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STANDARDIZATION SECTOR
OF ITU

T.88

Amendment 2
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SERIES T: TERMINALS FOR TELEMATIC SERVICES

Information technology – Lossy/lossless
coding of bi-level images

**Amendment 2: Extension of adaptive templates
for halftone coding**

ITU-T Recommendation T.88 (2000) – Amendment 2

Information technology – Lossy/lossless coding of bi-level images

Amendment 2

**Extension of adaptive templates
for halftone coding**

Summary

The objective of this amendment is to further improve JBIG2's compression of periodic bi-level images, like the halftones used in printing. In particular, it improves compression for the clustered-dot halftones often used in very high resolution commercial printing. When applying the appropriate 16-pixel JBIG2 'template' for such applications, this amendment facilitates more compression by increasing the number of moveable (Adaptive Template, 'AT') pixels from 4 to 12. For periodic halftones at resolutions of over 2400 dpi, effectively exploiting these 12 AT pixels yields approximately 20% better compression than the best obtainable with the current 16-pixel JBIG2 template (by optimizing its maximum of 4 AT pixels). To signal the presence of this amendment's datastreams, new flag bits have been defined for both the overall JBIG2 File header and for relevant image Segment headers. The flag bits permit early detection of this amendment's datastreams, making it possible to quickly prevent current JBIG2 decoders from attempting to decode these new datastreams.

Source

Amendment 2 to ITU-T Recommendation T.88 (2000) was prepared by ITU-T Study Group 16 (2001-2004) and approved on 29 June 2003. An identical text is also published as ISO/IEC 14492, Amendment 2.

FOREWORD

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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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