Jabra Perform BlueParrott SDK for iOS

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Introduction

This document is an introduction to the Jabra Perform BlueParrott (JPBP) SDK for iOS that allows access to the Configurable Button on selected Jabra and BlueParrott headsets.

The Configurable Button on the headset has an initial factory setting that allows the user to mute the headset microphone. This Configurable Button can be accessed from a mobile application to program alternative functions.

The JPBP SDK enables developers to create apps that interact with this Configurable Button thus allowing the headset user to access functions of your application by pressing the Configurable Button.

SDK Purpose

The purpose of the JPBP SDK is to let you, a corporate or independent developer, develop applications that allow the end user to benefit from alternative functions for the Configurable Button found on a range of Jabra and BlueParrott headsets (see Appendix A).

Through use of the JPBP SDK you can access the Configurable Button. When your mobile application has been published the headset user may then control programmed activities within your mobile application directly from the headset via the Configurable Button.

Typical uses of the JPBP SDK include integration with:

- Push to Talk and Voice Messaging Applications, where recording is triggered by pressing the Configurable Button
- Voice Recognition and custom Voice Assistant applications, where the Voice Assistant is triggered by tapping the Configurable Button
- Other Enterprise Applications, where custom features can be triggered based on one or more button event

The Configurable Button can be configured to trigger up to five Button Events in your application:

- Press (for example to start a Push to Talk Call)
- Release (for example to end a Push to Talk Call)
- Single Tap (to invoke a voice recognition or other enterprise application)
- Double Tap
- Long Press

You may program each of these events for individual functions within your mobile application.

The SDK can also report changes in the proximity sensor on the headset (where available, not all headsets contain a proximity sensor).

The Configurable Button may also be programmed to a number of functions that do not result in events being sent to the application (e.g., Speed Dial).

You may limit your application to operating in the foreground only or you may wish to offer a smoother, more integrated experience for the headset user by extending your application to offer handling of button events even when your application is in the background.

SDK Scope

The JPBP SDK provides interfaces to the following functions in compatible headsets (see Appendix A):

- Setting the Configurable Button into 'SDK Mode', this will result in button events being sent to your application
- Event Handlers for Configurable Button events
- Configuring the Configurable Button to Speed Dial: Dials the specified phone number when the button is pressed
- Configuring the Configurable Button to Mute: Disables the microphone on the headset during a phone call. Pressing the Configurable Button again will un-mute the headset
- Setting the Configurable Button to “App Mode” with a specific App ID and App Name This allows another app using the SDK to receive button events, and if multiple apps are installed that make use of the Configurable Button, each can check if they are the currently configured app
- Setting the Configurable Button to a custom mode. Some headsets may offer features that can be accessed through the Configurable Button by configuring it to a custom

mode. For more details on custom modes, contact your Jabra/BlueParrott representative.

The package includes the following development tools:

- SDK Library
- Example test application to show connectivity and connected device Configurable Button state
- Notes and reference documentation

What's not in scope

This document does not cover iOS programming specifics, the developer should access the relevant sites for the development language.

Updates

The JPBP SDK will be updated from time to time, please check for updates at the following location: https://github.com/gna-sw

Supported Operating Systems

The JPBP SDK for iOS supports iOS 12.1 and higher.

Getting Started

Setup the iOS SDK

Add the JPBP SDK to your project by dragging the framework file into your Xcode project.

In your project's Target, enable Background Modes and tick 'Uses Bluetooth LE accessories' if you will be using the button while the app is in the background.

In your project's `Info.plist` file, ensure that you set a value for the key "`Privacy - Bluetooth Always Usage Description`" (`NSBluetoothAlwaysUsageDescription`). The value for this key is displayed to the user when asking permission to use Bluetooth and is required for any app that uses Bluetooth. For more information, see: https://developer.apple.com/documentation/bundleresources/information_property_list/nsbluetoothalwaysusagedescription

The sample code for iOS is based on the current OS version of iOS 16. You, the developer must ensure that syntax is correct at the time of building your project.

Permissions

Enable Bluetooth

The JPBP SDK manages the Bluetooth connection but you must manage the enabling of Bluetooth in your code. An approach to this is to alert the application user if Bluetooth is not available and ask the user to turn Bluetooth on in their handset settings, you must then provide another opportunity to connect.

Use specific permissions

There are many different permissions depending on the function of the application program in question; it is up to the programmer to ensure that all other permissions for your program are included (e.g., microphone).

Connect to the Configurable Button

Connect to the Configurable Button using methods from the JPBP SDK.

The first step is to get a handle to the Configurable Button on the headset.

Now you have the ability to check the connection and connect or disconnect to the headset.

The JPBP SDK method `connect` manages the Configurable Button connection and ensures that the Bluetooth LE connection is available.

NOTE: It is not advised to call the `connect` method in `viewDidLoad` as the Bluetooth hardware may not yet be available. It is recommended to follow the pattern in the code below, where the handle to the headset is retrieved in `viewDidLoad` (to initialize the headset object and the

Bluetooth hardware), then call connect at a later point (e.g., on user interaction or after the app is finished initializing.

```
    // ViewController.h

    #import <BPHeadset.h>
    @interface ViewController : UIViewController <BPHeadsetListener>
    // ...
    @end
    // ViewController.m

    @implementation ViewController
    - (void)viewDidLoad {
        [super viewDidLoad];
        // To instantiate, just use `sharedInstance`:
        headset = [BPHeadset sharedInstance];
        [headset addListener:self];
    }

    // To connect, set a listener that conforms to the BPHeadsetListener
protocol, then call connect:
    - (IBAction)connectButtonTouched:(id)sender {
        [headset connect];
    }
    @end
```

Listen for Connection Events

Through the JPBP SDK your app can get a handle to the Configurable Button on the headset, you can then add a Headset Listener.

```
 // ViewController.h

    #import <BPHeadset.h>
```

```
@interface ViewController : UIViewController <BPHeadsetListener>
// ...
@end
// ViewController.m

@implementation ViewController
- (void)viewDidLoad {
    [super viewDidLoad];
    // To instantiate, just use `sharedInstance`:
    headset = [BPHeadset sharedInstance];
    [headset addListener:self];
}

// Headset is connected and mode can be set, but not all
// values have been read yet
- (void) onConnect {
    NSLog(@"Connected");
    // Update UI etc.
}

// Values have been read from headset (e.g. Speed Dial number etc.)
- (void) onValuesRead {
    NSLog(@"Finished reading values");
    // Can now read App Name, Speed Dial number etc.
}

// Enterprise Values have been read from headset
- (void) onEnterpriseValuesRead {
    NSLog(@"Finished reading enterprise values");
    // Can now read enterprise values through getConfigValue
}
@end
```

The Headset Listener allows your app to listen and manage activities associated with establishing a connection to the Configurable Button:

- Connected

- Connection Progress
- Connection Failure
- Connected
- Values read from headset

When your app is successfully connected to the Configurable Button a connected event is triggered.

Connection Progress

You may retrieve the status of progress during the connection process, as connection may take time it is advisable to keep your user informed of progress.

```
// Method from protocol: BPHeadsetListener
// ------------------------------------------------------------------

public void onConnectProgress:(BPConnectProgress) status {
    logStatus(getStatusDescription(progressCode));
}

// Note: Constants from BPConnectProgress are as per table
```

Status	Value	Meaning
BPConnectProgressStarted	0	Connection attempt has started
BPConnectProgressScanning	1	Scanning for BLE services
BPConnectProgressFound	2	The Configurable Button service has been found

BPConnectProgressReading	3	BLE connection established, reading settings from headset

Connection Failure

If the connection attempt fails the following error codes may be returned and should be handled in your code.

```
// Method from protocol: BPHeadsetListener
// ------------------------------------------------------------------

- (void) onConnectFailure:(BPConnectError) reasonCode {
    //handle the connection failure here
    //this may include instruction "Retry or turn headset off then on"
}

// Note: Constants from BPConnectError are as per table
```

Reason Code	Value	Meaning
BPConnectErrorUnknown	0	Unknown error occurred
BPConnectErrorBluetoothDisabled	1	Bluetooth is not turned on
BPConnectErrorFirmwareTooOld	2	Firmware on the headset is not offering Configurable Button Service. Firmware may be too old

BPConnectErrorSDKTooOld	3	This SDK version is too old to connect to the firmware version on headset

In some situations you may need to advise your user to turn the headset off then on again.

Setting the Configurable Button SDK Mode

Once connected to the Configurable Button the next step is to enable the Configurable Button in order to send events from the Configurable Button on the headset to your application on the handset. It is possible to check to see if the Configurable Button has been enabled previously and if not you may proceed to enable it.

```
// ViewController.m
   // Enable SDK Mode
   if (!headset.sdkModeEnabled) {
       [headset enableSDKMode];
   }

   // Disable SDK Mode
   if (headset.sdkModeEnabled) {
       [headset disableSDKMode];
   }
```

If required by your program you may also disable the Configurable Button SDK. This will reset the Configurable Button to the factory setting of a mute button.

enableSDKMode Method

Signature:
enableSDKMode()
enableSDKMode(String appName)

Description:
There are now two methods to enable SDK mode in the SDK: enableSDKMode() and enableSDKMode(String appName). The new method allows the app to set the App Name while still putting the headset into SDK mode. This can allow the current app to know if it was the last app to put the headset into SDK mode.

Callbacks:
Results in a call to onModeUpdate() or onModeUpdateFailure()

setMuteMode Method

Signature:
setMuteMode()

Description:
This sets the headset into the default Mute mode.

Callbacks:
Results in a call to onModeUpdate() or onModeUpdateFailure()

setCustomMode Method

Signature:
setCustomMode(Integer mode)

Description:
This sets the headset into a custom mode.

Callbacks:
Results in a call to onModeUpdate() or onModeUpdateFailure()

Discussion:
The mode can be set to one of several preset modes, or a custom integer more can be set (if supported by the headset). For more details on custom modes, contact your Jabra/BlueParrott representative.

Preset modes are as follows:

Reason Code	Value	Meaning
BPButtonModeUnknown	-1	An unknown mode. This can be returned if the current mode has not been read yet.
BPButtonModeMute	0	Mute on call mode. This is the default mode.
BPButtonModeSpeedDial	1	Speed dial a specific number.
BPButtonModeApp	2	Compatible App or SDK Mode. (NOTE: In order to put the headset into App Mode or SDK mode, use the specific methods provided - `enableSDKMode` and `setAppModeWithAppKey`)

Listen for Configurable Button Mode Update

You can monitor the success of enabling the SDK using the mode update methods from the Headset Listener.

```
// Methods from protocol: BPHeadsetListener
// ---------------------------------------------------------------------

    - (void) onModeUpdate {
        NSLog(@"Mode Updated");
    }
```

Listen for Configurable Button Mode Update Failure

If mode update fails you may look for one of the following update errors to provide feedback to the user.

```
// Methods from protocol: BPHeadsetListener
// ---------------------------------------------------------------------

    - (void) onModeUpdateFailure:(BPModeUpdateError) reasonCode {
        NSLog(@"Mode Update Failed. Reason %@", [self
getUpdateErrorDescription:reasonCode]);
        //handle error
    }
```

Reason Code	Value	Meaning
BPModeUpdateErrorUnknown	0	Writing to headset over BLE failed
BPModeUpdateErrorDisconnected	1	BLE connection not available

Once you enable the SDK on the Configurable Button data can be sent over Bluetooth from the headset to your app for Configurable Button events.

You can then use the Headset Listener to monitor the traffic from the headset.

Once enabled the SDK remains enabled on the headset until either your app disables the SDK or the user resets the headset.

Listening for Configurable Button Events

Once connected to the Configurable Button, with the button enabled to send events, the Headset Listener for the JPBP SDK may be used to monitor presses of the Configurable Button.

When the user presses the Configurable Button, your app will receive an event and can react to the user's interactions.

The Headset Listener provides methods to allow your code to respond to button pressed on the headset:

- Button Down - button has been pressed
- Button Up - button has been released
- Tap - single tap
- Double Tap
- Long Press

```
// Methods from protocol: BPHeadsetListener
// ---------------------------------------------------------------------

- (void) onButtonDown:(BPButtonID) buttonID {
    NSLog(@"Button Down");
     //your code goes here
}

- (void) onButtonUp:(BPButtonID) buttonID {
    NSLog(@"Button Up");
     //your code goes here
}

- (void) onTap:(BPButtonID) buttonID {
    NSLog(@"Tap");
    //your code goes here
}

- (void) onDoubleTap:(BPButtonID) buttonID {
    NSLog(@"Double Tap");
    //your code goes here
}

- (void) onLongPress:(BPButtonID)buttonID {
    NSLog(@"Long Press");
     //your code goes here
}
```

Listening for Proximity Events

Once connected to the Configurable Button, the JPBP SDK may be used to monitor changes in the proximity sensor on the headset.

Possible values for the proximity state are `BPProximityStateOff`, `BPProximityStateOn` and `BPProximityStateUnknown.`

```
// Methods from protocol: BPHeadsetListener
// ---------------------------------------------------------------------

- (void) onProximityChanged:(BPProximityState) proximityState {
    NSLog(@"Proximity State Changed.");
     //your code goes here
}
```

Disconnecting from the Configurable Button

Now you have the ability to check if the Configurable Button is connected and you can disconnect the Configurable Button in your code if required.

```
    // ViewController.m

    - (IBAction)disconnectButtonTouched:(id)sender {
        if (headset.connected) {
            [headset disconnect];
        }
    }
    @end
```

Listen for Disconnect

Using the Headset Listener you may listen for a disconnect event in your program and carry out any appropriate actions and housekeeping at this point.

```
// ViewController.h

    #import <BPHeadset.h>
    @interface ViewController : UIViewController <BPHeadsetListener>
    // ...
    @end
    // ViewController.m

    @implementation ViewController
    - (void)viewDidLoad {
        [super viewDidLoad];
        // To instantiate, just use `sharedInstance`:
        headset = [BPHeadset sharedInstance];
        [headset addListener:self];
    }

    // Called when the headset is disconnected (e.g. out of range)
    - (void) onDisconnect {
        // Notify the user
    }
    @end
```

Enterprise Values

On some compatible headsets, there may be one or more enterprise values which can relate to hardware-specific functions (e.g. the headset may be put into "warehouse mode" which could affect how pairing, bonding and BLE advertising is managed). There are a number of properties, events and methods related to the enterprise values in the headset.

enterpriseValuesRead Property (Readonly)

Indicates whether the SDK has finished retrieving all enterprise values from the headset. After the app receives the `onConnect()` event, this will be FALSE. After the `onEnterpriseValuesRead()` event, this will return TRUE.

onEnterpriseValuesRead Event

This is called on the Headset Listener when the SDK has finished retrieving all enterprise values from the headset.

setConfigValue Method

Signature:
setConfigValue(Integer key, String value)

Description:
Sets the value for a specific enterprise key. Details for the keys applicable for a specific headset and the possible values are described below.

getConfigValue Method

Signature:
getConfigValue(Integer key)

Description:
Retrieves a specific enterprise key. Details for the keys applicable for a specific headset and the possible values are described below.

Returns:
Returns a string representing the value of the enterprise key.

getConfigValues Method

Signature:
getConfigValues()

Description:
Retrieves all enterprise keys from the headset. Details for the keys applicable for a specific headset and the possible values are described below.

Returns:
Returns a dictionary containing NSNumber representations of the keys and Strings for the values.

Configuration Key and Values

Only the keys and values described below should be set in an application.

Config Key	Description
1	Voice Control
2	General Headset configuration
3	Warehouse Features

The values that can be set for each key are detailed below.

Key 1 - Voice Control

This is an integer-type value, where specific bits can be set to change the behavior of the voice recognition feature built into the headset.

Bit	Description
4	Voice Trigger to Talk / Voice trigger will mimic the Configurable Button functions (B550-xt version 1.34 and higher)
5	'Hello Blue Parrott' now triggers phone command instead of 'Say a command' (B550-XT)
6	Disable the 'always listening' triggers
7	Disable 'answer or ignore' on incoming calls
8	Enable BPEC ("Blue Parrot End Call")
9	Disable voice prompts

Key 2 - General Headset Configuration

This is an integer-type value, where specific bits can be set to change some high-level behavior of the headset.

Bit	Description
1	Warehouse mode all modes on. If this is set then all Warehouse modes are enabled and it disregards configuration key 3
2	Kodiak AT commands. This key will enable Kodiak AT commands if there is no BLE connection.

4	Multifunction Button (MFB) / Configurable Button Switch Enable (M300 Only)
5	Parrott Button disconnection will cause the 'headset is disconnected' prompt to play
14	Reserved
15	Disable Proximity sensor (B550, B650, S650 only)

Key 3 - Warehouse Features

This is an integer-type value, where specific bits can be set to change different features that may be useful in a warehouse usage scenario.

Bit	Description
0	Overrides the headset friendly name to have the last 4 digits of the Bluetooth MAC address added
1	Enables the headset pairing list to be cleared every time the headset is put into pair mode
2	Disables the 'Cancel' or 'End Call' function of the MFB
3	Disables the 'Establish SLC*' event when the MFB is pressed
4	Disables the 'Answer' event when the MFB is pressed

6	Receiver Soft Mute (B450, C300 only)
7	Enable Receiver Hard mute (B450, C300 only). **Note:** receiver mute must be enabled to enable hard mute
9	Version Disable - Removes version from friendly name

* HFP profile connection requires RFCOMM connection first and then a Service Level Connection (SLC) on top of RFCOMM. HFP profile is only considered fully connected when SLC is established

Example:

Assume we would like to enable the features to have the last 4 digits of the Bluetooth MAC address and also would like to disable the “Answer” event when the MFB is pressed. These keys relate to Key 3, and we need to set Bits 0 and 4 on the key.

In binary, the value to set Bit 0 is: 00000001

In binary, the value to set Bit 4 is: 00010000 (note that the first Bit is referred to as “Bit 0” and we count up from there moving to the left).

In order to set both bits, we just “OR” the values together, to get: 00010001.

To set this value on the key, we convert 00010001 to decimal: 17.

Now we can call the setConfigValue method, and pass it in the integer 3 for the ***key***, and the string “17” as the ***value***.

Other Configurable Button Functions

After the application has received the onValuesRead callback, the application can query the current state of the Configurable Button configuration.

Properties

autoReconnect Property (Class Property, Read/Write)

A static method on the BPHeadset class that determines whether the SDK will automatically attempt to reconnect to a headset after disconnecting. When set to YES, on a disconnect the SDK will call connectPeripheral on the headset so that the OS will automatically try to reconnect the BLE connection when the device connects again. The default value for this property is YES.

sendAnalytics Property (Class Property, Read/Write)

A static method on the BPHeadset class that determines whether the SDK will send anonymous usage statistics to Jabra/BlueParrott. This can be used during development to help troubleshoot issues and improve the SDK. The default value for this property is NO.

appKey Property (Readonly)

The current App Key for the headset (if the headset is in BPButtonModeApp), as a String. If the headset is currently in SDK mode, this will return “sdk”. This can be set by an application, and then later queried to check if another app has configured the Configurable Button (and then possibly ignore button events).

appName Property (Readonly)

The current App Name for the headset (if the headset is in BPButtonModeApp), as a String. If the headset is currently in SDK mode, this will return “SDK” unless the app has set the App Name to something different.

speedDialNumber Property (Readonly)

The number that will be dialed by the headset when the Configurable Button is pressed, if the headset is in BPButtonModeSpeedDial, as a String.

valuesRead Property (Readonly)

Indicates whether the SDK has finished retrieving all values from the headset. After the app receives the `onConnect()` event, this will be FALSE. After the `onValuesRead()` event, this will return TRUE.

friendlyName Property (Readonly)

Returns the friendly name of the connected headset.

model Property (Readonly)

Returns the model of the connected headset as a hexadecimal string. See Appendix A for the list of headsets and their model numbers.

Methods

The SDK can also be used to set the mode of the headset, which can change the behavior of the Configurable Button or potentially change the headset function (e.g., using a Custom Mode could change whether the headset resets its pairing list on being connected to a power source).

Some of the methods that can affect the mode of the Configurable Button or headset are described below:

setBondable Method

NOTE: Changing the bondable setting on a headset may cause the headset to restart. Use caution when changing this value. Read the detailed description below for more information.

Headsets support BLE bonding by default. This means that when a headset is BLE connected for the first time (e.g,. when the SDK is used to connect to the headset), the user will be prompted to allow the headset to “Pair” (on iOS, the term “bond” is not used).

Some applications may require control over whether the headset allows BLE bonding or not. In this case, the `setBondable()` method can be used to change the BLE bonding behavior in the headset. Since BLE bonding involves exchanging keys between the handset and the headset, changing this value will clear out connection keys on the headset, which will remove the pairing with the handset, if one exists. This in turn will cause the headset to restart, which means the method should only be called once when the value needs to be changed.

The SDK will not change the value in the headset if it detects that the setting being used is the same as the current setting, which will prevent the headset from restarting unnecessarily. The app can also check the `bondableEnabled` property to retrieve the current state. It is recommended that the app should be written such that it expects the headset to restart when the value is changed, and communicates this to the end user.

If the bondable setting is disabled on a headset, the headset removes its pairing keys for the handset, but the handset may still have a pairing entry for the headset. This should be removed by the end user after the headset restarts, and the headset should be paired again as normal.

Signature:
setBondable(BOOL enabled)

Description:
This sets whether the headset is BLE bondable or not. If bondable is disabled by the app, the headset will need to be unpaired and re-paired in order to remove any existing bond with the phone on the handset. If bonding is enabled on a headset where it was previously disabled, the headset will need to be powered off and then powered on again (so that it reconnects) in order to trigger the bonding.

Callbacks:
Results in a call to onBondableUpdate() or onBondableUpdateFailure()

setAppMode Method

Signature:
setAppModeWithAppKey(String appKey, String appName)

Description:
This sets the headset into App Mode with the given App ID and App Name.

Callbacks:
Results in a call to onModeUpdate() or onModeUpdateFailure()

setSpeedDialMode Method

Signature:
setSpeedDialMode(String phoneNumber)

Description:
This sets the headset into a Speed Dial mode with the given number.

Callbacks:

Results in a call to onModeUpdate() or onModeUpdateFailure()

Support

Please report problems with this SDK through the public issue tracker on GitHub.

Legal

Note that by using JPBP SDK for iOS, you accept our Developer Terms of Service.

Appendix A: Supported Headsets

The following is a list of devices which have a Configurable Button and are supported by the JPBP SDK.

BlueParrott Headsets

Headset	**Model (Hex)**
M300-XT	0029
M300-XT SE	002d
B550-XT	0021
B650-XT/S650-XT	0028

Headset	Model (Hex)
B450-XT Classic	0008
B350-XT	0011
B450-XT	0025
C400-XT	0020
Reveal Pro	0012
S450-XT	1388
C300-XT	0022

Jabra Headsets

Headset	Model
Perform 45	2e45

Appendix B: Simple Sample Application

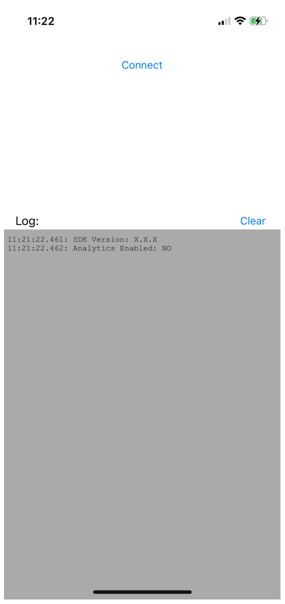
The iOS SDK Sample Application is a sample of a simple integration, allowing the developer to get up and running quickly while using the JPBP SDK.

The BPSDKSample application runs in the foreground only. It allows you to connect to and disconnect from the Configurable Button. You may enable and disable the SDK Mode on the Configurable Button as well as enable or disable whether the headset is BLE Bondable. When the SDK is enabled the app gives feedback on the presses of the Configurable Button through the log and UI.

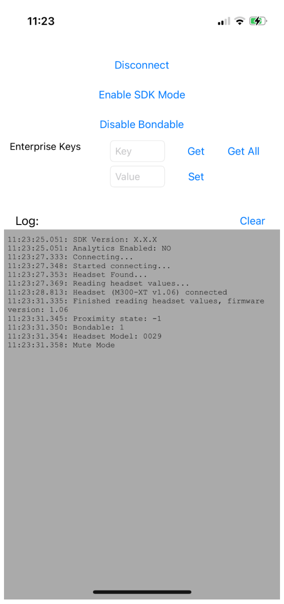
This simple demo includes the following features:

- Displays the version of the SDK being used in the app
- Connects to headset Configurable Button
- Enables JPBP SDK mode
- Utilizes Headset Listener to intercept the Configurable Button clicks
- Disables JPBP SDK mode
- Disconnects from the headset Configurable Button

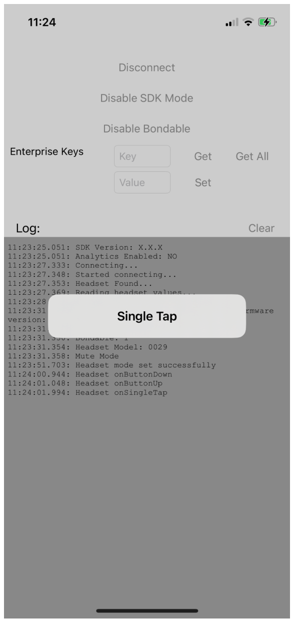
Below are some sample screens from the application:



```
11:21:22.461: SDK Version: X.X.X
11:21:22.462: Analytics Enabled: NO
```



```
11:23:25.051: SDK Version: X.X.X
11:23:25.051: Analytics Enabled: NO
11:23:27.333: Connecting...
11:23:27.348: Started connecting...
11:23:27.353: Headset Found...
11:23:27.369: Reading headset values...
11:23:28.813: Headset (M300-XT v1.06) connected
11:23:31.335: Finished reading headset values, firmware
version: 1.06
11:23:31.345: Proximity state: -1
11:23:31.350: Bondable: 1
11:23:31.354: Headset Model: 0029
11:23:31.358: Mute Mode
```



```
11:23:25.051: SDK Version: X.X.X
11:23:25.051: Analytics Enabled: NO
11:23:27.333: Connecting...
11:23:27.348: Started connecting...
11:23:27.353: Headset Found...
11:23:27.369: Reading headset values...
11:23:28
11:23:31                                        rmware
version:
11:23:31
11:23:31.
11:23:31.354: Headset Model: 0029
11:23:31.358: Mute Mode
11:23:51.703: Headset mode set successfully
11:24:00.944: Headset onButtonDown
11:24:01.048: Headset onButtonUp
11:24:01.994: Headset onSingleTap
```