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**Information technologies — JPEG  
systems —**

**Part 5:  
JPEG universal metadata box format  
(JUMBF)**

**AMENDMENT 1: Support for embedding  
mixed codestreams**

*Technologies de l'information — Systèmes JPEG —*

*Partie 5: Format universel de fichier de métadonnées pour JPEG  
(JUMBF)*

*AMENDEMENT 1*



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# Information technologies — JPEG systems —

## Part 5:

## JPEG universal metadata box format (JUMBF)

### AMENDMENT 1: Support for embedding mixed codestreams

#### *A.3, Table A.2*

Replace the table footer text with:

The upper 4 bits are reserved for future use by ISO/IEC.

#### *B.2.2, NOTE*

Replace the note with the following note:

NOTE Despite the 'jp2c' type name, a Contiguous Codestream box is not restricted to JPEG 2000 codestreams. The codestream type is determined by the parent image codestream type.

#### *Annex B*

Add a new clause at the end of Annex B as follows:

### **B.6 Embedded File Content Type**

#### **B.6.1 JUMBF box Content**

JUMBF boxes that embed binary files shall use the 0x40CB0C32-BB8A-489D-A70B-2AD6F47F4369 JUMBF TYPE. The Content of the JUMBF box shall contain exactly one Embedded File Description box and exactly one Binary Data box as illustrated in Figure B.1.

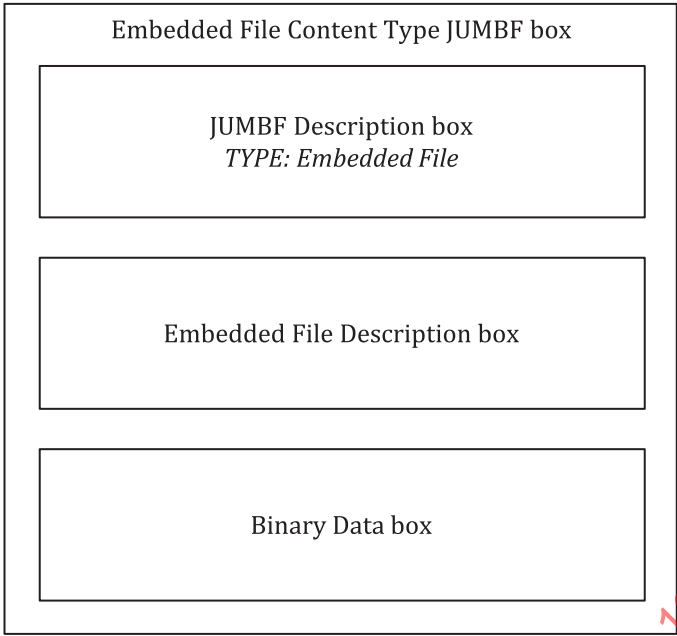


Figure B.6 — Structure of an Embedded File Content Type JUMBF box

The Embedded File Description box provides additional information such as the Media Type of the embedded file.

The Binary Data box contains a complete and valid binary file that corresponds with the Media Type signalled in the Embedded File Description box. Alternatively, the contents of the Binary Data box can be a URI pointing to an external file.

B.6.2 Embedded File Description box

The type of an Embedded File Description box shall be 'bfdb' (0x6266 6462). The contents of the box shall be as in Figure B.7. The fields are summarized in Table B.6.

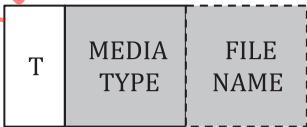


Figure B.7 — Organization of the contents of the Embedded File Description box

- **TOGGLES (T):** This field shall contain TOGGLES as in Table B.5 (toggle for file name present and toggle for embedded/external).

Table B.5 — TOGGLES

| Binary value                                             | Meaning              | TOGGLE details                                                                                                                                                                                                                                                        |
|----------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0000 00x1                                                | File name present    | File name present. This option signals if the FILE NAME field is present.                                                                                                                                                                                             |
| 0000 00x0                                                | No file name present |                                                                                                                                                                                                                                                                       |
| 0000 001x                                                | External             | External file. If this option is enabled, the content of the Binary Data box shall be a null-terminated UTF-8 string that represents a URI to an external file.<br><br>If this option is disabled, the content of the binary file is embedded in the Binary Data box. |
| 0000 000x                                                | Embedded             |                                                                                                                                                                                                                                                                       |
| The upper 6 bits are reserved for future use by ISO/IEC. |                      |                                                                                                                                                                                                                                                                       |

- **MEDIA TYPE:** This field shall contain a null terminated UTF-8 string that represents the Media Type of the embedded file.
- **FILE NAME:** This optional field shall contain a null terminated UTF-8 string that represents the file name of the embedded file. The file name shall not include the path or directory structure.

Table B.6 — Format of the contents of the Embedded File Description box

| Field name  | Size (bits) | Value                        |
|-------------|-------------|------------------------------|
| TOGGLES (T) | 8           | See Table B.5                |
| MEDIA TYPE  | Variable    | Null terminated UTF-8 string |
| FILE NAME   | Variable    | Null terminated UTF-8 string |

### B.6.3 Binary Data box

The Binary Data box encapsulates binary data. In the context of the JUMBF Embedded File type box the media type of the binary data is signalled in the Embedded File Description box. The type of a Binary Data box shall be 'bidb' (0x6269 6462). The contents of the box shall be as in Figure B.8, the fields are summarized in Table B.7.



Figure B.8 — Organization of the contents of the Binary Data box

- **DATA:** This field contains binary data.

Table B.7 — Format of the contents of the Binary Data box

| Field name | Size (bits) | Value                       |
|------------|-------------|-----------------------------|
| DATA       | Variable    | Variable length binary data |

*Annex C*

Add a new subclause at the end of Clause C.5 as follows:

**C.5.6 Embedded File Content Type Requests**

When a request is made to an Embedded File Content Type JUMBF box, the request shall return the entire file embedded in the binary data box. The Media Type shall be determined by the Media Type signalled in the Embedded File Description box.

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