Adobe® Primetime

PSDK 1.3 for Android Release Notes

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Contents

Primetime PSDK 1.3 for Android Release Notes

New features for 1.3

Summary of product enhancements for the 1.3 Desktop HLS PSDK.

- **Blackout signaling**

  The opportunity resolver workflow (`OpportunityDetector`) is a component of the PSDK used to detect custom tags in the stream and create placement opportunities. These placement opportunities are then sent to the content resolver (`ContentResolver`) to customize the content/ad insertion workflow based on the placement opportunity properties and metadata.

  The PSDK includes a default opportunity resolver that understands default ad cues, and a default ad resolver that provides ads to be inserted based on the ad metadata provided in the player item. You can replace these default resolvers to customize the workflow of custom tag detection and ad/content insertion to implement different scenarios such as recognizing custom tags for ad insertion, implementing a custom ad provider, or providing blackouts. See *Customize opportunity and content resolvers*.

- **Greater Ad Insertion Flexibility**

  You can now customize your viewers' advertising experience. Set custom ad policies for unique viewer situations (play, seek, fast forward, rewind, resume) and business rules. See *Customize playback with ads*.

- **Enhanced video analytics with heartbeat support**

  Turn-key integration with the Adobe Analytics and Primetime player monitoring through the Video heartbeat library. Simply provide your SiteCatalyst tracking server, report suite ID, and configuration parameters to have a fully functional video implementation. Analytics about video viewing sessions can be viewed in real-time inside Primetime player monitoring and is fully integrated into your Adobe Analytics report suite.

  See *Use Video Analytics in a PSDK-based player*.

- **Enhanced FF and RW (trick play)**

  Rewind and Fast Forward your video streams just like your favorite DVD player or DVR. Primetime players now support the ability to play back content at speeds 2x - 32x.

  

  Note: *Live DVR use cases are not fully supported at this time.*

  See *Use trick play mode (FF and REW) and slow motion*.

- **New font type sets for closed captioning**

  Adobe now bundles CVAA-compliant fonts with our Desktop HLS PSDK. This change was made with accessibility in mind and will ensure that there is a consistent captioning experience across all Desktop HLS devices. See *Closed caption styling options*.

- **Alternate renditions based on M2TS/PID**

  Support for playing alternate audio renditions that are part of an M2TS media segment and not announced separately as part of an HLS manifest file.

- **HLS live manifest failover support**

Support for seamlessly transitioning to alternate content delivery URLs that were not announced as part of the original manifest.

See *Media playback and failover*.

- **Custom cue tag notifications**

  Support for registering a custom cue and exposing it back to the player wrapper when it is encountered as part of a live or VOD manifest.

- **Fragment duration, size and time to download support**

  Enhanced QoS logging to accurately gauge network congestion and identify failures.

- **Session cookies and media auth cookies support**

  Extended support for setting and getting session cookies. Allows a consistent authorization policy to be issued from playback domain to the Primetime Desktop HLS player regardless of browser.

- **Multiple-domain token packaging**

  We have simplified the process of deploying your player across multiple domains. We will now issue an single token package that contains all of the desired listings.

  See *Get a signed token*.

- **On-the-fly transcoding or creative repackaging**

  Some third-party ads (creatives) might be available only as a progressive download MP4 video, in which case they cannot be stitched into the HLS content stream. Primetime Ad Insertion and the Desktop HLS PSDK provide an option called third-party creative repackaging to addresses this situation.

  On-the-fly ad transcoding is supported through Adobe Ad Serving. The Adobe Ad Server account must be configured for creative repackaging on the Ad Server, after which repackaging is seamlessly handled through the PSDK.

SDK changes for 1.3

Several API interfaces have changed for the 1.3 PSDK for Android .

Element	Description
Method changed: • *MediaPlayerItemLoader*	The first parameter of MediaPlayerItemLoader now has the same context as that of the first parameter of the VideoEngineAdapter.
DefaultMediaPlayer new methods: • *seekToLocalTime* • *convertToLocalTime* • *getLocalTime*	
New classes: • *DefaultAdPolicySelector* • *AdvertisingMetadata* • *AdPolicyInfo*	Supports customizable ad playback behavior.
Renamed classes: • AdBreakPolicySelector	• Renamed to *AdPolicySelector*

Resolved issues in 1.3

- [ZD #81] If progress bar is moved or positioned past a mid ad break, playback resumes directly after the ad break dot.
- [ZD #211] Auditude ad plays after it has been seen.
- [ZD #423] Seeking past an ad doesn't seek to the original position after ad complete.
- [ZD #431] Resume point issue with seeking after an ad.
- [ZD #567] A way to pass a dictionary of headers to be used w/original manifest request (Headers with content URL).
- [ZD #648] Profile Not Supported with 1.2, was working on previous version.
- [ZD #662] Custom ads not removed with policy selector.
- [ZD #672] Adbreak Times not updated after previous breaks have been removed.
- [ZD #682] Resume logic should ignore inserted advertisements.
- [ZD #753] Video ads playback not stable.
- [ZD #820] Options for ad logic rules and scrubbing behaviour.
- [ZD #906] Galaxy S3 OS 4.3 freezes while playing video in landscape mode.
- [ZD #1058] Missing Inventory Event, which affects event forecasting and reporting.
- Bug #3740050 Changes to report more accurate dropped frame count. Dropped frame count in some tests were showing much lower than was accurate.

Known PSDK issues in 1.3

- Bug #3726865 - If a MultiBitrate LBA stream starts from an audio only stream, video will not be displayed if switch to an Audio/Video stream. Starting from an Audio/Video stream will not display this issue, and can successfully switch between Audio and Audio/Video streams.
- Bug #3760144 - Resolution may shift or appear to pulse when stream is paused on some devices, such as Kindle Fire 7 and Samsung Galaxy Nexus. Only observable under close inspection.
- Bug #3761170 - `seekToLocal` in live streams with ads cannot seek back into ad content. It is best to use the `currentTime` APIs for live streams.
- Bug #3763370 - Live streams with ads will occasionally show two ads marked close together when there should only be one. These ad markers represent the same ad and only one will play.
- Bug #3763373 - The ad marker may briefly disappear when seeking past an ad in VOD streams. The ad marker restores and there is no other adverse effect on the timeline.
- Reference Implementation - Trick play is not implemented in the sample application.
- Reference Implementation - One of the end to end tests is pointing to Adobe test content, the `DRMInvalidPolicyEndToEndTest` will fail when it is executed outside of the Adobe network.

Known device issues in 1.3

Device	Issue	Cause	Workaround
HTC Desire (different from HTC Desire HD) with QSD8250	Can't play video. Returns VIDEO_PROFILE_NOT_SUPPORTED error.	Desire does not provide a proper HW decoder. It gives Stagefright's SW decoder.	
HTC EVO with 4GQSD8650	No HW decoder.	Qualcomm does not have a HW decoder.	Upgrade to Android 4.x.

Device	Issue	Cause	Workaround
Kindle Fire with TI OMAP4 System version 6.0	Does not play HLS streams. Video on AIR does not work.		Upgrade to system version 6.3.
Kindle Fire HD with TI OMAP4	Can get into a state where it cannot play video. Returns VIDEO_PROFILE_NOT_SUPPORTED and UNRECOVERABLE_ERROR errors.	The HW decoder gets into an unrecoverable state when the app doesn't shut down the HW decoder fully, e.g., after encountering a crash. Happens on native apps on the device as well.	Restart the device.
Kindle Fire HD 8.9 with Snapdragon 800	AVE crashes after multiple ABR switches.		
Motorola Atrix with Tegra2	Overall performance issues with AVE as opposed to AIR. Audio/video out of synch, video playback freezes after playing between 9 and 15 minutes. Crashes.	Possibly related to openGLES that we enable on AIR. Being investigated.	
Motorola Droid X with TI OMAP3	ABR delay is expected since it is restarting the decoder.		
Nexus 7 (2nd gen) with S4Pro APQ8064 (Qualcomm)	Device hangs when a movie is paused for more than 30 minutes.	Device issue that has been reported to Google.	App should timeout so as not to allow a long pause state.
Nexus S Android OS: 2.3	Cannot play any video using a HW decoder.	There is no Stagefright-based HW decoder in Nexus S, so for Android 2.3 we are using a SW decoder.	Upgrade to Android 4.x.
Nexus S Android OS: 4.0.1 to 4.0.4	Video occasionally flickers.	Bad data can cause the decoder to get into a bad state.	Restart the device.
Nook tablet with TI OMAP 4 Android OS: 2.3	Video doesn't play and app hangs.	Stagefright enters an unstable state after running the app for a few times. Calls to mediaplayer::QueryCodecs hang.	Restart the device to reset the state.
Samsung Galaxy ACE with Qualcomm MSM7227	Can't install SampleMediaPlayer app.	Uses ARM v6 instead of the more common ARM v7 chipset. FP/AIR does not support this device.	
Samsung Galaxy ACE2 with NovaThor U8500 Android OS: 2.3.6	Can't play video.	This chipset is an unknown decoder for Android pre-ICS in AVE.	

Device	Issue	Cause	Workaround
Samsung Galaxy S2 (GT-I9100) with Exynos	Video performance is not up to par for this device.	The HW decoder is returning decoded frames with the wrong PTS. Looks like the decoder is using decoding time instead of presentation time.	
Samsung Galaxy S2 G with TI OMAP4 Android OS: 2.3.6	Crashes when starting video.		Upgrade to Android 2.3.7 or 4.x.
Samsung Galaxy S3 (I747) with Qualcomm MSM8960	Intermittently, video freezes and only audio plays, then becomes unresponsive.		
Samsung Galaxy S3 I747M with SAMSUNG_M2ATT	Video freezes.	Investigating.	
Samsung Galaxy Tab 1 v10.1 with Tegra 2	MBR transition might take up to three seconds.	As a fix for MBR crashes, we restart the decoder for every stream switch, which can take up to three seconds.	
Samsung Galaxy Y	Can't install SampleMediaPlayer app.	Uses ARM v6 instead of the more common ARM v7 chipset. FP/AIR does not support this device.	
Xoom with Tegra	A few frames are dropped for switching. The decoder is not restarted.	OMXAL limitation.	