Application Note **ALSA Static library**

This document explains the steps to make a static alsa library alsa-lib for ARM Coretex-A8.

Steps to make static alsa library alsa-lib
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1. Get ALSA Lib 1.0.24.1 from ftp://ftp.alsa-project.org/pub/lib/alsa-lib-1.0.24.1.tar.bz2 . It is all available on http://www.alsa-project.org/main/index.php/Download
2. Untar it on location say <ALSA_BASE>
3. $> cd <ALSA_BASE>
4. $> export PATH=$PATH:<PATH to CGTools_A8 say /datalocal/ti_tools/cgt_a8/arm-2009q1/bin>
5. $> export CC="arm-none-linux-gnueabi-gcc -march=armv7-a -mtune=cortex-a8 -mfpu=neon -mfloat-abi=softfp -mthumb-interwork -mno-thumb"
6. $> export CFLAGS="-fexpensive-optimizations -frename-registers -fomit-frame-pointer -O2 -ggdb2"
7. $> export LDFLAGS="-Wl,-O1 -Wl,--hash-style=gnu"
8. $> export ALSA_DEPLIBS=" -lpthread -lrt"
9. $> ./configure --disable-old-symbols --disable-alisp --target=arm-none-linux-gnueabi --host=arm-none-linux-gnueabi --prefix=/usr --exec-prefix=/usr --sysconfdir=/etc --enable-shared=no --enable-static=yes --with-alsa-devdir=/dev/snd --with-pcm-plugins="all" --with-ctl-plugins="all" --without-versioned --disable-python --with-softfloat --with-libdl=no
10. $> make
11. $> make install DESTDIR=/destination_dir/
12. $> cd <DVR_RDK_BASE>
13. $> export DEST_DIR= destination_dir
14. Line the alsa-lib with –lrt. Eg. Modify the dvr_rdk/makerules/includes_a8.mk for ASLA lib path as below AUDIO_LIBS=*-lrt $DESTDIR/usr/lib/libasound.a*

Notes
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1. DVR_RDK_BASE is the application code where the alsa-lib will be linked a statically.
2. DESTDIR is the location where include and the library files related to ALSA reside.

3. This is verified on ARM Coretex-A8 only. For other processor exported parameters may vary