

Overview

MOV MetaEdit is a tool that supports the embedding and editing of the Universal Ad ID in a MOV (Apple QuickTime) file, supported by the AICP File Deliverable Specification (Apple ProRes 422) https://www.aicp.com/assets/editor/AICP_File_Deliverable_Specifications_Feb_2018.pdf. The Universal Ad ID consists of two name/value pairs for the name of the registry (e.g. ad-id.org) and the unique identifier (e.g. ADID0001000). A Command Line Interface (CLI) is also available.

MOV MetaEdit and CLI can be downloaded from <https://mediaarea.net/MOVMetaEdit>

User Interface

The MOV MetaEdit tool is a Graphical User Interface (GUI) that drags & drops files and embeds the basename (no extension) as the Ad-ID. The tool also allows manual input of the two values if the file name is not in the valid Ad-ID code structure.

Features

- User interface and command line option for embedding of the Universal Ad ID into a QuickTime file format
- Allows editing of the Universal Ad ID.
- The QuickTime File Format Specification with custom datatype namespace or QT Metadata Atom for the *UniversalAdId* element
 - <https://developer.apple.com/library/content/documentation/QuickTime/QTFF/Metadata/Metadata.html>
- The *UniversalAdId* contains two name/value pairs for both the registry name and value of the identifier.
 - Idregistry – A string used to identify the name or URL for the registry where the unique creative ID is cataloged. Default: ad-id.org
 - Idvalue – A string for the unique identifier.
- The application supports Windows/Mac/Linux.
- MediaInfo – Updated to retrieve the Universal Ad ID from the user interface or the command line interface.

File Name Structure

The filename should include a valid 11 or 12 character Ad-ID as the basename. The file name structure should be the following: **ADID0001000.mov**

For file names that are not in the valid Ad-ID code structure, the idregistry and idvalue will need to be manually inputted.

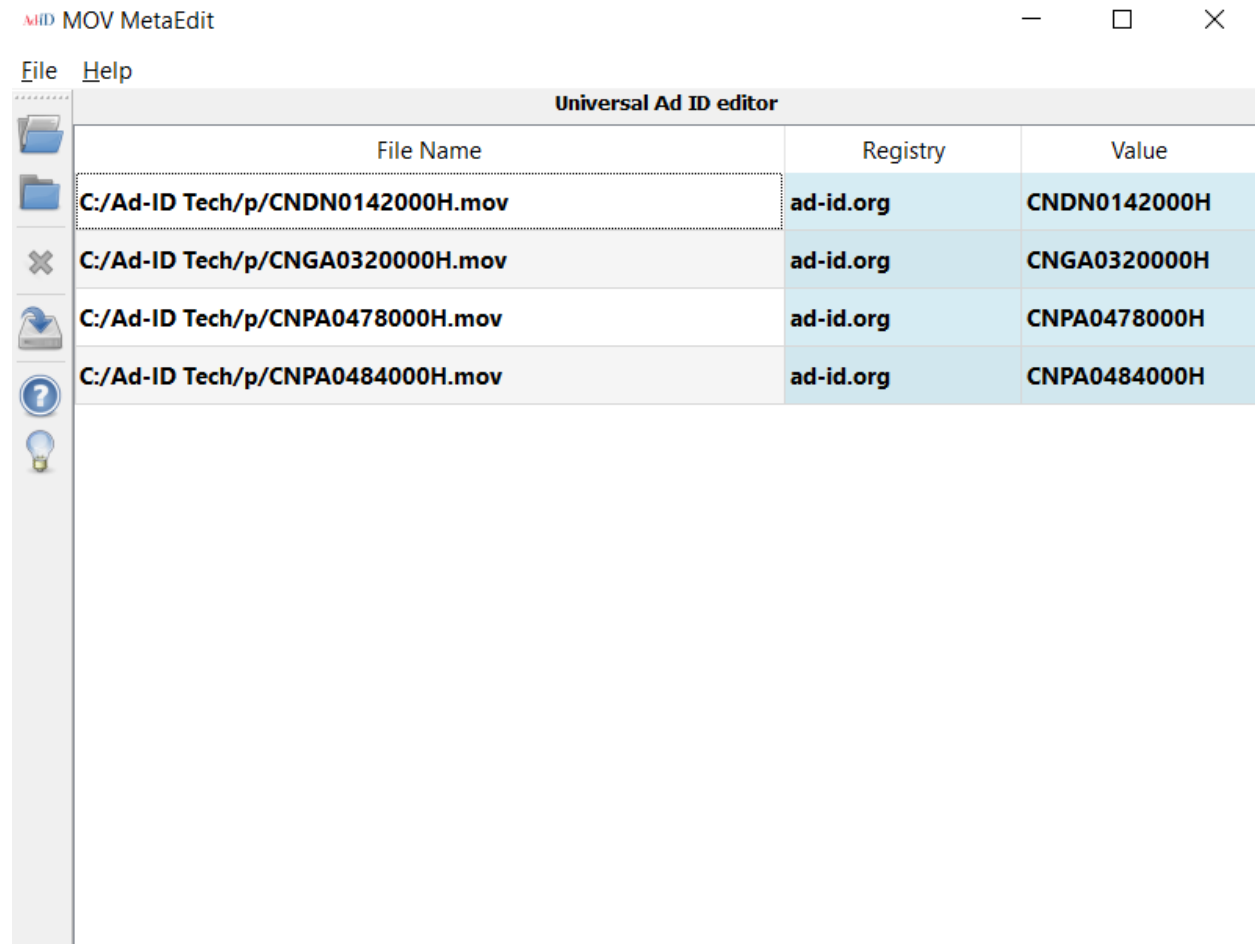
Universal Ad ID Namespace (Apple QuickTime Metadata Atom)

com.universaladid – universaladid Namespace

com.universaladid.idregistry – String. Name of registry. Default: ad-id.org
com.universaladid.idvalue – String. Unique ID

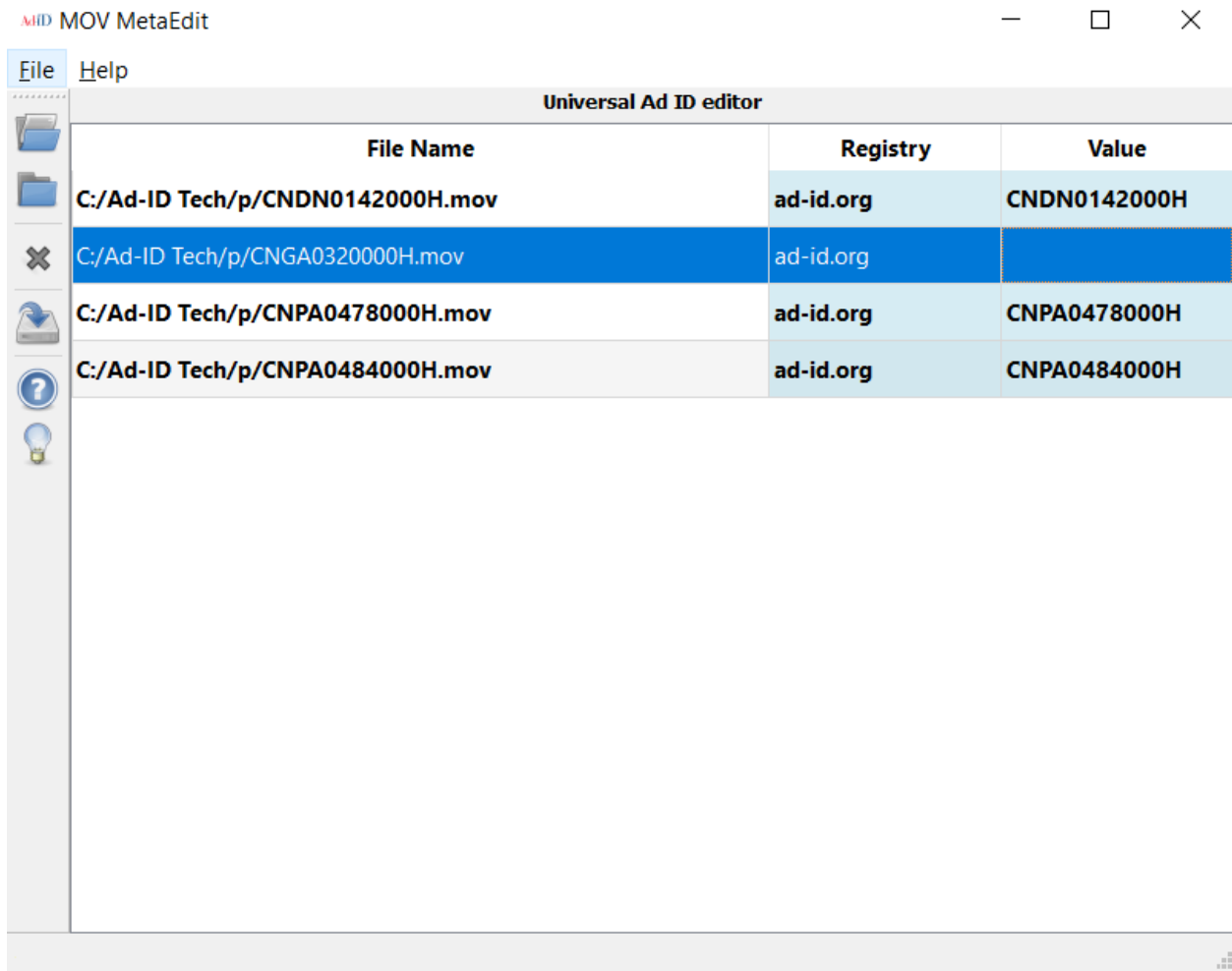
Embedding Universal Ad ID

By dragging and dropping files into the tool, the Universal Ad ID will automatically be populated if the files are named correctly. The tool also allows manual input.



Editing Universal Ad ID

The tool allows the registry and value to be edited and for manual input of empty values.



Command Line Interface (CLI)

The Command Line Interface (CLI) supports automation of workflows via open source software scripts.

File Name structure

The filename should include a valid 11 or 12 character Ad-ID as the basename. The file name structure should be the following:

CNGA0320000H.mov

Command Line Usage

Help: movmetaedit --help-adid

Usage: movmetaedit --adid-registry <registry> --adid <universaladid> <filename>

Parameters:

--adid VALUE

- VALUE equals an Ad-ID (e.g. CNGA0320000H) or 'auto'
- Add or modify a Universal Ad ID with the specified VALUE
- Use VALUE of "auto" for filling automatically from the file name (e.g. 11-12 alphanumeric characters for "ad-id.org" registry)

--adid-registry VALUE

- Ad-ID is stored with the specified VALUE as registry (default is "ad-id.org")

Examples:

movmetaedit --adid auto FileName0000.mov

movmetaedit --adid ADID00000000 FileName.mov

movmetaedit --adid-registry example.com --adid CNGA0320000H FileName.mov

Output:

Parsing CNGA0320000H.mov

|OK?| Registry|UniversalAdId value

CNGA0320000H.mov|Yes|ad-id.org|CNGA0320000H

MediaInfo Tool

Display the Universal Ad ID and export as XML.

MediaInfo can be downloaded from <https://mediaarea.net/en/MediaInfo>

Universal Ad ID is supported as of version 17.12 of MediaInfo

Basic View:

The screenshot shows the MediaInfo Tool interface. The title bar reads "MediaArea.net/MediaInfo - C:\Ad-ID Tech\POC\CIMM\Ad-ID testing\test\raw\CNGA0320000H.mov". The menu bar includes File, View, Options, Debug, Help, and Language. The address bar shows the file path: "C:\Ad-ID Tech\POC\CIMM\Ad-ID testing\test\raw\CNGA0320000H.mov". The main content area displays the following information:

- Container and general information**
 - MPEG-4 (QuickTime): 305 MiB, 26s 26ms
 - 1 video stream: ProRes
 - 1 audio stream: PCM
 - 2 text streams: EIA-608 / EIA-708
 - 1: QuickTime TC
 - UniversalAdID/String: CNGA0320000H (ad-id.org)
 - Encoded_Date: UTC 2017-06-08 17:08:51
 - Tagged_Date: UTC 2017-06-08 18:45:12
 - Encoded_Library/String: Apple QuickTime
 - Media/UUID: 974AD7C0-204C-4F91-BB94-A54699C0D1
- First video stream**
 - en, 95.8 Mbps, 1920*1080 (16:9), at 29.970 (29970/1000) fps3, ProRes (Version 0) (422)
- First audio stream**
 - en, 2304 Kbps, 48.0 KHz, 24 bit2, 2 channel2, PCM (Little / Signed)
- First text stream**
 - en, EIA-608 (Final Cut / CDP)
- Second text stream**
 - en, EIA-708 (Final Cut / CDP)

At the bottom, a note states: "Note : for more information about this file, you must select a different view (Sheet, Tree...) -->".

XML View:

MediaArea.net/MediaInfo - C:\Ad-ID Tech\POC\CIMM\Ad-ID testing\test\raw\CNGA0320000H....

File View Options Debug Help Language

```
<?xml version="1.0" encoding="UTF-8"?>
<MediaInfo
  xmlns="https://mediaarea.net/mediainfo"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="https://mediaarea.net/mediainfo https://mediaarea.net/mediainfo
    version="2.0">
  <creatingLibrary version="17.10" url="https://mediaarea.net/MediaInfo">MediaInfo</creatingLibrary>
  <media ref="C:\Ad-ID Tech\POC\CIMM\Ad-ID testing\test\raw\CNGA0320000H.mov">
    <track type="General">
      <VideoCount>1</VideoCount>
      <AudioCount>1</AudioCount>
      <TextCount>2</TextCount>
      <OtherCount>1</OtherCount>
      <FileExtension>mov</FileExtension>
      <Format>MPEG-4</Format>
      <Format_Profile>QuickTime</Format_Profile>
      <CodecID>qt </CodecID>
      <FileSize>319438225</FileSize>
      <Duration>26.026</Duration>
      <OverallBitRate_Mode>UBR</OverallBitRate_Mode>
      <OverallBitRate>98190496</OverallBitRate>
      <FrameRate>29.970</FrameRate>
      <FrameCount>780</FrameCount>
      <StreamSize>158077</StreamSize>
      <HeaderSize>40</HeaderSize>
      <DataSize>319337000</DataSize>
      <FooterSize>101185</FooterSize>
      <IsStreamable>No</IsStreamable>
      <UniversalAdID_Registry>ad-id.org</UniversalAdID_Registry>
      <UniversalAdID_Value>CNGA0320000H</UniversalAdID_Value>
      <Encoded_Date>UTC 2017-06-08 17:08:51</Encoded_Date>
```

MediaInfo Tool CLI

Using the command line, display or extract the Universal Ad ID from XML.

MediaInfo CLI can be downloaded from <https://mediaarea.net/en/MediaInfo>

Universal Ad ID is supported as of version 17.12 of MediaInfo

Command Line Usage

Help: mediainfo --help

Usage: mediainfo -f <filename>

Parameters:

--OUTPUT VALUE

- VALUE equals 'MIXML' for MediaInfo XML

Examples:

mediainfo -f --Output=MIXML<file name>

mediainfo -f --Output=MIXML CNGA0320000H.mov

Output:

Full XML document containing the following values if the Universal Ad ID is present.

Example:

```
<UniversalAdID_Registry>ad-id.org</UniversalAdID_Registry>
```

```
<UniversalAdID_Value>CNDN0142000H</UniversalAdID_Value>
```

Parsing XML

The XML document returned can be parsed using standard XML parsing open source software. The Universal Ad ID contains 2 elements as part of the 'MediaInfo/media/track' XML node.

XML Elements

UniversalAdID_Registry – Universal Ad ID Registry

UniversalAdID_Value – Universal Ad ID Value

Full XML Nodes

MediaInfo->media->track->UniversalAdID_Registry

MediaInfo->media->track->UniversalAdID_Value

Workflow Automation

To automate workflows, the command line tool can be used in conjunction with automated scripts to embed the Universal Ad ID and extract the values from video assets. Example workflow (see figure 1):

1. A simple 'watch' folder can be setup for new files that arrive and a script could execute to embed the Universal Ad ID using the file name.
2. Once embedded, the script would then move files to a 'delivery' folder or to an error folder if the Universal Ad ID was not embedded.
3. Another script could then extract the Universal Ad ID from each file in the 'delivery' folder and pass along the information to other workflow processes.

Figure 1: Automated Workflow

