

# **The IPTC Video Metadata Hub**

## **Metadata like for photos**

Photo Metadata Conference

16 June 2017, Berlin (Germany)

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# Comparing Photo and Video



A photo = still image

A video = moving images

Key data about it are very similar – e.g.:

where and when it happened

who and what location is shown

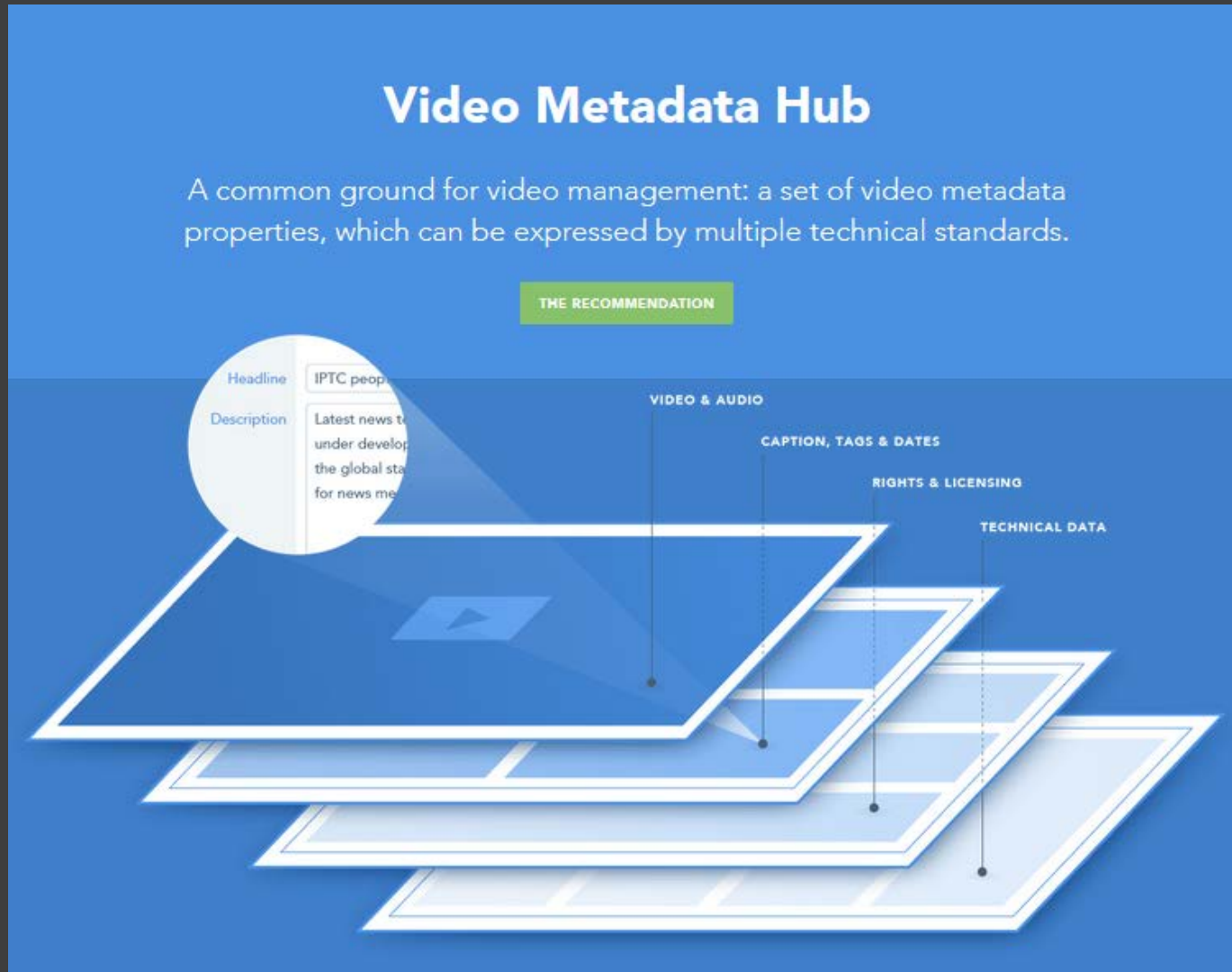
who created it and who owns the copyright

# The Roadmap

- June 2014: Photo Metadata Conference (Berlin, Germany)  
Speakers and attendees asked IPTC to create a set of video metadata similar to the photo metadata
- October 2014: IPTC established a Video Metadata Working Group to create a metadata schema
- October 2016: IPTC released the IPTC Video Metadata Hub Recommendation 1.0 available at <https://iptc.org/standards/video-metadata-hub/>



# Landing at the Video Metadata Hub



# Let's compare<sup>\*)</sup>: General Content

Photo	Video
Keyword	Keyword
CV-Term About the Image	CV-Term about the content
Genre	Genre
Headline	Headline
Description/Caption	Description
Rating (brand new)	Rating
	Dopesheet

<sup>\*)</sup> The comparing follows the IPTC Photo Metadata User Guide at <https://www.iptc.org/std/photometadata/documentation/userguide>

# Let's compare: about Persons

Photo	Video
Person(s) shown in the image	Person(s) shown
	Person(s) heard
	Transcript (Link)
Additional model information	
Minor Model Age Disclosure	
Model Release Status	Model Release Status
Model Release Identifier(s)	Model Release Identifier(s)

# Let's compare: about Locations

Photo	Video
Location the image was created	Location the video was shot
Location(s) shown in the image	Location(s) shown in the video

# Let's compare: about other Things

Photo	Video
Featured Organisation (Company)	Featured Organisation
Related Event	Shown Event
Product shown in the image	Product shown in the video
	Object shown
Artwork or Object in the image	
Property Release Status	Property Release Status
Property Release Identifier(s)	Property Release Identifier(s)



# Let's compare: Rights Information

Photo	Video
Creator of the image	Creator(s) of the video
	Contributor(s) to the video
Copyright Owner	Rights Owner
Copyright Notice	Copyright Notice & Copyright Year
Credit Line	Credit Line
Embedded Encoded Rights Expression	Rights and Licensing Terms: Embedded ...
Linked Encoded Rights Expression	Rights and Licensing Terms: Linked ...

# Let's compare: Licensing

Photo	Video
Rights Usage Terms	Rights and Licensing Terms
Image Supplier / Supply Chain Source	Supplier / Supply Chain Source
Licensor	Licensor

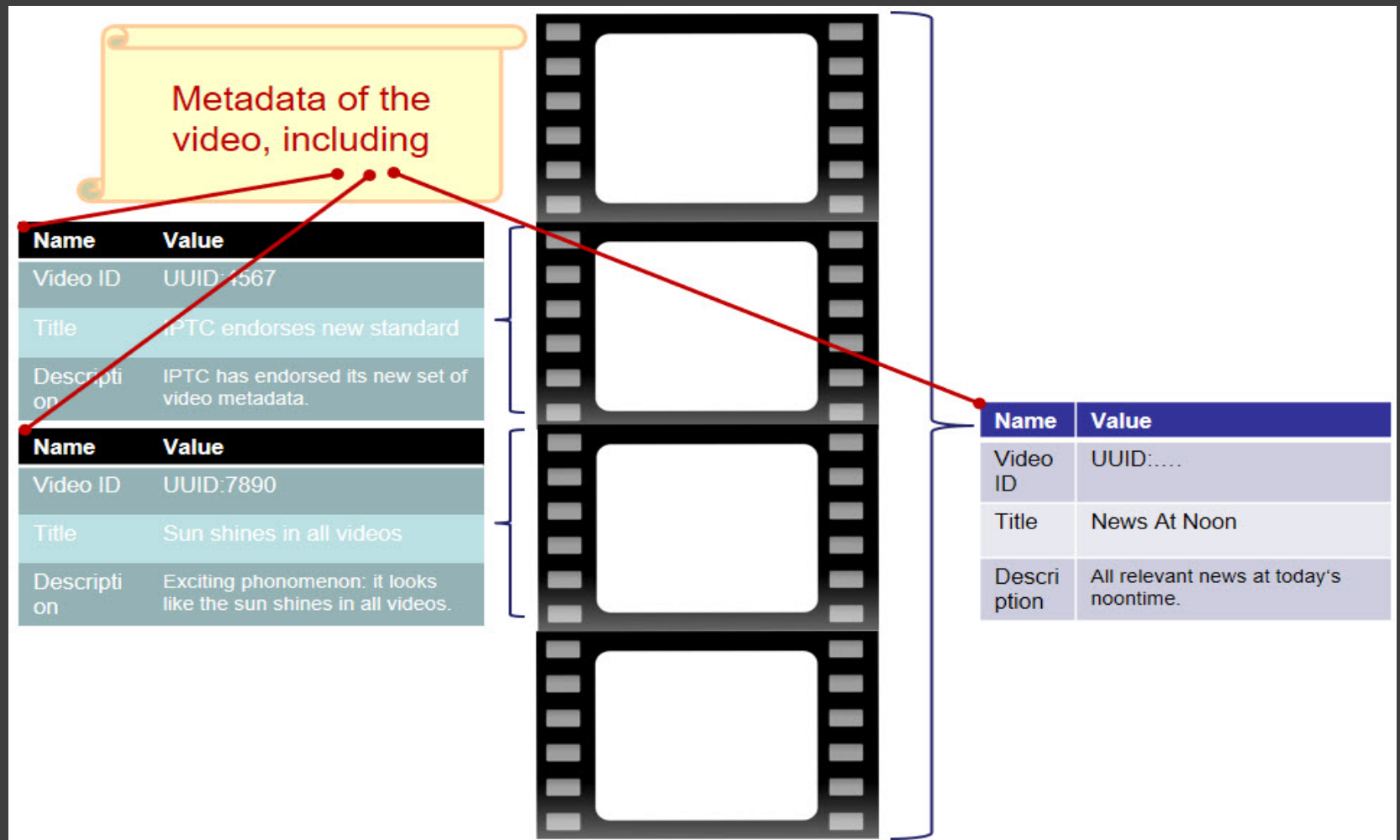
# Let's compare: Administrative Data

Photo	Video
Date the image was created	Date created & date modified & date released
Title	Title
Job Identifier	
Instructions	
Digital Image GUID	Video Identifier & V Version & V Rendition
Registry Entry	Registry Entry
Digital Source Type	
	Language Version
	Series / Season / Episode
	Storyline Identifier

# Let's compare: Technical Data

Photo	Video
Max Width and Height	Frame Size
	Editorial duration
<i>This kind of metadata is covered by Exif</i>	Video: encoding, bitrate, frame rate, profile, streams count ...
	Audio: encoding, bitrate, sample rate, channels ...
	File: format, bitrate
	Aspect ratios, orientation

# Video specific: parts = clips

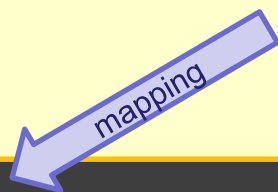


# Video Metadata Hub Key Features

Area of IPTC's control

(some) IPTC Video Metadata Hub properties:

Name	Value
Video ID	10.5240/EA73-79D7-1B2B-B378-3A73-M
Title	Blade Runner
Description	Deckard (Harrison Ford) is forced by the police Boss (M. Emmet Walsh) to continue his old job as Replicant Hunter.



XMP specified for embedded metadata

EBUcore specified for non-embedded metadata



Property	Value
---	
com.apple.quicktime.title	See above
com.apple.quicktime.description	See above

Genuine md processor

Property	Value
dc:identifier	See above
dc:title	See above
dc:description	See above

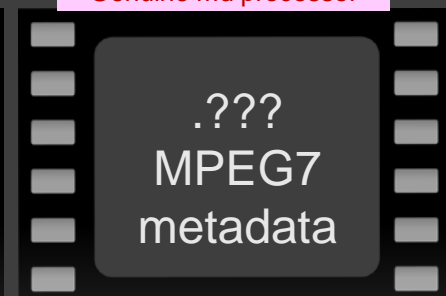
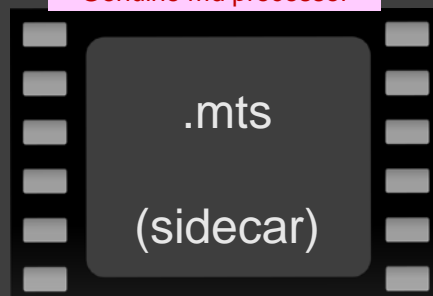
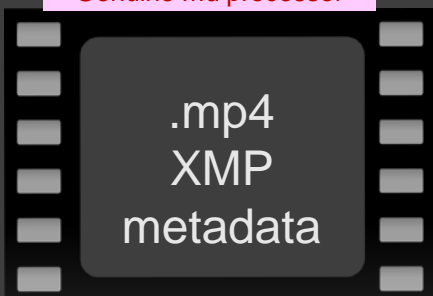
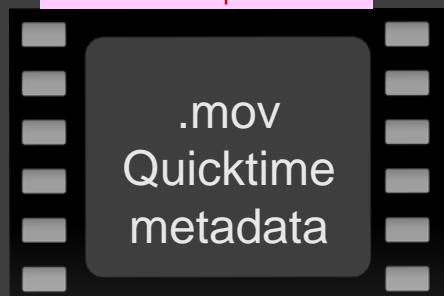
Genuine md processor

Property (ebucore: ...)	Value
identifier + @typeLink	See above
title + @typeLink	See above
description + @typeLink	See above

Genuine md processor

Property	Value
Object Identifiers/GUID	See above
Titles/Main title	See above
Textual Description/Description	See above

Genuine md processor



EBUcore  
metadata



# The Semantic Hub

(some) IPTC Video Metadata Hub properties:

Name	Value
Director	Ridley Scott
Title	Blade Runner
Description	Deckard (Harrison Ford) is forced by the police Boss (M. Emmet Walsh) to continue his old job as Replicant Hunter.

Read data

Transferred

Transferred

Transferred

Property	Value
com.apple.quicktime.director	Ridley Sch
com.apple.quicktime.title	Blade Run
com.apple.quicktime.description	Deckhard

Genuine md processor

Property	Value
dc:creator + role=„director“	See above
dc:title	See above
dc:description	See above

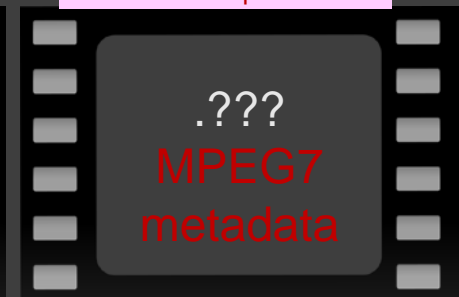
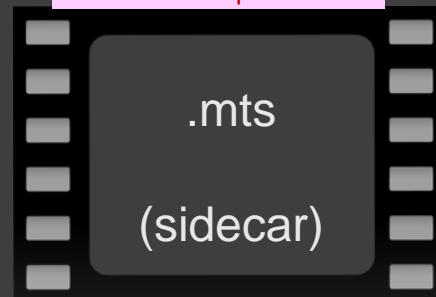
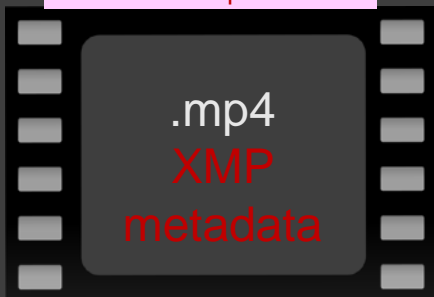
Genuine md processor

Property (ebucore: ...)	Value
creator + @typeLink	See above
title + @typeLink	See above
description + @typeLink	See above

Genuine md processor

Property	Value
Prod Key People/Director	See above
Titles/Main title	See above
Textual Description/Description	See above

Genuine md processor



EBUcore  
metadata



# Use Case 1: Footage



generic &  
maker-specific  
metadata



generic &  
maker-specific  
metadata



generic &  
maker-specific  
metadata



generic &  
maker-specific  
metadata

Transform differently named/identified metadata fields  
into a single set of metadata fields  
→ the Video Metadata Hub

People at your company have to know only a single set.



## Use Case 2: Export

Our  
Video Metadata (Hub)

Field  
mapping  
solves that!!

Your dear customers  
have different  
needs ...

Quicktime

MP4  
with  
XMP

MTS  
with  
PB  
Core

MPE  
HD422  
with  
EBUcore

A little bit  
of  
everything  
Shaken,  
not stirred



# Use Case 3: DAM Metadata Design

Your DAM/MAM is flexible  
you can pick metadata fields

Some VMHub fields

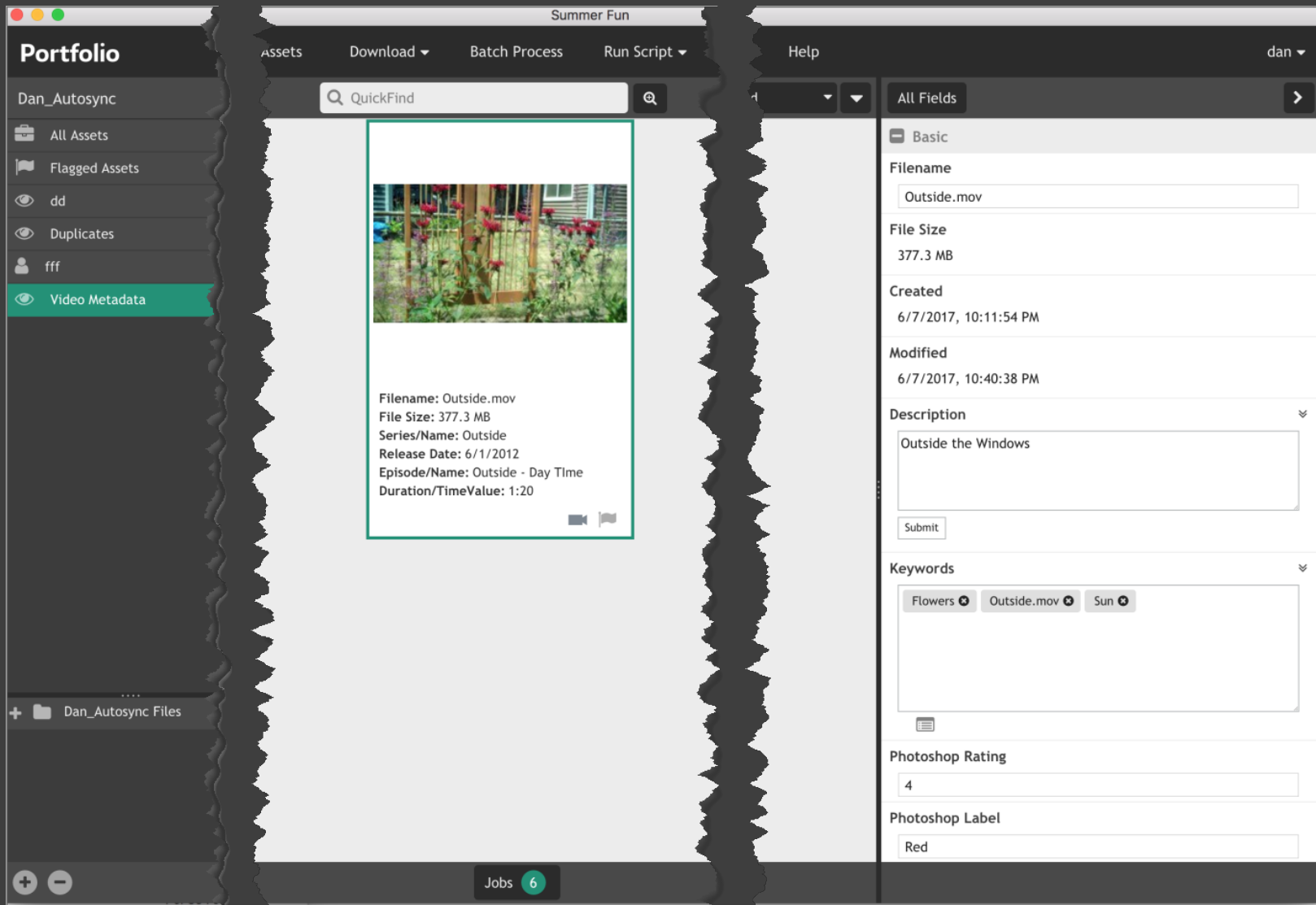
Video Identifier	Globally unambiguous identifier of the video regardless of renditions, formats, encodings etc. This identifier should be shared across all renditions.	IPTC advises to follow the guidelines by ISAN ( <a href="http://www.isan.org">http://www.isan.org</a> )	Text (0..1)
Video Rendition	Unambiguous identifier of the video specific to a rendition.	Definitions of specific renditions are not provided by IPTC. Definitions of renditions may be based on format or encoding etc and can be set by producers of videos and/or system vendors.	Text (0..1)
Video Version	Version of the video identified by the Video Identifier		Text (0..1)
Workflow Tag	Indicator for the role of this video in a production workflow.	Could be used to indicate footage, edited video, program masters, etc. Values are typically codes defined by a production company.	Concept structure (0..1)
Registry Entry	Identifier of the video issued by an identified registry.	What is considered a registry can be interpreted in a wide sense as the controlled management of assets with asset-specific identifiers	Registry Entry structure (0..unbounded)
CV Term About the Content	What the video is about expressed by term(s) selected from taxonomies or controlled vocabularies		Concept structure (0..unbounded)
Data Displayed on Screen	Text or other data shown in some region of the image.		Text with region delimiter structure (0..unbounded)
Description	Textual description of the content of the video		Text + language tag (0..1)
Dopesheet	Shotlist with descriptions		Text + language tag (0..1)

The VMHub provides

- A recommended field label
- Definitions of how to use a field
- Additional hints
- Description of the technical type of the data

You'll  
get what  
you want

# How to integrate VHMub into a DAM /1



# How to integrate VHMub into a DAM /2

How to add specific needed VMHub properties:

**IPTC:Ext - VideoShotType/Identifier**

Field Type String

Max Length  Max: 2000

Default Value

Allow Multiple Values ☒

Has Predefined Values ☐

Predefined Values

☒ Extract and Embed Metadata

Metadata Name

Extract from Metadata ☒

Embed in Metadata ☒

**IPTC:Ext - videoBitRate**

Field Type Decimal

Precision  Max: 8

Default Value

Allow Multiple Values ☐

Has Predefined Values ☐

Predefined Values

☒ Extract and Embed Metadata

Metadata Name

Extract from Metadata ☒

Embed in Metadata ☒

# How to integrate VHMub into a DAM /3

## Metadata Definitions

Name	Tag	Type	Data Type ▲
IPTC:Ext - BroadcastDate/Date	Iptc4xmpExt:BroadcastDate:Date	XMP	Date/Time
IPTC:Ext - BroadcastDate/Identifier	Iptc4xmpExt:BroadcastDate:Identifi	XMP	String
IPTC:Ext - BroadcastDate/Name	Iptc4xmpExt:BroadcastDate:Name	XMP	Lang Alt
IPTC:Ext - CircaDateCreated	Iptc4xmpExt:CircaDateCreated	XMP	String
IPTC:Ext - ContainerFormat/Identifi	Iptc4xmpExt:ContainerFormat:Ident	XMP	String
IPTC:Ext - ContainerFormat/Name	Iptc4xmpExt:ContainerFormat:Name	XMP	Lang Alt
IPTC:Ext - Contributor/Identifier	Iptc4xmpExt:Contributor:Identifier	XMP	String
IPTC:Ext - Contributor/Name	Iptc4xmpExt:Contributor:Name	XMP	Lang Alt
IPTC:Ext - Contributor/Role	Iptc4xmpExt:Contributor:Role	XMP	String
IPTC:Ext - CopyrightYear	Iptc4xmpExt:CopyrightYear	XMP	Number
IPTC:Ext - Creator/Identifier	Iptc4xmpExt:Creator:Identifier	XMP	String
IPTC:Ext - Creator/Name	Iptc4xmpExt:Creator:Name	XMP	Lang Alt
IPTC:Ext - Creator/Role	Iptc4xmpExt:Creator:Role	XMP	String
IPTC:Ext - CVterm	Iptc4xmpExt:CVterm	XMP	String
IPTC:Ext - DigImageGUID	Iptc4xmpExt:DigImageGUID	XMP	String
IPTC:Ext - DigitalSourcefileType	Iptc4xmpExt:DigitalSourcefileType	XMP	String
IPTC:Ext - DigitalSourceType	Iptc4xmpExt:DigitalSourceType	XMP	String
IPTC:Ext - Dopesheet	Iptc4xmpExt:Dopesheet	XMP	Lang Alt
IPTC:Ext - DopesheetLink/Link	Iptc4xmpExt:DopesheetLink:Link	XMP	String

This list  
could be  
the result.

# Wrap up

## The Video Metadata Hub

- provides a single set of metadata for videos in different formats
- maps the VMHub data to the file and formats your customers need
- helps to tailor your DAM/MAM to your needs

The Video Metadata Hub helps



The Video Metadata Hub helps

Check the Video Metadata Hub  
and let us know: [office@iptc.org](mailto:office@iptc.org)

