MediaInfo

Metadata extraction service
with FIMS compliant XML export

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MediaArea

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What is MediaInfo?

MediaInfo is a convenient unified display of the most relevant technical and tag data for video and audio files.

MediaInfo
is **versatile**.

Containers/wrappers

- SMPTE containers (MXF/DCP/IMF)
- GXF, LXF
- P2, XDCAM
- MPEG streaming containers (ts/m2ts/mpg/vob)
- MPEG file container (mp4)
- Quicktime (qt/mov)
- Matroska (mkv/mka/mks)
- RIFF (avi/wav/w64)
- Apple/SGI (aiff/aifc)
- Windows Media (asf/wma/wmv)
- ...

Video/image formats

- HEVC/H.265
- AVC/H.264
- MPEG-1/2 Video (mpgv/mpv/m1v/m2v)
- VC-1, VC-3/DNxHD
- DPX, EXR
- PNG, TIFF
- JPEG, JPEG 2000
- FFv1
- ...

Audio formats

- PCM
- Dolby E
- AC-3, E-AC-3
- DTS
- AAC/HE-AAC/HE-AACv2
- FLAC
- MPEG-1/2 Audio (mp1/mp2/mp3)

Captions/Subtitles

- CEA-606/708
- DVB subtitles
- ARIB captions
- N19/STL
- Teletext
- CDP
- WST
- TTML
- ...

Metadata

- Container-specific
- Ancillary data
- Time codes (MXF, GXF, QuickTime...)
- Bar data
- AFD
- AS-11/DPP
- RDD18/EBU Tech 3349 Acquisition Metadata
- ...

Examples of Metadata

- Width, height, frame rate, interlacement, bit depth, color space, subsampling, MXF version & OP, ...
- Writing library
- Channel assignment (left, right, rear...)
- Audio/caption language
- Law rating
- Broadcast service name
- Checksums presence
- ...

Input formats

- Files (local/network)
- FTP/FTPS/SFTP
- HTTP/HTTPS (including Amazon S3)
- Direct memory access

Export formats

- Flat text
- XML
- EBUCore (1.5/1.6)
- PBCore (1.2/2.0)
- MPEG-7
- FIMS (1.1/1.2)

MediaInfo
works **everywhere**.

Interfaces

- Graphical User Interface
- Command Line Interface
- API (library)

Bindings

- C, C++
- C#/Mono
- VB.net
- Python
- Java
- node.js (unofficial)
- ...

Platforms

- Windows
- Mac
- Linux: Ubuntu, Mint, RHEL/CentOS, Fedora, SuSE, Solaris...
- BSD: FreeBSD...

Architectures

- Intel/AMD 32-bit
- Intel/AMD 64-bit
- IA64
- PowerPC
- ARM
- ...

MediaInfo
is **open source**.

License

- Permissive license (BSD-2-Clause)
- Code source available for everyone
- Contacting developer not mandatory
- Can be include in any (Open Source or not) software

MediaInfo
can be **automated**.

- Command line batch process
- DLL can be used for direct inclusion in your workflow
- MediaInfo can be adapted to any workflow
- Consultation available

File　View　Options　Debug　Help　Language

```
General
Complete name                      : C:\Example\Example.mxf
Format                             : MXF
Format version                     : 1.3
Format profile                     : OP-1a
Format settings                    : Closed / Complete
File size                          : 47.5 MiB
Duration                           : 10 s 744 ms
Overall bit rate mode              : Variable
Overall bit rate                   : 37.1 Mb/s
Package name                       : 000_0038_01
Encoded date                       : 2016-04-19 07:33:33.000
Writing application                : Sony Catalyst 1.20
Writing library                    : Sony MXF Development Kit (Win32) 4.10.0.119.1

Video
ID                                 : 2
Format                             : AVC
Format/Info                        : Advanced Video Codec
Format profile                     : High 4:2:2@L4.1
Format settings, CABAC             : Yes
Format settings, ReFrames          : 2 frames
Format settings, GOP               : M=3, N=15
Format settings, wrapping mode     : Frame
Codec ID                           : 0D01030102106001-0401020201316001
Duration                           : 10 s 744 ms
Bit rate mode                      : Variable
Bit rate                           : 27.9 Mb/s
Maximum bit rate                   : 25.0 Mb/s
Width                              : 1 920 pixels
Height                             : 1 080 pixels
Display aspect ratio               : 16:9
Frame rate                         : 29.970 (30000/1001) FPS
Standard                           : Component
Color space                        : YUV
Chroma subsampling                 : 4:2:2
Bit depth                          : 10 bits
Scan type                          : Progressive
Bits/(Pixel*Frame)                 : 0.449
Stream size                        : 35.7 MiB (75%)
Color range                        : Limited
Color primaries                    : BT.709
Transfer characteristics           : BT.709
Matrix coefficients                : BT.709

Audio #1
ID                                 : 3
Format                             : PCM
Format settings, Endianness        : Little
Format settings, wrapping mode     : Frame (AES)
Codec ID                           : 0D01030102060300-0402020101000000
Duration                           : 10 s 744 ms
Bit rate mode                      : Constant
Bit rate                           : 1 152 kb/s
Channel(s)                         : 1 channel
Sampling rate                      : 48.0 kHz
Frame rate                         : 29.970 FPS (1601.6 spf)
Bit depth                          : 24 bits
Stream size                        : 1.48 MiB (3%)

Audio #2
ID                                 : 4
Format                             : PCM
```

File View Options Debug Help Language

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!-- Generated by MediaInfoLib - v0.7.88 -->
<!-- Based on EBUCore -->
<!-- Preliminary version (not for production) -->
<!-- dateLastModified="2016-09-08" timeLastModified="20:37:22Z" -->
<bms:bmContent xmlns:desc="http://description.fims.tv" xmlns:tim="http://baseTime.fims.tv"
    xmlns:bms="http://base.fims.tv" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://base.fims.tv http://mediaarea.net/temp/baseMediaService-V1_2_0.xsd">
        <bms:resourceID/>
        <bms:bmContentFormats>
                <bms:bmContentFormat>
                        <bms:resourceID/>
                        <bms:resourceCreationDate>2013-06-11T03:30:17Z</bms:resourceCreationDate>
                        <bms:bmEssenceLocators>
                                <bms:bmEssenceLocator xsi:type="bms:EssencePlaceholderLocatorType">
                                        <bms:resourceID/>
                                        <bms:locatorInfo>C:\Example\AcquisitionMetadata_Basic.mxf</bms:locatorInfo>
                                </bms:bmEssenceLocator>
                        </bms:bmEssenceLocators>
                        <bms:formatCollection>
                                <bms:videoFormat>
                                        <bms:resourceID/>
                                        <bms:technicalAttribute formatLabel="integer" typeLabel="StreamSize" unit="byte">408876237</bms:technicalAttribute>
                                        <bms:displayWidth unit="pixel">4096</bms:displayWidth>
                                        <bms:displayHeight unit="pixel">2192</bms:displayHeight>
                                        <bms:frameRate numerator="24000" denominator="1001">24</bms:frameRate>
                                        <bms:aspectRatio numerator="1896" denominator="1000">2</bms:aspectRatio>
                                        <bms:videoEncoding typeLabel="">
                                                <bms:family>Sony RAW SQ</bms:family>
                                                <!-- <bms:identifier>0E060D0302010100-0E06040102040201</dc:identifier> -->
                                        </bms:videoEncoding>
                                        <bms:videoTrack/> <!-- trackId="2" -->
                                        <bms:bitRate>933507392</bms:bitRate>
                                        <bms:scanningFormat>progressive</bms:scanningFormat>
                                </bms:videoFormat>
                                <bms:audioFormat>
                                        <bms:resourceID/>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="Endianness">Little</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="Wrapping">Frame (AES)</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="integer" typeLabel="StreamSize" unit="byte">492492</bms:technicalAttribute>
                                        <bms:samplingRate>48000</bms:samplingRate>
                                        <bms:audioEncoding typeLabel="PCM">
                                                <bms:family>PCM</bms:family>
                                                <!-- <dc:identifier>0D010301020603000</dc:identifier> -->
                                        </bms:audioEncoding>
                                        <bms:audioTrack/> <!-- trackId="3" -->
                                        <bms:channels>1</bms:channels>
                                        <bms:bitRate>1152000</bms:bitRate>
                                        <bms:bitRateMode>constant</bms:bitRateMode>
                                        <bms:sampleSize>24</bms:sampleSize>
                                </bms:audioFormat>
```

Activer Windows
Accédez aux paramètres pour activer

```
C:\Example>MediaInfo.exe --Output=FIMS UKDPP.mxf
<?xml version="1.0" encoding="UTF-8"?>
<!-- Generated by MediaInfoLib - v0.7.87 -->
<!-- Based on EBUCore -->
<!-- Preliminary version (not for production) -->
<!-- dateLastModified="2016-09-08" timeLastModified="20:38:18Z" -->
<bms:bmContent xmlns:desc="http://description.fims.tv" xmlns:tim="http://baseTime.fims.tv"
    xmlns:bms="http://base.fims.tv" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://base.fims.tv http://mediaarea.net/temp/baseMediaService-V1_2_0.xsd">
        <bms:resourceID/>
        <bms:bmContentFormats>
                <bms:bmContentFormat>
                        <bms:resourceID/>
                        <bms:resourceCreationDate>2014-02-18T14:28:14Z</bms:resourceCreationDate>
                        <bms:bmEssenceLocators>
                                <bms:bmEssenceLocator xsi:type="bms:EssencePlaceholderLocatorType">
                                        <bms:resourceID/>
                                        <bms:locatorInfo>UKDPP.mxf</bms:locatorInfo>
                                </bms:bmEssenceLocator>
                        </bms:bmEssenceLocators>
                        <bms:formatCollection>
                                <bms:videoFormat>
                                        <bms:resourceID/>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="ActiveFormatDescription">10</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="Standard">Component</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="ColorSpace">YUV</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="ChromaSubsampling">4:2:2</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="colour_primaries">BT.709</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="transfer_characteristics">BT.709</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="matrix_coefficients">BT.709</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="colour_range">Full</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="integer" typeLabel="BitDepth" unit="bit">10</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="boolean" typeLabel="CABAC">false</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="boolean" typeLabel="MBAFF">true</bms:technicalAttribute>
                                        <bms:technicalAttribute formatLabel="string" typeLabel="VideoComments">RP 2027 AVC-Intra compatible encoded</bms:technicalAttribute>
                                        <bms:displayWidth unit="pixel">1920</bms:displayWidth>
                                        <bms:displayHeight unit="pixel">1080</bms:displayHeight>
                                        <bms:frameRate numerator="25000" denominator="1000">25</bms:frameRate>
                                        <bms:aspectRatio numerator="16" denominator="9">2</bms:aspectRatio>
                                        <bms:videoEncoding typeLabel="High 4:2:2 Intra@L4.1">
                                                <bms:family>AVC</bms:family>
                                                <!-- <bms:identifier>0D01030102106001-0401020201323102</dc:identifier> -->
                                        </bms:videoEncoding>
                                        <bms:videoTrack trackName="V1"/> <!-- trackId="1001" -->
                                        <bms:scanningFormat>interlaced</bms:scanningFormat>
                                        <bms:scanningOrder>top</bms:scanningOrder>
                                </bms:videoFormat>
                                <bms:audioFormat>
```

```cpp
#include <iostream>
#include "MediaInfoDLL/MediaInfoDLL.h"

int main(int argc, char* argv[])
{
    // Check integrity
    if (argc != 2)
        return 1;

    // Analyze
    MediaInfoDLL::MediaInfo MI;
    MI.Open(argv[1]);

    // Output
    MI.Option("Inform", "FIMS");
    std::cout << MI.Inform();
    return 0;
}
```

Demo!

Stay in touch

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