

OnStream MediaPlayer+ Player API Variances

**An Application Guide for
Android and iOS Platforms**

SDK Version 3.6 and later

VisualOn, Inc.

<http://www.visualon.com>

May, 2013

Version 1.2

201305003

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1 About This Manual

1.1 OVERVIEW

This application guide describes the API variances between the OnStream[®] MediaPlayer+ Player SDKs for Android and iOS platforms.

1.2 REVISION HISTORY

Rev	Product Version	Date	Description
1.0	V3.5	2013-04-26	Document Creation
1.1	V3.5	2013-05-03	Update, mostly around VOCommonPlayerControl
1.2	V3.6	2013-05-29	Minor update for V3.6

1.3 RELATED DOCUMENTS

The following documents (included with your installation package) provide additional information related to this user guide:

- *OnStream MediaPlayer+ Player API Reference Manual for Android Platforms*
- *OnStream MediaPlayer+ Player API Reference Manual for iOS Platforms*
- *OnStream MediaPlayer+ Player SDK Integration Guide for Android Platforms*
- *OnStream MediaPlayer+ Player SDK Integration for iOS Platforms*

2 Player API Variances

2.1 GENERAL PLATFORM DIFFERENCES

The Android (Java) and iOS (Objective C) platforms include fundamental differences in syntax and implementation that are not considered API variances. For the purposes of this document, the following Android/iOS implementations are considered equivalent:

- Android `Object` return value and iOS `id` return value
- Android `Object` parameter and iOS `void*` parameter
- Android `Interface interface_name` declaration and iOS `@protocol protocol_name <NSObject>` declaration
- Android `class class_name` declaration and iOS `@interface interface_name <NSObject>` declaration
- Android `public enum` enumerations and iOS `typedef enum` enumerations
 - Android enumerations starting from 1 and iOS automatic enumerations
 - Android enumerations include a private `value` variable to get/set the value
- Android explicit implementations of getter/setter functions for `private` members and iOS automatic implementation of getter/setter functions for `@property` declarations
- Type equivalents, e.g. Android `String` and iOS `NSString`

2.2 VCOMMONPLAYER

No platform differences.

2.3 VCOMMONPLAYERASSETSELECTION

No platform differences.

2.4 VCOMMONPLAYERCONFIGURATION

2.4.1 `setColorType()`

Only implemented in Android; iOS uses ARGB color type only.

2.4.2 `setDRMLibrary()`

Only implemented in Android; iOS will link DRM library statically

2.4.3 `setRenderType()`

Only implemented in Android; iOS uses OpenGL only.

2.5 VOCOMMONPLAYERCONTROL

2.5.1 destroy()

Only implemented in Android; in iOS the SDK is destroyed by releasing the object.

2.5.2 resume()

Android implementation requires `SurfaceView`.

Android:

```
VO_OSMP_RETURN_CODE resume(SurfaceView sv);
```

iOS:

```
- (VO_OSMP_RETURN_CODE) resume;
```

2.5.3 setOnEventListener()/setOnEventDelegate()

The player event listener is registered using:

- `setOnEventListener()` in Android; and
- `setOnEventDelegate()` in iOS.

2.5.4 setSurfaceChangeFinished()

Only implemented in Android.

2.5.5 setView()

Android implementation requires `SurfaceView`; iOS implementation requires `void*` to `UIView`.

Android:

```
VO_OSMP_RETURN_CODE setView(SurfaceView sv);
```

iOS:

```
- (VO_OSMP_RETURN_CODE) setView:(void*) view;
```

2.5.6 setViewSize()/setDisplayArea()

The video display dimensions are set using:

- `setViewSize()` in Android; and
- `setDisplayArea()` in iOS.

2.6 VOCOMMONPLAYERDEVICEINFO

No platform differences.

2.7 VOCOMMONPLAYERHDMI

2.7.1 enableHDMIDetection()

Android implementation requires context.

Android:

```
VO_OSMP_RETURN_CODE enableHDMIDetection(Context context, boolean value);
```

iOS:

```
- (VO_OSMP_RETURN_CODE) enableHDMIDetection:(bool)value;
```

2.7.2 onHDMIConnectionChangeListener()/onHDMIConnectionChangeDelegate()

The HDMI connection change event listener interface is defined as:

- onHDMIConnectionChangeListener() in Android; and
- onHDMIConnectionChangeDelegate() in iOS.

2.7.3 setOnHDMIConnectionChangeListener()/setOnHDMIConnectionChangeDelegate()

The HDMI connection change event listener is registered using:

- setOnHDMIConnectionChangeListener() in Android; and
- setOnHDMIConnectionChangeDelegate() in iOS.

2.8 VOCOMMONPLAYERLISTENER/VOCOMMONPLAYERDELEGATE

The player event listener type is defined as:

- VOCommonPlayerListener in Android; and
- VOCommonPlayerDelegate in iOS.

2.9 VOCOMMONPLAYERSUBTITLE

No platform differences.

2.10 VOOSMPCHUNKINFO

No platform differences.

2.11 VOOSMPINITPARAM

No platform differences.

2.12 VOOSMPTYPE

2.12.1 VO_OSMP_COLOR_TYPE

Only implemented in Android; iOS uses ARGB color type only.

2.12.2 VO_OSMP_INIT_PARAM_FLAG

Only implemented in Android.

2.12.3 VO_OSMP_RENDER_TYPE

Only implemented in Android; iOS uses OpenGL only.

2.12.4 VO_OSMP_SCREEN_BRIGHTNESS_MODE

Only implemented in Android.

2.12.5 VO_OSMP_SRC_INIT_PARAMETER_FLAG

VO_OSMP_SRC_INIT_PARAMETER_FLAG only implemented in iOS.

2.13 VOOSMPVERIFICATIONINFO

No platform differences.