Universal Metadata Framework

Release notes

VERSION: 3.0

DATE: 2016-06-02

NEW FEATURES & BUG-FIXES

- Fully open-source under the Apache 2.0 license.

- Encryption: metadata can be encrypted with the built-in or user-provided algorithm before save to media file or serialize to a string on the following levels: a field in a metadata record, a complete metadata record, a field in all metadata records of the type, all metadata records of the type, all metadata records of the schema, all metadata records.

- Compression: all the metadata can be compressed with the built-in or user-provided algorithm before save to media file or serialize to a string.

- Statistics object: a configurable dashboard-like object that coalesces data from added metadata using a number of built-in statistical operations (Last value, Average, Sum, Count, Min/Max) and user-defined ones; it updates asynchronously either on every metadata addition or on the specified time interval or by request.

- IReader and IWriter interfaces are joined into a simplified Format one.

- Java API: Java bindings to the C++ API are added to the VMF; they can be used on desktop or in Android project code.

- Support for the Matroska video container format.

- Test coverage: unit tests coverage is increased to affect all the valuable VMF source code.

- Several minor bugs are fixed.

- A new demo is developed (see 'demo' folder), it consists of Android and iOS live streaming parts and Qt-based desktop viewer.

KNOWN BUGS & LIMITATIONS

- VMF SDK v 3.0 has binary and source level incompatibilities with 2.x and 1.x versions and will require source code changes and recompilation of existing projects that integrate prior version of VMF.

VERSION: 2.0

DATE: 2014-12-02

NEW FEATURES & BUG-FIXES

- Switched to XMP CC-201306

- Enabled build for MacOS X and iOS

- Added standard (pre-defined) metadata schema (STD_DST)

- Added 'optional' attribute to the metadata field

- Added raw binary buffer, vector2d, vector3d, vector4d and array types for fields

- Added metadata and schema export to / import from XML and JSON format (including incremental mode for streaming needs) (libxml2 and libjson are added as 3rd-parties)

- Added API for saving and verification of media stream checksum (not all file formats are supported, makes sense for MP4 and 3GP containers)

- Added API for use of timestamp as an alternative association type for frame index

- Added named references support (have to be declared in schema before use)

- Fixed bug in metadata loading causing metadata invalidation, in queryByNameAndValue() function and some others

- Moved C++ headers to 'vmf' subfolder to prevent collision (#include "vmf/vmf.hpp")

KNOWN BUGS & LIMITATIONS

- Intel® VMF SDK v 2.0 has binary and source level incompatibilities with 1.x versions

VERSION: 1.0

DATE: 2014-07-22

NEW FEATURES & BUG-FIXES

- Added '.3gp' file format support

- Qt samples switched to Qt5

- Added new console sample 'metadata-manipulation'

- Installer maker changed from NSIS to WiX-3.8

- Fixed bug with partially deleted items when calling 'MetadataStream:: remove(MetadataSet&)'

- Workarounded bug with dropped empty metadata fields (now they keep a space symbol)

- 'FindVMF.cmake' script became smarter, VMF-related CMake variables manes became shorter

- Pre-built package for Windows includes static and dynamic VMF lib-s for MSVS 2010, 2012 and 2013 for x86 and x64 targets as well as for armeabi, armeabi-v7a and x86 Android targets

KNOWN BUGS & LIMITATIONS

- Existing schemas and sets ('MetadataDesc'-s) can't be deleted from stream

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Intel open source computer vision sample	BSD 3-clause	

VERSION: 0.7

DATE: 2013-12-11

ENHANCEMENTS & NEW FEATURES

- Updated the samples to the new API: ski resort and photobook (the functionality is the same as mentioned in milestone 3)

- Added the installer package

- Updated the Architecture Design Document

- Updated the User Guide

KNOWN BUGS & LIMITATIONS

VERSION: 0.6

DATE: 2013-11-13

ENHANCEMENTS & NEW FEATURES

- Initial integration of the new API design

- Updated API document description

- Updated unit tests

- Updated Architecture Design Document

KNOWN BUGS & LIMITATIONS

- Metadata can be added to a MetaStream only when the MetaStream is associated with a file (open function is called)

- Open function does not clear metadata in memory

- Clear function (to erase content of MetaStream in memory) is not yet implemented

- Some sections of the User guide are out-of-date

VERSION: 0.5

DATE: 2013-10-08

ENHANCEMENTS & NEW FEATURES

- Implemented relations functionality

- Implemented queries functionality

- Added a Windows installer

- Added relations demo to illustrate how to use relations and queries

- Updated the User Guide: demo application description, new features description, added information about Intel® VMF architecture

KNOWN BUGS & LIMITATIONS

- Samples installed by the installer currently require video files to be copied manually

- If you create the installer in Release mode the Qt-dependant samples crash in Debug mode for some unknown reason

VERSION: 0.4

DATE: 2013-09-10

ENHANCEMENTS & NEW FEATURES

- Implemented metadata shifting functionality

- Implemented metadata consistency functionality

- Implemented functionality to copying metasources, properties and set of items

- Added "version", "application" and "detector" fields to the Property

- Added two demos: consistency demo and shifting demo to illustrate how to use implemented features

- Added build support for Android platform

- Most of user API is now covered by Doxygen documentation

- Updated the User Guide: demos description, new building instructions

- Updated the Architecture Design Document: description of consistency and metadata shifting functionality

KNOWN BUGS & LIMITATIONS

- In debug mode the samples may work slowly due to limitations of the XMP library (Release mode is recommended)

VERSION: 0.3

DATE: 2013-08-14

ENHANCEMENTS & NEW FEATURES

- Implemented "Photo book" and "Ski resort" samples (in terms of the stage #1 – see the "Samples description" document for more details)

- Added support of structures as a Metadata type

- Implemented relative time associations

- Updated the User Guide: samples description, new building instructions

KNOWN BUGS & LIMITATIONS

- In debug mode the samples may work slowly due to limitations of the XMP library (Release mode is recommended)

VERSION: 0.2

DATE: 2013-07-10

ENHANCEMENTS & NEW FEATURES

- Added support of basic data types (signed and unsigned integer numbers, floating point numbers) and strings

- Implemented basic functionality for metadata insertion and extraction

- Added global properties and properties with associated values (time stamps or/and arrays of frame regions)

- Added basic functionality of metadata values filtration. Supported the following queries: equal, less than, greater than

- Created 2 basic demos illustrating metadata insertion and retrieval functionality

- Prepared an initial version of User Guide

KNOWN BUGS & LIMITATIONS

- Metadata relations are not supported

- Unable to filter values by range

- Unable to clone metadata from one file to another

- Metadata deletion is not supported yet

- In case of working with multiple files at the same time Intel® VMF library can generate incorrect (duplicate) IDs (not a problem as relations are not implemented yet)