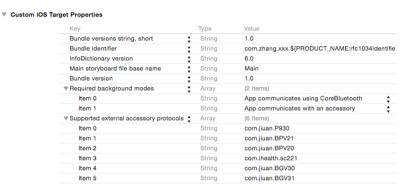
IOS PO SDK Documentation

1. Relevant files and frameworks

(1) Import the following PO SDK files: POHeader.h、POMacroFile.h、PO3.h、PO3Controller.h、User.h、iHealthLibrary(1.0.7).a,supports iOS 6.0 and above.

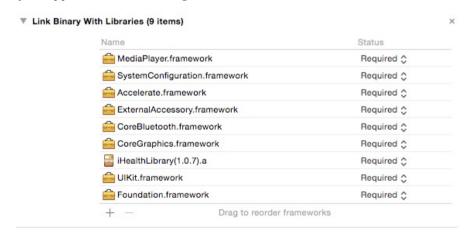
(2) Frameworks



(3) Configuration

Add an "item" in "Info"

Add two new items in "Required background modes", App communicates with an accessory App communicates using CoreBluetooth



2. Operation Procedure

(1) PO3 instructions

Register device PO3: PO3ConnectNoti;

Initialize PO3 controller class:

PO3Controller *po3Controller = [PO3Controller shareIHPO3Controller];

Access control class instance after receiving PO3ConnectNoti

NSArray *po3Array = [po3Controller getAllCurrentPO3Instace];

PO3 *po3Instance = [po3Array objectAtIndex:0];

Use po3Instance to call PO3 related communication methods.

3. PO3 Interface Instructions

(1) Sync time

Only after verification through this interface can we move onto using other API's.

-(void)commandCreatePO3User:(User *)tempUser

Authentication:(BlockUserAuthentication)disposeAuthenticationBlock
DisposeResultBlock:(DisposeSynchronousTimeFinishBlock)disposeSynchronousTimeFinishBlock
DisposeErrorBlock:(DisposePO3ErrorBlock)disposeErrorBlock;

Input Parameters:

tempUser, includes properties: clientID, clientSecret, userID, userID, either email or mobile phone number (mobile phone number not yet supported).

ClientID and clientSecret, the only identification for users of the SDK, requires registration from iHealth administrator, please email: lvjincan@jiuan.com for more information

Return Parameters:

disposeAuthenticationBlock: The return parameters of ''userid', 'clientID', and 'clientSecret' after verification。

The interpretation for the verification:

UserAuthen_RegisterSuccess: New-user registration succeeded.

UserAuthen_LoginSuccess: User login succeeded.

UserAuthen_CombinedSuccess: The user is an iHealth user as well, measurement via SDK has been activated, and the data from the measurement belongs to the user.

UserAuthen_TrySuccess: Testing without internet connection succeeded.

UserAuthen_InvalidateUserInfo: Userid/clientID/clientSecret verification failed.

UserAuthen_SDKInvalidateRight: SDK has not been authorized.

UserAuthen_UserInvalidateRight: User has not been authorized.

UserAuthen_InternetError: Internet error, verification failed.

The measurement via SDK will be operated in the case of 1-4, and will be terminated if any of 5-8 occurs. The interface needs to be re-called after analyzing the return parameters.

Notice: when a new user registers via SDK, an 'iHealth disclaimer' will pop up automatically, and will require the user to agree in order to continue. SDK applications require an Internet connection; there is 10-day trial period if the SDK cannot connect to the internet, the SDK is fully functional during tryout period, but will be terminated without a working internet connection after 10 days.

disposeSynchronousTimeFinishBlock: Sync completed. Yes = Success, No = Fail. disposeErrorBlock: Communication error codes, see section 5

(2) Real-time measurements

-(void)commandStartPO3MeasureData:(StartPO3MeasureData)startPO3MeasureData

Measure:(DisposePO3MeasureData)disposePO3MeasureData

FinishPO3MeasureData:(FinishPO3MeasureData)finishPO3MeasureData

DisposeErrorBlock:(DisposePO3ErrorBlock)disposeErrorBlock;

Return parameters:

startPO3MeasureData: Start measurement. Return no for fail, return yes for success.

disposePO3MeasureData: SpO2 values, including SpO2, pulse rate, pulse intensity. Corresponding

keys are spo2, bpm, wave, and pi.

finishPO3MeasureData: Finish measurement. No for fail, yes for success.

disposeErrorBlock: Communication error codes, see section 5

(3) Historical data

-(void)commandDisposePO3DataCount:(DisposePO3DataCount)disposePO3DataCount

Transfer Memorry Data: (Start PO3 Transmission) start Transmission

Memory:(DisposePO3HistoryData)disposePO3HistoryData

DisposePO3WaveHistoryData:(DisposePO3WaveHistoryData)disposePO3WaveHistoryData

 ${\tt DisposeProgress:} ({\tt DisposePO3ProgressData}) progress$

FinishTransmission:(FinishPO3Transmission)finishTransmission

DisposeErrorBlock:(DisposePO3ErrorBlock)disposeErrorBlock;

Return parameters:

 $\ dispose PO3 Data Count: \ \ Number \ of \ historical \ offline \ data \ measurements$

startTransmission: Start data transmission. Yes for success, no for fail.

disposePO3HistoryData: date, spo2, bpm, and wave.

disposePO3WaveHistoryData: Pulse intensity, corresponding key: wave

progress: Data transmission progress from 0-1.0

finishTransmission: End transmission of data, yes for success, no for fail

disposeErrorBlock: Communication error codes, see section 5

(4) Restore factory settings

-(void)commandResetPO3DeviceDisposeResultBlock:(DisposePO3Block)disposeBlock

DisposeErrorBlock:(DisposePO3ErrorBlock)disposeErrorBlock;

Return parameters:

disposeBlock: Returns yes for success, no for fail.

disposeErrorBlock: Communication error codes, see section 5

(5) Query power status

- (void) command Query Battery Info: (Dispose PO3Block) dispose Block

Dispose Error Block: (Dispose PO3 Error Block) dispose Error Block

DisposeBattery:(DisposePO3Battery)disposeBattery;

Return parameters:

disposeBlock: Yes = success, no = fail.

disposeErrorBlock: Communication error codes, see section 5

```
disposeBattery: Battery %
```

(6) Disconnect connection

-(void)commandEndPO3CurrentConnect:(DisposePO3Block)disposeBlock

DisposeErrorBlock:(DisposePO3ErrorBlock)disposeErrorBlock;

Return parameters:

disposeBlock: Yes = success, no = fail

disposeErrorBlock: Communication error codes, see section 5

4. Additional information

Device connection info: PO3ConnectNoti
Device disconnection info: PO3DisConnectNoti

When connecting multiple devices, distinguish between them via the serialNumber attribute.

5. Error codes

```
typedef enum{
```

PO3CommError = 0, // Bluetooth Communication Error

PO3AccessError, // Flash (Data) Access Error
PO3HardwareError, // Irregular Hardware Error

PO3PRbpmtestError, // The SpO2 or pulse rate test result is beyond the measurement range

of the system

PO3UnknownError, // Unknown Interference Detected

PO3SendCommandFaild, // Send failed

PO3DeviceDisConect, // Device is disconnected

PO3DataZero, // No data

PO3UserInvalidate // User authentication fails

}PO3ErrorID;

6. demo