GNSDK for Mobile iOS Release Notes

Version 1.1

Published: 10/23/2014 7:08 PM

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Overview

This document describes the Gracenote GNSDK for Mobile Software Development Kit for the iOS platform. It lists the delivered package contents, highlights, and release limitations. For more information, see the GNSDK for Mobile iOS Documentation.

Contents of SDK

The release is distributed as a compressed archive file, gnsdk-mobile-ios-1.1.x.x.zip, where x.x is based on the current version number. See the version number listed on the title page of this document. The zip file contains the following components:

- GNSDK for Mobile SDK

- Sample application

- Documentation

    o GNSDK for Mobile Help System (HTML5), including, Getting Started, Implementing Applications, and API Reference content.

    o GNSDK for Mobile Developers Guide (PDF): Printable version of the Help system without the API Reference.

    o Mobile Client to GNSDK for Mobile Migration Guide (PDF)

    o Legal Notices (PDF)

Products Included

GNSDK For Mobile includes the following products:

- Gracenote MusicID (CD TOC, Text, Fingerprint recognition for audio)

- Gracenote MusicID-File (Audio-file-based recognition)

- Gracenote MusicID-Stream (Audio-stream recognition)

- Gracenote Playlist (Automated Playlist generation and MoodGrid support)

Requirements

- iOS version: 6.0 or higher

- Xcode version: 5.0 or higher

- Locale space requirements

    o < 2Mb for Music only locale

    o < 6Mb for Music and Playlist locale

- Local Bundle space requirements

    o Optionally, approximately 21 MB of memory is needed for the local bundle storage

- It is strongly recommended that only bundles numbered 1829.b and greater be used with this release

Changes

- Fixed UI issues with sample app on iOS 8.

- Fixed microphone handling in SDK to ensure audio sources are closed immediately when GnMusicIdStream AudioProcessStop is called.

- Improved performance of Cancel operation when SDK is performing a network operation

- GnMusicIdStream deprecated constructor removed. Applications will now need to use a GnMusicIdStream constructor that takes an audio preset denoting the audio is from a microphone or from a radio signal.

    ```
    - (INSTANCE_RETURN_TYPE) initWithGnUser: (GnUser*) user
    musicIdStreamEventsDelegate:(id <GnMusicIdStreamEventsDelegate> )
    pEventDelegate;
    ```

- GnMusicIdStream cancel method is blocking and does not return until the pending identification is cancelled.

- Fixed defect in GnUserReg which caused unnecessary User registrations.

- Fixed crash defect when near silent audio is fed to GnMusicIdStream identify.

Highlights

- New API

    o Exposes greater Gracenote features, functionality and metadata.

    o Greater flexibility for developers.

Limitations

- Debug context not currently available for GN response objects

- GnMusicIdStream occasionally surfaces previously identified track

- Content Delivery

    - Genre Art is not currently supported

    - GnResponse objects rangeTotal, rangeStart, and rangeEnd return 0 when a track with no cover art is returned

- Playlist of zero tracks is generated when "more like this" is requested

- "An error occurred in the communications subsystem" message returned when not connected to internet

- GnMusicIdFileInfo delegate methods should not be used as they result in a crash

- No API to get collection count in GnPlaylistStorage

- GnMusicIdFileInfo does not return fingerprint data (GnMusicIdFileInfo fingerprint)

- Initializing GnUser with NULL GnUserStore results in crash

- Please note that the following API methods may be changing in future releases of the SDK to support planned improvements and functionality:

    - GnMusicIdStream::audioProcess - Experimental

    - *.setCancel, isCancelled

    - GnPlaylist* - *Experimental*

    - GnMoodgrid* - *Experimental*

    - GnError

- In the GFM iOS sample application the cancel button does not cancel an ongoing MusicID-File operation in some circumstances

- Setting a log size limit using gnLog.options using [self.gnLog options: [[[GnLogOptions alloc] init]maxSize: nnn]]; for GnLog archive does not work and instead of creating an archived log file on reaching the maxSize the log file continues to grow

- "Concurrent ingestion of bundles is not supported and can lead to corrupt local MusicID-Stream databases resulting in error "Invalid Data" being returned when attempting a local lookup

- GnMusicIdStream lookup mode cannot be changed after audioProcessStart is invoked. Applications must set the lookup mode immediately after instantiating a GnMusicIdStream object and will not be able to change it. If lookup mode must be changed the application can destroy its GnMusicIdStream instance and create another

- GnMusicIdStream setting resultSingle may return more than a single match for GnMusicIdStream identify operations

- SDK will perform an IP resolve procedure on any network query that follows a MusicID-Stream query that was cancelled while accessing the network.

Release History

Version 1.0

- Includes support for Gracenote MoodGrid and Playlist products

- Improved language support for MusicID-Stream queries

  o Language and script preferences surfaced to developers

- Support for multiple Client IDs

- Requires GNSDK License File (please contact your Gracenote Engagement Manager)

Version 1.0.1

- Fixed duplicate symbol with –all_load linker flag

- Fixed crash when GnMusicIDFileInfoEventsDelegate was set

- Fixed memory leak with GnMusicIdFile

- Added ingestion progress status delegate to GnBundle

Version 1.0.2

- Added default/invalid value to GnLocaleGroup enum being kLocaleGroupInvalid
- Added GnPlaylistCollection class method -(NSString*) statementAnalyzeIdent:(NSString*) pdlStatement mediaIdentifier:(NSString*) mediaIdentifier error:(NSError**) error; This was added as an Experimental API to be used to debug PDL statements by applying a PDL statement to a specific media item within a playlist collection summary.
- Added GnTrack class method -(NSUInteger) matchDuration; For fingerprint matches, this provides the length of matched reference audio in milliseconds.
- Changed enumeration value from kGnMusicIdFileInfoStatusError to kMusicIdFileInfoStatusError as naming convention differed for GnMusicIdFileInfoStatus values
- Changed enumeration value from kGnMusicIdFileInfoStatusResultAll to kMusicIdFileInfoStatusResultAll as naming convention differed for GnMusicIdFileInfoStatus values.
- Change: Where data is manually provided to GNSDK the method signature has been changed from accepting a NSData object to a raw buffer and data length parameters.
    o GnAudioSourceDelegate protocol method getData changed from "-(NSUInteger) getData: (NSData*)dataBuffer;" to   "-(NSUInteger) getData: (unsigned char*)dataBuffer dataSize: (NSUInteger)dataSize;"
    o GnBundleSourceDelegate protocol method getBundleData changed from "-(NSUInteger) getBundleData: (NSData*) dataBuffer cancellableDelegate:(id<GnCancellableDelegate>)canceller;" to "-(NSUInteger) getBundleData: (unsigned char*)dataBuffer dataSize: (NSUInteger)dataSize cancellableDelegate: (id <GnCancellableDelegate>)canceller;"
    o GnMusicId class method fingerprintWrite changed from "-(BOOL) fingerprintWrite: (NSData*)audioData error: (NSError**) error;" to "-(BOOL) fingerprintWrite: (unsigned char*)audioData audioDataSize: (NSUInteger)audioDataSize error: (NSError**)error;"
    o GnMusicIdFileInfo class method fingerprintWrite changed from "-(BOOL) fingerprintWrite: (NSData*) audioData error:(NSError**) error;" to   "-(BOOL) fingerprintWrite: (unsigned char*)audioData audioDataSize: (NSUInteger)audioDataSize error: (NSError**)error;"

- o GnMusicIdStream class method audioProcess changed from "-(void) audioProcess: (NSData*)audioData error:(NSError**) error;" to "-(void) audioProcess: (unsigned char*)audioData audioDataLength: (NSUInteger)audioDataLength error: (NSError**)error;"
- o GnPlaylistCollection class method initWithCollData changed from "-(instancetype) initWithCollData: (NSData*) collData;" to "-(instancetype) initWithCollData: (unsigned char*)collData dataSize: (NSUInteger)dataSize;"
- o GnPlaylistCollection class method serialize changed from "-(NSUInteger) serialize: (NSData*) serializedData error: (NSError**) error;" to "-(NSUInteger) serialize: (unsigned char*) serializedData dataSize: (NSUInteger) dataSize error: (NSError**) error;"

Version 1.1.0

- GnMusicIdStream
  `-(void)audioProcessStop:(NSError**)error` marked as experimental. Its behavior has been modified to stop audio processing and pending identifications. In future this may change.

  Cancel implementation overhauled resulting in changes in the API from
    - `-(void) identifyCancel`
    - `-(BOOL) isIdentifyCancelled`
  to
    - `-(void) identifyCancel: (NSError**) error`

- Bundle Ingestion
  Bundle ingestion APIs have changed to facilitate:
    - streaming ingestion of bundles meaning bundles do not have to be entirely downloaded before ingestion can be started
    - concurrent ingestion of multiple bundles

  The following ingestion related APIs have been removed:
    - `GnBundle`
    - `GnBundleSourceDelegate`
    - `GnLookupLocalStream` methods,
      - `-( NSUInteger ) storageCount : ( NSError ** ) error`
      - `-( void ) ingest : ( id <GnBundleSourceDelegate> ) ingestSource error : ( NSError ** ) error`

  The following ingestion related APIs have been added:
    - `GnLookupLocalStreamIngest`, used to ingest a fingerprint bundle
    - `GnLookupLocalStreamIngestEventsDelegate`, bundle ingestion events delegate

- Logging APIs Updated
  Logging APIs have been updated and are no longer experimental. See sample and documentation for more information.

- GnLocale

The following locale information access method have been removed,
- -(GnLocaleGroup) group : (NSError **) error
- -(GnDescriptor) descriptor : (NSError **) error
- -(GnLanguage) language : (NSError **) error
- -(GnRegion) region : (NSError **) error

Instead use new API,
- -(GnLocaleInfo *) localeInformation

- GnMusicIdFile
Cancel method has been changed from,
- -(void) setCancel : (BOOL) bCancel

to,
- -(void) cancel

There is no need for an application to reset the internal cancel flag, so it does not need a boolean.

Method `isCancelled` is removed as there is no meaning keeping cancel state for an object that lives beyond a single identification query.

- GnAlbum
Remove access to script display string. This information is not yet fully supported by the SDK.
- -(NSString*) scriptDisplay

- GnTrack
Removed methods for obtaining the corresponding MusicID-File matched identifier and matched filename,
- -(NSString*) matchedIdent
- -(NSString*) matchedFilename

Instead a single GnTrack object can match to multiple MusicID-File file info objects, so a new API that returns an iterator for all matched file info identifiers is provided,
- -(GnStringEnumerator*)matchedIdents;

- List Element and List Element Child Iterator Access
Method to get list element iterator no longer takes an NSError pointer. Changed from,
- -(GnListElementEnumerator*) listElements:(NSUInteger) level error:(NSError**) error
- -(GnListElementEnumerator*) children:(NSError**) error

to,
- -(GnListElementEnumerator*) listElements:(NSUInteger) level
- -(GnListElementEnumerator*) children

Version 1.1.1

- Provides callbacks for audioProcessStart (which indicates when GnMusicIdStream is ready for an identify call) and audioProcessStop.

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