Acuant iOS SDK API Documentation

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1 Introduction

The AcuantMobileSDK.framework is a Cocoa Framework is designed to simplify your development efforts. The processing of the captured images takes place via Acuant's Web Services. Our Web Services offer fast data extraction and zero maintenance as software is looked after by Acuant on our optimized cloud infrastructure.

Benefits:

- ❖ Process Enhancement: Faster data extraction and process images via Acuant's Web Services.
- ❖ Easy to set up and deploy.
- ❖ No maintenance and support: All maintenance and updates are done on Acuant servers.
- ❖ Secured Connection: Secured via SSL and HTTPS AES 256-bit encryption.

Acuant Web Services supports processing of drivers licenses, state IDs, other govt issued IDs, custom IDs, driver's license barcodes, passports, medical insurance cards etc. It also supports address verification, identity verification and personal verification.

For IDs from Asia, Australia, Europe, South America, Africa – we are support dd-mm-yyyy date format.
For IDs from Canada, USA – we are support mm-dd-yyyy date format.

For a complete list of regions, states, and countries supported for ID processing, please see Appendix F of ScanW document - http://www.id-reader.com/ftp/applications/sdk/docs/ScanW.pdf

To execute any Acuant iOS Mobile SDK method, a valid license key is required. Please contact sales@acuantcorp.com to obtain a license key.

This Acuant iOS Mobile SDK API documentation document has the detailed description of all the important functions a developer would need to write integration with Acuant iOS Mobile SDK.

Note: The Framework will not modify the Status bar of the app.

2 Requirements

- iOS 8.0 or later is required.
- iPhone 4S and above.
- iPad 3 and above.
- iPad mini.
- iPod Touch 5G and above.
- The card image must be taken in an acceptable light conditions to avoid glare and overhead lights for example.
- The card must preferably be fitted with in the brackets on the camera screen, to allow the picture to be taken at a maximum resolution.

3 Integration

A Installation with CocoaPods

Acuant iOS Mobile SDK can be installed using CocoaPods. CocoaPods is a dependency manager for Objective-C, which automates and simplifies the process of using 3rd-party libraries like Acuant iOS Mobile SDK in your projects.

a Podfile

```
platform :ios, '8.0'
pod 'AcuantMobileSDK', '~> 4.7.4'
```

B Add AcuantMobileSDK.embeddedframework on each project

If you are not using CocoaPods for Acuant iOS Mobile SDK installation, then you would have to add the AcuantMobileSDK. embeddedframework into your project. You can download the Acuant iOS Mobile SDK and embeddedframework from GitHub - https://github.com/Acuant/AcuantiOSMobileSDK.

In order to add the framework to your project, drag the AcuantMobileSDK. embeddedframework folder into your project's file structure.

a Natives frameworks and libraries

Go to the target.
Click on “Build Phases”.
Expand “Link binary with libraries”.
Click on plus to add frameworks and libraries.
Add following frameworks.

- AssetLibrary.framework
- SystemConfiguration.framework.
- AudioToolbox.framework
- AVFoundation.framework.
- CoreMedia.framework.
- CoreVideo.framework.
- CoreGraphics.framework
- QuartzCore.framework.

Add following libraries

- libc++.tdb.
- libiconv.tdb.
- libz.tdb.

Note: For Xcode 7.0 and below, use .dylib

- libc++.dylib.
- libiconv.dylib.
- libz.dylib.

b Targets

Go to the target.
Click on “Build Settings”.

b.1 Change following targets

Set “C Language Dialect” with GNU99
Set “C++ Language Dialect” with Compiler Default
Set “C++ Standard Library” with Compiler Default

b.2 Change following flags

Add on “PreProcessor” = CVLIB_IMG_NOCODEC
(GCC_PREPROCESSOR_DEFINITIONS = DEBUG=1 $(inherited)
CVLIB_IMG_NOCODEC)

C Integration with Objective-C.

Add the import header in your appDelegate’s header file.

```
#import <AcuantMobileSDK/AcuantMobileSDKController.h>
```

D Integration with Swift.

In order to integrate our SDK on a Swift project you just need to create an Objective-C bridging header to expose those files to Swift.

Create this bridge is very simple, after you add an Objective-C file, the Xcode propts an alert suggesting to create the header file.

Apple Reference:
https://developer.apple.com/library/ios/documentation/Swift/Conceptual/BuildingCocoaApps/MixandMatch.html

4 Activate the license key

In order to activate the license key, use the following method:

```
- (IBAction)activateAction:(id)sender {
    [_instance activateLicenseKey:_licenseKeyText.text];
}
```

Note: The license key only needs to be activated once. Execute this method only one time. Some licensees are issued by Acuant pre-activated and don’t need further actions.

5 Initialize and create the SDK's instance

A Initialize with license key

In the below call, license key is validated and instance is created.

```
    //Obtain the main controller instance
    _instance = [AcuantMobileSDKController
initAcuantMobileSDKWithLicenseKey:@"MyLicensekey" andDelegate self];
```

Note: This method verifies if the license key is valid and it returns an instance that can be used to reference the methods. We recommend that you create one instance per session in order to optimize your resources.

B With license key and cloud address.

In the below call, license key is validated, the instance is created with the specified cloud address if you are hosting Acuant web services in your own data center. By default, iOS MobileSDK communicates with the Acuant data center.

.

```
//Obtain the main controller instance
    _instance = [AcuantMobileSDKController
initAcuantMobileSDKWithLicenseKey:@"MyLicensekey" delegate self
andCloudAddress:@"cloud.myAddress.com"];
```

The cloud Address must not contain "https://"
Ex: "https://cloud.myAddress.com/" must be written "cloud.myAddress.com"

Note: This method verifies if the license key is valid and it returns an instance that can be used to reference the methods. We recommend that you create one instance per session in order to optimize your resources.

C If your instance was created previously

```
    //Obtain the main controller instance
   _instance = [AcuantMobileSDKController initAcuantMobileSDK];
```

D Check if the license key validation was successful or not.

In order to know if the license key validation has finished or to know if it was successful, use the method below. This method is called after the instance of the MobileSDK has been created.

```
-(void)mobileSDKWasValidated:(BOOL)wasValidated{
    _wasValidated = wasValidated;
}
```

6 Capturing a card

A SDK Configuration for card capture interface.

In order to show the camera interface choose between auto capture interface, manual capture interface or barcode capture interface depending on the card type.(AcuantCardTypeMedicalInsuranceCard, AcuantCardTypeDriversLicenseCard, AcuantCardTypePassportCard).

For AcuantCardTypeMedicalInsuranceCard you can only use the manual capture interface.
For AcuantCardTypeDriversLicenseCard, depending on the region, you can only use the manual capture interface and the barcode capture interface.
For IDs from USA and Canada, use manual capture interface for the front side and use barcode capture or manual capture interface for backside.
For IDs from South America, Europe, Asia, Australia, Africa region use manual capture interface for both front and backside.
For AcuantCardTypePassportCard you can choose between auto capture interface and manual capture interface.

a In the header file where you'll be doing the parsing, add the following import.

```
#import <AcuantMobileSDK/AcuantMobileSDKController.h>
```

b In the same header file, implement the AcuantMobileSDKControllerCapturingDelegate.

```
@interface ISGViewController ()
<AcuantMobileSDKControllerCapturingDelegate,
AcuantMobileSDKControllerProcessingDelegate>
```

B Card capture interface methods.

a Card capture interface with SDK initializations

In order to initialize the SDK and show the camera interface in the same step you must use the following method:

```
[AcuantMobileSDKController
initAcuantMobileSDKWithLicenseKey:licenseKey
AndShowCardCaptureInterfaceInViewController:self delegate:self
typeCard:_cardType region:_region isBarcodeSide:_isBarcodeSide];
```

Note: if you are going to use any customization method, then you should create a previous instance of the SDK in order to set the camera customization.
Ex:

```
_instance = [AcuantMobileSDKController initAcuantMobileSDK];
[_instance setWidth:1250];
 [AcuantMobileSDKController
initAcuantMobileSDKWithLicenseKey:licenseKey
```

```
AndShowCardCaptureInterfaceInViewController:self delegate:self
typeCard:_cardType region:_region isBarcodeSide:_isBarcodeSide];
```

b Auto Card capture interface without initialization

In order to call this function, you will need to initialize the SDK first and create an instance of the SDK to call the function (see point 4)

```
[_instance showAutoCameraInterfaceInViewController:self delegate:self
cardType:_cardType];
```

c Manual Card capture interface without initialization

In order to call this function, you will need to initialize the SDK first and create an instance of the SDK to call the function (see point 4)

```
[_instance showManualCameraInterfaceInViewController:self
delegate:self cardType:_cardType region:_region andBackSide:YES];
```

d Barcode capture interface without initialization

In order to call this function, you will need to initialize the SDK first and create an instance of the SDK to call the function (see point 4)

```
[_instance showBarcodeCameraInterfaceInViewController:self
delegate:self cardType:_cardType region: _region];
```

e Methods to set the size of the card.

If the proper card size is not set, MobileSDK will not be able to process the card.

For Driver's License Cards

```
-(void)showCameraInterface{
    [_instance setWidth:1250];
```

For Medical Insurance Cards

```
-(void)showCameraInterface{
    [_instance setWidth:1012];
```

For Passport Documents

```
-(void)showCameraInterface{
    [_instance setWidth:1478];
```

f Optional methods to customize the appearance and final message on the camera screen.

Customize the initial message, default implementation says "Align and Tap" or “Tap to Focus”. For Driver License Front side, Driver License Back side, Medical Insurance and Passport

```
[_instance setInitialMessage:@"Initial Message" frame:CGRectMake(0, 0,
0, 0) backgroundColor:[UIColor blueColor] duration:5.0
```

```
orientation:AcuantHUDLandscape ];
```

Customize the capturing message, default implementation says "hold steady".
For Driver License Front Side and Medical Insurance

```
 [_instance setCapturingMessage:@"Capturing Message"
frame:CGRectMake(0, 0, 0, 0) backgroundColor:[UIColor blueColor]
duration:5.0 orientation:AcuantHUDLandscape];
```

g Optional method to enable cropping of the barcode image.
By default it is disabled.

```
[_instance setCanCropBarcode:YES];
```

```
Note: The barcode cropped image will be received with the
didCaptureImage delegate method.
```

h Optional method to enable the initial message on the barcode camera interface.
By default it is disabled.

```
[_instance setCanShowMessage:YES];
```

i Optional method to pause the scanning of the barcode camera

```
[_instance pauseScanningBarcodeCamera];
```

j Optional method to resume the scanning of the barcode camera

```
[_instance resumeScanningBarcodeCamera];
```

C AcuantMobileSDKControllerCapturingDelegate protocol to handle the capturing.

a Required delegate method

a.1 didCaptureCropImage

In order to retrieve the cropped image captured by all card capture interface must use the following method:

```
-(void)didCaptureCropImage:(UIImage *)cardImage
scanBackSide:(BOOL)scanBackSide{
    _isCameraTouched = NO;
    [_instance dismissCardCaptureInterface];
    _isBarcodeSide = scanBackSide;
    switch (_sideTouch) {
        case FrontSide:
            [_frontImage setImage:cardImage];
            break;
        case BackSide:
```

```
            [_backImage setImage:cardImage];
            [_frontImageLabel setText:@""];
            [_backImageLabel setText:@""];
            [self cardHolderPositions];
            _frontImage.layer.masksToBounds = YES;
            _frontImage.layer.cornerRadius = 10.0f;
            _frontImage.layer.borderWidth = 1.0f;

            _backImage.layer.masksToBounds = YES;
            _backImage.layer.cornerRadius = 10.0f;
            _backImage.layer.borderWidth = 1.0f;
            [_backImage setUserInteractionEnabled:YES];
            break;
        default:
            break;
    }
    [_sendRequestButton setEnabled:YES];
    [_sendRequestButton setHidden:NO];
    if (scanBackSide) {
        _sideTouch = BackSide;
        [UIAlertController
showSimpleAlertWithTitle:@"AcuantiOSMobileSDKSample"
                                        Message:@"Scan the
backside of the license."
                                   FirstButton:ButtonOK
                                  SecondButton:nil
                                  FirstHandler:^(UIAlertAction
*action) {

                                      _sideTouch = BackSide;
                                      _isCameraTouched = YES;
                                      [self showCameraInterface];

                                  }
                                 SecondHandler:nil
                                           Tag:1
                                ViewController:self];
    }
}
```

Note: For AcuantCardTypeMedicalInsuranceCard capturing backside is optional but for AcuantCardTypeDriverLicenseCard capturing backside is a must.

a.2 didCaptureOriginalImage

In order to retrieve the original image captured by all card capture interfaces please use the following method:

```
-(void)didCaptureOriginalImage:(UIImage *)cardImage{
    _originalImage = cardImage;
```

```
}
```

a.3 didCaptureData delegate method

In order to retrieve the barcode string by the barcode capture interface for AcuantCardTypeDriverLicenseCard you must use the following method:

```
-(void) didCaptureData:(NSString *)data{
    self.barcodeString = data;
}
```

a.4 didFailWithError delegate method

In order to inform that the scan or the process failed. You must use the following method:

```
-(void)didFailWithError:(AcuantError *)error{
    NSString *message;
    switch (error.errorType) {
        case AcuantErrorTimedOut:
            message = error.errorMessage;
            break;
        case AcuantErrorUnknown:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToProcess:
            message = error.errorMessage;
            break;
        case AcuantErrorInternalServerError:
            message = error.errorMessage;
            break;
        case AcuantErrorCouldNotReachServer:
            message = error.errorMessage;
            if (_isCameraTouched) {
                showAlert = NO;
            }
            break;
        case AcuantErrorUnableToAuthenticate:
            message = error.errorMessage;
            break;
        case AcuantErrorAutoDetectState:
            message = error.errorMessage;
            break;
        case AcuantErrorWebResponse:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToCrop:
            message = error.errorMessage;
            break;
        case AcuantErrorInvalidLicenseKey:
            message = error.errorMessage;
```

```
            break;
        case AcuantErrorInactiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorAccountDisabled:
            message = error.errorMessage;
            break;
        case AcuantErrorOnActiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorValidatingLicensekey:
            message = error.errorMessage;
            break;
        case AcuantErrorCameraUnauthorized:
            message = error.errorMessage;
            break;
        default:
            break;
    }
    if (showAlert) {
        [UIAlertController
showSimpleAlertWithTitle:@"AcuantiOSMobileSDK"
                                        Message:message
                                  FirstButton:ButtonOK
                                 SecondButton:nil
                                 FirstHandler:^(UIAlertAction
*action) {
                                     if (tag == 1) {
                                         _sideTouch = BackSide;
                                         _isCameraTouched = YES;
                                         [self showCameraInterface];
                                     }else if(tag == 7388467) {
                                         [[UIApplication
sharedApplication] openURL:[NSURL
URLWithString:UIApplicationOpenSettingsURLString]];
                                     }
                                 }
                                SecondHandler:nil
                                          Tag:tag
                               ViewController:self];
    }
}
```

b Optional delegate methods

Call to inform the delegate that the time of the barcode scan expired

```
- (void)barcodeScanTimeOut{
    [self showSimpleAlertWithMessage:message];
}
```

Call to show or not show the iPad brackets on the card capture interface

```
- (BOOL)showiPadBrackets{
    return YES;
}
```

Call to inform the delegate that the user pressed the back button

```
-(void)didPressBackButton{
    [_instance dismissCardCaptureInterface];
}
```

Call to obtain the back button image displayed in the card capture interface

```
- (UIImage*)imageForBackButton{
    UIImage *image = [UIImage imageNamed:@"BackButton.png"];
    return image;
}
```

Call to obtain the back button position in the screen.

```
-(CGRect)frameForBackButton{
    return CGRectZero
}
```

Call to show or not show the back button in the card capture interface

```
- (BOOL)showBackButton{
    return YES;
}
```

These methods control the attributes of the status bar when this view controller is shown.

```
- (BOOL)cameraPrefersStatusBarHidden{
    return YES;
}
```

Call to show or not show the flashlight button in the card capture interface

```
- (BOOL)showFlashlightButton{
    return YES;
}
```

Call to obtain the flashlight button position in the screen.

```
-(CGRect)frameForFlashlightButton{
    return CGRectZero
}
```

Call to obtain the flashlight button image displayed in the card capture interface

```
- (UIImage*)imageForFlashlightButton{
    UIImage *image = [UIImage imageNamed:@"FlashlightButton.png"];
    return image;
}
```

Call to obtain the help image displayed in the card capture interface

```
- (UIImage*)imageForHelpImageView{
```

```
    UIImage *image = [UIImage imageNamed:@"PDF417"];
    return [image imageByApplyingAlpha:0.7];
}
```

Call to obtain the help image position in the screen.

```
-(CGRect)frameForHelpImageView{
    UIImage *image = [UIImage imageNamed:@"PDF417"];
    CGRect frame = CGRectMake(self.view.frame.size.width/2 -
image.size.width/2, self.view.frame.size.height/2 -
image.size.height/3 , image.size.width, image.size.height);
    return frame;
}
```

Call to obtain the watermark Message displayed in the card capture interface

```
-(NSString *)stringForWatermarkLabel{
    NSString *string = @"Powered by Acuant";
    return string;
}
```

Call to obtain the watermark label position in the screen.

```
-(CGRect)frameForWatermarkImageView{
    UIImage *image = [UIImage imageNamed:@"Logo.png"];
    CGRect frame = CGRectMake(self.view.frame.size.width/2 -
image.size.width/2, self.view.frame.size.height/2 -
image.size.height/2 + 20 , image.size.width, image.size.height);

    return frame;
}
```

Call to obtain the barcode error message displayed in the barcode capture interface

```
- (UIDeviceOrientation)orientationForBarcodeErrorMessage{
    return UIDeviceOrientationPortrait;

}
```

Call to obtain the barcode error message displayed in the barcode capture interface

```
- (NSString *)stringForBarcodeErrorMessage{
    NSString *string = @"Unable to scan the barcode?";
    return string;
}
```

Call to obtain the barcode title error displayed in the barcode capture interface

```
- (NSString *)stringForBarcodeTitleError{
    NSString *string = @"Title Sample";
    return string;
}
```

Call to obtain the time elapse to appear in the barcode capture interface

```
- (int)timeForBarcodeErrorMessage{
    return 10;
```

```
}
```

Call to set if the error message is hidden or not.

```
- (BOOL)isHiddenBarcodeErrorMessage{
    return YES;
}
```

Call to obtain the barcode button text for the second button displayed in the barcode alert.

```
- (NSString *)stringForBarcodeFirstButton{
    NSString *string = @"Yes";
    return string;
}
```

Call to obtain the barcode button text for the second button displayed in the barcode alert.

```
-(NSString *)stringForBarcodeSecondButton{
    NSString *string = @"Try Again";
    return string;
}
```

7 Processing a card

A SDK Configuration for card capture interface.

a In the header file where you'll be doing the parsing, add the following import.

```
#import <AcuantMobileSDK/AcuantMobileSDKController.h>
```

b In the same header file, implement the AcuantMobileSDKControllerProcessingDelegate.

```
@interface ISGViewController ()
<AcuantMobileSDKControllerCapturingDelegate,
AcuantMobileSDKControllerProcessingDelegate>
```

B Card processing method.

a For Driver's License Cards

In order to setup AcuantCardTypeDriverLicenseCard, set the following values.

```
- (IBAction)sendRequest:(id)sender {
    self.view.userInteractionEnabled = NO;
    [SVProgressHUD showWithStatus:@"Sending Request"];

    //Obtain the front side of the card image
    UIImage *frontSideImage = [self frontSideCardImage];
    //Obtain the back side of the card image
```

```
    UIImage *backSideImage =[self backSideCardImage];

    //Obtain the default AcuantCardProcessRequestOptions object for
the type of card you want to process (Driver's License card for this
example)
    AcuantCardProcessRequestOptions *options =
[AcuantCardProcessRequestOptions defaultRequestOptionsForCardType:
AcuantCardTypeDriversLicenseCard];

    //Optionally, configure the options to the desired value
    options.autoDetectState = YES;
    options.stateID = -1;
    options.reformatImage = YES;
    options.reformatImageColor = 0;
    options.DPI = 150.0f;
    options.cropImage = NO;
    options.faceDetection = YES;
    options.signatureDetection = YES;
    options.region = _regionID;
    options.sourceImage = 101;

    // Now, perform the request
    [_instance processFrontCardImage:frontSideImage
                      BackCardImage:backSideImage
                      andStringData:_barcodeString
                       withDelegate:self
                        withOptions:options];

}
```

Explanation of the parameters:

region - Integer parameter for the Region ID. Parameter value -
United States – 0
Australia – 4
Asia – 5
Canada – 1
America – 2
Europe – 3
Africa – 7
General Documents – 6

autoDetectState - Boolean value. True – SDK will auto detect the state of the ID. False – SDK wont auto detect the state of the ID and will use the value of ProcState integer.

stateID - Integer value of the state to which ID belongs to. If AutoDetectState is true, SDK automatically detects the state of the ID and stateID value is ignored. If AutoDetectState is false, SDK uses stateID integer value for processing. For a complete list of the different countries supported by

the SDK and their different State integer values, please see Appendix F of ScanW document - http://www.id-reader.com/ftp/applications/sdk/docs/ScanW.pdf

faceDetection - Boolean value. True - Return face image. False – Won't return face image.

signatureDetection - Boolean value. True – Return signature image. False – Won't return signature image.

reformatImage - Boolean value. True – Return formatted processed image. False – Won't return formatted image. Values of ReformatImageColor and ReformatImageDpi will be ignored.

reformatImageColor - Integer value specifying the color value to reformat the image. Values –
Image same color – 0
Black and White – 1
Gray scale 256 – 2
Color 256 – 3
True color – 4
Enhanced Image – 5

DPI - Integer value up to 600. Reformats the image to the provided DPI value. Size of the image will depend on the DPI value. Lower value (150) is recommended to get a smaller image.

cropImage – Boolean value. When true, cloud will crop the RAW image. Boolean value. Since MobileSDK crops the image, leave this flag to false.

sourceImage – Define the source or type of image.
MobileSDK – 101

b For Medical Insurance Cards

In order to setup AcuantCardTypeMedicalInsuranceCard, just set the following values.

```
- (IBAction)sendRequest:(id)sender {
    self.view.userInteractionEnabled = NO;
    [SVProgressHUD showWithStatus:@"Sending Request"];

    //Obtain the front side of the card image
    UIImage *frontSideImage = [self frontSideCardImage];
    //Optionally, Obtain the back side of the image
    UIImage *backSideImage =[self backSideCardImage];

    //Obtain the default AcuantCardProcessRequestOptions object for
the type of card you want to process (Medical Insurance card for this
example)
    AcuantCardProcessRequestOptions *options =
[AcuantCardProcessRequestOptions defaultRequestOptionsForCardType:
AcuantCardTypeMedicalInsuranceCard];

    //Optionally, configure the options to the desired value
    options.reformatImage = YES;
```

```
    options.reformatImageColor = 0;
    options.DPI = 150.0f;
    options.cropImage = NO;

    // Now, perform the request
    [_instance processFrontCardImage:frontSideImage
                        BackCardImage:backSideImage
                        andStringData:nil
                         withDelegate:self
                          withOptions:options];

}
```

Explanation of the parameters:

reformatImage - Boolean value. True – Return formatted processed image. False – Won't return formatted image. Values of ReformatImageColor and ReformatImageDpi will be ignored.

reformatImageColor - Integer value specifying the color value to reformat the image. Values –
Image same color – 0
Black and White – 1
Gray scale 256 – 2
Color 256 – 3
True color – 4
Enhanced Image – 5

DPI - Integer value up to 600. Reformats the image to the provided DPI value. Size of the image will depend on the DPI value. Lower value (150) is recommended to get a smaller image.

cropImage – Boolean value. When true, cloud will crop the RAW image. Boolean value. Since MobileSDK crops the image, leave this flag to false.

c For Passport

In order to setup AcuantCardTypePassportCard, just set the following values.

```
- (IBAction)sendRequest:(id)sender {
    self.view.userInteractionEnabled = NO;
    [SVProgressHUD showWithStatus:@"Sending Request"];

    //Obtain the front side of the card image
    UIImage *frontSideImage = [self frontSideCardImage];

    //Obtain the default AcuantCardProcessRequestOptions object for
the type of card you want to process (Passport card for this example)
    AcuantCardProcessRequestOptions *options =
[AcuantCardProcessRequestOptions defaultRequestOptionsForCardType:
AcuantCardTypePasssportCard];

    //Optionally, configure the options to the desired value
```

```
    options.reformatImage = YES;
    options.reformatImageColor = 0;
    options.DPI = 150.0f;
    options.cropImage = NO;
    options.faceDetection = YES;
    options.signatureDetection = YES;
    options.sourceImage = 101;


    // Now, perform the request
    [_instance processFrontCardImage:frontSideImage
                        BackCardImage:nil
                        andStringData:nil
                         withDelegate:self
                          withOptions:options];

}
```

Explanation of the parameters:

faceDetection - Boolean value. True - Return face image. False – Won't return face image.

signatureDetection - Boolean value. True – Return signature image. False – Won't return signature image.

reformatImage - Boolean value. True – Return formatted processed image. False – Won't return formatted image. Values of ReformatImageColor and ReformatImageDpi will be ignored.

reformatImageColor - Integer value specifying the color value to reformat the image. Values –
Image same color – 0
Black and White – 1
Gray scale 256 – 2
Color 256 – 3
True color – 4
Enhanced Image – 5

DPI - Integer value up to 600. Reformats the image to the provided DPI value. Size of the image will depend on the DPI value. Lower value (150) is recommended to get a smaller image.

cropImage – Boolean value. When true, cloud will crop the RAW image. Boolean value. Since MobileSDK crops the image, leave this flag to false.

sourceImage – Define the source or type of image.
MobileSDK – 101

C AcuantMobileSDKControllerProcessingDelegate protocol to handle the processing.

a For Driver's License Cards

If using the AcuantCardTypeDriversLicenseCard, add the following code:

```
#pragma mark -
#pragma mark CardProcessing Delegate
-(void)didFinishProcessingCardWithResult:(AcuantCardResult *)result{
    self.view.userInteractionEnabled = YES;
    [SVProgressHUD dismiss];
    NSString *message;
    UIImage *faceimage;
    UIImage *signatureImage;
    UIImage *frontImage;
    UIImage *backImage;
    AcuantDriversLicenseCard *data =
(AcuantDriversLicenseCard*)result;
    message =[NSString stringWithFormat:@"First Name - %@ \nMiddle
Name - %@ \nLast Name - %@ \nName Suffix - %@ \nID - %@ \nLicense - %@
\nDOB Long - %@ \nDOB Short - %@ \nDate Of Birth Local - %@ \nIssue
Date Long - %@ \nIssue Date Short - %@ \nIssue Date Local - %@
\nExpiration Date Long - %@ \nExpiration Date Short - %@ \nEye Color -
%@ \nHair Color - %@ \nHeight - %@ \nWeight - %@ \nAddress - %@
\nAddress 2 - %@ \nAddress 3 - %@ \nAddress 4 - %@ \nAddress 5 - %@
\nAddress 6  - %@ \nCity - %@ \nZip - %@ \nState - %@ \nCounty - %@
\nCountry Short - %@ \nCountry Long - %@ \nClass - %@ \nRestriction -
%@ \nSex - %@ \nAudit - %@ \nEndorsements - %@ \nFee - %@ \nCSC - %@
\nSigNum - %@ \nText1 - %@ \nText2 - %@ \nText3 - %@ \nType - %@ \nDoc
Type - %@ \nFather Name - %@ \nMother Name - %@ \nNameFirst_NonMRZ -
%@ \nNameLast_NonMRZ - %@ \nNameLast1 - %@ \nNameLast2 - %@
\nNameMiddle_NonMRZ - %@ \nNameSuffix_NonMRZ - %@ \nDocument Detected
Name - %@ \nDocument Detected Name Short - %@ \nNationality - %@
\nOriginal - %@ \nPlaceOfBirth - %@ \nPlaceOfIssue - %@ \nSocial
Security - %@ \nIsAddressCorrected - %hhd \nIsAddressVerified - %hhd",
data.nameFirst, data.nameMiddle, data.nameLast, data.nameSuffix,
data.licenceId, data.license, data.dateOfBirth4, data.dateOfBirth,
data.dateOfBirthLocal, data.issueDate4, data.issueDate,
data.issueDateLocal, data.expirationDate4, data.expirationDate,
data.eyeColor, data.hairColor, data.height, data.weight, data.address,
data.address2, data.address3, data.address4, data.address5,
data.address6, data.city, data.zip, data.state, data.county,
data.countryShort, data.idCountry, data.licenceClass,
data.restriction, data.sex, data.audit, data.endorsements, data.fee,
data.CSC, data.sigNum, data.text1, data.text2, data.text3, data.type,
data.docType, data.fatherName, data.motherName, data.nameFirst_NonMRZ,
data.nameLast_NonMRZ, data.nameLast1, data.nameLast2,
data.nameMiddle_NonMRZ, data.nameSuffix_NonMRZ,
data.documentDetectedName, data.documentDetectedNameShort,
data.nationality, data.original, data.placeOfBirth, data.placeOfIssue,
```

```
data.socialSecurity, data.isAddressCorrected, data.isAddressVerified];
if (_region == AcuantCardRegionUnitedStates || _region ==
AcuantCardRegionCanada) {
            message = [NSString stringWithFormat:@"%@ \nIsBarcodeRead
- %hhd \nIsIDVerified - %hhd \nIsOcrRead - %hhd", message,
data.isBarcodeRead, data.isIDVerified, data.isOcrRead];
            message = [NSString stringWithFormat:@"%@ \nDocument
Verification Confidence Rating - %@", message,
data.documentVerificationRating];
}

    faceimage = [UIImage imageWithData:data.faceImage];
    signatureImage = [UIImage imageWithData:data.signatureImage];
    frontImage = [UIImage imageWithData:data.licenceImage];
    backImage = [UIImage imageWithData:data.licenceImageTwo];
-(void)didFailWithError:(AcuantError *)error{
    self.view.userInteractionEnabled = YES;
    [SVProgressHUD dismiss];
    NSString *message;
    switch (error.errorType) {
        case AcuantErrorTimedOut:
            message = error.errorMessage;
            break;
        case AcuantErrorUnknown:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToProcess:
            message = error.errorMessage;
            break;
        case AcuantErrorInternalServerError:
            message = error.errorMessage;
            break;
        case AcuantErrorCouldNotReachServer:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToAuthenticate:
            message = error.errorMessage;
            break;
        case AcuantErrorAutoDetectState:
            message = error.errorMessage;
            break;
        case AcuantErrorWebResponse:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToCrop:
            message = error.errorMessage;
            break;
        case AcuantErrorInvalidLicenseKey:
            message = error.errorMessage;
            break;
```

```
        case AcuantErrorInactiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorAccountDisabled:
            message = error.errorMessage;
            break;
        case AcuantErrorOnActiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorValidatingLicensekey:
            message = error.errorMessage;
            break;
        case AcuantErrorCameraUnauthorized:
            message = error.errorMessage;
            break;
        default:
            break;
    }
    [UIAlertController showSimpleAlertWithTitle:@"AcuantiOSMobileSDK"
                                        Message:message
                                  FirstButton:ButtonOK
                                 SecondButton:nil
                                 FirstHandler:^(UIAlertAction
*action) {
                                     if (tag == 1) {
                                         _sideTouch = BackSide;
                                         _isCameraTouched = YES;
                                         [self showCameraInterface];
                                     }else if(tag == 7388467) {
                                         [[UIApplication
sharedApplication] openURL:[NSURL
URLWithString:UIApplicationOpenSettingsURLString]];
                                     }
                                 }
                                SecondHandler:nil
                                          Tag:tag
                               ViewController:self];
}
```

b For Medical Insurance Cards

If using the AcuantCardTypeMedicalInsuranceCard, add the following code:

```
#pragma mark -
#pragma mark CardProcessing Delegate
-(void)didFinishProcessingCardWithResult:(AcuantCardResult *)result{
    self.view.userInteractionEnabled = YES;
    [SVProgressHUD dismiss];
    NSString *message;
```

```
    UIImage *faceimage;
    UIImage *signatureImage;
    UIImage *frontImage;
    UIImage *backImage;
    AcuantMedicalInsuranceCard *data =
(AcuantMedicalInsuranceCard*)result;
    message =[NSString stringWithFormat:@"First Name - %@ \nLast Name
- %@ \nMiddle Name - %@ \nMemberID - %@ \nGroup No. - %@ \nContract
Code - %@ \nCopay ER - %@ \nCopay OV - %@ \nCopay SP - %@ \nCopay UC -
%@ \nCoverage - %@ \nDate of Birth - %@ \nDeductible - %@ \nEffective
Date - %@ \nEmployer - %@ \nExpire Date - %@ \nGroup Name - %@
\nIssuer Number - %@ \nOther - %@ \nPayer ID - %@ \nPlan Admin - %@
\nPlan Provider - %@ \nPlan Type - %@ \nRX Bin - %@ \nRX Group - %@
\nRX ID - %@ \nRX PCN - %@ \nTelephone - %@ \nWeb - %@ \nEmail - %@
\nAddress - %@ \nCity - %@ \nZip - %@ \nState - %@", data.firstName,
data.lastName, data.middleName, data.memberId, data.groupNumber,
data.contractCode, data.copayEr, data.copayOv, data.copaySp,
data.copayUc, data.coverage, data.dateOfBirth, data.deductible,
data.effectiveDate, data.employer, data.expirationDate,
data.groupName, data.issuerNumber, data.other, data.payerId,
data.planAdmin, data.planProvider, data.planType, data.rxBin,
data.rxGroup, data.rxId, data.rxPcn, data.phoneNumber,
data.webAddress, data.email, data.fullAddress, data.city, data.zip,
data.state];

    frontImage = [UIImage imageWithData:data.reformattedImage];
    backImage = [UIImage imageWithData:data.reformattedImageTwo];


-(void)didFailWithError:(AcuantError *)error{
    self.view.userInteractionEnabled = YES;
    [SVProgressHUD dismiss];
    NSString *message;
    switch (error.errorType) {
        case AcuantErrorTimedOut:
            message = error.errorMessage;
            break;
        case AcuantErrorUnknown:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToProcess:
            message = error.errorMessage;
            break;
        case AcuantErrorInternalServerError:
            message = error.errorMessage;
            break;
        case AcuantErrorCouldNotReachServer:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToAuthenticate:
```

```
            message = error.errorMessage;
            break;
        case AcuantErrorAutoDetectState:
            message = error.errorMessage;
            break;
        case AcuantErrorWebResponse:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToCrop:
            message = error.errorMessage;
            break;
        case AcuantErrorInvalidLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorInactiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorAccountDisabled:
            message = error.errorMessage;
            break;
        case AcuantErrorOnActiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorValidatingLicensekey:
            message = error.errorMessage;
            break;
        case AcuantErrorCameraUnauthorized:
            message = error.errorMessage;
            break;

        default:
            break;
    }
    [UIAlertController showSimpleAlertWithTitle:@"AcuantiOSMobileSDK"
                                        Message:message
                                    FirstButton:ButtonOK
                                   SecondButton:nil
                                   FirstHandler:^(UIAlertAction
*action) {
                                       if (tag == 1) {
                                           _sideTouch = BackSide;
                                           _isCameraTouched = YES;
                                           [self showCameraInterface];
                                       }else if(tag == 7388467) {
                                           [[UIApplication
sharedApplication] openURL:[NSURL
URLWithString:UIApplicationOpenSettingsURLString]];
                                       }
                                   }
                                  SecondHandler:nil
```

```
                                                    Tag:tag
                                            ViewController:self];
}
```

c For Passport.

If using the AcuantCardTypePassportCard, add the following code:

```
#pragma mark -
#pragma mark CardProcessing Delegate
-(void)didFinishProcessingCardWithResult:(AcuantCardResult *)result{
    self.view.userInteractionEnabled = YES;
    [SVProgressHUD dismiss];
    NSString *message;
    UIImage *faceimage;
    UIImage *signatureImage;
    UIImage *frontImage;
    UIImage *backImage;
    AcuantPassaportCard *data = (AcuantPassaportCard*)result;
    message =[NSString stringWithFormat:@"First Name - %@ \nMiddle
Name - %@ \nLast Name - %@ \nPassport Number - %@ \nPersonal Number -
%@ \nSex - %@ \nCountry Long - %@ \nNationality Long - %@ \nDOB Long -
%@ \nIssue Date Long - %@ \nExpiration Date Long - %@ \nPlace of Birth
- %@", data.nameFirst, data.nameMiddle, data.nameLast,
data.passportNumber, data.personalNumber, data.sex, data.countryLong,
data.nationalityLong, data.dateOfBirth4, data.issueDate4,
data.expirationDate4, data.end_POB];

    faceimage = [UIImage imageWithData:data.faceImage];
    frontImage = [UIImage imageWithData:data.passportImage];


-(void)didFailWithError:(AcuantError *)error{
    self.view.userInteractionEnabled = YES;
    [SVProgressHUD dismiss];
    NSString *message;
    switch (error.errorType) {
        case AcuantErrorTimedOut:
            message = error.errorMessage;
            break;
        case AcuantErrorUnknown:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToProcess:
            message = error.errorMessage;
            break;
        case AcuantErrorInternalServerError:
            message = error.errorMessage;
            break;
        case AcuantErrorCouldNotReachServer:
```

```
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToAuthenticate:
            message = error.errorMessage;
            break;
        case AcuantErrorAutoDetectState:
            message = error.errorMessage;
            break;
        case AcuantErrorWebResponse:
            message = error.errorMessage;
            break;
        case AcuantErrorUnableToCrop:
            message = error.errorMessage;
            break;
        case AcuantErrorInvalidLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorInactiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorAccountDisabled:
            message = error.errorMessage;
            break;
        case AcuantErrorOnActiveLicenseKey:
            message = error.errorMessage;
            break;
        case AcuantErrorValidatingLicensekey:
            message = error.errorMessage;
            break;
        case AcuantErrorCameraUnauthorized:
            message = error.errorMessage;
            break;
        default:
            break;
    }
    [UIAlertController showSimpleAlertWithTitle:@"AcuantiOSMobileSDK"
                                        Message:message
                                    FirstButton:ButtonOK
                                   SecondButton:nil
                                   FirstHandler:^(UIAlertAction
*action) {
                                       if (tag == 1) {
                                           _sideTouch = BackSide;
                                           _isCameraTouched = YES;
                                           [self showCameraInterface];
                                       }else if(tag == 7388467) {
                                           [[UIApplication
sharedApplication] openURL:[NSURL
URLWithString:UIApplicationOpenSettingsURLString]];
                                       }
```

```
                                    }
                                SecondHandler:nil
                                          Tag:tag
                                ViewController:self];
}
```

8 Error Types

```
AcuantErrorCouldNotReachServer = 0, //check internet connection
AcuantErrorUnableToAuthenticate = 1, //keyLicense are incorrect
AcuantErrorUnableToProcess = 2, //image received by the server was
unreadable, take a new one
AcuantErrorInternalServerError = 3, //there was an error in our
server, try again later
AcuantErrorUnknown = 4, //there was an error but we were unable to
determine the reason, try again later
AcuantErrorTimedOut = 5, //request timed out, may be because internet
connection is too slow
AcuantErrorAutoDetectState = 6, //Error when try to detect the state
AcuantErrorWebResponse = 7, //the json was received by the server
contain error
AcuantErrorUnableToCrop = 8, //the received image can't be cropped.
AcuantErrorInvalidLicenseKey = 9, //Is an invalid license key.
AcuantErrorInactiveLicenseKey = 10, //Is an inative license key.
AcuantErrorAccountDisabled = 11, //Is an account disabled.
AcuantErrorOnActiveLicenseKey = 12, //there was an error on activation
key.
AcuantErrorValidatingLicensekey = 13, //The validation is still in
process.
AcuantErrorCameraUnauthorized = 14, //The privacy settings are
preventing us from accessing your camera.
AcuantErrorOpenCamera = 15 //There are an error when the camera is
opened.
```

9 Miscellaneous

A How to check version of the SDK.

Open the AcuantMobileSDK.framework
Open the Version folder.
Open the folder with number version.
Open the Resources folder
Open the Info.plist file inside you can find the version number

10 Change Log

Acuant iOS MobileSDK version 4.7.4

Changes:

- Fixed the corrupt shutter.wav file.
- Changed Integration section.