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Information technology — Programming languages, their environments and system software interfaces — Programming language ISLISP

Technologies de l'information — Langages de programmation, leurs environnements et interfaces de logiciel système — Langage de programmation ISLISP

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 13816 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*.

This second edition cancels and replaces the first edition (ISO/IEC 13816:1997), which has been technically revised.

Introduction

The programming language ISLISP is a member of the LISP family.

The following factors influenced the establishment of design goals for ISLISP:

1. A desire of the international LISP community to standardize on those features of LISP upon which there is widespread agreement.
2. The existence of the incompatible dialects COMMON-LISP, EULISP, LE-LISP, and SCHEME (mentioned in alphabetical order).
3. A desire to affirm LISP as an industrial language.

This led to the following design goals for ISLISP:

1. ISLISP shall be compatible with existing LISP dialects where feasible.
2. ISLISP shall have as a primary goal to provide basic functionality.
3. ISLISP shall be object-oriented.
4. ISLISP shall be designed with extensibility in mind.
5. ISLISP shall give priority to industrial needs over academic needs.
6. ISLISP shall promote efficient implementations and applications.

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1 Scope

This International Standard specifies syntax and semantics of the computer programming language ISLISP by specifying requirements for a conforming ISLISP processor and a conforming ISLISP text.

This International Standard does not specify:

(a) the size or complexity of an ISLISP text that exceeds the capacity of any specific data processing system or the capacity of a particular processor, nor the actions to be taken when the corresponding limits are exceeded;

(b) the minimal requirements of a data processing system that is capable of supporting an implementation of a processor for ISLISP;

(c) the method of preparation of an ISLISP text for execution and the method of activation of this ISLISP text, prepared for execution;

(d) the typographical presentation of an ISLISP text published for human reading;

(e) extensions that might or might not be provided by the implementation.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- ISO/IEC TR 10034:1990, *Guidelines for the preparation of conformity clauses in programming language standards*
- IEEE standard 754-1985. *Standard for binary floating point arithmetic*

