipment, etc.

5. EDITING WAVEFORM

Select [Edit] to make and save waveform file.



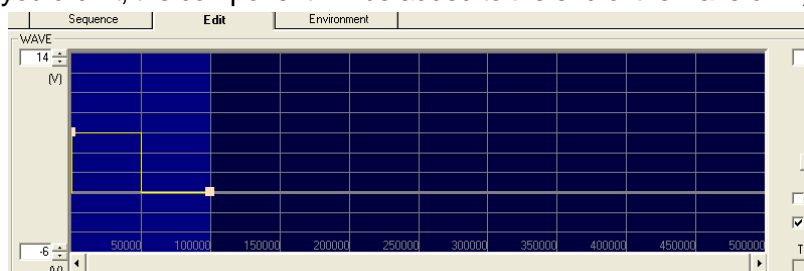
5-1. Function of Each Part on Waveform Edit Screen

- ① Waveform component key
Drag and drop keys onto ② Graph territory to make waveform file. If you click the key, the component will be added the last component of the waveform.
- ② Graph territory
Makes waveform with combining selected components automatically. It is the image of waveform to be output actually for test. The part being edited is highlighted.
- ③ Start voltage
Sets up voltage of the head of a waveform file.
- ④ Copy, move, and deletion of a waveform component.
Copies, moves (toward up and down), and deletes an item to be edited in a list.
- ⑤ Waveform component data list
Selected waveform components are displayed on the list with one waveform on one line. As focus moves on the list, the highlighted part of ② Graph territory moves.
- ⑥ Waveform component illustration
Illustrates each waveform component.
- ⑦ Comments
Used for inputting comments.
- ⑧ Range of voltage
Sets range of voltage for graph territory.

- ⑨ Time-axe scale
Sets up scale of time-axe indicated on the graph. The change value by spin button is varied according to the scale. The preferable scale can be selected manually.
- ⑩ TEST
Opens control dialogue for executing test. Can confirm the output of waveform set up on the screen (Refer to 5-5.TEST Execution).
- ⑪ Automatic scale
Adjusts scale of time-axe automatically if checked.
- ⑫ Highlight
Focused area is highlighted on the graph if checked.
- ⑬ Test time
Approximate total test time of the sequence being set up. Use the value as approximate time to complete test.
- ⑭ P-OUT
Controls pulse output of the generator (Refer to 5-4. Pulse Output Setup).
- ⑮ Time unit / Volt unit
Selects unit of time and voltage of waveform components.

5-2. Operation

Drag and drop a component button onto graph territory or click it to make a waveform.
(If you click it, the component will be added to the end of the waveform.)

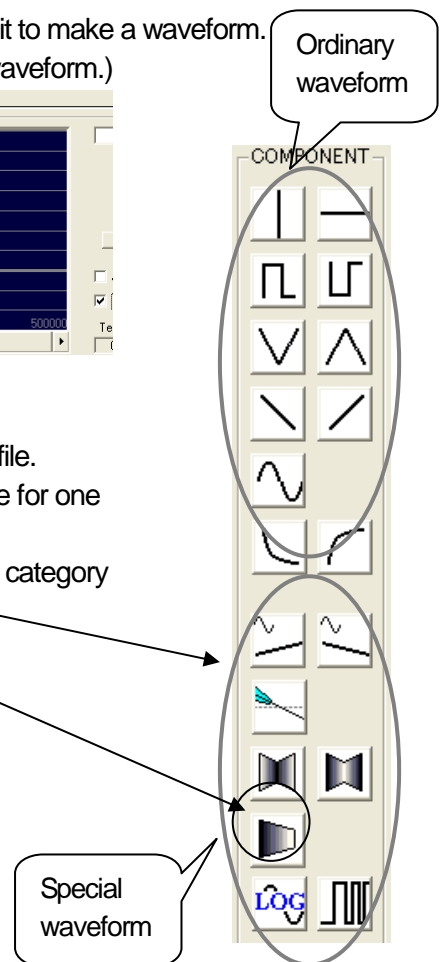


Example: Rectangular wave is selected.

Maximum 31 components are available for one waveform file.

As for special components, just only component is available for one waveform file.

※As for sine wave sweep, maximum 11 component of the category is available for one waveform file.



The contents of the added component are displayed on the list.
Waveform can be edited with changing values on the list.

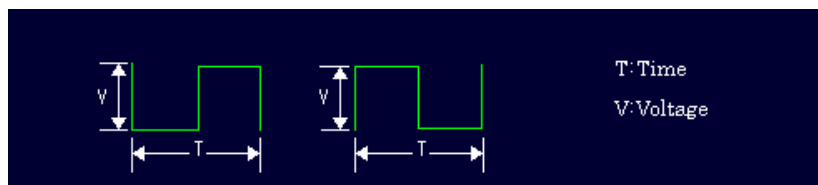
Start Voltage	0 (mV)	Copy	Up	Down	Delete						
Waveform type	T(us)	V(mV)	V1(mV)	f1(Hz)	Th(us)	N	LP	Te(us)	Ut(us)	Ve(mV)	Vt(mV)
Rectangular W.	100000	6000				1	<input type="checkbox"/>	0	0	0	0

Items on the list

"Wave"	Name of waveform component
"T(ms)"	Length of waveform component (output time)
"V(mV)"	Amplitude
"V1"	Variation of voltage
"f1"	Frequency
"f2"	The second frequency of sine wave amplitude and sine wave amplitude
"Th"	The time for halving amplitude
"N"	Repetition of waveform component
"LP"	Check it if step is necessary.
"Te(ms)"	Last value of time stepping
"Ut(ms)"	Stepping value of time (Add "-" in case the value is minus.)
"Ve(mV)"	Last value of voltage stepping
"Ut(mV)"	Stepping value of voltage (Add "-" in case the value is minus.)

If the executing value exceeds the end value, test after the end value will not be executed.

The wave component selected for editing is illustrated on the lower column as follows.



The following keys are used for editing the list.

Copy	Copies the selected component to the next line.
Up	Moves the selected component to the next upper line.
Down	Moves the selected component to the next lower line.
Delete	Deletes the selected line.

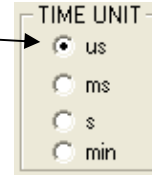
***Highlight**

Whether the focused area will be highlighted or not is selectable with the following check box.



***Time unit**

According to the length of time for test, the unit of time is selectable (μ second, m second, second, minute).



When " μ s" is selected, the maximum output time of one component is 60 seconds (60,000,000 μ s). In the other cases, it is 30 minutes (30min, 1,800s, 1,800,000ms).

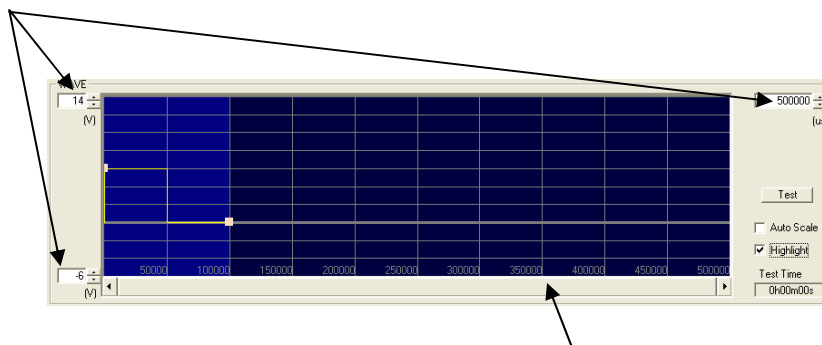
***Volt unit**

The unit of voltage of start voltage and waveform components is selectable.



***Graph territory**

The value of time and voltage can be input to make easier to see the graph.



If the whole of waveform cannot be indicated, a slide bar will be set.

***The graph may not be displayed well in some time-axe scales.

5-3. Waveform Components

Ordinary waveform



Vertical Rises voltage instantly and falls instantly.
The generator can vary in $1\mu\text{s}$, but the actual output voltage is dependent on the performance of bipolar power supplies connected to the generator.



Level Keeps set voltage in set time.
 $1\mu\text{s}$ ~30 minutes is available.



Rectangular Wave1 Varies voltage vertically.
Set one cycle operation time (T) ($10\mu\text{s}$ ~1800s is available).



Rectangular Wave2



Sawtooth Wave 1 Varies to a set voltage in a half of the set period and returns to the start voltage. Set one cycle operation time ($10\mu\text{s}$ ~1800s is available).



Sawtooth Wave 2



Falling Ramp Wave Varies to a set voltage in a set period. Set rise or fall time (T) ($0\mu\text{s}$ ~1800s is available. For $0\mu\text{s}$, use "Vertical")



Rising Ramp Wave



Sine wave Outputs sine wave. Cycle (T): $7\mu\text{s}$ ~1s is available.
Frequency (f1): 150kHz~1Hz is available.



EXP Wave1 Varies voltage exponentially.
When varying voltage is V, varying time t, outputs $V(t)=V \cdot e^{-T}$.



EXP Wave2 Outputs $V(t)=V(1-e^{-T})$

Special waveform



Sine Wave Ramp1 Outputs sine wave with varying its center voltage.
Set output time (T), frequency (f1), end amplitude of sine wave (V), and end value of center voltage (V1).



Sine Wave Ramp2 The minimum value of output period is $10\mu\text{s}$.



Damped Sine wave Outputs sine wave with varying its center voltage and amplitude. Set output time (T), frequency (f1), amplitude of sine wave in starting (V), last value of center voltage (V1), time for halving starting amplitude (Th). The maximum value of T and Th is $10\mu\text{s}$.



Barrel Wave1

Outputs sine wave with varying its amplitude and frequency. Varies them from initial amplitude (V), frequency (f1) to V1 and f2 for output time (T), and return to the initial value for output time (T) again. Time-axe resolution is 1ms.



Barrel Wave2



Sine Wave Sweep

Outputs sine wave consecutively with varying its amplitude and frequency. Varies them from initial amplitude (V), frequency (f1) to V1 and f2 (parameters of the component). If the next component exists, after the first variation, it varies to the next component's parameters V1 and f2 again. The operation will be repeated as components continue. The minimum value of output time is 10ms.



Sine Wave LOG Sweep

Outputs sine wave with varying LOG. Outputs sine wave — output time (T), amplitude (V) — with varying its frequency from the first frequency (f1) to the second frequency (f2). If LP is checked, after completing the output time, outputs sine wave in the set output time (T) with varying its frequency from the second frequency (f2) to the first frequency (f1). (Refraining the waveform reversely.) The output time can be set from 1 second to 1800 second.



Rectangular Sweep

Outputs rectangular wave with varying its frequency linearly. Outputs rectangular wave — output time (T), start voltage (V), end voltage (V1) — with varying its frequency from the first frequency (f1) to the second frequency (f2). The output starts with the start voltage. The output time can be set from 10 ms to 1800 second.

※ The range of the set voltage is up to $\pm 60V$.

“LP”

Check the box when using “step”. “Step” is the function for executing one component repeatedly with varying a particular parameter of the component.

“Te(ms)”

Sets the last value of time stepping. If the calculated final value exceeds the last value, the test will be finished before the last value. In case of setting both time and voltage stepping, time stepping is prior to voltage stepping. After one series of time stepping, it changes to the next voltage and performs time stepping again.

“Ut(ms)”

Sets step value of time (If the value is minus, add “-” on top of it).

“Ve(mV)”

Sets the last value of voltage stepping. If the calculated final value exceeds the last value, the test will be finished before the last value.

“Ut(mV)”

Sets step value of time (If the value is minus, add “-” on top of it).

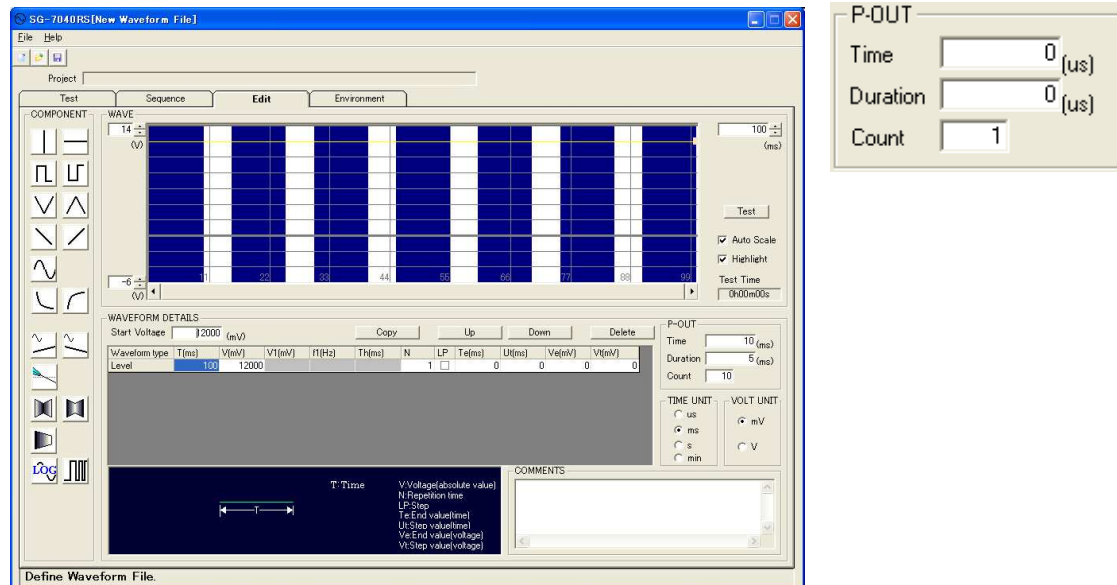
5-4. Pulse Output Setup

Set [PULSE] output signal of the generator. The unit is set in [Time Unit].

Outputs OFF signal during period set by [duration] when [Time] has passed after starting test. OFF period is indicated in yellow color on graph territory. If [Count] is set, OFF signal will be output again for [duration] when [Time] has passed after the first OFF signal. [Count] is available to 9999 times.

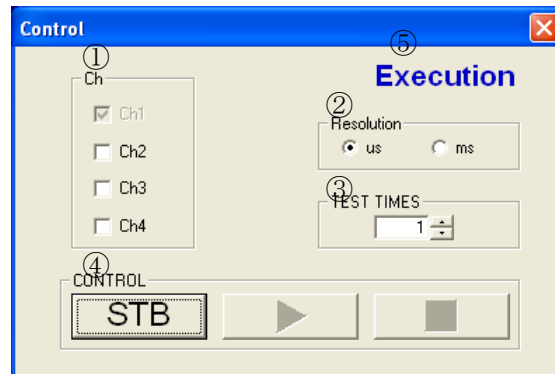
The [PULSE] output voltage of the generator is usually 5V, and it will be 0V during OFF period.

***When the optional SG-7043,SG-7044 is connected, this operation becomes necessary.



5-5. TEST Execution

Click [TEST] key. [Control] dialogue will be displayed. Can output the waveform that has been edited on [Edit] screen (Saving the waveform is unnecessary).

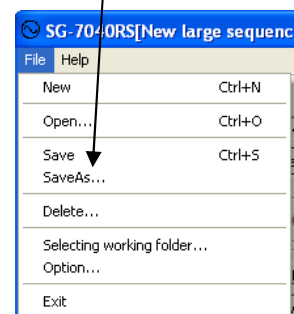
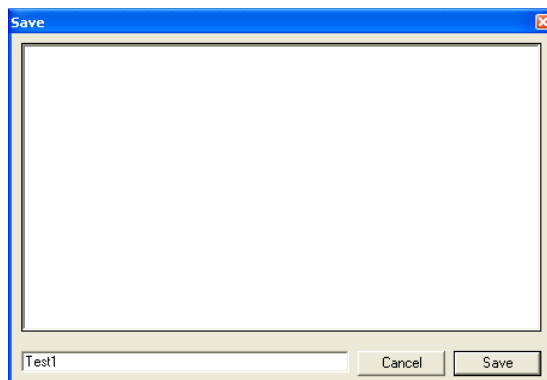


- ② Ch: Select output channel. (Ch1 is fixed.)
- ③ Resolution: Select time-axe resolution.
- ④ TEST TIMES: Set repetition times (1~1000 times)
- ⑤ CONTROL: Used for sending waveform data, starting and stopping test.
- ⑥ Execution: displayed while executing test.

**In STB status, voltage value on finishing output is dependent on setup on [Environment] screen.

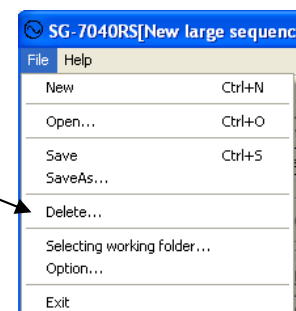
5-6. Saving Waveform File

Select [Save As...] from the menu to save waveform file when [Edit] tab is selected.
The file is saved with an extension .SQW.



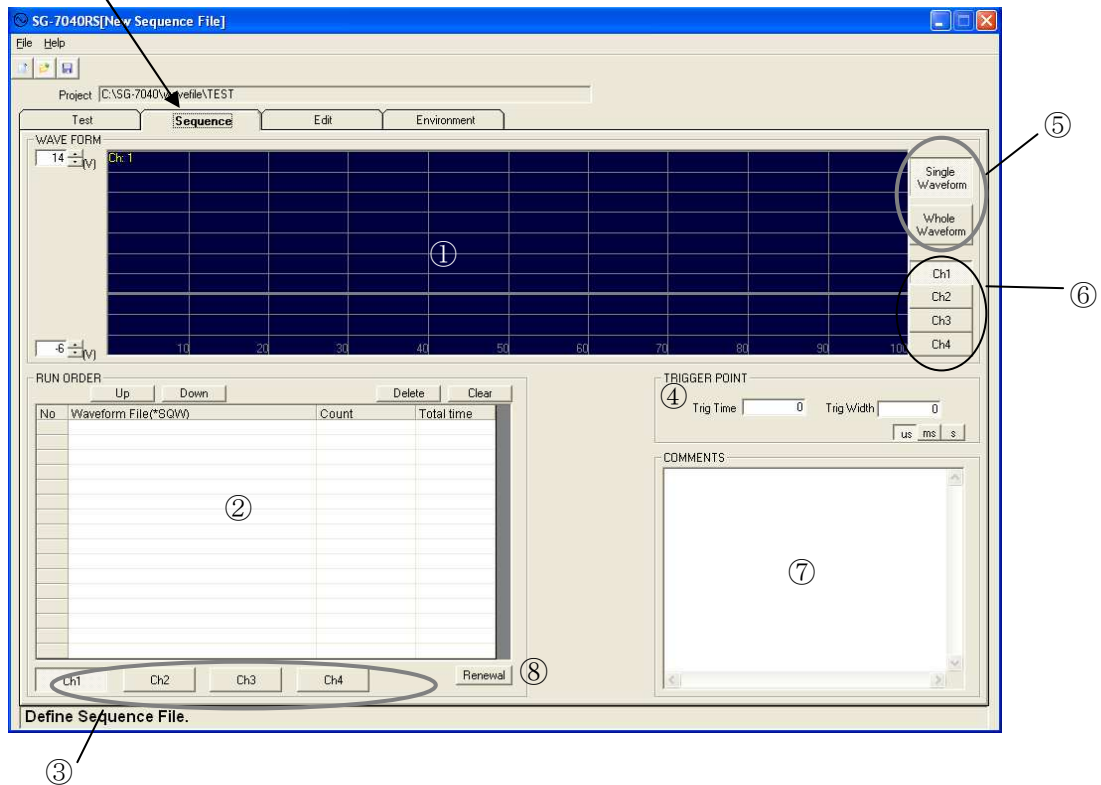
5-7. Deleting Waveform File

Select [Delete...] when [Edit] tab is selected. Dialogue for deleting file will be displayed. Delete the file according to the instruction



6. SEQUENCING WAVEFORMS

Select [Sequence] to make sequence file.



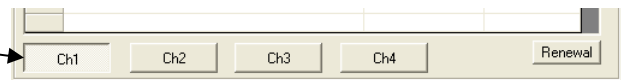
Combine waveform files to make sequence file, which is a medium file between waveform and contents of test.

6-1. Function of Each Part on Waveform Sequence Screen

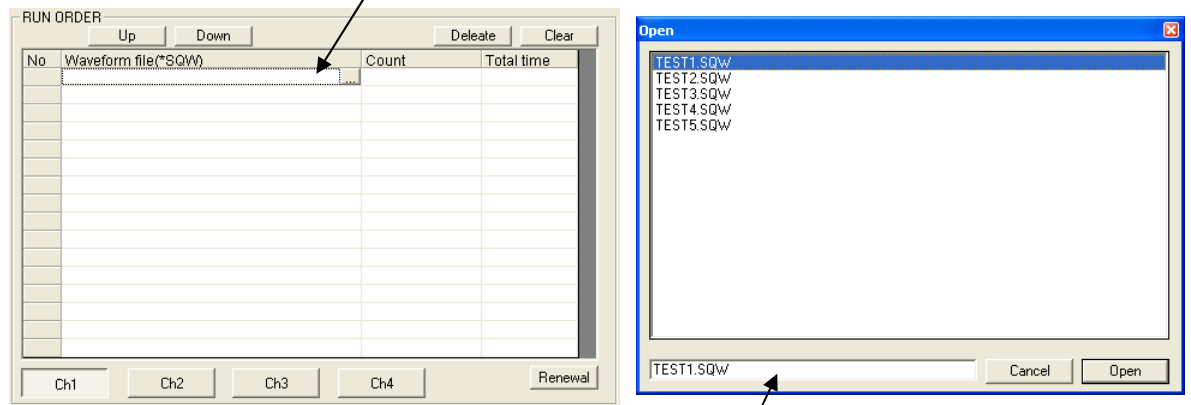
- ① Graph territory
Displays image of the selected waveform.
- ② Waveform file table
Used for sequencing waveforms according to output order. Double-click the line or click the line and click [...] and select a proper waveform file.
- ③ Channel keys
Selects channel to be set.
- ④ Trigger point
Sets signal output for triggering oscilloscope (5V active-low logic). (Refer to 6-4. Setting Trigger Signal Output).
- ⑤ Waveform display selection-1
Selects displaying single waveform file or displaying the whole sequence.
- ⑥ Waveform display selection-2
Selects which channel waveform will be displayed (Displaying plural channels is available).
- ⑦ Comments
Used for inputting comments.
- ⑧ Renewal key
Rereads waveform files in ②Waveform file table and shows image of waveform.

6-2. Operation

Select the channel to edit



Double-click a line or click a line and click [...]. Dialogue for opening a waveform file will appear. Select the proper file and open it.

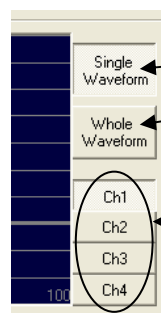
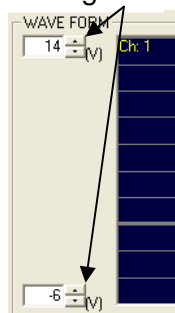


Select a file to execute.

Can register maximum 16 waveform files.

By the real output, a delay of about 85 μ s occurs between wave pattern files.

Set range of voltage to be indicated.



Only single waveform being edited is displayed.

Whole waveform being selected is displayed.

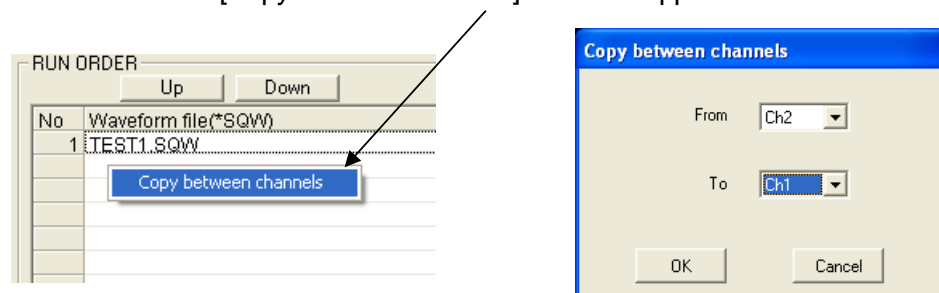
(A single waveform being edited is highlighted.)

Select channel to be displayed.

Channel of depressed key will be displayed.

6-3. Copy between Channels

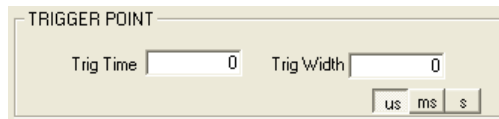
Right-click on waveform file. [Copy between channels] menu will appear.



Click the menu to display [Copy between channels]. Set from which channel to which channel to copy. **The function does not exist in case of 1ch only model.

6-4. Setting Trigger Signal Output

Set output of [OSC SYNC] of the generator.



[Trig Time]: Time from starting test to outputting trigger

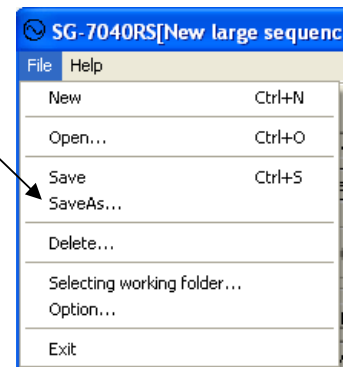
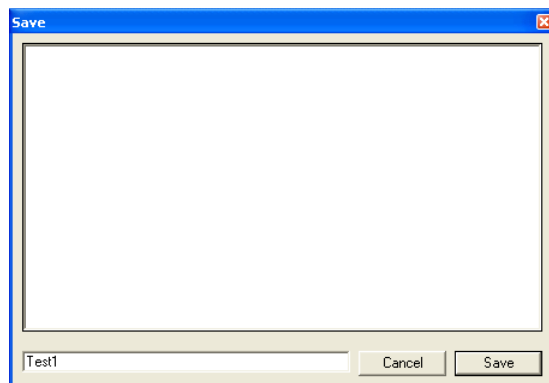
[Trig Width]: Width of the trigger signal

Select the time unit (μ s or ms) with keys lower right.

6-5. Saving Sequence File

Select [Save As...] from the menu to save sequence file when [Sequence] tab is selected.

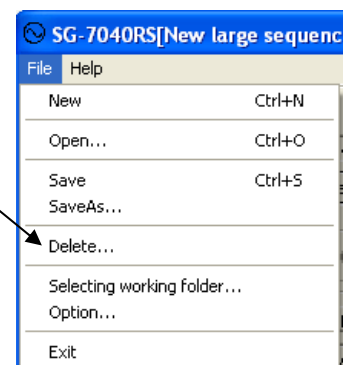
The file is saved with an extension .SQA.



6-6. Deleting Sequence File

Select [Delete...] when [Sequence] tab is selected. Dialogue for deleting file will be displayed.

Delete the file according to the instruction.



6-7. Notice for Making Sequence Files

The software is adjusting synchronization between channels by the waveform file (.SQW) level. (The top of waveforms set on each channel start at the same time.) Therefore, if the number of waveform files in each channel is different, or if taking time of waveform files is different, the actual output may be different from the image of waveforms on the screen.

[Example]

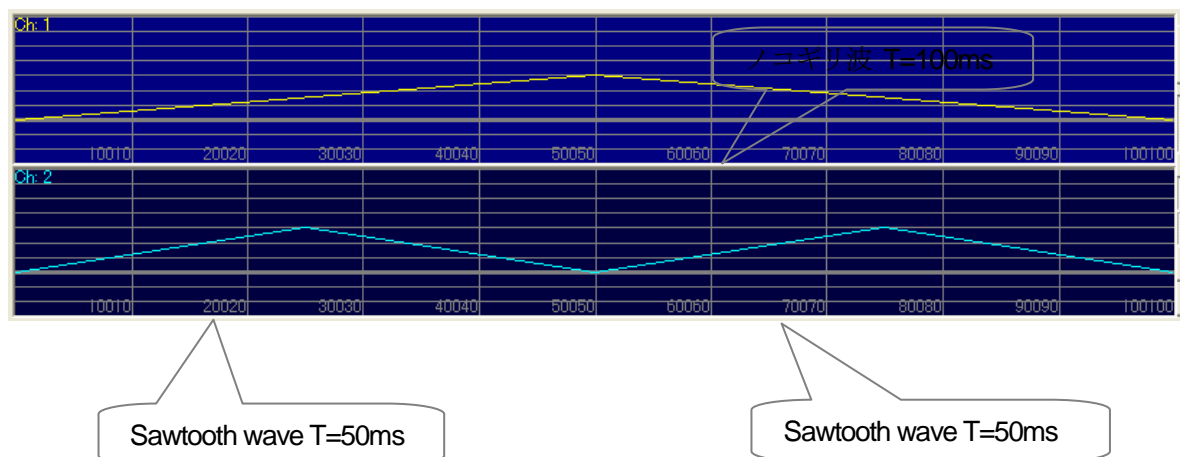
In case you set a waveform file which consists of a 100ms sawtooth waveform on channel 1 and set two waveform files which consists of 50ms sawtooth waveform on channel 2;

[On screen]

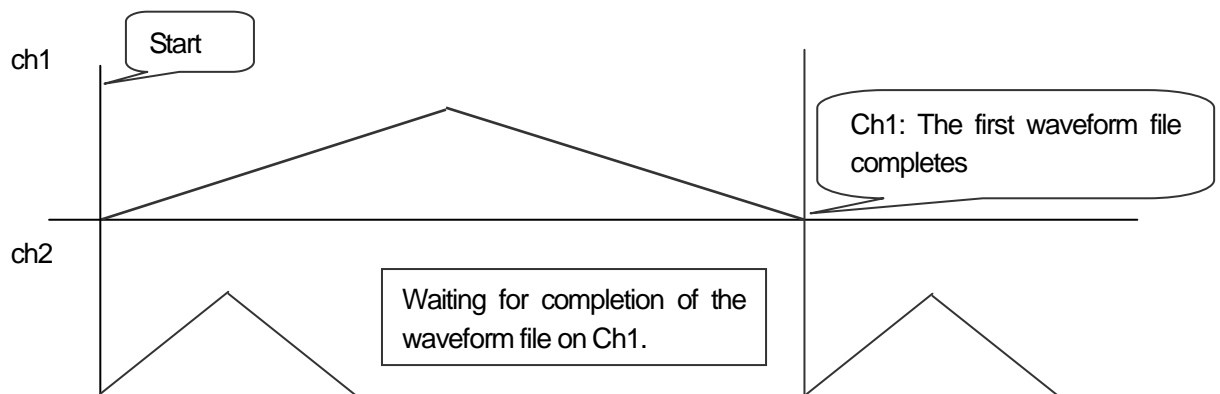
Ch1: Sawtooth waveform 100ms.SQW

Ch2: Sawtooth waveform 50ms.SQW

Sawtooth waveform 50ms.SQW



[Actual output]

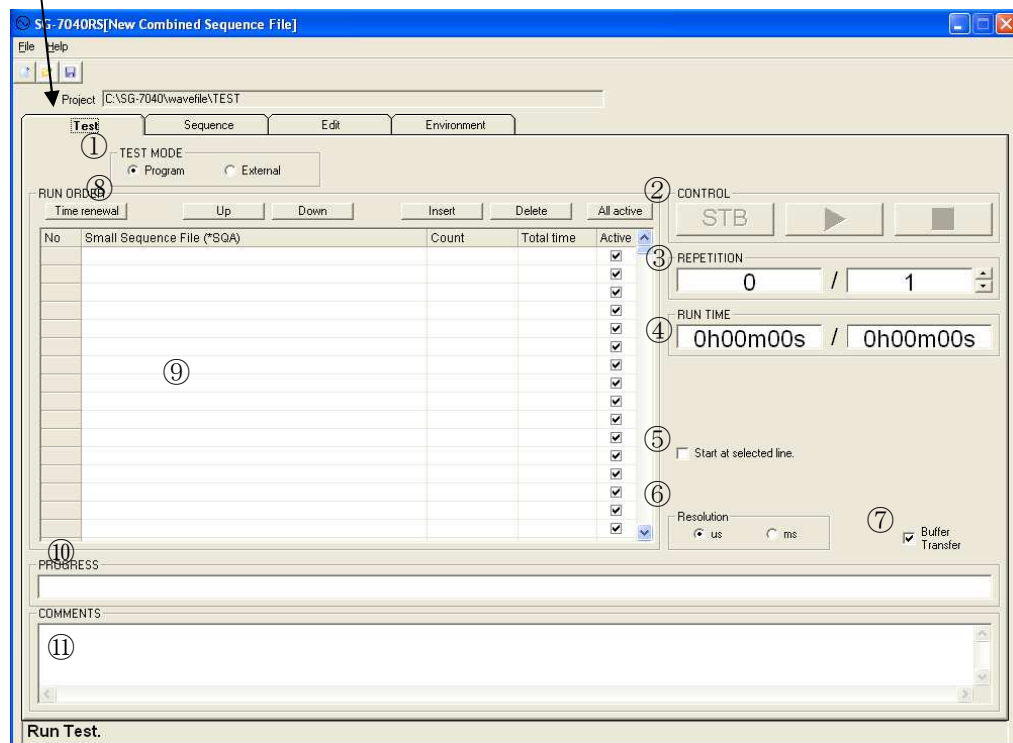


In the above case, if you set the same number of waveform file as ch1 on ch2 –with using two 50ms sawtooth waveforms in one file--, the actual input will be same as the image on screen.

7. TEST EXECUTION

7-1. Program Mode

Select [Test] to execute test.



Set sequence files and execute test. Can conduct continuous testing with combining sequence files.

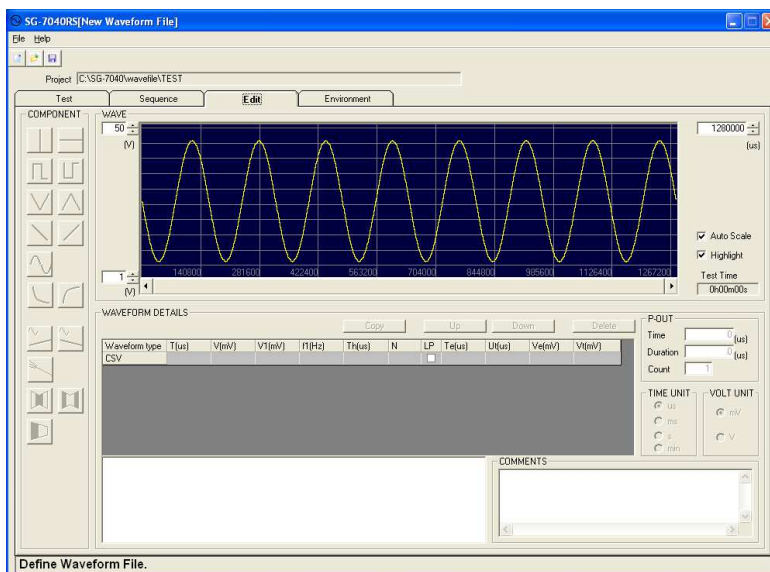
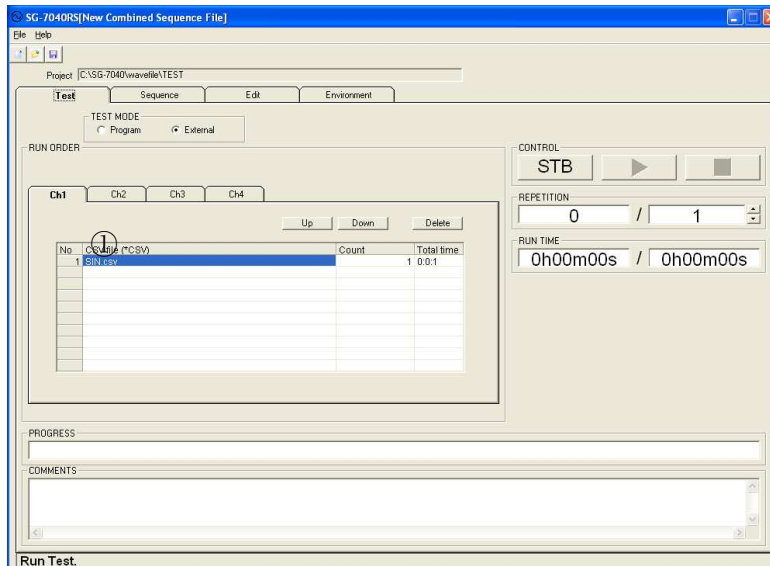
7-1-1. Function of Each Part on Test Screen

- ① TEST MODE
Selects test mode.
Program: Executes test with sequence files.
External: Executes test with CSV files.
- ② CONTROL
[STB] Starts communication of waveform and supplies standby voltage after preparing status completes (when communication of waveform completes).
[▶] Starts outputting waveform.
[■] Stops outputting waveform or cancel standby voltage. Usually stops automatically when completing output of all waveforms.
- ③ REPETITION
Sets repetition times of the combined sequence file (all of the sequence file on ⑨ Sequence file table) and indicates the number of completed times of tests after starting test.
- ④ RUN TIME
Indicates total run time of the combined sequence file (all of the sequence file on ⑨ Sequence file table) and passed time after starting test.
- ⑤ Start at selected point.
With check: Starts test at the selected file on ⑨ Sequence file table.
Without check: Starts test from the top of ⑨ Sequence file table.

- ⑥ Time-axe resolution
Sets time-axe resolution of normal waveforms (level, rectangular, sawtooth, ramp, EXP).
Select [ms] in case of existing more than 1 minute wave component.
- ⑦ Buffer Transfer
Function to transfer sequence file data in advance. Can save time for data transmission.
The function is not applicable for special waveforms.
- ⑧ Test renewal
Rereads sequence files on ⑨ Sequence file table and rewrites .④ RUN TIME.
- ⑨ Sequence file table
Used for sequencing sequence files according to output order.
- ⑩ PROGRESS
Indicates ratio of the passed time to the total run time with progress bar.
- ⑪ Comments
Used for inputting comments.

7-2. External Data (CSV) Mode

Set CSV data file and execute test. Can check read-in CSV data on [Sequence] and [Edit] screen.



7-2-1. Function on the Screen in CSV Mode

- ① CSV file table (Refer to figure on P24).

Arrange CSV file according to your order. Maximum 10 files are available.

7-2-2. Making CSV Data

When you make a new CSV file, utilize on-sale spreadsheet software, editors, etc. Always use the following format.

Header part	Frequency,50
Data part	1,12000
	2,12000
	3,12000
	4,12000
	.
	.

Header part: Input frequency.

Input "Frequency, Actual frequency value".

Frequency: Fixed character line

Frequency value: 1~5000000 available

Data part: Serial number, voltage value

Serial number: 1~524288

Voltage value: -60000mV~60000mV (1mV step)

If the same voltage value is continuing, utilize the following format to shorten communication time.

*Input a number more than 2 to the column.

Frequency,50	Frequency,50
1,12000	1,12000
2,12000	*,3
3,12000	5,24000
4,12000	6,24000
5,24000	
6,24000	

Repeats "1" three times

Format other than the above cannot work.

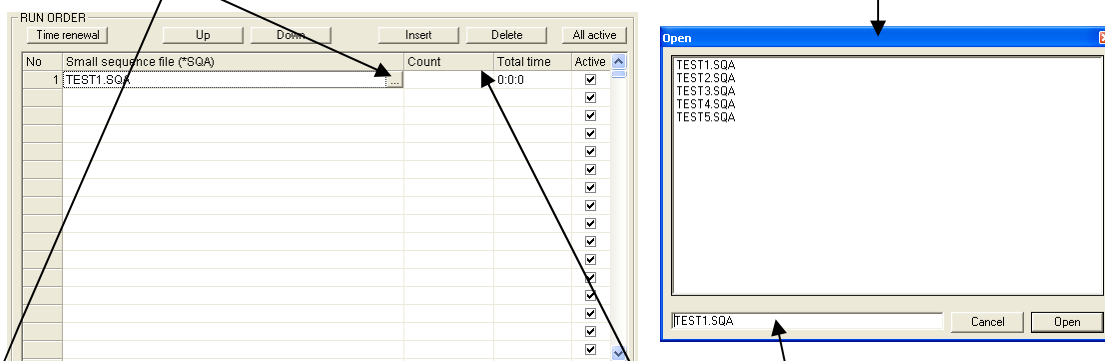
Can set maximum 524288 data.

Store the made CSV data in CSV file in working file.

*If the number of data is large, it may take time to communicate. In case of canceling communication, press [ESC] key.

7-3. Operation

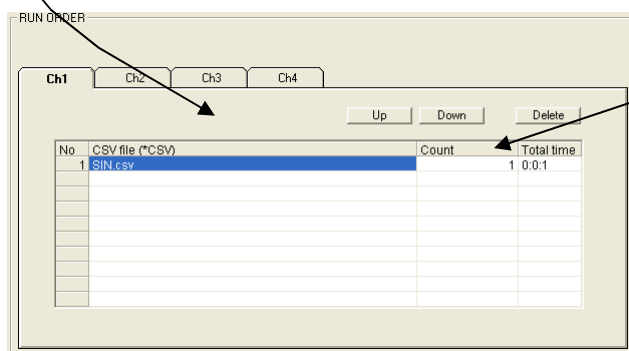
Select files for test. Double-click a blank line or click a line and click [...]. Dialogue for opening a waveform file will appear. Select the proper file and open it.



Can set maximum 1000 sequence files.

By the real output, a delay of about 1300ms occurs between files.

Select a file to execute.



[Count]: Repetition times of the file

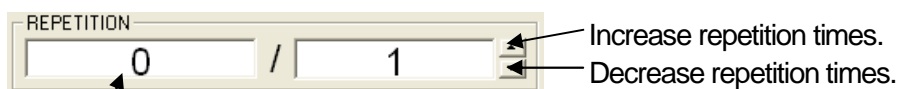
Can set maximum 10 CSV files.

By the real output, a delay of (by the file size) occurs between files at reading time.

Set repetition times of test



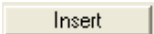


Repetition of one sequence file: Can set repetition times of the file with inputting [Count] on file list (1~9999 times).

Repetition of the whole series of sequences on the file list: Can set repetition times of the whole of series of sequences on the file list with inputting a number into ③ REPETITION (1~1000 times).



Indicates the number of completed tomes of tests after starting test.

Edit sequence file list or CSV file list,

- | | |
|---|---|
|  | Moves the selected line to the next upper line. |
|  | Moves the selected line to the next lower line line. |
|  | Inserts a new line (in program mode). |
|  | Deletes the selected line. |
|  | Checks all of "active" check boxes (in program mode). |

Control execution of test.



- [STB]: Outputs standby voltage to enable test execution. Standby voltage is set in [CHANNEL SETUP] on [Environment] screen (Refer to 8-1. Function of Each Part on Environment Setup Screen and 8-2. Operation).
- [▶]: Starts test. Voltage after completing test is set in [Output closing mode] on [Environment] screen (Refer to 8-1. and 8-2.).
- [■]: Stops outputting waveform or cancel standby voltage. Makes voltage 0V.
When [External mode] is selected, as the last communicated data is remaining (as long as some emergency stop procedures have not been done), the test can be restarted continuously.

Set basic unit of time for test (in program mode).

Select "ms" resolution if test includes more than 1 minute waveform component.

For some tests, for example, for a test that varying voltage takes more than 10 minutes, select "ms" because calculation error would be much larger with "μs".

If "ms" is selected, output of waveforms which length is less than 1 ms cannot be guaranteed.



[Buffer Transfer] function can save transmission time between sequence files (in program mode).



**In case of setting some sequence files that complete within 500 ms together, there will be delayed time for data transmission between executing files even with checking it because sending data in advance is unavailable in such a case.

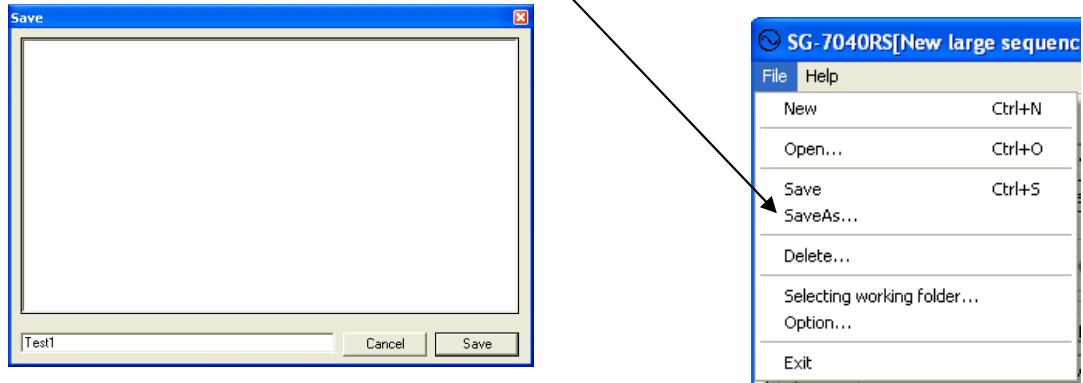
**In case plural channels are used and the numbers of waveform files in sequence files are different between channels, undo check, since the system may malfunction.

**In case a sequence file that completes within 500ms and a longer sequence file (length: more than 500 ms) are sequenced together, if [Buffer Transfer] is checked, the test data may not be written into test data file.

**The function is effective only for normal waveforms.

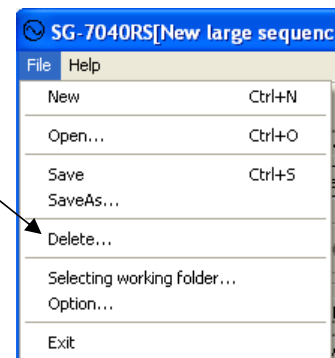
7-4. Saving Combined Sequence File

Select [Save As...] from the menu to save combined sequence file when [Test] tab is selected. The file is saved with an extension .SQS.



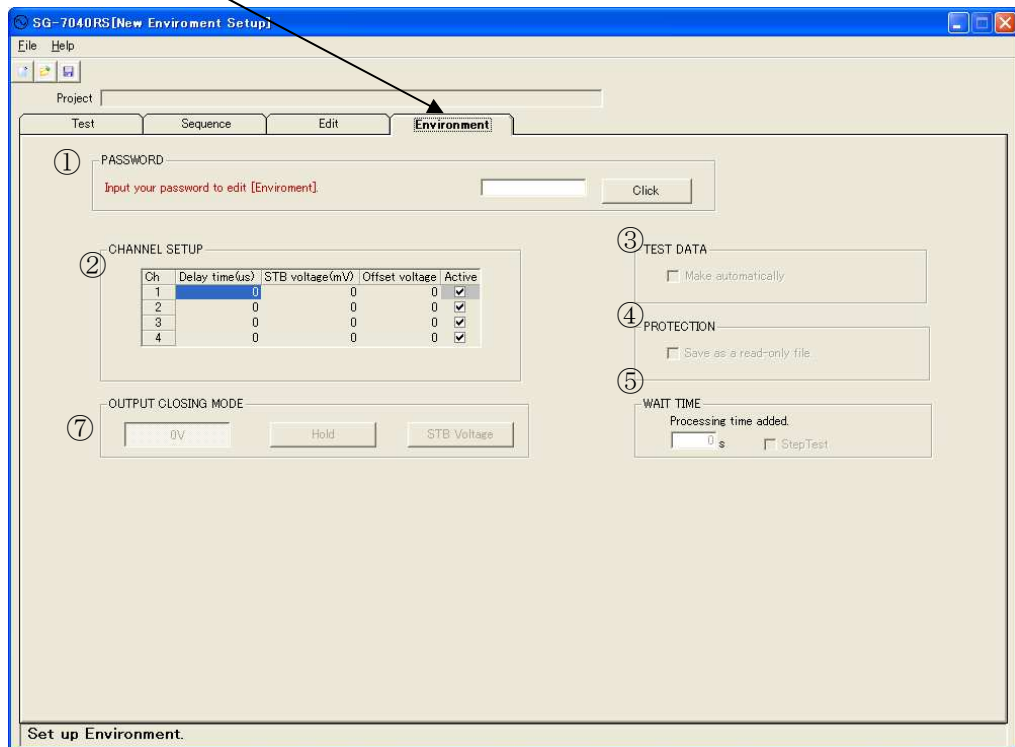
7-5. Deleting Combined Sequence File

Select [Delete...] when [Test] tab is selected. Dialogue for deleting file will be displayed. Delete the file according to the instruction.



8. ENVIRONMENT SET UP

Select [Environment] to set up environment, mainly preparation setup for conducting test.



As the contents set up in the last time remains, rereading files is unnecessary in starting up.

8-1. Function of Each Part on Environment Setup Screen

① Password

To avoid easy rewriting, the following password is necessary to rewrite data on the screen

Password : noise

For changing password, open INI file (SG-7040RS.ini) in the folder of this application with note pad and change "noise" of "PassWord=noise" to a newly made password.

If the column is made blank ("PassWord="), editing the screen without password will be possible.

****When you write into .ini file, do not rewrite any other character lines. Otherwise the application soft may not work well.**

② CHANNEL SETUP

Used for setting delay time of the amplifiers, standby voltage, etc.

③ TEST DATA

Selects whether a test data file in the test data folder will be made automatically at the completion of every test or not. The test data file is the file which name is the starting date of test and is input starting time, comments etc.

④ DATA PROTECTION

Data files will be saved as a read-only files if the check box is checked. Read-only files cannot be overwritten in the application.

⑤ WAIT TIME

Sets interval time between sequence files or CSV files. In case of setting "0", as soon as one test has completed, the next test starts.

⑥ OUTPUT CLOSING MODE

Sets closing voltage when the application is closed in ordinary way.

8-2. Operation

Set environment of each channel.

Ch	Delay time(us)	STB voltage(mV)	Offset voltage	Active
1	0	0	0	<input checked="" type="checkbox"/>
2	0	0	0	<input checked="" type="checkbox"/>
3	0	0	0	<input checked="" type="checkbox"/>
4	0	0	0	<input checked="" type="checkbox"/>

- [Delay time]: Set it for securing synchronization of amplifiers. Confirm previously the delay time of each amplifier connected to the generator.
- [STB voltage]: Sets standby voltage (voltage until starting test) value.
- [Offset voltage]: Sets offset voltage value. Can set maximum 10V.
- [Active]:
With check: Makes the channel active (Ch1 is always active).
Without check: Makes the channel inactive (No output).

[TEST DATA]: Selects whether a test data file in the test data folder will be made automatically at the completion of every test or not. Default is no check.

TEST DATA
<input type="checkbox"/> Make automatically

The name of an automatically generated test data file is test starting date and time.

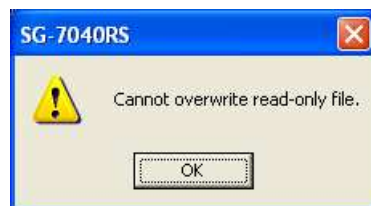
	A	B	C	D
1	Test start date and time	5/14/2004 13:27		
2	Sequence file name	TEST.SQS		
3	Test screen comment	Can input comments in the column.		
4	Test step start date and time	5/14/2004 13:27	1	
5	Test step finishing date and time	5/14/2004 13:27	1	
6	Test step start date and time	5/14/2004 13:27	2	
7	Test step finishing date and time	5/14/2004 13:28	2	
8	Test step start date and time	5/14/2004 13:28	3	
9	Test step finishing date and time	5/14/2004 13:28	3	
10	Test finish date and time	5/14/2004 13:28		
11				
12				
13				
14				
15				
16				
17				

[PROTECTION]: If it is checked, will save as a read-only file.

PROTECTION

☐ Save as a read-only file.

If you try to overwrite the read-only file, the following message will appear.



[WAIT TIME]: Sets interval time between sequence files or CSV files. Voltage at interval time is the value set in output closing mode. Can set 0~999 s.

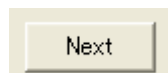
WAIT TIME

Processing time added.

s ☐ StepTest

In case step is not effective, when a sequence file or a CSV file completes, [Next] button will be indicated on the test execution screen. After clicking it, the test will move to the next file.

※In case the set value of [WAIT] is not 0s, the buffer transfer is ineffective.



[OUTPUT CLOSING MODE]

Sets output voltage after completing test in usual way.



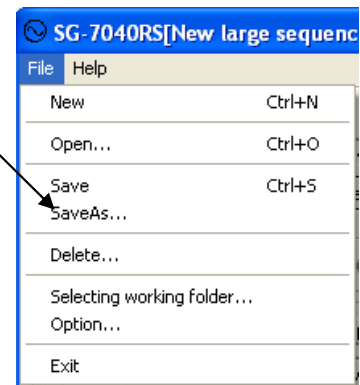
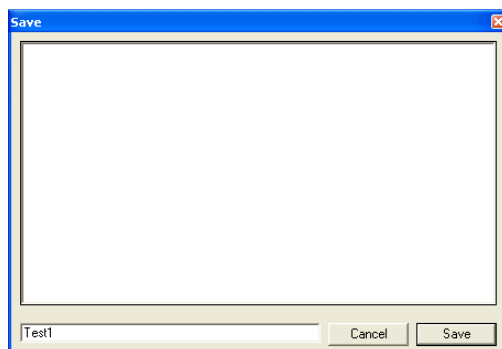
[0V]: Outputs 0V.

[Hold]: Holds the final value of waveform output.

[STB Voltage]: Outputs standby voltage of each channel.

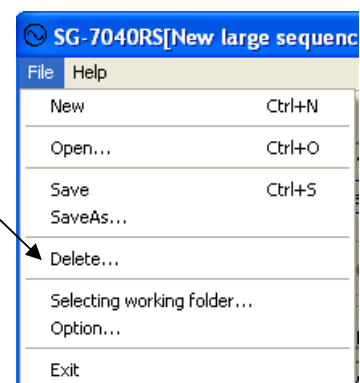
8-3. Saving Environment File

Select [Save As...] from the menu to save environment file when [Environment] tab is selected. The file is saved with an extension .ENV.



8-4. Deleting Environment File

Select [Delete...] when [Environment] tab is selected. Dialogue for deleting file will be displayed. Delete the file according to the instruction.



9. SUPPORT

For period of one (1) year from date of delivery, this product is supported free of charge.

However, the following cases shall not be covered by the free warranty.

1. Failure or damage due to customer's careless handling (for this software product itself and its media)
2. Any trouble or damage due to fire, earthquake or other natural disaster

Noise Laboratory may not accept a support request in the following cases:

- Product has been modified without our permission.
- More than 5 years have passed since sale of the product you request to repair discontinued.
- More than full 10 years have passed since product was delivered.

10. SUPPORT CONTACT

- If a symptom that seems a trouble is found, inform the model name and serial Number of the product together with the symptom to Noise Laboratory or our nearest sales agent in your area.
- When the product is returned to Noise Laboratory, write the state of the trouble, contents of your request, model name and serial number in a repair order, pack the product and repair order sheet in the former package or equivalent suitable for transit, and send them back.

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