

Honeywell

8680i

iOS Software Development Kit

User Guide

Disclaimer

Honeywell International Inc. (“HII”) reserves the right to make changes in specifications and other information contained in this document without prior notice, and the reader should in all cases consult HII to determine whether any such changes have been made. The information in this publication does not represent a commitment on the part of HII.

HII shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material. HII disclaims all responsibility for the selection and use of software and/or hardware to achieve intended results.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated into another language without the prior written consent of HII.

Copyright © 2020 Honeywell International Inc. All rights reserved.

Web Address: www.honeywellaidc.com

Other product names or marks mentioned in this document may be trademarks or registered trademarks of other companies and are the property of their respective owners.

For patent information, refer to www.hsmpats.com.

TABLE OF CONTENTS

Customer Support	iii
Technical Assistance	iii
Limited Warranty	iii
Chapter 1 - Getting Started.....	1
About this Manual.....	1
Setting Up Your System	1
System Requirements.....	1
Install the Framework	1
Device Connection.....	2
Chapter 2 - Definitions.....	3
HONBLEStateEnum.....	3
HONBLEManagerOptions	4
HONBLEManager	4
HONBLEPeripheral.....	4
HONBLENotification.....	5
HONCommandDataFormat	5
Chapter 3 - API.....	7
API List.....	7
sharedInstance	8
setBlockOnBLEStateDidChange	8
startSearchWithPeripheralBlock.....	8
cancelSearch	9

startConnectPeripheral	9
cancelConnect.....	9
writeValueForCharacteristicWithData	10
readValueForCharacteristic	10
setDisplayText	10
setDisplayTextSize	11
setDisplayTextColor	11
setButtonNotifyStatus	11
setBackgroundColor	12
sendCustomCommandString	12

Chapter 4 - Sample Code 13

Sample API Code.....	13
Instantiate.....	13
Search Device	13
Cancel Search.....	13
Connect Device	13
Cancel Connect Device	13
Set Display Text.....	14
Set Display Font Size	14
Set Button Press Notify.....	14
Set Display Font Color.....	14
Set Display Background Color	14
Set Custom Command String	14
Sample APP.....	14

Customer Support

Technical Assistance

To search our knowledge base for a solution or to log in to the Technical Support portal and report a problem, go to www.hsmcontactsupport.com.

For our latest contact information, see www.honeywellaidc.com/locations.

Limited Warranty

For warranty information, go to www.honeywellaidc.com and click **Resources > Product Warranty**.

GETTING STARTED

About this Manual

This document provides information on how to develop iOS applications for the Honeywell 8680i Scanner. Application developers do not need to be aware of the Connection Protocol but can focus on the upper layer business.

This document contains an introduction to the Application Programming Interface (API) as well as sample code. It also introduces best practices when designing new iOS applications.

Setting Up Your System

System Requirements

Your system must meet the following requirements:

Gen7BTSDK Version	Language	Minimum Xcode Version	Minimum iOS Target	Support Architecture
1.x	Objective-C	Xcode 8.2.1	iOS 8.0	Armv7?Armv7s?Arm64

Install the Framework

This section explains how to add the Gen7BTSDK.framework to your Xcode project folder.

Download the Installation File

1. Go to www.honeywellaidc.com.
2. Select **Resources > Downloads > Software**.

3. Click on the Technical Support Downloads Portal link:
<https://hsmftp.honeywell.com>.
4. Create an account if you have not already created one. You must log in to download the software.
5. Install the Honeywell Download Manager tool on your PC prior to trying to download any files. The link for the Honeywell Download Manager is located in the Note above the software tree.
6. Locate the 8680i SDK for iOS in the Software directory: **Software > Software and Tools > Developer Library > SDKs for iOS > 8680i SDK for iOS**.
7. Select Download. Follow the prompts to download the application.

Set Up in Xcode

1. Open your project in Xcode and select TARGETS.
2. Select the **Build Phases** tab.
3. Click the + sign then select **New Copy Files Phase**.
4. Select the Destination.
5. On the **Copy Files** tab, select **Frameworks**.
6. Click the + sign.
7. On the Choose items to add window, select **<Project Name> > Vendor > BT > Gen7BTSDK.framework** then click **Add**.
8. Import `<Gen7BTSDK/Gen7SDK.h>` in your source code.

Device Connection

Scan the barcodes below to connect a scanner.

Set Default



Set BLE Mode



HONBLEStateEnum

Bluetooth State Enumerations

Value	Description
HONBLEStateOff	The state of the Bluetooth device is power off.
HONBLEStateOn	The state of the Bluetooth device is power on.
HONBLEStateSearching	The device is searching.
HONBLEStateSearchFinished	The device search finished.
HONBLEStateConnected	The Bluetooth device is connected.
HONBLEStateDisconnected	The Bluetooth device is disconnected.

Bluetooth Error State Enumerations

Value	Description
HONBLEErrorStateSearchTimeout	The device search timeout.
HONBLEErrorStateSearchCancel	The device cancel the search
HONBLEErrorStateConnectFailed	The device connection failed
HONBLEErrorStateConnectTimeout	The device connect timeout
HONBLEErrorStateWriteDataFailed	The device write data failed.
HONBLEErrorStateReadDataFailed	The device read data failed.

HONBLEManagerOptions

Bluetooth manager options parameters

Parameter	Description
managerQueue	The dispatch queue on which the event will be dispatched.
managerOptions	An option dictionary specifying options for central manager.
scanOptions	An option dictionary specifying options for searching.
connectOptions	An option dictionary specifying connection behavior options.
searchFilter	An option block to filter the searching result.
deviceUUIDs	A list of CBUUID representing the devices to scan for.
serviceUUIDs	A list of CBUUID representing the services to scan for.
characteristicUUIDs	A list of CBUUID representing the characteristic types to scan.
searchTimeout	The number of seconds between scanning of the timer.
connectTimeout	The number of seconds between connecting of the timer.
isSupportRecoveryConnect	A Boolean value of the auto-recovery connection.

HONBLEManager

Bluetooth manager parameters

Parameter	Description
isDebug	A BOOL value to show or hidden debug log
options	An option options for central manager.
connectedDevice	The device currently connected.
isConnected	The current connection status

HONBLEPeripheral

Bluetooth device parameters

Parameter	Description
identifier	The unique persistent identifier associated with the peripheral
name	The name of peripheral
state	The current state of the peripheral
services	A list of services that have been discovered on the peripheral
RSSI	The most recently read RSSI

HONBLENotification

Bluetooth manager key to observe

Key	Description
HON_BLE_CONNECT_STATE	The state of currently connected device.

HONCommandDataFormat

The enumerations of command type.

Display Text Position Enumerations

Value	Description
HONDisplayPositionTop	Up
HONDisplayPositionBottom	Bottom

Display Text Size Enumerations

Value	Description
HONDisplayTextSizeSmall	Small size
HONDisplayTextSizeMedium	Medium size, default value
HONDisplayTextSizeLarge	Large size
HONDisplayTextSizeExtraLarge	Extra Large size
HONDisplayTextSizeSmallBold	Small and bold
HONDisplayTextSizeMediumBold	Medium and bold
HONDisplayTextSizeLargeBold	Large and bold
HONDisplayTextSizeExtraLargeBold	Extra Large and bold

Button Press Notify Enumerations

Value	Description
HONButtonNotifyStatusOff	Button press notify is off, default value
HONButtonNotifyStatusOn	Button press notify is on

API List

Gen7BTSDK APIs are listed below. More information on APIs can be found in **HONBLEManager.h**.

API List

API	Description
sharedInstance	Instantiate the HONBLEManager
setBlockOnBLEStateDidChange	Set callback on BLE device state changed
startSearchWithPeripheralBlock	Start search device
cancelSearch	Cancel search
startConnectPeripheral	Start connect device
cancelConnect	Cancel connect
writeValueForCharacteristic	Write data to device
readValueForCharacteristic	Read data from device

Command API List

API	Description
setDisplayText	Set display text
setDisplayTextSize	Set display text size
setDisplayTextColor	Set display text color
setButtonNotifyStatus	Set the button press notify status of scanner
setBackgroundColor	Set the screen background color of scanner
sendCustomCommandString	Send custom command string

sharedInstance

Instantiate the HONBLEManager

Method

```
+(instancetype) sharedInstance;
```

Parameters

N.A.

Return Value

Returns the default singleton instance of HONBLEManager

setBlockOnBLEStateDidChange

Set callback on BLE device state changed.

Method

```
-(void) setBlockOnBLEStateDidChange: (HONBLEStateDidChangeBlock) block;
```

Parameters

block //callback when BLE device state changed

Return Value

N.A.

startSearchWithPeripheralBlock

CallBack when search a device.

Method

```
-(void) startSearchWithPeripheralBlock: (HONBLESearchPeripheralBlock) peripheralBlock  
withCompletion: (HONBLESearchCompletionBlock) completion;
```

Parameters

peripheralBlock //callback when search a device

completion //callback when search finish

Return Value

N.A.

cancelSearch

Cancel the search

Method

```
- (void)cancelSearch;
```

Parameters

N.A.

Return Value

N.A.

startConnectPeripheral

Start to connect the device

Method

```
- (void)startConnectPeripheral:(HONBLEPeripheral *)peripheral  
    withSuccessBlock:(HONBLEConnectPeripheralBlock)successBlock  
    withFailureBlock:(HONBLEConnectPeripheralBlock)failureBlock;
```

Parameters

peripheral //Bluetooth device which to connect
successBlock //Callback when connect success.
failureBlock //Callback when connect failed.

Return Value

N.A.

cancelConnect

Cancel the connection.

Method

```
- (void)cancelConnect
```

Parameters

N.A.

Return Value

N.A.

writeValueForCharacteristicWithData

Write data to device.

Method

```
- (void)writeValueForCharacteristicWithData:(NSData *)data  
withBlock:(HONBLEDidWriteForCharacteristicBlock)block;
```

Parameters

data //the data
block //Callback when write to device

Return Value

N.A.

readValueForCharacteristic

Read data from device

Method

```
- (void)readValueForCharacteristicBlock:(HONBLEDidReadForCharacteristic  
Block)block;
```

Parameters

block //Callback when read from device

Return Value

N.A

setDisplayText

Set the display text.

Method

```
- (void)setDisplayText:(NSString *)textString  
withPosition:(HONDisplayPosition)position;
```

Parameters

textString //The text which be displayed.
position //The text display position.

Return Value

N.A.

setDisplayTextSize

Set the display text font size.

Method

```
- (void) setDisplayTextSize: (HONDisplayTextSize) textSize  
withPosition: (HONDisplayPosition) position;
```

Parameters

textSize //The text display font size.

Position //The text display position.

Return Value

N.A.

setDisplayTextColor

Set the display text font size.

Method

```
- (void) setDisplayTextColor: (UIColor *) color  
withPosition: (HONDisplayPosition) position;
```

Parameters

color//The text display font color.

position//The text display position.

Return Value

N.A.

setButtonNotifyStatus

Enable or disable the button press notification of scanner.

Method

```
- (void) setButtonNotifyStatus: (HONButtonNotifyStatus) status;
```

Parameters

status//The notify status

Return Value

N.A.

setBackgroundcolor

Set the display screen background color of scanner.

Method

```
- (void) setBackgroundcolor: (UIColor *) color;
```

Parameters

color//UIColor

Return Value

N.A.

sendCustomCommandString

Send custom command data

Method

```
- (void) sendCustomCommandString: (NSString *) cmdString;
```

Parameters

cmdString//the command string

Return Value

N.A.

Sample API Code

Instantiate

```
[HONBLEManger sharedInstance].options.searchTimetout = 5;
[HONBLEManger sharedInstance].options.connectTimetout = 5;
```

Search Device

```
[HONBLEManger sharedInstance]
startSearchWithPeripheralBlock:(HONBLEPeripheral *peripheral){
    NSLog(@"%@", peripheral.name);
}withCompletion:(HONBLEPeripheral *peripheral, NSError *error){
    NSLog(@"Search finished.");
};
```

Cancel Search

```
[[HONBLEManger sharedInstance] cancelSearch];
```

Connect Device

```
[[HONBLEManger sharedInstance] startConnectPeripheral:peripheral
withSuccessBlock:(HONBLEPeripheral *peripheral, NSError *error){
    NSLog(@"Connect Success");
} withFailureBlock:(HONPeripheral *peripheral, NSError *error){
    NSLog(@"Connect Failure");
};
```

Cancel Connect Device

```
[[HONBLEManger sharedInstance] cancelConnect];
```

Set Display Text

```
[[HONBLEManger sharedInstance] setDisplayText:@"Hello"  
withPosition:HONDisplayPositionTop];  
[[HONBLEManger sharedInstance] setDisplayText:@"Honeywell"  
withPosition:HONDisplayPositionBottom];
```

Set Display Font Size

```
[[HONBLEManger sharedInstance]  
setDisplayTextSize:HONDisplayTextSizeSmall  
withPosition:HONDisplayPositionTop];  
[[HONBLEManger sharedInstance]  
setDisplayTextSize:HONDisplayTextSizeSmallBold  
withPosition:HONDisplayPositionBottom];
```

Set Button Press Notify

```
[[HONBLEManger sharedInstance]  
setButtonNotifyStatus:HONButtonNotifyStatusOn];
```

Set Display Font Color

```
[[HONBLEManger sharedInstance] setDisplayTextColor:[UIColor black]  
withPosition:HONDisplayPositionTop];  
[[HONBLEManger sharedInstance] setDisplayTextColor:[UIColor whiteColor]  
withPosition:HONDisplayPositionBottom];
```

Set Display Background Color

```
[[HONBLEManger sharedInstance] setBackgroundColor:[UIColor black]];
```

Set Custom Command String

```
[[HONBLEManger sharedInstance] sendCustomCommandString:@"bepexel"];
```

Sample APP

You can install the app "<Project_Name>.ipa".

Honeywell
9680 Old Bailes Road
Fort Mill, SC 29707

www.honeywellaidc.com