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**AMENDMENT 2**  
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**Information technology — JPEG 2000  
image coding system: Interactivity tools,  
APIs and protocols**

**AMENDMENT 2: JPIP extensions**

*Technologies de l'information — Système de codage d'images  
JPEG 2000: Outils d'interactivité, interfaces de programmes  
d'application et protocoles*  
**AMENDEMENT 2: Extensions JPIP**

ISO/IEC 15444-9:2005/Amd 2:2008

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Reference number  
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Amendment 2 to ISO/IEC 15444-9:2005 was balloted as ISO/IEC 15444-9:2005/FDAM 3. It is the second published Amendment to ISO/IEC 15444-9:2005.

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INTERNATIONAL STANDARD  
ITU-T RECOMMENDATIONInformation technology – JPEG 2000 image coding system:  
Interactivity tools, APIs and protocols

## Amendment 2

## JPIP extensions

## 1) Clause C.4.7

Rewrite the second sentence of the paragraph in C.4.7 that reads (with the changes underlined):

If the `jpm-context` parameter appears in a request without a Frame Size request (`fsiz`) then the Frame Size values `fx` and `fy` are set to the page width and page height. If the `jpm-context` parameter appears in a request without a Region Size request (`rsiz`) then the Region Size values ~~`rx`~~ `sx` and ~~`ry`~~ `sy` are set to the frame size values `fx` and `fy` (after `fx` and `fy` have been set to the page width and height if necessary).

## 2) Clause C.4.11

Add the following new clause:

## C.4.11 Multi-component transformation (MCT) Resolution Value

```
mctres = "mctres" "=" UINT
```

This field specifies the desired multi-component transformation resolution level. This field is only applicable if for all tile-components, exactly one of the multi-component transformations that are applied on this tile-component (and iteratively on the resulting intermediate components to create generated components) is a multi-component wavelet-transformation. It shall not be used otherwise. If this field is not present, it will be assumed that the full resolution representation of the image data is desired. The full number of resolution levels is one more than the number of wavelet transform levels  $N_L$  in the multi-component transformation, given by  $T_{mcc}^i$  (see Table A.39 in ITU-T Rec. T.801 | ISO/IEC 15444-2). For full resolution, this field should be set to 1. For half resolution, the field should be set to 2, for quarter resolution, the field should be set to 3, etc. If the value of `mctres` exceeds  $N_L + 1$  for one tile or codestream, the lowest available resolution of that tile or codestream shall be transmitted. The same value of `mctres` shall apply simultaneously to all multi-component wavelet transformations found in the codestream(s).

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