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Information technology — Procedure for the registration of algorithms for the lossless compression of data

Technologies de l'information — Procédures pour l'enregistrement des algorithmes pour la compression de données sans perte



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 11576 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 11, *Flexible magnetic media for digital data interchange*.

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Information technology — Procedure for the registration of algorithms for the lossless compression of data

1 Scope

This International Standard specifies the procedure to be followed by a Registration Authority in preparing, maintaining and publishing an International Register of numeric identifiers allocated to algorithms for the lossless compression of data, excluding cryptographic algorithms.

For the purpose of this International Standard, an algorithm is a set of rules for the transformation of the coded representation of data from one form to another, which allows the lossless restitution of the original form.

An identifier registered in accordance with this International Standard serves as an identification of the algorithm associated with it in the Register. Apart from such identification, registration does not affect the status of the algorithm concerned. Thus, the registration procedure must be clearly distinguished from the standardization process.

2 Registration Authority

2.1 The Registration Authority shall be an organization nominated by ISO/IEC JTC1 and appointed by the ISO/IEC Councils to act as the Registration Authority for the purpose of this International Standard.

2.2 The Registration Authority shall maintain a Register of the allocated identifiers. The contents of this Register shall be available upon request to national bodies that are members of ISO or IEC, to liaison organizations of ISO or IEC and to any interested party.

2.3 The Registration Authority shall maintain an up-to-date list of the current recipients of the International Register. New registrations and any other pertinent communication concerning the Register shall be sent to all persons on this list. The Registration Authority may request from time to time that recipients confirm their continuing interest in receiving new registrations and drop from the list those having not confirmed such interest.

2.4 The registration documents do not specify the rules in accordance with which an algorithm identified by an identifier is to be used. The documents, for example standards, specifying such rules shall be referenced in the registration documents.

3 Sponsoring Authorities

3.1 Applications for the allocation of an identifier may be made by the following, which for the purposes of this International Standard are Sponsoring Authorities:

a) any ISO or IEC technical committee or sub-committee;

b) any group within the ISO/IEC JTC1 sub-committees concerned with algorithms in information technology, appointed by the sub-committee for purposes connected with algorithms;

c) any National Body that is a member of ISO or IEC;

d) any international organization having A-liaison status with an ISO or IEC technical committee or sub-committee.

3.2 The responsibilities of the Sponsoring Authorities shall be

a) to receive applications from persons, companies or institutions from within their respective countries or organizations;

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b) to affect such rationalization or co-ordination of these proposals as they may desire;

c) to forward to the Registration Authority those applications that have their support;

d) to make known within their respective country or organization the outcome of the registration procedure.

NOTE — This International Standard requires only that an application for registration meets the requirements of clause 4, item b). However, Sponsoring Authorities are free to specify additional requirements to be met in order to receive their support.

4 Registration procedure

With regard to the initial assignment of identifiers and of subsequent additions to the Register, the responsibilities of the Registration Authority shall be:

a) to receive from Sponsoring Authorities applications for allocation of an identifier to be assigned to an algorithm;

b) to ascertain that the applications received are formally in accordance with this International Standard; each application shall include a complete description of the algorithm to be identified;

c) where required, to indicate to the Sponsoring Authority the changes needed to meet the requirements of b) above;

d) to circulate the proposals to the members of JTC1 for a three-month information and comment period;

e) to consider comments received and, where feasible, to resolve issues with the applicant;

f) to assign the identifier expressed in decimal notation;

g) to promulgate to all national bodies and liaison organizations of ISO and IEC the meaning that has been assigned to each identifier.

5 Withdrawal procedure

5.1 Withdrawal is a formal declaration by which the Sponsoring Authority informs the Registration Authority that it withdraws its support of the registered algorithm.

5.2 Such a declaration may, but need not, be accompanied by a statement of the reasons for the withdrawal.

5.3 The Registration Authority shall inform the recipients of the Register of the reception of such declarations.

5.4 Withdrawal has no effect on the registered algorithm which shall remain in the Register and continue to be identified by the allocated identifier.

6 Correction procedure

6.1 Errors in the Register, for example typographical errors, shall be corrected by the Registration Authority when detected.

6.2 New corrected and dated pages of the Register shall be issued.

7 Revision procedure

7.1 In general, no changes to registrations are permitted, as this would be contrary to the principles on which the registration scheme is based.

7.2 The Registration Authority may exceptionally grant a waiver to international governmental organizations issuing internationally recognized and world-wide implemented standards. However, the possibility that a registration may be modified in the future without allocation of a new identifier shall be mentioned in the first application papers and in the Register.

8 Appeal procedure

Appeal against decisions of the Registration Authority can be made as follows:

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8.1 Appeal by a Sponsoring Authority can be made if it disagrees with the Registration Authority on whether the application meets the requirements of clause 4, item b).

8.2 If at least four national bodies of JTC1 object to a forthcoming publication of a registration by the Registration Authority, but solely on the grounds that the requirements of clause 4, item b), are not met.

8.3 Appeals shall be filed with the Registration Authority by registered mail

- either within 30 days of reception of the refusal of the Registration Authority;
- or before the end of the circulation period in accordance with clause 4, item d).

8.4 Appeals shall be submitted by the Registration Authority within 30 days after reception in the case of 8.1 or the end of the circulation period in the case of 8.2 to the members of the Advisory Group (see annex B). If the matter cannot be resolved by the Advisory Group the appeal will be submitted to the P-members of JTC1 for vote according to clause 3.4.2 of the Directives for the work of ISO/IEC JTC1.

9 Early reservation of an identifier

9.1 A person, company or organization intending to make a formal application may address the Registration Authority directly requesting an early reservation of an identifier. This request is not required to be routed via a Sponsoring Authority.
The request shall bear the name and address of the person requesting an early reservation. In the case of a company or an organization the request shall bear, in addition to the address, the name of a person entitled to make the request in the name of that company or organization. No other information is required at that stage of the procedure.

9.2 The Registration Authority will grant such requests on the condition that a formal application according to clause 4 a) be filed within 12 months. This period may be extended only once by 6 months.

9.3 If after 12 months, or 18 months in the case of an extension, no formal application is filed, the reserved identifier may be allocated otherwise.

9.4 Requests according to 9.1 shall be handled strictly confidentially by the Registration Authority.

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Annex A
(normative)

International Register

A.1 Layout of the Registration Documents

The International Register shall be issued in loose-leaf form. Each registration shall comprise the following information:

Supplied by the Registration Authority:

- the registration number;
- the date of registration (to be assigned at time of registration);
- the allocated identifier (if not previously assigned under clause 9).

Supplied by the Sponsoring Authority:

- the allocated identifier (if previously assigned under clause 9);
- a short name for the algorithm;
- a description of the algorithm;
- name of the Sponsoring Authority;
- the origin or originator of the algorithm;
- a general indication of the main field of application.

A.2 Structure of the Identifier

The Identifier shall be an integer in the range 2 to $(2^{32} - 1)$, except 255.

The value 0,1 and 255 used as Identifier within a recorded format or a data transmission format indicates that the algorithm has not been registered and hence is unknown to the Registration Authority.

NOTE — Cartridges that were written prior to the registration of compression algorithms may have an identifier set to 0 instead of the registered value for the algorithm that was applied when the cartridge was actually written.

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Annex B
(normative)

Advisory group of the Registration Authority (AG)

B.1 In case of an appeal, ISO/IEC JTC1 shall set up an Advisory Group of the Registration Authority (AG) of four members.

B.2 The AG shall consist of a representative of the Registration Authority and three other members elected by the P-members of ISO/IEC JTC1.

B.3 The task of the AG shall be as follows:

a) to assist the Registration Authority, if needed, to assess whether the documentation required by clause 4, item b), is complete;

b) to consider appeals received by the Registration Authority;

c) to act as mediator between the Registration Authority and the appealing parties;

d) if three-quarters of the members of the AG consider the appeal justified, the Registration Authority shall yield;

e) when required, to edit the documents to be submitted to a vote in accordance with 8.4 of this International Standard.

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