

Getting Ready for C2PA

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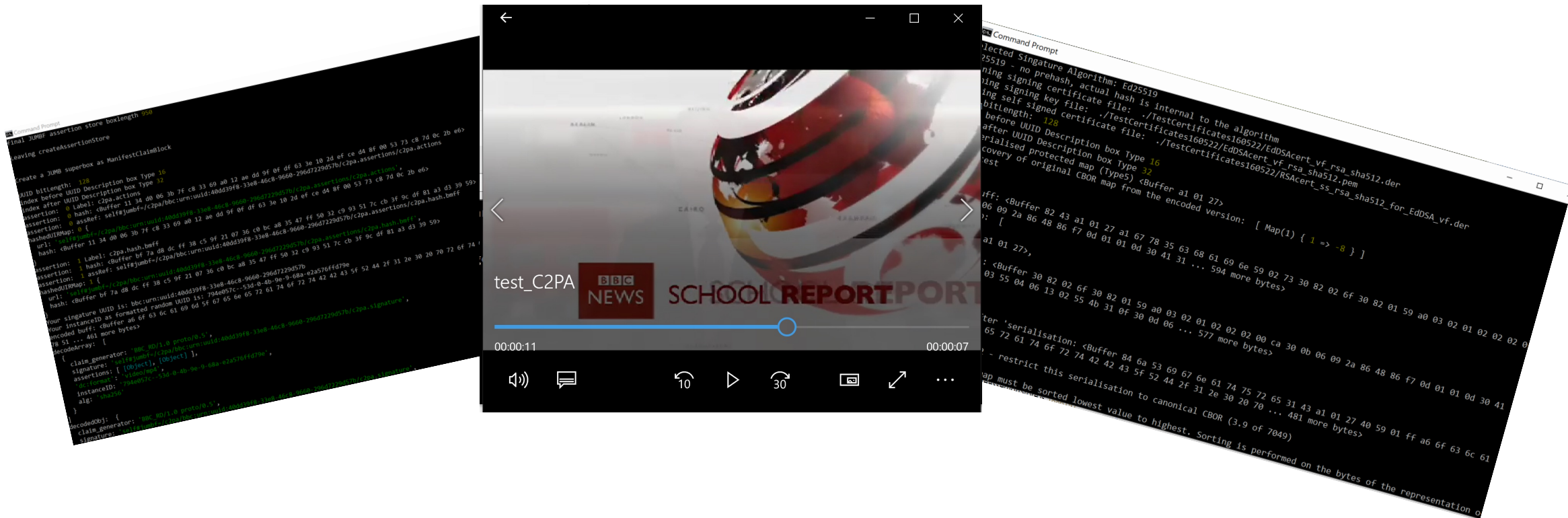
Learning and testing through implementation

Step One: Understanding the specification

- **Creating C2PA compliant content** - implementing the authenticated manifests
- **Aid specification development** – testing our understanding for the BBC use case.
- Ensuring the content still plays!
- Interoperability testing of content with other C2PA partners (Adobe, Truepic, Microsoft)
- Basic command line tool in Javascript using Node.js

Screenshots

BBC and C2PA



Second step

BBC and C2PA

- A user friendly **demonstrator/prototype** for journalist and newsroom specialists to..
 - Help **understand the validator and editor** roles and output
 - Try and show a **range of assertions**
 - Explore the **manifests** and how these are represented to consumers
 - Explore the issues around **newsroom provision** and options for **workflow and operations**

Screenshots

BBC and C2PA

<p> Payload output will be at 76 for 8724 bytes extended_type (UInt8 Array) =216, 254, 195, 214, 27, 14, 72, 60, 146, 151, 88, 40, 135, 126, 196, 129 version (UInt8) =0 box_purpose (Null Terminated String) =manifest merklet_offset (UInt64) =1692186 </p>	
<h3>jumb (C2PA Manifest Store)</h3> <p> Starts at 85 bytes for 8954 bytes Payload output will be at 118 for 8662 bytes </p>	<div> <div>Definition</div> <div>Edit</div> <div>JSON</div> </div>
<h3>jumd (C2PA Manifest Store)</h3> <p> Starts at 93 bytes for 58 bytes Payload output will be at 126 for 58 bytes </p> <p> type (Hex String) =0x6332706100110010800000aa00389b71 toggles (BitField) =unused = 0 (3 bits)privacy_box_present = 0 (1 bit)signature_present = 1 (1 bit)id_present = 1 (1 bit)label_present = 1 (1 bit)requestable = 1 (1 bit) label (Null Terminated String) =c2pa id (String) =xÆ sha (Hex String) =0xdd7a7efa09db28f4dbede158b0a7031c8feca7dfd9e5abc344a8827cd06cf0 </p>	<div> <div>Definition</div> <div>Edit</div> <div>JSON</div> </div>
<h3>jumb (C2MA Manifest)</h3> <p> Starts at 159 bytes for 2464 bytes Payload output will be at 192 for 2400 bytes </p>	<div> <div>Definition</div> <div>Edit</div> <div>JSON</div> </div>
<h3>jumd (C2MA Manifest)</h3> <p> Starts at 167 bytes for 103 bytes Payload output will be at 200 for 103 bytes </p> <p> type (Hex String) =0x63326d6100110010800000aa00389b71 toggles (BitField) =unused = 0 (3 bits)privacy_box_present = 0 (1 bit)signature_present = 1 (1 bit)id_present = 1 (1 bit)label_present = 1 (1 bit)requestable = 1 (1 bit) label (Null Terminated String) =bbccurcuidd:fcecf9d6-3ca7-4ae9-89db-d71bdfc88040 id (String) =-5 sha (Hex String) =0xa8cdf9e5672176a1a9a1445cf424b0cf7d8e6360b05a77628627aa704c28677f </p>	<div> <div>Definition</div> <div>Edit</div> <div>JSON</div> </div>
<h3>jumb (C2AS Assertion Store)</h3> <p> Starts at 2720 bytes for 2400 bytes </p>	<div> <div>Definition</div> <div>Edit</div> <div>JSON</div> </div>

<h2>jumb (CBOR Assertion Content)</h2> <p>Starts at 6350 bytes for 492 bytes</p> <p>Payload output will be at 6175 for 452 bytes</p>	<div> Definition Edit JSON </div>
<h2>jumd (CBOR Assertion Content)</h2> <p>Starts at 6358 bytes for 112 bytes</p> <p>Payload output will be at 6183 for 72 bytes</p> <pre> type (Hex String) =0x636267200110010800000aa00389671 toggles (BitField) =unused = 0 (3 bits)privacy_box_present = 1 (1 bit)signature_present = 1 (1 bit)id_present = 1 (1 bit)label_present = 1 (1 bit)requestable = 1 (1 bit) label (Null Terminated String) =c2pa.ingredient_0 id (String) =f4 sha (Hex String) =0x8b5ae039f102653a49be29ab1625c2e77a987bcbad60715dea147976386e8fa7 </pre>	<div> Definition Edit JSON </div>
<h2>cbor</h2> <p>Starts at 6478 bytes for 364 bytes</p> <p>Payload output will be at 6263 for 364 bytes</p> <p>content (CBOR) =</p> <div> >Show CBOR (55 lines) </div>	<div> Definition Edit JSON </div>
<h2>jumb (CBOR Assertion Content)</h2> <p>Starts at 6850 bytes for 492 bytes</p> <p>Payload output will be at 6635 for 452 bytes</p>	<div> Definition Edit JSON </div>
<h2>jumd (CBOR Assertion Content)</h2> <p>Starts at 6858 bytes for 112 bytes</p> <p>Payload output will be at 6643 for 72 bytes</p> <pre> type (Hex String) =0x636267200110010800000aa00389671 toggles (BitField) =unused = 0 (3 bits)privacy_box_present = 1 (1 bit)signature_present = 1 (1 bit)id_present = 1 (1 bit)label_present = 1 (1 bit)requestable = 1 (1 bit) label (Null Terminated String) =e2pa.ingredient_1 </pre>	<div> Definition Edit JSON </div>

Thank you.