UMID Application Conference

TC-30MR SG UMID Applications

Yoshi Shibata (Chair)

Agenda

- SMPTE Attendance Policy Statement
- Introductions
- Presentations
  - "Introduction to UMID"
  - "Technical Requirement for Program Package Exchange"
  - "UMID implementation in P2 MXF OP-Atom"
  - "UMID Digital Signature – Securing the Digital Media Universe"
  - "The use of UMIDs in the production of Sports related news"
  - "Why so many globally unique identifiers? And why only one?"
  - "Identification in the IP Studio"
  - "Globally distributed material management by UMID"
- Discussions

Attendance Policy

- Please be aware that this meeting is being conducted in accordance with the SMPTE Engineering Operations Manual, which is accessible on the SMPTE website with the Society Bylaws(http://smpte.org/eng-om)

- Your participation, whether as a member or guest, is governed by these provisions and your continued attendance at this meeting indicates your acknowledgement that you understand and are complying with the full form of the Operations Manual. Please take careful note of the sections requiring attendees to inform the Committee of personal knowledge of any claims under any issued patent or any patent application that likely would be infringed by an implementation of any document under consideration by this Committee. The Manual further indicates that attendees must keep the meeting proceedings confidential, may not record the proceedings, and may not communicate the meeting proceedings or any of its documented contents to external parties, including the press, without the approval of the Engineering Vice President. This general reminder is not a substitute for an attendee's responsibility to fully read, understand, and comply with the full Operations Manual.

- Please log into the SMPTE Kavi site now and register your attendance at this meeting. If you are unable to access the SMPTE Kavi site, please send an email to the Chairperson and he will record your attendance later.

Introductions

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Presentations

- "Introduction to UMID"
  - Y. Shibata (Chair)
- "Technical Requirement for Program Package Exchange"
  - S. Fujihara (IBM)
- "UMID implementation in P2 MXF OP-Atom"
  - H. Ohtaka (Panasonic)
- "UMID Digital Signature – Securing the Digital Media Universe"
  - C. Burnett (Geocode)
- "The use of UMIDs in the production of Sports related news"
  - S. Posick (ESPN)
- "Why so many globally unique identifiers? And why only one?"
  - J.-P. Evain (EBU)
- "Identification in the IP Studio"
  - P. Tudor (BBC)"
- "Globally distributed material management by UMID"
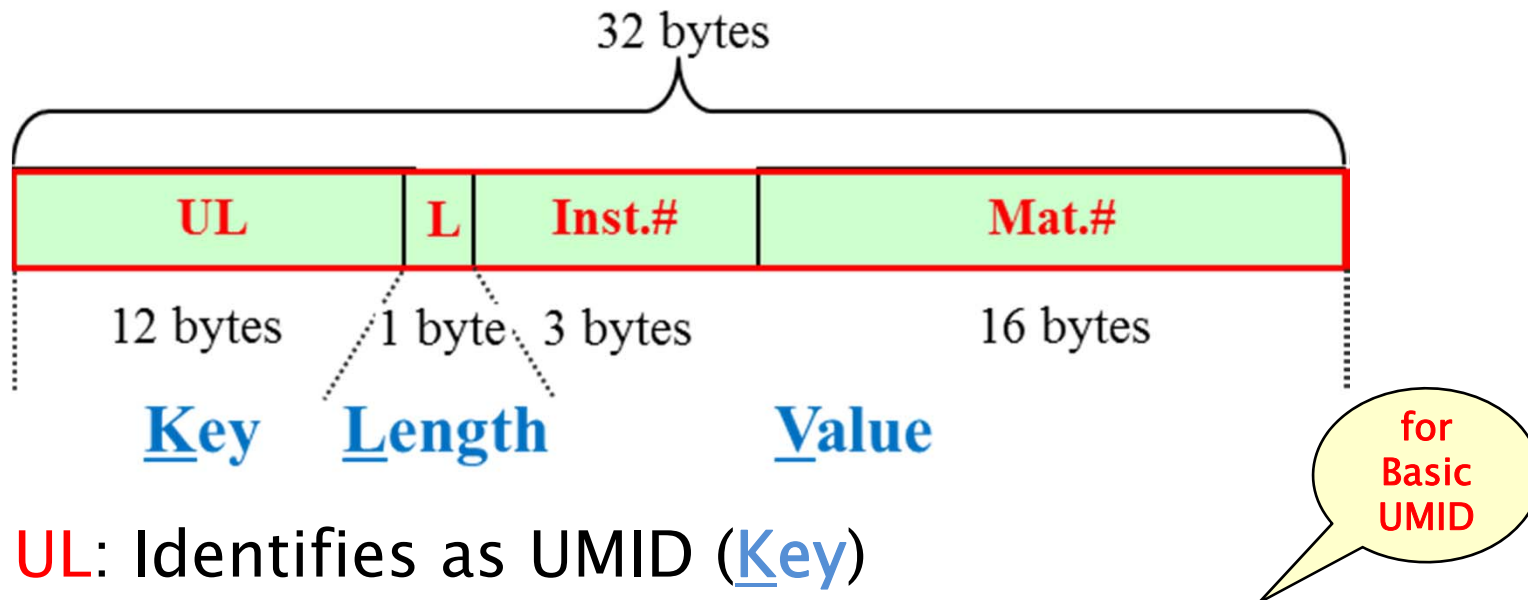 - Y. Shibata (metaFrontier.jp)

Introduction to UMID

Yoshi Shibata

Chair, TC-30MR SG UMID Applications
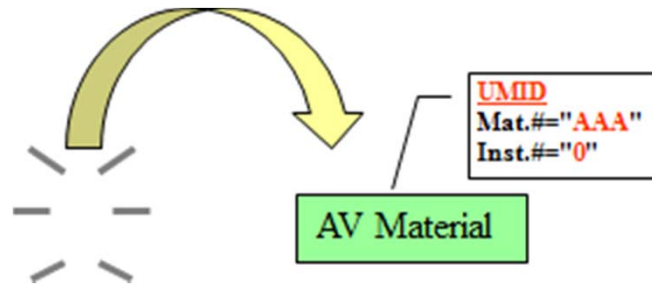
What is the UMID?

▸ Unique Material IDentifier
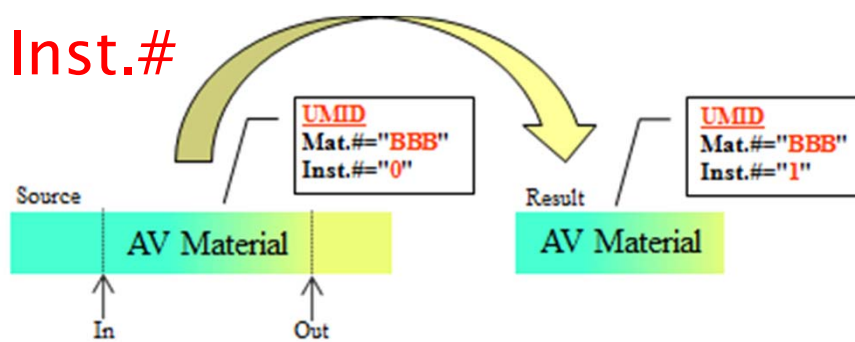 ◦ Specified in SMPTE ST 330及びRP 205 (in 2000)

32 bytes

UL	L	Inst.#	Mat.#
12 bytes	1 byte	3 bytes	16 bytes

Key　Length　Value

- UL: Identifies as UMID (Key)
- L: Length in byte that follows, fixed to 13_h (Length)
- Inst.#: indicating its originality
- Mat.#: Globally unique value

(Value)

for Basic UMID

Two Distinct Uses of the UMID

▸ **As a unique identifier**
  ◦ New value for Mat.#
  ◦ Zero for Inst.#

UMID
Mat.#="AAA"
Inst.#="0"

AV Material

▸ **As a linking tool**
  ◦ Shared value for Mat.#
  ◦ Non-zero for Inst.#

UMID
Mat.#="BBB"
Inst.#="0"

UMID
Mat.#="BBB"
Inst.#="1"

Source
AV Material

Result
AV Material

In   Out

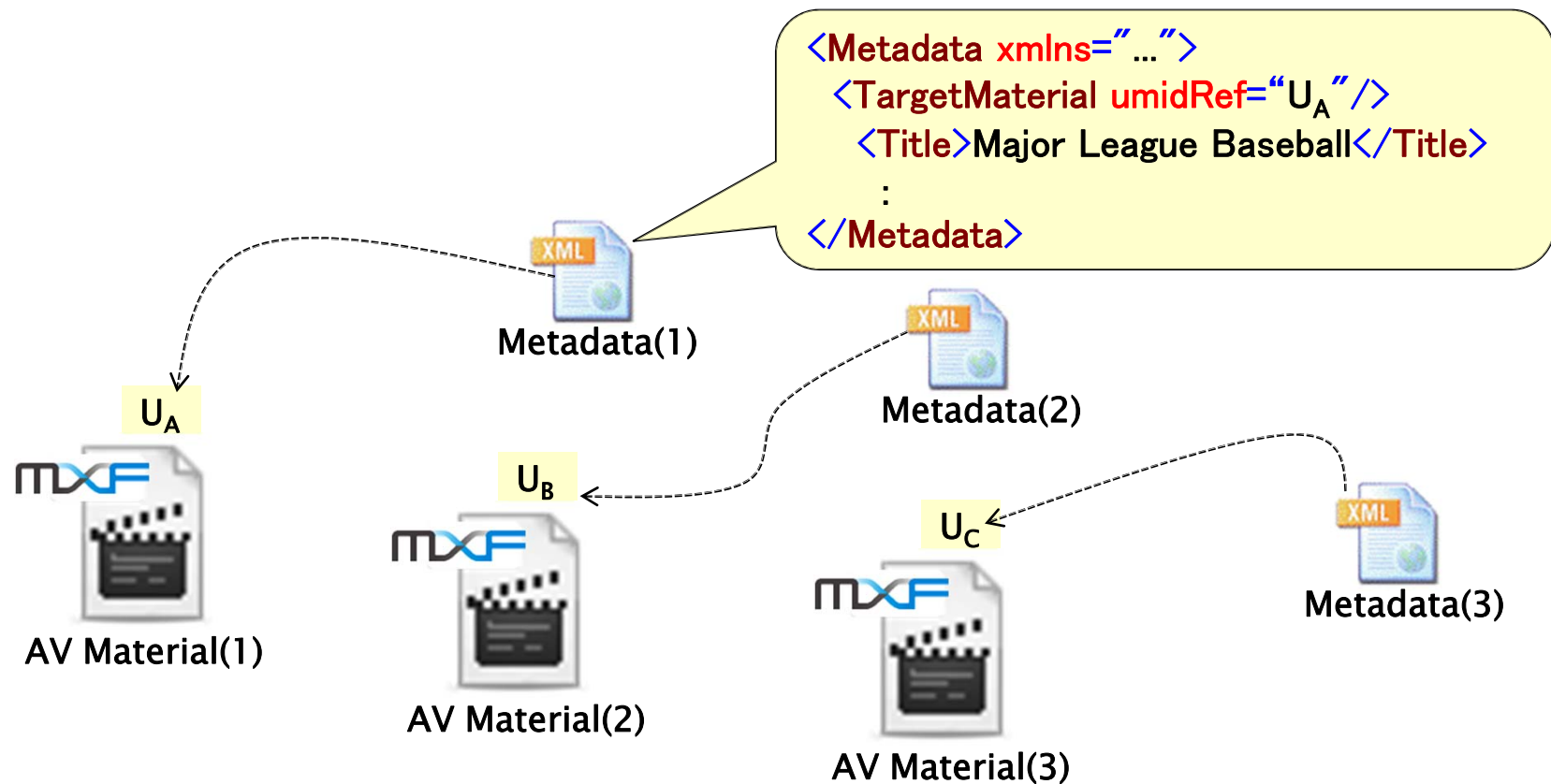**Mutually Exclusive!**

How to use UMID as an Identifier

▸ To link an AV material to its metadata


```
<Metadata xmlns="…">
   <TargetMaterial umidRef="U_A"/>
      <Title>Major League Baseball</Title>
      :
</Metadata>
```

Extended UMID

- = Basic UMID + Source Pack (When/Where/Who)
- To identify finer granurality
  - E.g., a frame within an AV clip
- Source Pack to be preserved

Basic UMID   **Source Pack**

When   Where   Who

UL	L	Inst. #	Mat.#	Date / Time	Alt. / Lat. / Long.	User Info.
12 bytes	1 byte	3 bytes	16 bytes	8 bytes	12 bytes	12 bytes

$(L=33_h)$

Country	Org.	User code
4 bytes	4 bytes	4 bytes

Thank you !

2012/9/13