AcoustX

TOOLS FOR SOUND ANALYSIS

win|RTA Standard
QuickStart Guide

Version 2.4

Installation

Unzip the distribution to a folder on your Desktop. Double-click on Setup and follow the directions. Start the program and open the Config menu.

Select Interfaces, then click on Select. After you have chosen the audio interface, and entered any other information you wish to save, click Save Configuration, and your settings will be saved for your next session.

Note on the software:

When you see a button with a bar on the right side, this indicates that when you click on it, a drop-down menu will appear.

Main Screen

Clear screen and reset to default settings

Save the current measurement (Shift-Click to export as text)

Select file to display as File B (right bar when A and B selected)

SPL/ Main reading window

Select file to display as File A (left bar when A and B selected)

Exit win|RTA

Pink noise ON/OFF

Turn on analyzer

Stop all processes

Print screen

Filename for File B

Set analyzer mode

Start selected test

Measurement units

Open Config window

Set length of timed average

Vertical scale

Timed average countown

Reference line

Change Reference line

Screen response

Vertical resolution

Frequency resolution

Filter band center frequencies

User definable function keys. Shift key enables new row of keys. Click on F-key number to display and set funtion choices.

File view mode

Display offset

AcoustX win|RTA Standard

RUN STOP GO PINK   WIN RTA   80.2 RTA dBC

A C:/Data/example.rtx i   ⊟ 🖨 CLEAR B   i   CONFIG >>

60

70 dB

SLOW
5
1/3
FLAT
A

F1 1/3 F2 1/6 F3 1/12 F4 FLAT F5 XOVL F6 RUN F7 PINK F8 GO F9 Save F10 File A

SPECIAL KEYS AND FUNCTIONS

- ESC key kills all processes
- PgUp/PgDn or mouse wheel moves reference line
- Shift shows new row of function keys
- Shift-click on Save button to export as text (.TXT)
- Shift-click and drag mouse on display to zoom view in RTA mode (click to un-zoom)

- Right-click displays edit menu when in comment
- Hold cursor over filename field to see full pathname
- Shift-click-drag moves both channel gains together in X-Y

Configuration: Profile

Configuration Options

| Profile | Display | Mic |

| Interfaces | Input | Output |

Save Configuration

Operator

Company

Room ID

Data Dir C:/data

Length Units
○ Feet ○ Meters

Window Size
○ Normal ○ Compact

Write configuration data to disk

Technician name

Name of theatre or facility

Name of auditorium

Selected data directory
Defaults to "My Documents"

Set default units for
measurements

Normal is for displays 1024x768 or
larger. Compact is for smaller screens,
typically 1024x600.
Save Configuration and restart win|RTA
to take effect.

Configuration: Display

Configuration Options

Profile | **Display** | Mic
Interfaces | Input | Output

Save Configuration

Octave Grid ☐

Show Values ☐

Balloon Help ☑

Cell Uniformity ☐

User Avg Time `20`

☑ Variable X-Curve

☐ ST202 `500` # Seats

☑ Sliding Knee `50` Room Length

X-Curve Position `0` ▲▼

Data Averaging

File #1 [ ] Clear

File #2 [ ] Clear

File #3 [ ] Clear

File #4 [ ] Clear

☑ Gain Leveling

Calculate

Show bar values when cursor is moved over a bar

Set display for Cat. No. 566 test film (film projectors)

Enable Variable X-curve

Change the vertical position of the X-curve

Average data from previous measurements. This is useful if you wish to use one microphone and get results similar to using the mulitiplexer. Make measurements at four different positions, load the four files, and click Calculate. For best results, load the data taken at reference position into File #1 and enable Gain Leveling.

Display octave markers

Enable balloon help

Set length of User Average

The Variable X-Curve can either change the slope of the curve (according to SMPTE ST202) or the frequency at whiich the slope begins (the knee).

Configuration: Microphones and Interfaces

Configuration Options

Profile | Display | Mic

Interfaces | Input | Output

Save Configuration

Apply Mic Calibration ☑

Mic S/N | 5001 | Clear

Microphone response conversion

◉ None

◯ Pressure to Free

◯ Free to Pressure

Export comma delimiter ☐

Bump

0.0 ⬍

Enable and load microphone calibration file.

Change the response type of the microphone. For a discussion of this topic, see the AcoustX website.

When exporting a mic cal file using Shift-click Clear (Export), insert a comma after the frequency.

Adjust the microphone gain.

Configuration Options

Profile | Display | Mic

Interfaces | Input | Output

Save Configuration

Audio Interface Selection Mode

◉ Normal ◯ WMME ◯ ASIO

Select | USBPre2

Set the interface type

Select audio interface

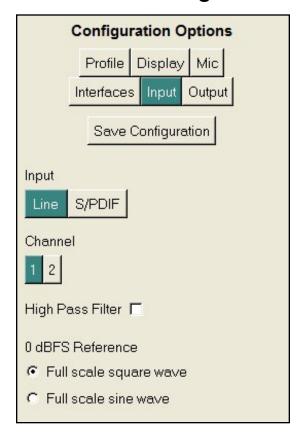# Configuration: Input and Output

Configuration Options

Profile | Display | Mic

Interfaces | Input | Output

Save Configuration

Input

Line | S/PDIF

Channel

1 | 2

High Pass Filter ☐

0 dBFS Reference

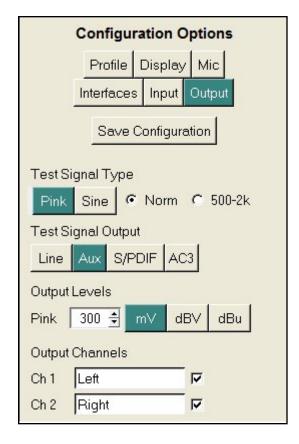◉ Full scale square wave

○ Full scale sine wave

Select Input

Select input channel

Enable 22 Hz high pass filter for FLAT, Line In, S/PDIF

Select 0 dBFS reference. There is a 3 dB difference between settings

Configuration Options

Profile | Display | Mic

Interfaces | Input | Output

Save Configuration

Test Signal Type

Pink | Sine | ◉ Norm | ○ 500-2k

Test Signal Output

Line | Aux | S/PDIF | AC3

Output Levels

Pink | 300 ⇕ | mV | dBV | dBu

Output Channels

Ch 1 | Left | ☑

Ch 2 | Right | ☑

NOTE: The functionality shown on these screens will vary depending on the audio interface. Output voltage is only correct when calibrated to interface.
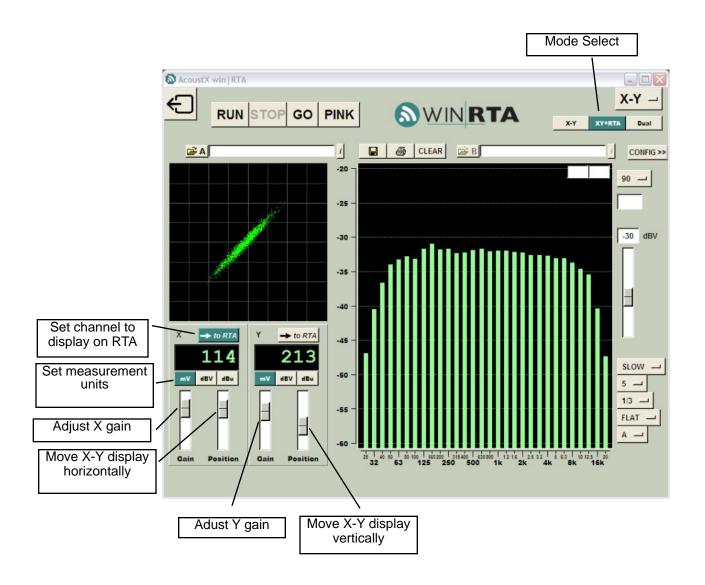
Configure PINK Button behavior

Select test signal output port (shown with optional AC3 encoder)

Set units of measure and level for outputs

Enable outputs. In Analog mode, the channels can be named.

X-Y Oscilloscope

Mode Select

Set channel to display on RTA

Set measurement units

Adjust X gain

Move X-Y display horizontally

Adust Y gain

Move X-Y display vertically

Dual Trace Oscilloscope

Mode select

Adjust Channel 1
vertical position

Set
measurement
units

Set vertical
gain

Adjust Channel 2
vertical position

Set
measurement
units

Set vertical
gain

Adjust refresh rate

Adjust time base

Select channel for
triggering

Adjust trigger level