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**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**T.85**

**Amendment 1**

(10/96)

SERIES T: TERMINALS FOR TELEMATIC SERVICES

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Application profile for Recommendation T.82 –  
Progressive bi-level image compression (JBIG  
coding scheme) for facsimile apparatus

**Amendment 1**

ITU-T Recommendation T.85 – Amendment 1

(Previously CCITT Recommendation)

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ITU-T T-SERIES RECOMMENDATIONS  
**TERMINALS FOR TELEMATIC SERVICES**

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## FOREWORD

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The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

Amendment 1 to ITU-T Recommendation T.85 was prepared by ITU-T Study Group 8 (1993-1996) and was approved by the WTSC (Geneva, 9-18 October 1996).

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### 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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## **SUMMARY**

Recommendation T.85 defines the application profile of Recommendation T.82 for facsimile.

This Amendment contains the following two parts:

- Part 1 – Editorial corrections to the main body of Recommendation T.85.
- Part 2 – A new appendix to Recommendation T.85.



**APPLICATION PROFILE FOR RECOMMENDATION T.82 – PROGRESSIVE  
BI-LEVEL IMAGE COMPRESSION (JBIG CODING SCHEME)  
FOR FACSIMILE APPARATUS**

**AMENDMENT 1**

*(Geneva, 1996)*

**PART 1 – EDITORIAL CORRECTIONS TO THE MAIN BODY OF  
RECOMMENDATION T.85**

**1) Subclause 4.3 the third line:**

“facsimile document” should be replaced by “facsimile page”.

**2) Note 4 of Table 1/T.85:**

“OPTIONS” should be corrected to “OPTION”.

**PART 2 – A NEW APPENDIX TO RECOMMENDATION T.85**

**Appendix I**

**Examples of the usage of NEWLEN marker segment**

This Appendix describes examples of the usage of NEWLEN marker segment for the case when the facsimile terminal cannot identify the vertical size  $Y_D$  of the page to be transmitted when it starts coding. This appendix applies to the single-progression sequential coding described in clause 4.

The examples shown in this Appendix illustrate the application of 6.2.6.2/T.82.

**I.1 Basic mode**

The first two examples show the case when one page of 500 lines is transmitted in basic mode with  $L_0 = 128$ . One page is coded into multiple stripes with the condition that the vertical length of the page is unknown when the transmitting facsimile terminal starts coding. For the first example,  $Y_D$  is set to 0xffffffff. Then, at the line of 500, the image data exhausts.

**Data stream for basic mode-1**

BIH ( $Y_D = 0xffffffff$ ,  $L_0 = 128$ ,  $VLENGTH = 1$  – Other parameters shall be set appropriately).

Encoded image data of the first stripe (line 1-128).

ESC, SDNORM.

Encoded image data of the second stripe (line 129-256).

ESC, SDNORM.

Encoded image data of the third stripe (line 257-384).

ESC, SDNORM.

ESC, NEWLEN, New  $Y_D (= 500)$ .

Encoded image data of the fourth stripe (line 385-500).

ESC, SDNORM.

The following data stream is an example, where the length of the page is not known before coding the last stripe. Note that this case requires the use of a “null” stripe. This example will also illustrate an estimate of page length that is not the maximum possible (e.g.  $Y_D = 1024 = 0x00000400$ ).

### **Data stream for basic mode-2**

BIH ( $Y_D = 0x00000400$ ,  $L_0 = 128$ ,  $VLENGTH = 1$  – Other parameters shall be set appropriately).

Encoded image data of the first stripe (line 1-128).

ESC, SDNORM.

Encoded image data of the second stripe (line 129-256).

ESC, SDNORM.

Encoded image data of the third stripe (line 257-384).

ESC, SDNORM.

Encoded image data of the fourth stripe (line 385-500).

ESC, SDNORM.

ESC, NEWLEN, New  $Y_D (= 500)$ , ESC, SDNORM.

## **I.2 Option mode**

This example shows the case of “one stripe per page” (also requires an “added” null stripe) transmission in OPTION mode. This optional mode can only be used following a successful negotiation. Note that a coder or decoder that cannot support the actual stripe size may have to terminate the call. At the beginning of encoding, as the vertical length of the page is undetermined,  $Y_D$  is set to the maximum value,  $Y_D = 0xffffffff$  (one possible choice). As the stripe size is also undetermined,  $L_0$  is set to the same value as  $Y_D$ ,  $L_0 = 0xffffffff$ . The actual number of the vertical lines is 500.

### **Data stream for OPTION mode**

BIH ( $Y_D = 0xffffffff$ ,  $L_0 = 0xffffffff$ ,  $VLENGTH = 1$  – Other parameters shall be set appropriately).

Encoded image data of the first stripe (line 1-500).

ESC, SDNORM.

ESC, NEWLEN, New  $Y_D (= 500)$ .

ESC, SDNORM.



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