



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

T.81

Corrigendum 1
(01/2004)

SERIES T: TERMINALS FOR TELEMATIC SERVICES

Information technology – Digital compression and
coding of continuous-tone still images –
Requirements and guidelines

**Technical Corrigendum 1: Patent information
update**

ITU-T Recommendation T.81 (1992) – Corrigendum 1

**Information technology – Digital compression and coding of continuous-tone
still images – Requirements and guidelines**

Technical Corrigendum 1

Patent information update

Source

The non-normative Technical Corrigendum 1 to ITU-T Recommendation T.81 (1992) was agreed on 30 January 2004 by ITU-T Study Group 16 (2001-2004). An identical text is also published as ISO/IEC 10918-1, Corrigendum 1.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

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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**INTERNATIONAL STANDARD
ITU-T RECOMMENDATION**

**Information technology – Digital compression and coding of continuous-tone
still images – Requirements and guidelines**

Technical Corrigendum 1

Patent information update

Replace Annex L (1992) text by the following:

Annex L

Patents

(This annex does not form an integral part of this Recommendation | International Standard)

L.1 Introductory remarks

The user's attention is called to the possibility that – for some of the coding processes specified in Annexes F, G, H, and J – compliance with this Specification may require use of an invention covered by patent rights.

By publication of this Specification, no position is taken with respect to the validity of this claim or of any other claimed patent rights in connection therewith. However, for each patent listed in this annex, the patent holder has filed with the Information Technology Task Force (ITTf) of ISO/IEC and the Telecommunication Standardization Bureau (TSB) of the ITU a statement of willingness to grant a licence under these rights on reasonable and non-discriminatory terms and conditions to applicants desiring to obtain such a licence (see the respective ITU-T and ISO IPR policies for details).

In accordance with the IPR policies of ISO/IEC and ITU-T, the criteria for including patents in this annex are:

- a) the patent has been identified by someone who is familiar with the technical fields relevant to this Specification, and who believes use of the invention covered by the patent is *required* for implementation of one or more of the coding processes specified in Annexes F, G, H, or J;
- b) and the patent-holder has written a letter to the ITTF and TSB, stating willingness to grant a licence to an unlimited number of applicants throughout the world under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

This list of patents shall be updated, if necessary, upon publication of any revisions to this Recommendation | International Standard. For the latest list of the patent statements received by the ITU, please consult <http://www.itu.int/>, ITU-T databases.

L.2 List of patents

According to L.1, the following patents may be required for implementation of any one of the processes specified in Annexes F, G, H, and J which uses arithmetic coding:

US 4,633,490, December 30, 1986, IBM, MITCHELL (J.L.) and GOERTZEL (G.): *Symmetrical Adaptive Data Compression/Decompression System*.

US 4,652,856, February 4, 1986, IBM, MOHIUDDIN (K.M.) and RISSANEN (J.J.): *A Multiplication-free Multi-Alphabet Arithmetic Code*.

US 4,369,463, January 18, 1983, IBM, ANASTASSIOU (D.) and MITCHELL (J.L.): *Grey Scale Image Compression with Code Words a Function of Image History*.

US 4,749,983, June 7, 1988, IBM, LANGDON (G.): *Compression of Multilevel Signals*.

US 4,935,882, June 19, 1990, IBM, PENNEBAKER (W.B.) and MITCHELL (J.L.): *Probability Adaptation for Arithmetic Coders*.

US 4,905,297, February 27, 1990, IBM, LANGDON (G.G.), Jr., MITCHELL (J.L.), PENNEBAKER (W.B.), and RISSANEN (J.J.): *Arithmetic Coding Encoder and Decoder System*.

US 4,973,961, November 27, 1990, AT&T, CHAMZAS (C.), DUTTWEILER (D.L.): *Method and Apparatus for Carry-over Control in Arithmetic Entropy Coding*.

US 5,025,258, June 18, 1991, AT&T, DUTTWEILER (D.L.): *Adaptive Probability Estimator for Entropy Encoding/Decoding*.

US 5,099,440, March 24, 1992, IBM, PENNEBAKER (W.B.) and MITCHELL (J.L.): *Probability Adaptation for Arithmetic Coders*.

Japanese Patent 2128115, February 26, 1990, MEL ONO (F.), KIMURA (T.), YOSHIDA (M.), and KINO (S.): *Coding System*.

The following patent may be required for implementation of any one of the hierarchical processes specified in Annex H when used with a lossless final frame:

US 4,665,436, May 12, 1987, EI OSBORNE (J.A.) and SEIFFERT (C.): *Narrow Bandwidth Signal Transmission*.

No other patents required for implementation of any of the other processes specified in Annexes F, G, H, or J had been identified in the ITU-T IPR database at the time of publication of this Specification.

L.3 Contact addresses for patent information

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Series A	Organization of the work of ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks and open system communications
Series Y	Global information infrastructure, Internet protocol aspects and Next Generation Networks
Series Z	Languages and general software aspects for telecommunication systems