Lpcm Audio Decoder (exolAdecLpcm)

NDK 5.7/MPTK 2.4

Application Note, 12 December 2007

Overview

The Lpcm Audio decoder is a standalone component. This example application demonstrate the use of Lpcm Audio decoder component. When we use `build_exe` at the command line to build the application, we get an overview of all the libraries the application needs.

Output file generated is `exolAdecLpcm.out`.

Description

The application uses `tmFread`, `tmAdecLpcm` (Lpcm Audio decoder) and `tmArendAO` (renderer) components in the following order.

APIs Used

The following APIs of the Lpcm component are called by the `exoladecLpcm` application:

1. `tmolAdecLpcmOpen`

   The application calls this to get an instance of the Lpcm component. The memory required for the component is included in this instance.

2. `tmolAdecLpcmGetCapabilities`

   The application calls this function to get the capabilities of the component, held in the `tmolDefaultCapabilities` and the `tmalDefaultCapabilities` structures. The capabilities that can be retrieved include text, data and processor memory requirements, the number of supported and current instances, the number of inputs and outputs and their descriptors.

3. `tmolAdecLpcmGetInstanceSetup`

   The application retrieves a pointer to an accurate instance setup structure of the component. When the component is created, this structure is filled with default values.

4. `tmolAdecLpcmInstanceSetup`

   The application calls this to set up an instance of a component returned by Open. All component specific variables are initialized here.

5. `tmolAdecLpcmStart`

   The application calls this to start the processing of an instance of a component.

6. `tmolAdecLpcmStop`

   The application calls this to cause an instance of a component to exit its processing loop started in `tmolAdecLpcmStart`.

7. `tmolAdecLpcmClose`

   An application calls this to relinquish an instance of a component. All memory allocated by `tmolAdecLpcmOpen` is freed here.

Instructions

We have to specify an Lpcm file name and location of that file. The exolAdecLpcm application uses the specified file to read the data from and play the audio.

It works only with Lpcm files (either aiff or wav file).The application automatically will rewind and play the file again when it reaches the end of the Lpcm file (after showing a message that EOF reached.)

Available Options

The following options are available in the main menu when the application starts:

```
1.    Change url.
2.    Exit the Application
```

Expected output

AdecLpcm has two output pins providing main and auxiliary output.

The main output is provided to the renderer. This audio output can be heard through the speaker. The application can be instructed to exit or change url by choosing the respective option from the menu.