

**Implementation of
ISO/IEC 9282-2:1992**

Information processing — Coded representation of pictures —

**Part 2: Incremental encoding of point
lists in a 7-bit or 8-bit environment**

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- EEA (Electronics and Business Equipment Association)
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- Videotex Industry Association

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National foreword

This British Standard reproduces verbatim ISO/IEC 9282-2:1992 and implements it as the UK national standard.

This British Standard is published under the direction of the Information Systems Technology Standards Policy Committee whose Technical Committee IST/37 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international committee any enquiries on interpretation, or proposals for change, and keep UK interests informed;
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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ISO/IEC title page, pages ii to iv, pages 1 to 20 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

**Information processing — Coded representation
of pictures —**

Part 2:

Incremental encoding of point lists in a 7-bit or
8-bit environment

Traitement de l'information — Représentation codée de l'image —

*Partie 2: Codage en accroissement des listes de points dans un
environnement à 7 ou à 8 éléments*



Reference number
ISO/IEC 9282-2:1992(E)

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Descriptors: Information interchange, data processing, graphic data processing, ISO seven-bit code, ISO eight-bit code, codification, coded representation.

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 9282-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO/IEC 9282 consists of the following parts, under the general title *Information processing — Coded representation of pictures*:

- *Part 1: Encoding principles for picture representation in a 7-bit or 8-bit environment*;
- *Part 2: Incremental encoding of point lists in a 7-bit or 8-bit environment*.

Annex A forms an integral part of this part of ISO/IEC 9282. Annex B is for information only.

Introduction

This International Standard consists of a series of parts designed to facilitate the interchange and representation of pictures where the interchange is by means of data communications or the exchange of storage media.

ISO 9282 is structured as a multi-part standard. At present, it has two parts:

- *Part 1: Encoding principles for picture representation in a 7-bit or 8-bit environment;*
- *Part 2: Incremental encoding of point lists in a 7-bit or 8-bit environment.*

Other parts may be added later.

Standard methods are given for picture coding in order to assist in coding system design and to prevent a proliferation of different unrelated coding techniques.

1 Scope

This part of ISO/IEC 9282 defines

- a set of compression techniques to be used in coding point lists handled by computer graphics applications or by specific applications such as telewriting;
- the data structures to be used to represent the compressed point lists.

A point list specifies a sequence of points, each of them being represented by two coordinates as defined in ISO/IEC 9282-1. A point list contains at least two points but this part of ISO/IEC 9282 is more appropriate when numerous points with short displacements between them are to be coded and, furthermore, when it is required to code the point list in a compact way.

This part of ISO/IEC 9282 does not deal with the presentation semantics of the data; these are defined in the related International Standards.

This part of ISO/IEC 9282 applies either to the encoding of a datastream directly invoked through the identification method of ISO/IEC 9281 or to the subset of a picture which is represented as a point list embedded within a datastream structured in accordance with ISO/IEC 9282-1. Depending on the environment into which the incremental encoding is used, i.e. ISO/IEC 9281 or ISO/IEC 9282-1, different switching mechanisms allow to identify which compression technique is used, they are described in the relevant sub-clauses of this part of ISO/IEC 9282.

It is still possible to code a point list in the displacement mode as defined in ISO/IEC 9282-1 when there is no specific requirement in terms of compression ratio. Any functional standard using ISO/IEC 9282 for the representation of a syntax is free to use either the displacement mode or the incremental mode; ISO/IEC 9282-1 and this part of ISO/IEC 9282 allow for the representation of the displacement mode together with one or several incremental modes.

2 Conformity

A picture coding method is in conformity with this part of ISO/IEC 9282 if the incremental encoding technique used meets the following requirements:

- an incremental mode identification is in conformity with clause 5;
- the incremental mode used is in conformity with one of the modes described in clauses 6, 7 or 8.

3 Normative references

The following standards contains provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9282. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9282 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of ISO maintain registers of currently valid International Standards.

ISO/IEC 9281-1:1990, *Information technology — Picture coding methods — Part 1: Identification.*

ISO/IEC 9281-2:1990, *Information technology — Picture coding methods — Part 2: Procedure for registration.*