HCIPlayer: User Manual

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1 Introduction

HCIPlayer is a portable music player which can be controlled either by using
gestures or by speaking commands. It is implemented as an iPhone appli-
cation using the user's own music library through the builtin iPod music
player.

This user manual provides a detailed description of the available system
functions, and will be updated as more features are implemented. Features
which we plan to implement, but have not yet had time to, are marked in
red text.

2 Music Playback

HCIPlayer implements a simple and relatively common playlist-based music
player. This is centered around the concept of a *playlist*, which is an ordered
list of *tracks* from the *music library* (which is itself a playlist). At any given
time, there is an *active playlist*, from which tracks are played in sequence.
When HCIPlayer starts, the user's last-active playlist is set as the active
playlist. The player also supports *playback shuffle* (which plays the tracks
in a random order) and *playback repeat* (which repeatedly plays the current
track or playlist).

3 Using Gestures

HCIPlayer supports several gestures which can control music playback. These
gestures are performed by tapping or sliding fingers on the touch surface. A

tap-and-swipe gesture refers to a quick tap followed by a longer swipe or drag starting from the same location.

- A single short tap causes the current track to start playing, or if it is already playing, causes the playback to pause.

- A single swipe to the left causes the next track in the current playlist to play. If the current track is the last one in the playlist, playback is stopped.

- A single swipe to the right causes the previous track in the current playlist to play. If the current track is the first one in the playlist, playback is stopped.

- A single swipe downwards mutes the player.

- A single swipe upwards unmutes the player, restoring its original volume level.

- A tap-and-swipe gesture followed by a vertical motion causes the playback volume to change according to the distance of swipe.

- A tap-and-swipe gesture followed by a horizontal motion causes the player to seek to a different position in the track according to the distance of swipe.

- A question mark gesture (without the dot) causes the device to speak the currently-playing song.

- An alpha gesture (α) toggles playback shuffle.

- A circle gesture toggles playback repeat.

- Tapping and holding on the screen causes the player to start listening for a voice command. The user must wait for the device to vibrate, signaling that recording has started. If the finger is moved at any point during the recording, the voice command is cancelled.

4   Using Voice Commands

The player can also be controlled using voice commands. These provide more powerful features that are unavailable simply through gestures. A command is activated by tapping and holding the screen, speaking the appropriate command, and then releasing.

- Play – Play currently active playlist or resume paused or stopped playback.
  The following may also be used in any combination to play a specific item or set of items in the music collection:

    - Play artist *ARTIST*
    - Play album *ALBUM*
    - Play track or song *TRACK*

- Queue ... – Add items to the end of the current playlist. This playlist behavior can be overridden by playing a song.

    - Queue artist *ARTIST*
    - Queue album *ALBUM*
    - Queue track or song *TRACK*

- Pause or Stop – Pause the playing track.

- Next – Play next track.

- Previous – Play previous track.

- Replay – Replay current track.

- Mute or "Turn Mute On/Off" or "Toggle Mute" – Control the player's mute status.

- Shuffle or "Turn Shuffle On/Off" or "Toggle Shuffle" – Control the way that the playback of a playlist is ordered.

- Repeat or "Turn Repeat On/Off" or "Toggle Repeat" – Control whether or not the player will repeat a playlist once it reaches the end.

- Info or "What's Playing" or "Now Playing" – Playback information on current track

- Help or "What Can I Say" or "List Available Commands" or "Help Me" – List available commands