

Preconfigured Settings

3/31/11 jkm

Below is a description of the first batch of stored settings, the setup.ini file and directory structure needed to use them.

Files

Make sure your SR1 is running v1.3.3 or greater (check “about” in the help menu). If not, update the software using the update procedure described in the manual.

Exit to the operating system and copy the following to the location indicated.

File: “Setups.ini” Copy this file to the “Program Files\Sr1 Audio Analyzer” directory

Directory “Setups” Copy this entire directory to
 “Program Files\Sr1 Audio Analyzer\gpib\config”

Restart SR1. There will be new menu choice next the “Files” called “Setups”. Selecting this will let you choose among the following setups.

Description of Stored Setups

Each file has a default configuration of input and output connectors, amplitudes and frequencies. Change these as necessary for your particular measurement. To get a graph for the FFT files, press “Free Run”. To create graphs of the other files press “Sweep”. The pages are laid out as follows for the different displays. If you want to save a customized version of the configuration, save it in the “user\config” directory.

Standard Resolution Display

Page 1 has some of the panels that control the signals and measurements.

Pages 2 (and sometimes 3) have the measurement displays.

Pages 3-5 have the remaining panels that control the signals and measurements.

High Resolution (option 2) Display

Page 1 has nearly all of the panels that control the signals and measurements.

Pages 2 (and sometimes 3) have the measurement displays.

Setup Files

A-A Files (Analog Out, Analog In)

The analog outputs are set to unbalanced. The analog inputs are set to BNC.

These measurement are made using whichever sample rate is appropriate for the best measurement.

AA 28 kHz FFT	2 channel FFT (spectrum and time record) at FS = 64 kHz
AA Freq Resp	2 channel amplitude vs frequency sweep, 20 Hz – 20 kHz
AA THD+N vs Ampl	2 channel thd+n vs amplitude sweep, 50 mVrms to 5.0 Vrms
AA THD+N vs Freq	2 channel thd+n vs frequency sweep, 20 Hz – 20 kHz
AA Wide Band FFT	2 channel FFT (spectrum and time record) at FS = 512 kHz

A-D Files (Analog Out, Digital In)

The analog outputs are set to unbalanced. The digital inputs are set to XLR.

The analog output sample rate is set to the Digital Audio ISR frequency to synchronize the input and output. The analog output signal quality can be improved using either the Digital Audio OSR, 64 kHz, 128 kHz or 512 kHz sample rates.

AD FFT	2 channel FFT (spectrum and time record) at ISR (48 kHz)
AD Freq Resp	2 channel amplitude vs frequency sweep, 20 Hz – 20 kHz
AD THD+N vs Ampl	2 channel thd+n vs amplitude sweep, 50 mVrms to 5.0 Vrms
AD THD+N vs Freq	2 channel thd+n vs frequency sweep, 20 Hz – 20 kHz

D-A Files (Digital Out, Analog In)

The digital outputs are set to XLR. The analog inputs are set to BNC.

The analog input uses the HiRes converter set to the Digital Audio OSR frequency to synchronize the input and output. The analog signal measurements, especially THD+N, can be improved using HiBW converter.

DA FFT	2 channel FFT (spectrum and time record) at OSR (48 kHz)
DA Freq Resp	2 channel amplitude vs frequency sweep, 20 Hz – 20 kHz
DA THD+N vs Ampl	2 channel thd+n vs amplitude sweep, 1 mFFS to 1.0 FFS
DA THD+N vs Freq	2 channel thd+n vs frequency sweep, 20 Hz – 20 kHz
DA Wide Band FFT	2 channel FFT (spectrum and time record) at 2xOSR (96 kHz)

D-D Files (Digital Out, Digital In)

The digital outputs and inputs are set to XLR.

DD FFT	2 channel FFT (spectrum and time record) at OSR (48 kHz)
DD Freq Resp	2 channel amplitude vs frequency sweep, 20 Hz – 20 kHz
DD THD+N vs Ampl	2 channel thd+n vs amplitude sweep, 1 mFFS to 1.0 FFS
DD THD+N vs Freq	2 channel thd+n vs frequency sweep, 20 Hz – 20 kHz

DIO Files (Digital I/O)

The digital outputs and inputs are set to XLR.

DIO Jitter Chirp	Jitter transfer measurement (chirp out, uniform window FFT)
DIO Jitter Sweep	Jitter amplitude vs frequency sweep
DIO Jitter	Input Jitter Measurement (spectrum, time record & RMS sum)