

MEDIA TEK

INTERNAL USE

SmartAudioPlayer

HSD/SW5/SS3

Agenda

- overview
- user interface
- modules and flow

Overview

Implement an audio player

- Playing Local audio files
- Playing streaming content(http/tts)

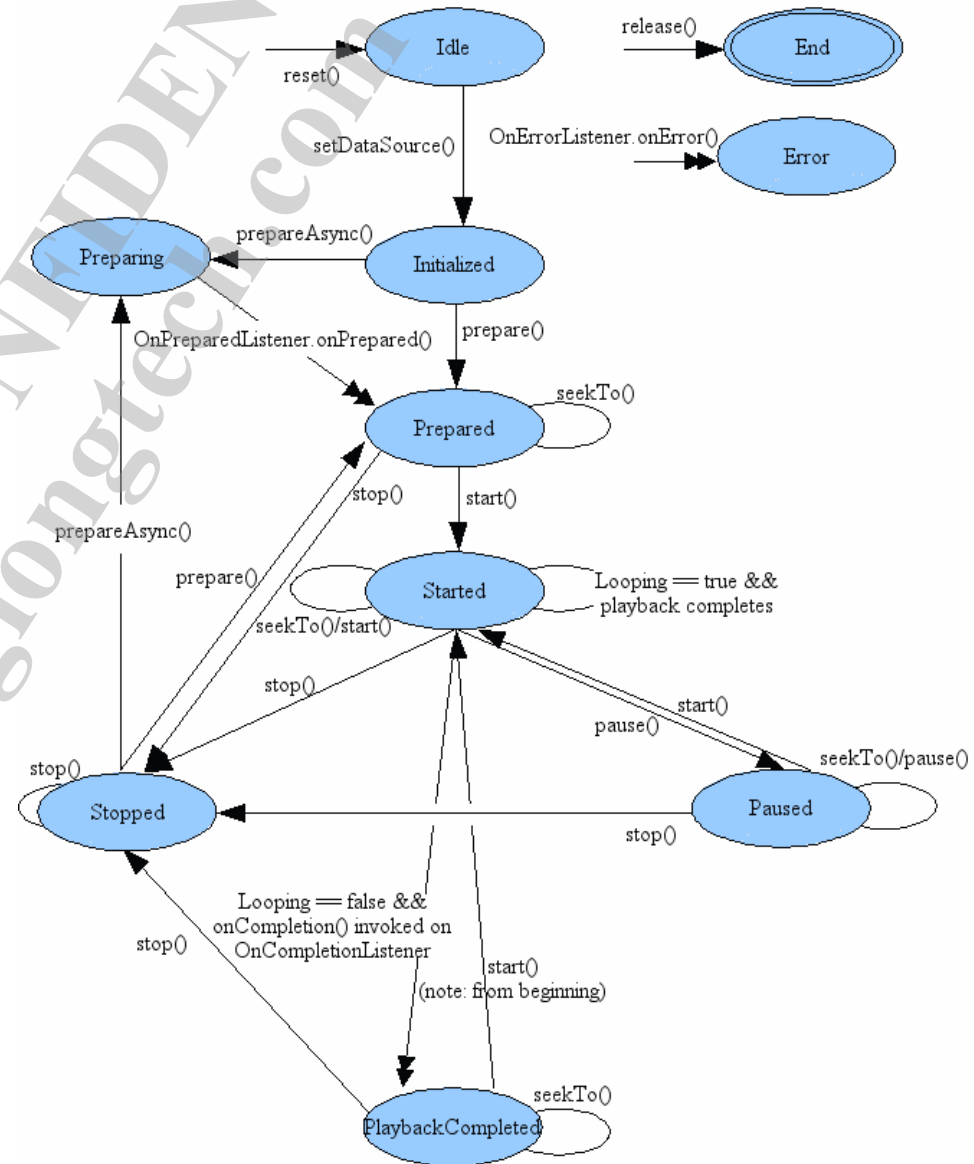
User Interface

State

- Idle, Initialized, Preparing, Prepared, Started, Paused, Stopped...

interface

- setDataSource()
- prepare()
- start()
- stop()
- seekTo()
- pause_1()
- ...



User Interface

Method Name	Valid States	Invalid States
start	{Prepared, Started, Paused, PlaybackCompleted}	{Idle, Initialized, Stopped, Error}
stop	{Prepared, Started, Stopped, Paused, PlaybackCompleted}	{Idle, Initialized, Error}
pause_1	{Started, Paused, PlaybackCompleted}	{Idle, Initialized, Prepared, Stopped, Error}
prepareAsync	{Initialized, Stopped}	{Idle, Prepared, Started, Paused, PlaybackCompleted, Error}
setDataSource	{Idle}	{Initialized, Prepared, Started, Paused, Stopped, PlaybackCompleted, Error}

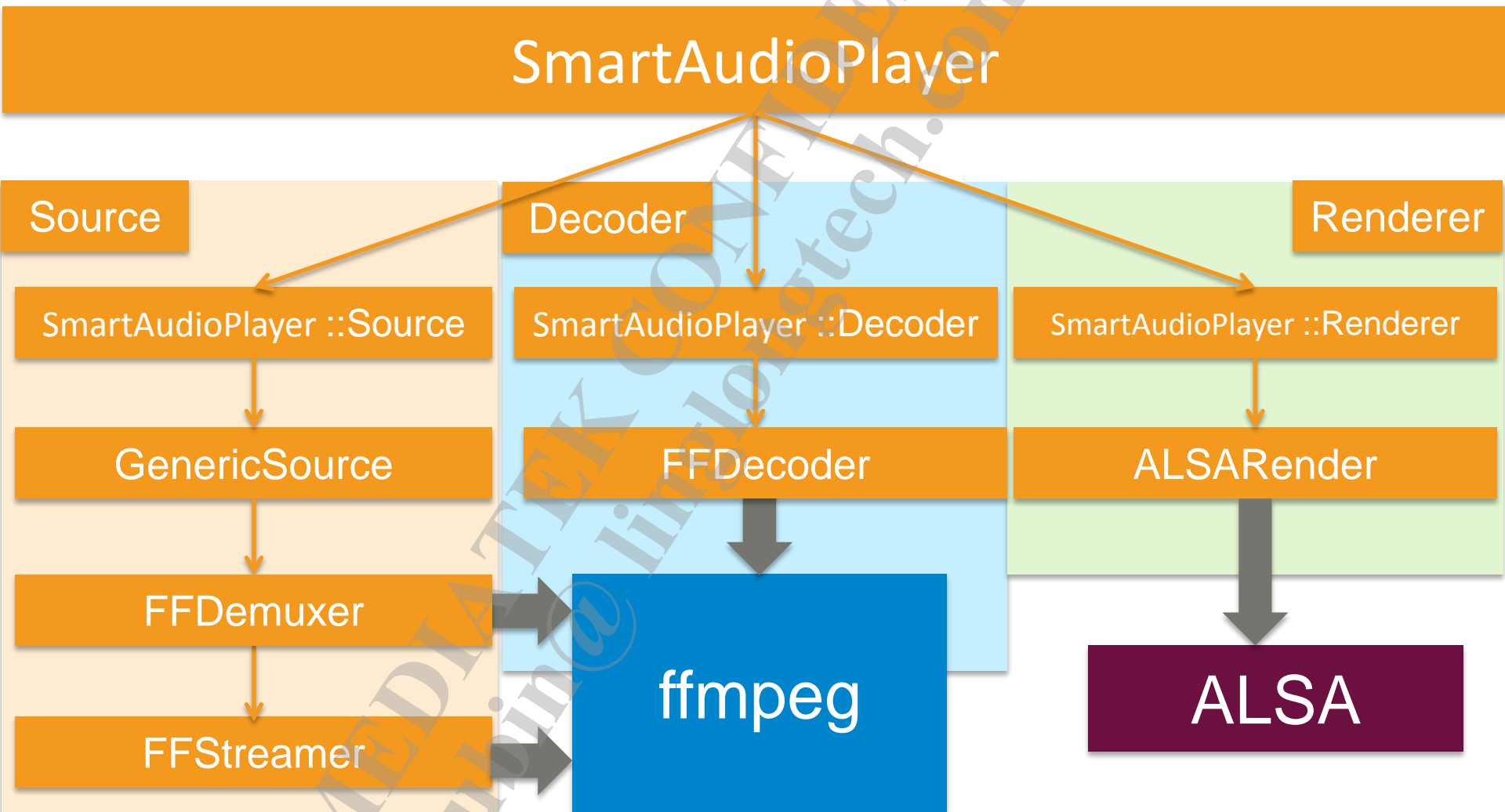
User Interface

Method Name	Valid States	Invalid States
reset	{Idle, Initialized, Prepared, Started, Paused, Stopped, PlaybackCompleted, Error}	{}
setPlaybackSettings	{Idle, Initialized, Stopped, Prepared, Started, Paused, PlaybackCompleted}	{Error}
seekTo	{Prepared, Started, Paused, PlaybackCompleted}	{Idle, Initialized, Stopped, Error}
getAvailableSize	{Idle, Initialized, Stopped, Prepared, Started, Paused, PlaybackCompleted}	
writeData	{Idle, Initialized, Stopped, Prepared, Started, Paused, PlaybackCompleted}	

User Interface

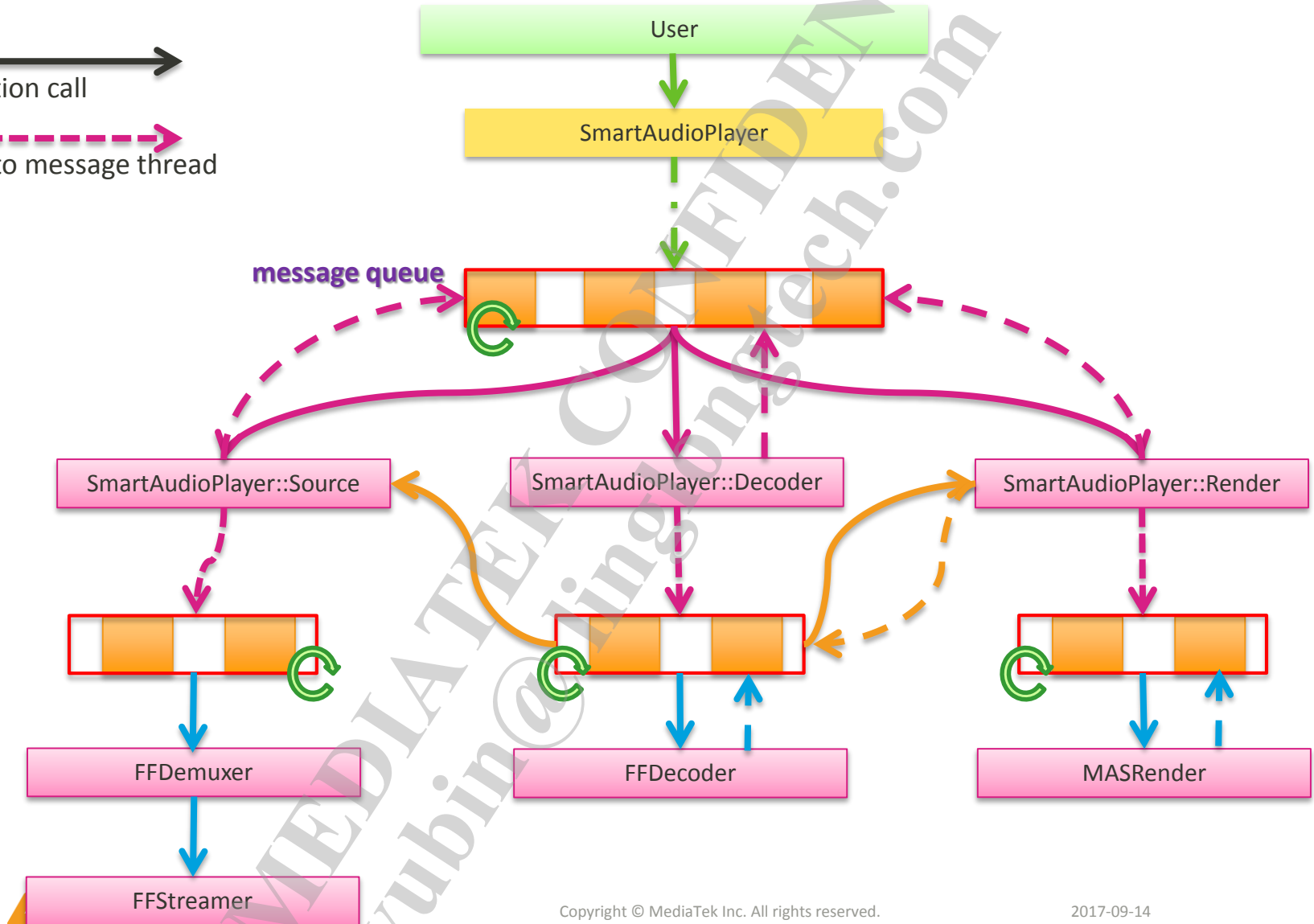
- path:src/multimedia/smartaudioplayer/include/Interface.h

Block Diagram



Implement

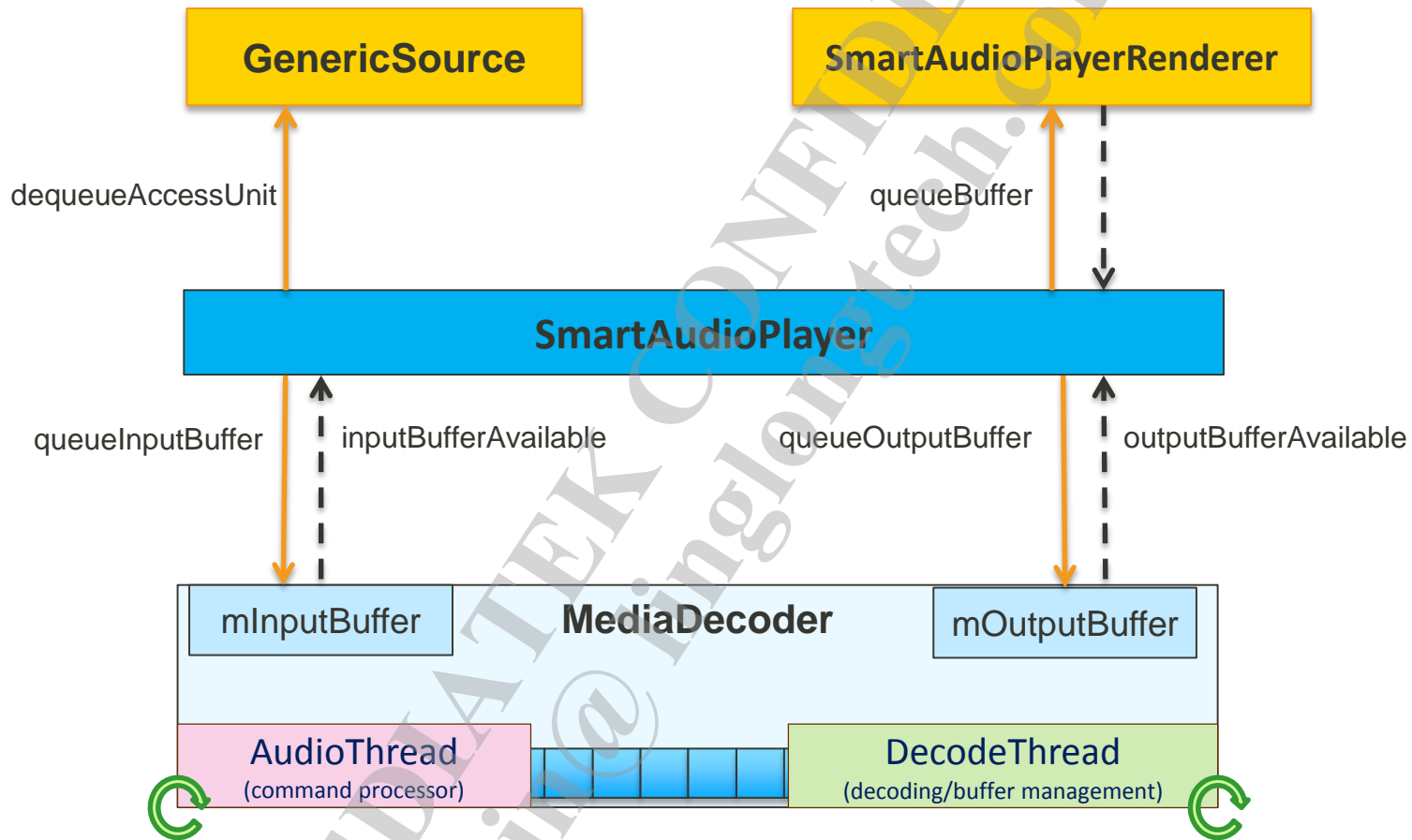
Function call →
Post to message thread →



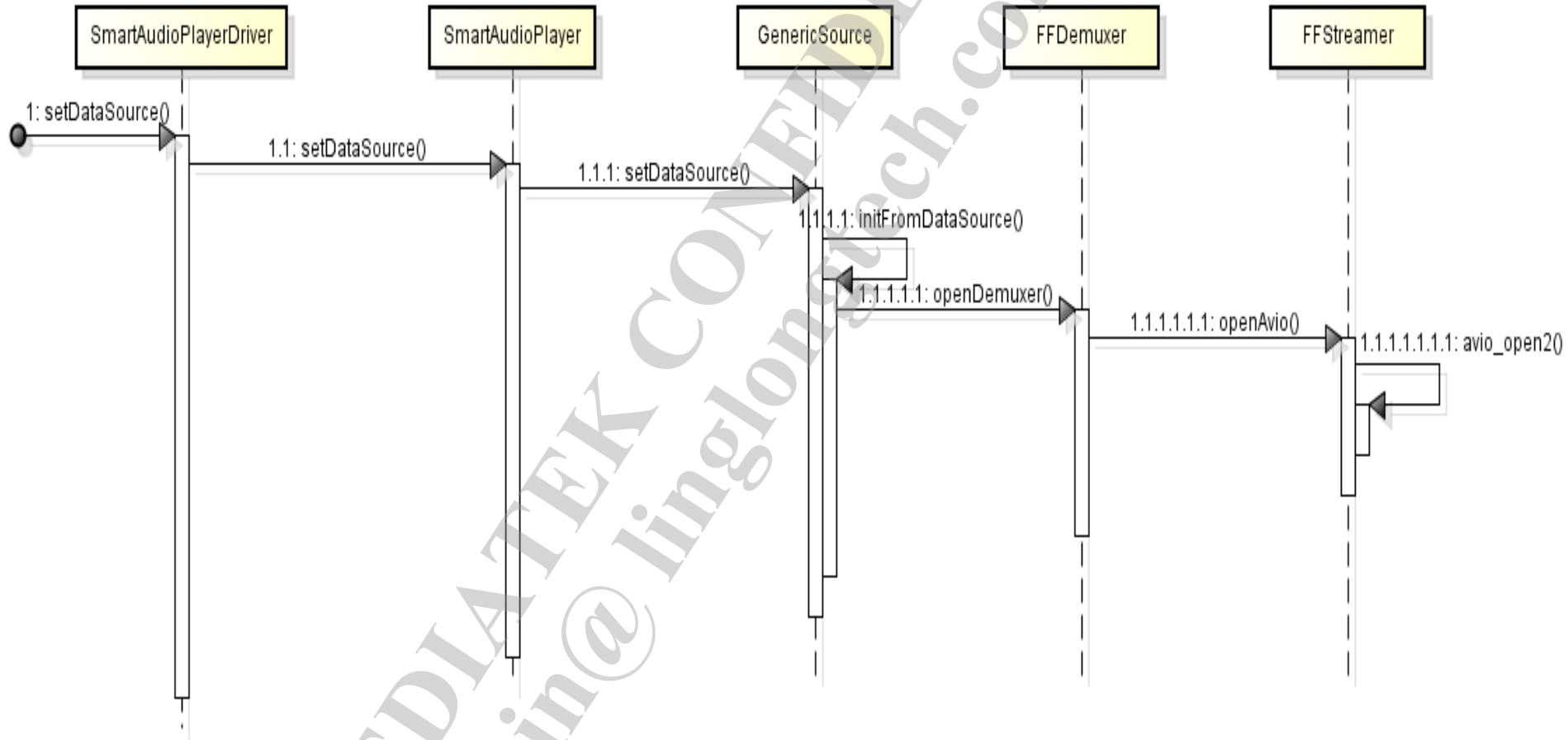
play flow

```
MediaPlayer mMediaPlayer
mMediaPlayer = new MediaPlayer();
mMediaPlayer.setDataSource(path);
mMediaPlayer.setDisplay(holder);
mMediaPlayer.prepare();
mMediaPlayer.setOnBufferingUpdateListener(this);
mMediaPlayer.setOnCompletionListener(this);
mMediaPlayer.setOnPreparedListener(this);
mMediaPlayer.setOnVideoSizeChangedListener(this);
mMediaPlayer.setAudioStreamType(AudioManager.STREAM_MUSIC);
mMediaPlayer.start();
mMediaPlayer.pause();
mMediaPlayer.resume();
mMediaPlayer.stop();
mMediaPlayer.release();
```

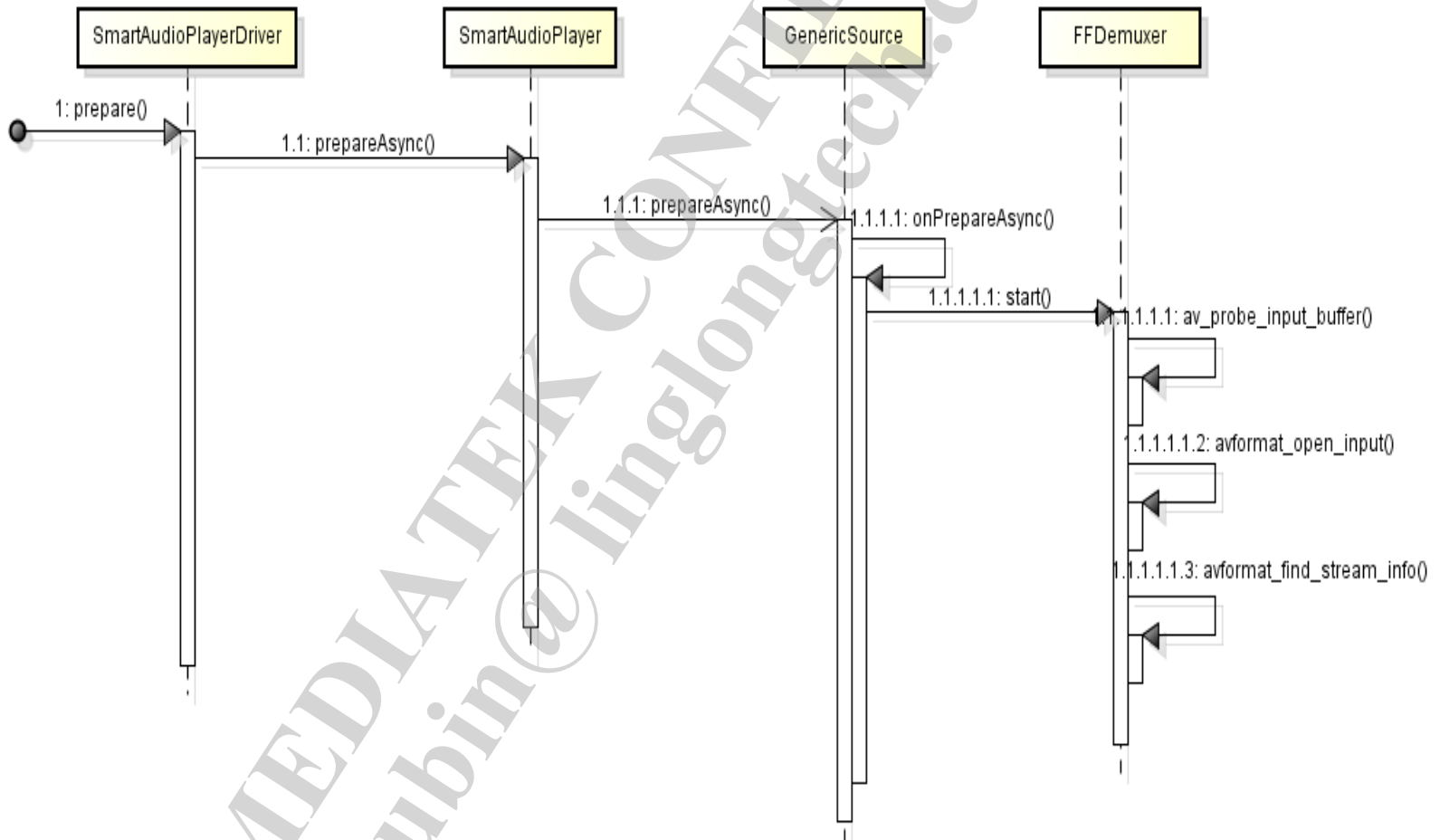
Data Flow



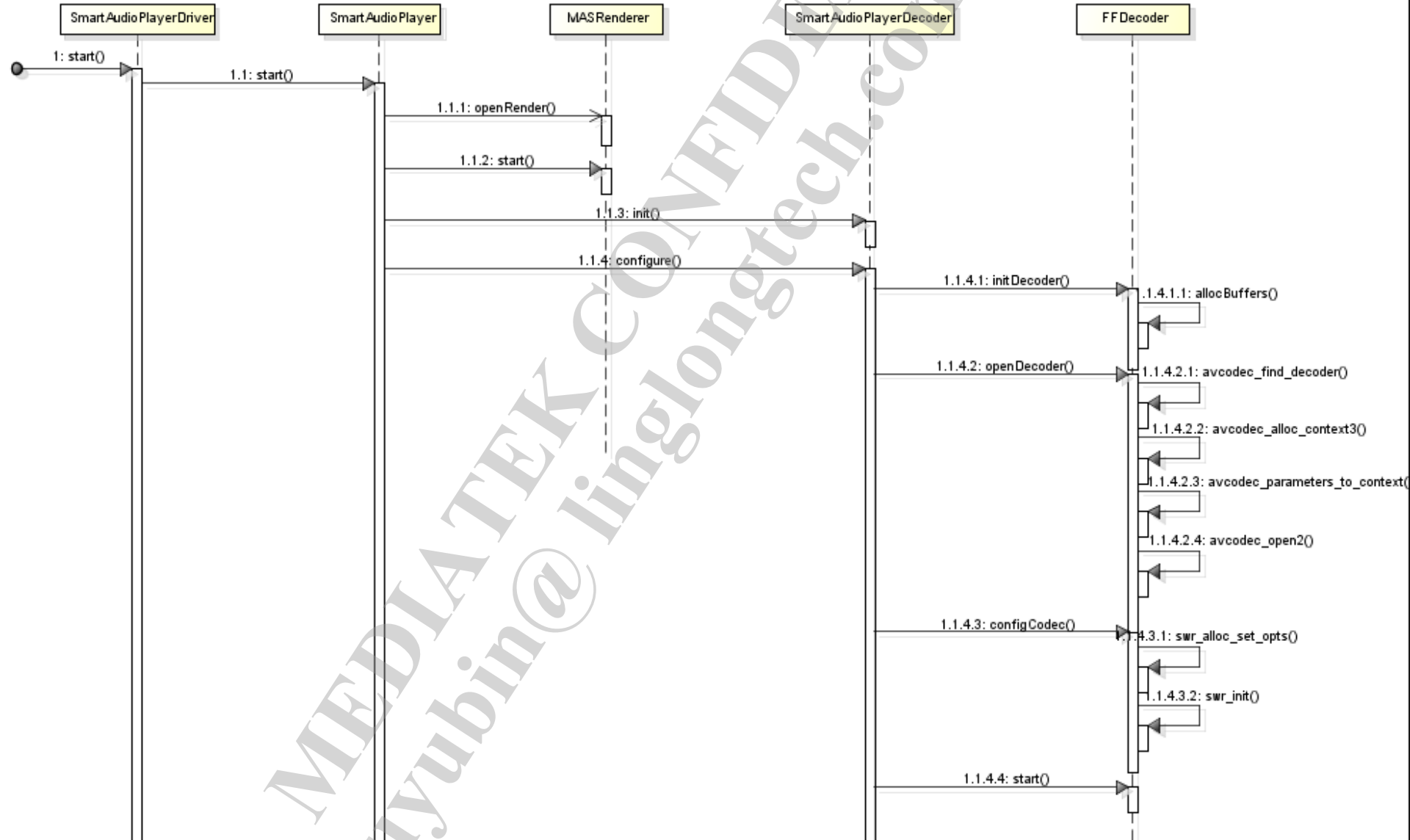
setDataSource



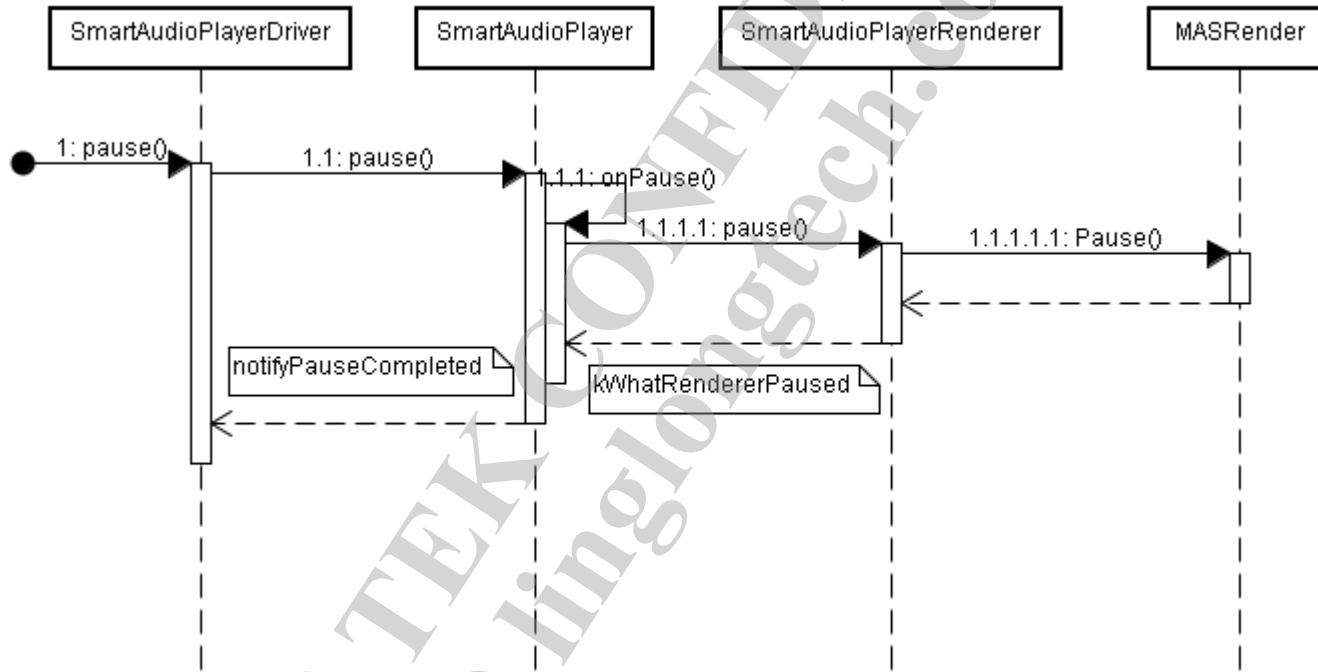
prepare



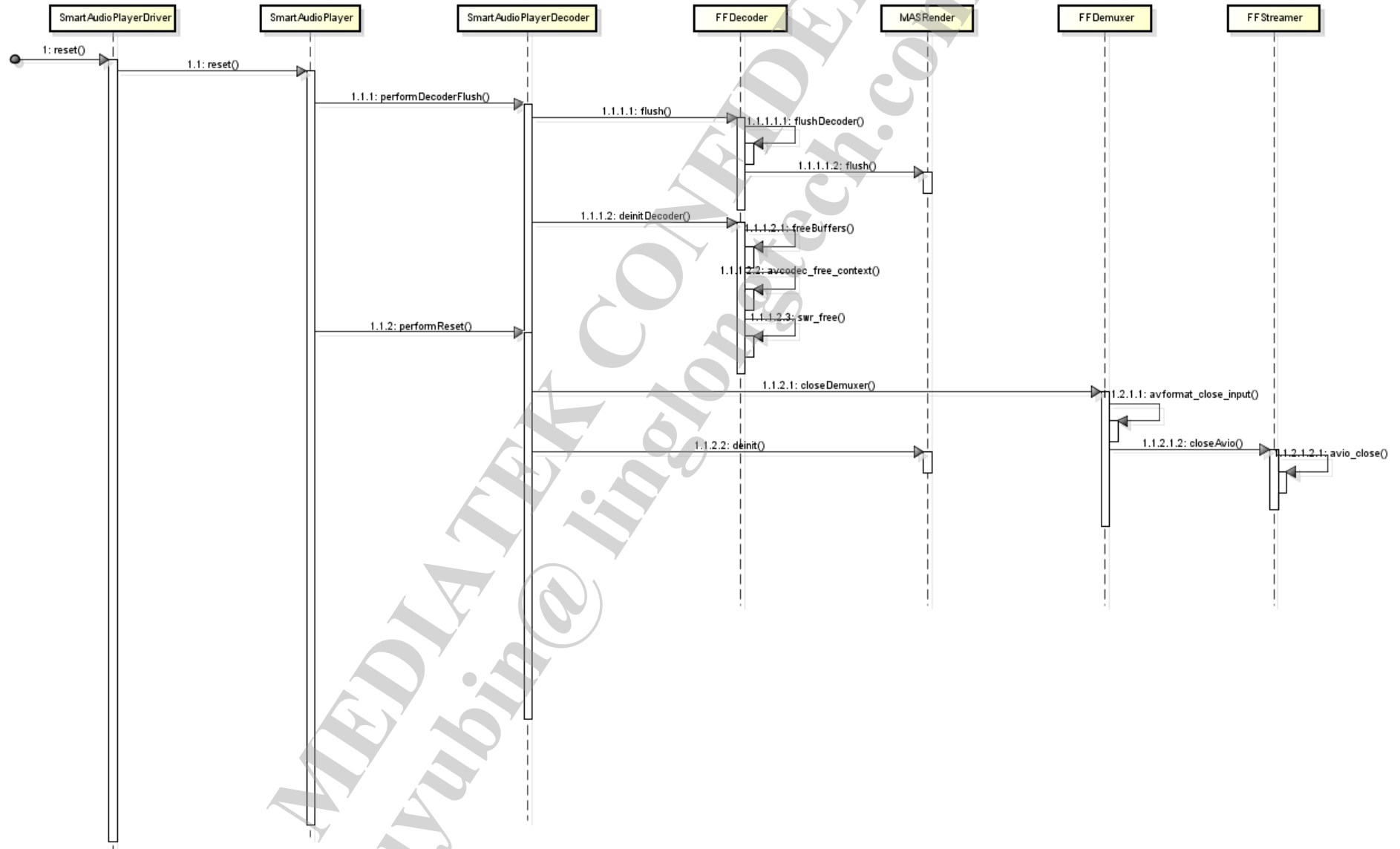
start



pause



reset



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everyday genius