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SERIES T: TERMINALS FOR TELEMATIC SERVICES

Run-length colour encoding

ITU-T Recommendation T.45

(Previously CCITT Recommendation)

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ITU-T RECOMMENDATION T.45

RUN-LENGTH COLOUR ENCODING

Summary

This Recommendation, "Run-length colour encoding", specifies a run-length encoding procedure which has been optimised for the encoding of lists of colour values. Use of T.45 to encode the colour values of the T.88 (JBIG2) related colour tag procedure is one targeted application. Recommendation T.88 has been shown to be particularly effective in the coding of coloured text when the colours of the foreground layer associated with a T.88 encoded MRC mask layer (i.e. text shapes) are represented by colour tags (i.e. colour values). Use of the Recommendation T.88 together with the colour tag provision can realise more than twice the compression gains associated with conventional bitmap image encoding of text colours. The colour tag provision takes advantage of the fact that T.88 codes text regions by generating discrete symbols (i.e. symbols are used to represent text characters) and the text characters are usually a single flat colour. Colour tagging uses a single colour value (i.e. a colour tag) to represent the colour of each T.88 symbol occurrence, one colour value for each corresponding mask layer (X, Y, ID) symbol triplet. The colour values are ordered identically to the symbol occurrences. The ordered list of foreground layer colour tags (i.e. colour values) are compressed using T.45 "Run-length colour encoding".

Source

ITU-T Recommendation T.45 was prepared by ITU-T Study Group 8 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on 10 February 2000.

FOREWORD

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In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, the ITU had not 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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