Darwin Library Release Notes

As of version 5 the comScore libraries use a new public API.

Upgrading existing implementations of versions 2 and 3 of the comScore library will require a small amount of code changes.

These code changes are explained in an appendix of the implementation guides.

Library Version 5.8.0.180306

Release Date: March 19, 2018
Application Tag Data Collection Model Version: 2.19
Streaming Tag Data Collection Model Version: 5.10
Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x, 11.x
Supported tvOS Versions: 9.x, 10.x, 11.x
Supported watchOS Versions: 1.x, 2.x, 3.x
Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

1. [TAGLCPPS-59, TAGLDARW-103] Remove `uncaughtExceptionTracking` configuration setting to reflect removal of this functionality from the library.

2. [TAGLDARW-143] Add `preventAdSupportUsage` library configuration setting to ensure the use of *AdSupport.framework* can be prevented by the application publisher, as iOS 11 could load the framework even without explicit inclusion by the application (for example when loading *UIWebView* in the application).

Bug fixes:

1. [TAGLCPPS-102] Ensure label values with unicode characters are URL encoded in XML files for offline cache flushes.

2. [TAGLCPPS-114] Ensure `setDVRWindowLength` and `setDVRWindowOffset` API methods correctly process their argument values.

3. [TAGLDARW-125] Ensure terminating the application — and therefore the comScore library — while processing events on a background thread does not result in 'killing thread by force' warnings.

4. [TAGLDARW-149] Ensure the library can store properties when the device is locked and data protection is set to `NSFileProtectionComplete`.

Known issues and limitations:

1. [TAGLCCPS-110] Related to [TAGLDARW-125], if the implementation destructs a `StreamingAnalytics` instance this can occasionally lead to race conditions when the instance is still processing events. This will be addressed in a future update.

Library Version 5.7.0.171210

Release Date: January 8, 2018

Application Tag Data Collection Model Version: 2.17

Streaming Tag Data Collection Model Version: 5.10

Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x, 11.x

Supported tvOS Versions: 9.x, 10.x, 11.x

Supported watchOS Versions: 1.x, 2.x, 3.x

Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

▪ There were no feature changes in this release.

Bug fixes:

1. [TAGLCPPS-92] Ensure playback sequence counters are incremented when playback resumes from pause-on-buffering.

Known issues and limitations:

▪ There were no known issues for this release.

Library Version 5.6.1.170922

Release Date: September 28, 2017

Application Tag Data Collection Model Version: 2.17

Streaming Tag Data Collection Model Version: 5.9

Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x, 11.x

Supported tvOS Versions: 9.x, 10.x

Supported watchOS Versions: 1.x, 2.x, 3.x

Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

1. [TAGDARW-92] Add a *dynamic library* deliverable.

   The CocoaPod has been updated to deliver the dynamic library instead of the previously deliveredstatic library, which will seamlessly update in existing implementations using CocoaPods.

2. [TAGLDARW-111] Improve storage access to persist collected data.

Bug fixes:

1. [TAGLDARW-82] Ensure the library can be linked to a test target from the project's main target for applications developed using *Test Driven Development*.

   This relates to the addition of a dynamic library deliverable which is introduced with [TAGLDARW-92] as of this version.

2. [TAGLDARW-89] Prevent *UI API called from background thread* warnings in Xcode 9 by making the three routines which access a UI API execute on the main thread.

3. [TAGLDARW-100] Ensure unnecessary notifications are suppressed when the application project uses the flag `-Weverything` on the `WARNING_CFLAGS` compiler setting.
    This flag will make the compiler generate warnings about anything it finds, including subjective suggestions about coding. If this flag is combined with `GCC_TREAT_WARNINGS_AS_ERRORS = YES` *then warnings are treated as errors, resulting in failed compilation.*

4. [TAGLDARW-101] Ensure objects which need to be shared for executing tasks on differ ent threads are manipulated in a thread-safe way.

5. [TAGLDARW-107] Ensure the `name` label is populated with the correct value from the top-most *ViewController*.

Known issues and limitations:

▪ There were no known issues for this release.

Library Version 5.5.2.170706

Release Date: July 10, 2017

Application Tag Data Collection Model Version: 2.15

Streaming Tag Data Collection Model Version: 5.9

Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x

Supported watchOS Versions: 1.x, 2.x, 3.x

Supported tvOS Versions: 9.x, 10.x

Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

1. [TAGLCPPS-25] Improve support for DVR streams.
2. [TAGLCPPS-26] Improve Streaming Tag elapsed time calculation.
3. [TAGLDARW-77, TAGLDARW-83] Improve support for dynamically disabling the vCE component.

Bug fixes:

1. [TAGLCPPS-28, 34] Improve internal handling of state transitions and extra notification methods.
2. [TAGLCPPS-41] Prevent the destruction of the core object while storage is being accessed from causing a crash.
3. [TAGLCPPS-42] Prevent a deadlock when the task executor is shutdown while a task is still being removed.
4. [TAGLCPPS-45] Prevent incorrect incrementing of Streaming Tag playback counters.
5. [TAGLCPPS-46] Prevent network requests from blocking the task executor thread on devices with iOS 6.x.
6. [TAGLCPPS-47] Prevent accessing a stored Streaming Tag asset while another asset is being created from causing a crash.
7. [TAGLCPPS-48] Prevent calls to `setLiveTransmissionMode()`, `setCacheMode()` or `setKeepAliveEnabled()` on the configuration prior to starting the library from causing a crash.
8. [TAGLDARW-54] Prevent crashes that could occur in the vCE component due to changes in the view hierarchy of a view controller while - or just before - the view controller is being deallocated.
9. [TAGLDARW-64, TAGLDARW-65, TAGLDARW-66] Apply multiple improvements to the data collected by the vCE component.

10. [TAGLDARW-67, TAGLDARW-68, TAGLDARW-87] Prevent crashes in the vCE component when updating metadata.

11. [TAGLDARW-74] Ensure the tvOS and watchOS frameworks have all required header files defined in their umbrella header file.

12. [TAGLDARW-76] Improve the solution introduced with version 5.4.1.170515 for [TAGLDARW-52].

13. [TAGLDARW-78] Remove the use of private APIs `_UIWebViewScrollView` and `WKScrollViewDo`.

14. [TAGLDARW-81] Revert the accidental change of the iOS deployment target with version 5.3.0.170406 back to 6.0.

Known issues and limitations:

- There were no known issues for this release.

Library Version 5.4.1.170515

Release Date: May 24, 2017

Application Tag Data Collection Model Version: 2.14

Streaming Tag Data Collection Model Version: 5.8

Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x

Supported watchOS Versions: 1.x, 2.x, 3.x

Supported tvOS Versions: 9.x, 10.x

Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

1. [TAGLDARW-61] Improve viewability and meta information processing in the vCE component.

2. [TAGLCPPS-31] Treat 301 and 302 HTTP response codes as successful transmission when `httpRedirectCaching` is turned off in the library configuration.

3. [TAGQA-1178] Add support for Common Visibility Measurement (CVM) to the vCE component.

Bug fixes:

1. [TAGLDARW-43] Improve application state change detection.

2. [TAGLDARW-49] Ensure the vCE component fires all pixels in the VAST manifest as expected.

3. [TAGLDARW-50, TAGLDARW-60] Ensure the vCE component correctly parses pixel URLs.

4. [TAGLDARW-52] Ensure the vCE component responds correctly to refreshing or tracking native ads in the background.

5. [TAGLCPPS-23] Ensure negative playback rate values are accepted by the `setPlaybackRate` method of the `StreamingAnalytics` class.

6. [TAGLCPPS-36] Prevent a crash from the system clock jump detection functionality when an implementation destroys its `StreamingAnalytics` object.

7. [TAGQA-1103] Ensure the vCE component calculates screen dimensions and device resolution values with the same logic as the Application Tag component.

8. [TAGQA-1139] Ensure the vCE component discovers ads which are shown just after the application is started.

9. [TAGQA-1159] Ensure the `ns_ak` label values are encoded correctly in HTTP requests from the vCE component.

10. [TAGQA-1169] Ensure the vCE component computes values between `0` and `1` for label `ns_ad_vi`.

Known issues and limitations:

▪ There were no known issues for this release.

Library Version 5.3.0.170406

Release Date: April 12, 2017

Application Tag Data Collection Model Version: 2.13

Streaming Tag Data Collection Model Version: 5.8

Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x

Supported watchOS Versions: 1.x, 2.x, 3.x

Supported tvOS Versions: 9.x, 10.x

Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

1. [TAGLDARW-34, TAGLDARW-43] Allow processing of API notification methods calls prior to configuring and starting the library to improve data collection.
2. [TAGLDARW-36] Add collection of library environment properties.
3. [TAGLDARW-35] Add API method for implementing Activation.
4. [TAGLDARW-37] Modify processing of provided `PublisherConfiguration` to immediately generate the publisher-specific unique device ID.

Bug fixes:

1. [TAGLDARW-39] Ensure cross-publisher unique device ID is (re)generated each time its value is retrieved.
2. [TAGLDARW-55] Ensure the library cancels any queued tasks when it is disabled and that `clearOfflineCache` and `clearInternalData` API method calls are performed synchronously.

Known issues and limitations:

▪ There were no known issues for this release.

Library Version 5.2.0.170216

Release Date: February 23, 2017

Application Tag Data Collection Model Version: 2.11

Streaming Tag Data Collection Model Version: 5.8

Supported iOS Versions: 6.x, 7.x, 8.x, 9.x, 10.x

Supported watchOS Versions: 1.x, 2.x, 3.x

Supported tvOS Versions: 9.x, 10.x

Supported iOS Extensions: *today-extension*, *share*, *action*, *photo-editing*, *document-provider*, *custom-keyboard*, *watchapp*, *audio-unit*

Feature changes:

1. [TAGLDARW-15] Add API methods for clearing all stored data and clearing the offline cache without flushing it to support advanced implementation scenarios.

2. [TAG-2937] Improve collection of automatically calculated Streaming Tag positions and unique playing time for players which support changing the playback rate. The library will now account for playback speed using the values provided for playback rate change notification method calls (if these calls appear in the implementation).
Please note that playback rates can be *negative* to indicate reverse playback. The library uses the playback rate to calculate the current position in between playback state change notifications. Depending on the player's exact reverse playback capabilities, the playback scenario and execution timings, reverse playback past position 0 could cause the calculated position be a negative value.

3. [TAG-2939] Implement system clock jump detection to mitigate the effect of clock jumps on Streaming Tag collected positions, playing time and unique playback.

4. [TAG-2946] Add an API method to disable internal updates of the Streaming Tag current position and position-related metrics based on the progress of natural time.

Bug fixes:

1. [TAGCPPS-6] Prevent seeking while a stream is paused from being counted as playback in Streaming Tag measurement requests.

2. [TAGLDARW-13] Ensure any available `PartnerConfigurations` cause a separate *stack* on measurement requests.

3. [TAGLDARW-14] Prevent multiple successive calls to add the same `ClientConfiguration` from causing crashes.

4. [TAGLDARW-16] Prevent a known `NSURLSession` issue related to deallocation from causing crashes.

5. [TAGLDARW-32] Ensure Application Tag usage timings labels do not appear on Streaming Tag measurement requests.

6. [TAG-2985] Ensure Streaming Tag asset load counter is reset when a new `Asset` is provided to the `StreamingAnalytics` API.

Known issues and limitations:

- There were no known issues for this release.

Releases from 2016 and earlier have been removed from the release notes.