Recording in Progress

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CMSC436: Programming Handheld Systems
Multimedia
Today’s Topics

Multimedia Support Classes
Playing Audio
Watching Video
Recording Audio
Multimedia

Android provides support for encoding and decoding a variety of common media formats
Allows you to play & record audio, still images & video
Some Multimedia Classes

AudioManager & SoundPool
RingtoneManager & Ringtone
MediaPlayer
MediaRecorder
AudioManager

Manages volume, system sound effects, and ringer mode control

Acquire AudioManager instance via

   Context.getSystemService(Context.AUDIO_SERVICE)
AudioManager

Load & play sound effects
Manage volume
Manage peripherals
SoundPool

Represents a collection of audio samples (streams)
Can mix and play multiple streams simultaneously
Volume settings are relative to global settings
AudioVideoSoundPool

Presents multiple widgets that adjust the audio playback characteristics

Presents a play button that, when pressed, plays an audio stream at the determined volume level
AudioVideo
SoundPool
RingtoneManager provides access to

   Audio clips used for incoming phone calls, notifications, alarms, etc.

Allows applications to get and set ringtones and to play and stop playing them
AudioVideoRingtoneManager

Application presents three buttons labeled ringtone, notification and alarm

Pressing one of these buttons causes the associated default ringtone to play
AudioVideo
RingtoneManager
MediaPlayer

Controls playback of audio and video streams and files
Allows applications to control playback
Operates according to a complex state machine
See: http://developer.android.com/reference/android/media/MediaPlayer.html
Some MediaPlayer Methods

setDataSource()
preserve()
start()
pause()
seekTo()
stop()
release()
VideoView

SurfaceView for displaying video files
Can load video from multiple sources
Provides various display options & convenience functions
AudioVideoVideoPlay

Application plays a movie in a VideoView
MediaRecorder

Used to record audio and video
Operates in accordance with a state machine
See:
Some MediaRecorder Methods

setAudioSource()
setVideoSource()
setOutputFormat()
prepare()
start()
stop()
release()
AudioVideoAudioRecording

Can record audio from the user
Can then play back recorded audio
To record audio on an emulator, enable the "Virtual microphone uses host audio input" in the emulator microphone settings.
Next Time

Sensors
Example Applications

AudioVideoSoundPool
AudioVideoRingtoneManager
AudioVideoVideoPlay
AudioVideoAudioRecording