**INTERNATIONAL STANDARD ISO/IEC 13211-1:1995**

TECHNICAL CORRIGENDUM 1

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# Information technology — Programming languages — Prolog

## Part 1:
## General core

TECHNICAL CORRIGENDUM 1

*Technologies de l'information — Langages de programmation — Prolog*

*Partie 1: Noyau général*

*RECTIFICATIF TECHNIQUE 1*

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NOTE    Some text in Mathematical font is expressed using Latex convention, i.e. surrounded with '$' signs.

**3.106 mapping**

'mapping' is used with a second meaning in the standard:  add a second definition
A function from a value of one type $T$ to a value of another type $R$ denoted  by $T \rightarrow R$

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**3.108 most general unifier (MGU)**

Replace 'instance' by 'example' because 'instance' is not being used with the meaning defined in 3.95.

**3.125 partial list**

Replace 'A variable' by 'A *variable*'.
Replace 'second argument' by 'second *argument*'.

**3.148 read-term**

Replace 'end token.' by 'end token'.

**4.1.3.5 Axiom**

Replace:
Axiom: if $x > 0$ then $\sqrt{x}$ is the positive square root of $x$ else **undefined**.
by
Axiom: if $x \geq 0$ then $\sqrt{x}$ is the non-negative square root of $x$ else **undefined**.

**6.3.7 Term -- double quoted list notation**

If a double quoted list represents an atom (i.e. the Prolog flag 'double_quotes' has value 'atom'), the priority of the term should depend on whether or not the atom is an operator as in 6.3.1.3. ISO/IEC 13211-1 states that the priority of an atom represented by a double quoted list is always zero.
Replace the syntax rule by the four syntax rules:

```
term =   double quoted list ;
```
Abstract: *l   dql*
Priority:  0
Condition: Prolog flag `double_quotes` has value `chars`
```
term =   double quoted list ;
```
Abstract: *l   dql*
Priority:  0
Condition: Prolog flag `double_quotes` has value `code`
```
atom =   double quoted list ;
```
Abstract: *a   dql*
Priority:  *n*
Condition: Prolog flag `double_quotes` has value `atom`
Condition: *a* is an operator
```
atom =   double quoted list ;
```
Abstract: *a   dql*
Priority:  0
Condition: Prolog flag `double_quotes` has value `atom`
Condition: *a* is not an operator

**7.2.5 c) 2)**

Replace
2) if XN is the ...
by
2) XN is the ...

**7.8.5.4**

Replace the first sentence:
Tables 27 and 28 show the execution stack before and after executing the control construct ','(First, second).
by
Tables 27 and 28 show the execution stack before and after executing the control construct ','(First, Second).

**Table 35 line 2**

Replace
```
(else(W), CP)
```
by
```
(Else, CP)
```

**7.8.8.4 last example**

Replace
```
';'('->'(!,fail), true), true).
```
by
```
';'(('->'(!,fail), true), true).
```

**7.9.2**

Add additional errors:

i) The value of an argument `Culprit` is not a member of the set $I$
- `type_error(integer, Culprit)`

j) The value of an argument `Culprit` is not a member of the set $F$
- `type_error(float, Culprit)`

9.1.7 example no. 35 shows these errors are required.

**7.12.2 i)**

Twice replace
```
imp_dep_atom
```
by
```
Imp_dep_atom
```

**8.8.1.1 d)**

Replace
  Chooses the first element of the list L
by
  Chooses the first element of the list L, unifies it with the term `clause(Head,Body)`

Similarly for f).

**8.9.4.1 abolish/1: Description**

In the note, replace 'procedures identified' by 'procedure identified'.

**8.10.3.4 example no. 20**

Replace
```
[a, b, f(b), f(a)]
```
by
```
[a, b, f(a), f(b)]
```

### 8.13.3.4 put_byte/1

Replace

```
put_byte(84).
   If the current output stream contains
      [..., 113,119,101,114]
   Succeeds, and leaves that stream
      [..., 113,119,101,114,116]

put_byte(st_o, 84).
   If the stream associated with st_o contains
      [..., 113,119,101,114]
   Succeeds, and leaves that stream
      [..., 113,119,101,114,116]
```

by

```
put_byte(84).
   If the current output stream contains
      [..., 113,119,101,114]
   Succeeds, and leaves that stream
      [..., 113,119,101,114,84]

put_byte(st_o, 116).
   If the stream associated with st_o contains
      [..., 113,119,101,114]
   Succeeds, and leaves that stream
      [..., 113,119,101,114,116]
```

### 8.14.1.4  examples no. 2 and 3

Replace

```
st_o
```

by

```
st_i
```

### 8.14.1.4  example no.  6 (last)

Replace

   The current input stream is left with position past-end-of-stream.

by

   The current input stream is left in an undefined state.

(Cf. 8.14.1.1 NOTE 2)

### 8.14.4.1 d)

Replace

   Chooses a member of $Set\_Op$ and the goal succeeds

by

   Chooses a member of $Set\_Op$, unifies it with `(Priority, Op_specifier, Operator)`, and the goal succeeds

### 8.16.4 atom_chars/2

The sixth example in 8.16.4.4 is

```
atom_chars('North', ['N' | X]).
   Succeeds, unifying X with
      ['o', 'r', 't', 'h'].
```

but the procedural description does not permit this.

Replace 8.16.4.1(c) by:

c) Else if `Atom` is an atom whose name is the sequence of characters $Seq$ and `List` unifies with a list `L` such that every element of `L` is the one-char atom whose name is the corresponding element of $Seq$, then the goal succeeds,

### 8.16.5 atom_codes/2

The error noted in 8.16.4 implies a similar change in this procedure. Replace 8.16.5.1(c) by:

c)  Else if `Atom` is an atom whose name is the sequence of characters $Seq$ and `List` unifies with a list `L` such that every element of `L` is the character code of the corresponding element of $Seq$, then the goal succeeds,