



# ***Snapdragon SDK Release Notes***

***Version 2.3.1***

***November 3, 2014***

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Submit technical questions at:  
<http://developer.qualcomm.com/discuss/>

# Contents

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<b>1 Revision History .....</b>	<b>3</b>
<b>2 Introduction.....</b>	<b>4</b>
2.1 Purpose.....	4
2.2 Conventions .....	4
2.3 References.....	5
2.4 Technical assistance.....	5
<b>3 New Features .....</b>	<b>6</b>
<b>4 Test Application.....</b>	<b>6</b>
4.1 Compatibility Issues w/ MDP Devices .....	6
4.2 Test App Limitations .....	7
<b>5 Usage.....</b>	<b>8</b>
5.1 Snapdragon SDK Download & Installation.....	8
5.2 Importing Required Libraries .....	8
5.2.1 Copying Required Libraries into the Project .....	8
5.2.2 Edit the Java Build Path.....	8
<b>6 Cumulative Features .....</b>	<b>9</b>

# 1 Revision History

Revision	Date	Description
A	September 2012	Release version 1.0
B	November 2012	Release version 1.1
C	August 2013	Release version 2.0
D	February 2014	Release version 2.1
E	March 2014	Release version 2.1.1
F	April 2014	Release version 2.2
G	May 2014	Release version 2.3
H	November 2014	Release version 2.3.1

**Note:** There is no Rev. I, O, Q, S, X, or Z per Mil. Standards.

## 2 Introduction

### 2.1 Purpose

The purpose of this document is to communicate the features and known issues, if any, released with the Snapdragon SDK.

### 2.2 Conventions

Function declarations, function names, type declarations, and code samples appear in a different font, e.g., `#include`.

Code variables appear in angle brackets, e.g., `<number>`.

Commands to be entered appear in a different font, e.g., `copy a:*. * b:.`

Button and key names appear in bold font, e.g., click **Save** or press **Enter**.

If you are viewing this document using a color monitor, or if you print this document to a color printer, **red typeface** indicates **data types**, **blue typeface** indicates **attributes**, and **green typeface** indicates **system attributes**.

Parameter types are indicated by arrows:

- Designates an input parameter
- ← Designates an output parameter
- ↔ Designates a parameter used for both input and output

Shading indicates content that has been added or changed in this revision of the document.

## 2.3 References

Reference documents, which may include Qualcomm documents, standards, and resources, are listed in [Table 2-1](#). Reference documents that are no longer applicable are deleted from this table; therefore, reference numbers may not be sequential.

**Table 2-1 Reference documents and standards**

Ref.	Document	
Qualcomm		
Q1	Snapdragon SDK Test App Release Notes	Included in SDK Package
Standards		
Resources		
R1	<a href="#">Qualcomm Developer Network</a>	N/A
R2	<a href="#">Snapdragon SDK Download Instructions</a>	N/A

## 2.4 Technical assistance

For assistance or clarification on information in this guide, contact Qualcomm's customer support at <https://developer.qualcomm.com/discuss>

## 2.5 Early Access Features

A feature that is released as an early access release can only be accessed on the Snapdragon mobile development platform (MDP ) device. More information about MDP devices and how to procure one can be found on the [developer.qualcomm.com](https://developer.qualcomm.com) website.

## 3 New Features

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Features included in the newest version of the Snapdragon SDK will be listed here. Features included in previous releases are listed in section 6.

SDK Version	Feature Name	Feature Description	New / Upgrade
2.3.1	Facial Contour	Added support for acquiring facial contour data points <ul style="list-style-type: none"><li>Increased the number of registered users allowed in the face album to 1000</li></ul>	New
2.1.1	Facial Processing	Introducing C libraries for accessing facial processing functionality from a native application	New
2.1	Facial Recognition	Face recognition and recognition album management.	New

## 4 Test Application

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A comprehensive Test Application is included for verification of Snapdragon SDK for Android features. This application is labeled “Snapdragon SDK Test App” and can be found in the “testapp” folder included in the SDK download package

There is a separate Test Application for verification of early access Snapdragon SDK features. This application can be found in the “early\_access/testapp” folder.

### 4.1 Compatibility Issues w/ MDP Devices

Feature	Description	SDK Version
None	None	N/A

## 4.2 Test App Limitations

Feature	Description	SDK Version
Deprecated Features	Tests for features that have been deprecated have been removed from the Test App starting with version 2.0.	2.0

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# 5 Usage

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## 5.1 Snapdragon SDK Download & Installation

For the latest instructions on downloading and setup, please refer to the [Snapdragon SDK for Android](#) web page on the [Qualcomm Developer Network](#) website.

## 5.2 Importing Required Libraries

### 5.2.1 Copying Required Libraries into the Project

For any shared object libraries, mimic the folder structure present in the SDK folder in the destination project. For example, for facial processing a developer would need to add a new folder called “armeabi” in the “libs” folder in their project.

Once the folder structure has been mimicked, the libraries can be dragged and dropped into the project folder from the SDK folder.

For .jar files, the developer can simply copy them into the project “libs” folder.

### 5.2.2 Edit the Java Build Path

Developer can use the following directions to update the java build path:

1. Right click project and select “Properties”
2. In properties dialog, select “Java Build Path”
3. Select “Libraries” tab
4. Click “Add JARs”
5. In the JAR Selection dialog, select “facialprocessing.jar” file and click “Ok”
6. Click “Ok” in the “Properties” dialog
7. Clean and re-build the project to complete this process



## 6 Cumulative Features

Complete list of SDK features with the version they were introduced and deprecated (if applicable).

Feature	Description	SDK Release Version	Deprecated
Facial Processing	Added support for acquiring facial contour data points <ul style="list-style-type: none"> <li>Increased the number of registered users allowed in the face album to 1000</li> </ul>	2.3.1	No
Facial Recognition	Face recognition and recognition album management.	2.1	No
Facial Processing	Face detection and tracking for camera preview/video frames and still images. Face data includes: <ul style="list-style-type: none"> <li>Blink detection</li> <li>Smile detection</li> <li>Gaze tracking</li> </ul> Face orientation (Yaw, Pitch, Roll)	2.0	No
Snapdragon Camera SDK	Camera Facial Processing – enhance Android face tracking <ul style="list-style-type: none"> <li>Eye tracking (eye open / closed)</li> <li>Gaze tracking (eye direction)</li> </ul> Smile value (estimate the degree of the smile)	1.0	Yes, 2.0