ISD9100 Series SDS (Software Develop System) Directory Introduction

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Directory Information

AudioRes	All audio files used in sample codes.
Document	EVB user guide SDS user guide documents.
Library	Driver/Library/Frammewok header and source files.
SampleCode	Driver/Library/Codec/Voice Effect Sample codes

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Document Information

Document/EVB	EVB user guide documetns.
Document/SDS	SDS user guide documents.

Library Information

Library/Audio	Codec and voice effec header and source files.
Library/CMSIS	CMSIS definitions by ARM® Corp.
Library/Device	CMSIS compliant device header files.
Library/Framework	All framework header and source files.
Library/IO	Keypad header and source file.
Library/StdDriver	All peripheral driver header and source files.
Library/Storage	SPI flash and SD card header and source files.

Sample Code Information

SampleCode/AudioCodec	The sample codes to show how to decode sound from SPI flash and encode sound from ADC then write to SPI flash.
SampleCode/Keypad	The sample codes to show how control matrix keys and direct keys.
SampleCode/Semihost	The sample code to show how to debug with semihost message print.
SampleCode/StdDrive	ISD9100 Series Driver Samples
SampleCode/Storage	The sample codes to show how read/write SPI flash and SD card.
SampleCode/Template	Software Development Template.

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SampleCode/VoiceEffect	The sample codes to show how record sound from ADC and apply effect and the record sound.

SampleCode/AudioCodec

AudioSynEx	Demo how to play a sound or a group of sounds named equation (encoded by Audio Tool) from SPI flash.
ImaAdpcm	Demo how to play ImaAdpcm format sounds (encoded by Audio Tool) from SPI flash.
ImaAdpcmEnc	Demo how to encode sound by ImaAdpcm encoder and write into SPI flash then decode the encoded data from SPI flash
LP8	Demo how to play LP8 format sounds (encoded by Audio Tool) from SPI flah.
MD4	Demo how to play MD4 format sounds (encoded by Audio Tool) from SPI flash.
MIDISynthEx	Demo how to play MIDI format sound (encoded by Audio Tool) from SPI flash.
NuLiteEx	Demo how to play NuLite format sounds (encoded by Audio Tool) from SPI flash.
NuLiteExEnc	Demo how to encode sound by NuLite encoder and write into SPI flash then decode the encoded data from SPI flash
NuOneEx	Demo how to play NuOne format sounds (encoded by Audio Tool) from SPI flash.
NuOneExEnc	Demo how to encode sound by NuOne encoder and write to SPI flash then decode the encoded data from SPI flash
NuSoundEx	Demo how to play NuSound format sounds (encoded by Audio Tool) from SPI flash.
NuVox53	Demo how to play NuVox53 format sounds (encoded by Audio Tool) from SPI flash.

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NuVox63	Demo how to play NuVox63 format sounds (encoded by Audio Tool) from SPI flash.
P16	Demo how to play P16 format sounds (encoded by Audio Tool) from SPI flash.

SampleCode/Keypad

DirectKey	Demo how to use I/O pin as direct keypad.
MatrixKey	Demo how to use I/O pin as matrix keypad.

SampleCode/StdDriver

ADC	Demonstrate how to enable and control ADC to record audio from MIC.
BOD	Demonstrate how to enable and control brown out detector functions.
CapSense	Demonstrate how to enable and control touch pad functions.
CRC	Demonstrate how to enable and control CRC functions to perform CRC-16 operation and get the CRC checksum result.
DPWM	Demonstrate how to enable and control DPWM to play 8KHz audio with different sample rate and modulation frequency.
FMC_RW	Demonstrate how to read and program embedded flash by ISP function.
GPIO	Demonstrate how to set GPIO pin mode and use pin data input/output control.
I2C_Master	Demonstrate how to enable and control I^2C in master mode to access an I^2C slave.

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	This sample code needs to work with I2C_Slave sample.
I2C_Slave	Demonstrate how to enable and control I^2C in slave mode. This sample code needs to work with I2C_Master sample.
I2S_NAU8822	An I^2S demo using NAU8822 audio codec to playback the input from line-in or MIC interface.
PDMA	Demonstrate how to enable and control 2 PDMA channels to transfer data from memory to memory.
PMU	Demonstrate how to enter deep power down and wake up. Need to runwithout ICE (Nu-Link dongle).
PWM	Demonstrate how to enable and control PWM0 channel 0 to output waveform to PWM0 output pin(PA.12).
RTC	Demonstrate how to enable and control RTC function to display current time to the UART/semihost console.
SPI_Flash	Demonstrate how to enable and control SPI in master mode to access SPI flash.
SPI_Master	Demonstrate how to enable and control SPI in master mode to transfer data to a SPI slave. This sample code needs to work with SPI_Slave or SPI_Slave_PDMA sample.
SPI_Master_PDMA	Demonstrate how to enable and control SPI in master mode to transfer data to a SPI slave by PDMA. This sample code needs to work with SPI_Slave or SPI_Slave_PDMA sample.
SPI_Slave	Demonstrate how to enable and control SPI in slave mode to receive data from a SPI master. This sample code needs to work with SPI_Master or SPI_Master_PDMA sample.
SPI_Slave_PDMA	Demonstrate how to enable and control SPI in slave mode to receive data from a SPI master by PDMA. This sample code needs to work with SPI_Master or

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	SPI_Master_PDMA sample.
SYS	Demonstrate how the usage of SYS driver by changing different HCLK settings for the system clock source.
TAlarm	Demonstrate how to enable and control temperature alarm to detect temperature change.
Timer	Demonstrate how to enable and control timer to do delay or trigger interrupt at timer expired.
UART	Demonstrate how to enable and control UART to send/receive data to/from PC UART console.

SampleCode/Storage

SDCard	Demo how to access SD Card(1.1&2.0) by SPI interface.
SPIFlash	Demo how to erase/update a SPI flash.

SampleCode/VoiceEffect

AutoTune	Demo how to get sound PCM data from ADC, auto tune sound pitch then playback dynamically to get T-Pain like sound effect.
BeatDetect	Demo how to set parameters and detect beat of playing sound that is input from ADC. It shows LEDs to indicate beat and its energy.
BNDetection	Demo how to set parameters and detect beat and note of playing sound that is input from ADC.
HarmonySnd	Demo how to get harmony sounds those are generated from input sound. (This sample generates 4 channels harmony sound with 4 different pitches.)
PitchChange	Demo how to get sound PCM data from ADC, change sound pitch then playback dynamically.

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RobotSound	Demo how to get sound PCM data from ADC, convert to robot sound then playback dynamically.
TalkToSingMidi	Demo how to playback the recorded sound from MIC with a specified melody.

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