Panframe Android SDK (version 1.9.8)

Description

Panframe Android SDK is a Mindlight Android component library offering 360 degree movie playback and display technology. Panoramic playback can easily be integrated into existing applications as Panframe offers a standardised View derivative and accompanying movie asset control.

Panframe supports 3D and stereo VR playback of stored and streaming assets. Panframe supports both motion-based as well as touch-based navigation. This includes the optional use of gyroscope, compass, accelerometer and fingers where appropriate.

The Panframe Android library is offered as a Android JAR implementation.
Panframe Android SDK comes with reference documentation and several examples illustrating embedding, downloading and streaming of media.

Specifications/Features

Functionality

Display modes	Spherical panorama (3D) Regular video VR (non-stereoscopic side-by-side) VR-3D (stereoscopic side-by-side, top-down formatted content)
Display 3D navigation presets	Touch Motion (Gyroscope[1] required)
Control Field of View in 3D	Yes
Media playback control	Play, Pause, Stop and Seek
Media information	Playback time and duration (if available)
Blindspot support in 3D	None, Top and Bottom locations
Support for hotspots	Yes, based on images with optional alpha channel
User Interface customization	Fully customizable
Downloading of hosted assets	Yes

Asset formats and definition

Supported video codecs[2]	H.264 Baseline Profile 3.0 H.264 Baseline Profile 3.1 H.264 Baseline Profile 4.0 H.264 Baseline Profile 4.1
Maximum video resolution[3]	4096x2048

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1 Device dependent
2 Codec support is device dependent
3 Device capability and/or application dependent

Maximum video frame-rate[4]	48 fps
Supported audio codecs	AAC-LC up to 160 Kbps and 48 KHz
Supported audio/video container formats[5]	MP4 HLS / M3U8 (fixed format live & vod streaming)

OS and integration

Supported Android versions	5.0 and higher
Minimum required permissions in AndroidManifest.xml	android.permission.INTERNET android.permission.WRITE_EXTERNAL_STORAGE
Panframe Framework library size	~400 KB
Typical compiled Panframe runtime size	~80 KB
Typical[6] runtime memory footprint during view & playback	Reported cached process size increase around 10 MB for a simple application and GUI.

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4   Device and/or application dependent
5   HLS support is fragmented in Android enabled devices.
6   Using one view and one video asset when using one small asset (1024x512) at 25 fps on a LG Nexus 4