
**Information technology — Font information
interchange —**

**Part 2:
Interchange Format**

**AMENDMENT 1: Support for font technology
advances**

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Technologies de l'information — Échange d'informations sur les fontes —

Partie 2: Format d'échange

*AMENDEMENT 1: Support pour les développements de la technologie des
fontes*

<https://standards.iteh.ai/standards/iso-iec-9541-2-1991/Am1-2000>
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

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

Amendment 1 to International Standard ISO/IEC 9541-2:1991 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 34, *Document description and processing languages*.

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Introduction

This Amendment specifies an additional interchange format and slight modification to ISO/IEC 9541-2:1991. The specification is applied only when additional font properties defined by Amendment 2 and/or 3 to ISO/IEC 9541-1:1991 are employed. The properties are optional and make it possible to address advances in font technology in addition to those defined in ISO/IEC 9541-1:1991.

The additional interchange format is described by SGML (Standard Generalized Markup Language) conforming to ISO 8879:1986 and its Technical Corrigendum 2 (Annex K: Web SGML Adaptations).

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Information technology — Font information interchange —

Part 2: Interchange Format

AMENDMENT 1: Support for font technology advances

Page 11, Clause 6.2

Element declaration of fontdes should be:

```
<!ELEMENT fontdes (dataver? & stdver & datasrce? & datacopy? &
  dsnsrce & dsncopy? & relunits? & typeface? &
  fontfam & posture & postang? & weight &
  propwidth & glycomp & nomwrmde? & dsnsz &
  minsize & maxsize & caphght? & lchght? &
  dsngroup & structur & mfeatsz? & nomcsw? &
  nomlcsw? &
  verticalunit-property &
  fillratio-property &
  designareas-property &
  niprop*) >
```

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Page 12, Clause 6.2

Element declaration of wrmode should be:

```
<!ELEMENT wrmode (wrmdnam , ( nescdir & escclass &
  (avgescx & avgescy & avlcescx & avlcescy &
  avcpescx & avcpescy & averageesc-property &
  tabescx & tabescy ) &
  mxfntext & sectors? & escadjs? &
  mineas? & maxeas? & scores? & varscrps? &
  minlinsp? & minanasc? & maxanasc? & nomalign? &
  algnmds? & copyfits? &
  genkendot-property &
  ILC-property &
  (dsnwdadd? & dsnwdamp? & minwdadd? & minwdamp? &
  maxwdadd? & maxwdamp? & dsnltdadd? & dsnltdamp? &
  minltdadd? & minltdamp? & maxltdadd? & maxltdamp?) &
  glyphs & niprop* )) >
```

Page 14, Clause 6.2

Add the following declarations:

```

<!-- SGML DTD for 9541-1 AM2 -->

<!-- (c) International Organization for Standardization 1991 Permission
to copy in any form is granted for use with conforming WebSGML
systems and applications as defined in ISO 8879:1986(WWW),
provided this notice is included in all copies. -->

<!-- Public document type definition. Typical invocation:
<!DOCTYPE fontres PUBLIC "ISO 9541-2:1991 AM1:1999//DTD Font Resource//EN"> -->

<!-- DTD for 8.9.1 Vertical Units and Horizontal Units -->

<!ELEMENT verticalunit-property (verticalunit-name, verticalunit-value) >
<!ELEMENT verticalunit-name (glbname) >
<!-- glbname STRUCTURED NAME -->
<!ELEMENT verticalunit-value (card) >
<!-- glbname CARDINAL -->
<!ELEMENT horizontalunit-property (horizontalunit-name, horizontalunit-value) >
<!ELEMENT horizontalunit-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT horizontalunit-value (card) >
<!-- card : CARDINAL -->

<!-- DTD for 8.9.2 Fill Ratio -->

<!ELEMENT fillratio-property (fillratio-name, fillratio-value-property-list) >
<!ELEMENT fillratio-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT fillratio-value-property-list (blackness+) >
<!ELEMENT blackness (reference-glyph, fillratio-value) >
<!ELEMENT reference-glyph (msg) >
<!-- msg : MESSAGE -->
<!ELEMENT fillratio-value (ratl) >
<!-- ratl : RATIONAL -->

<!-- DTD for 8.9.3 Design Areas -->

<!ELEMENT designareas-property (designareas-name,
designareas-value-property-list) >
<!ELEMENT designareas-name (glbname) >
<!-- glbname STRUCTURED NAME -->
<!ELEMENT designareas-value-property-list (designarea-property|plist)+ >
<!ELEMENT designarea-property (designarea-name,
designarea-value-property-list) >
<!ELEMENT designarea-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT designarea-value-property-list (letter-face+) >
<!ELEMENT letter-face (dsnarea-glyphset-name, dsnarea-height, dsnarea-width) >
<!ELEMENT dsnarea-glyphset-name (msg) >
<!-- msg : MESSAGE -->
<!ELEMENT dsnarea-height (ralr) >
<!-- ralr : REL RATIONAL -->
<!ELEMENT dsnarea-width (ralr) >
<!-- ralr : REL RATIONAL -->

<!-- DTD for 8.9.4 Average ESC -->

```

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```

<!ELEMENT averageesc-property (averageesc-name,
    averageesc-value-property-list) >
<!ELEMENT averageesc-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT averageesc-value-property-list (averagelen-property|plist)+ >
<!ELEMENT averagelen-property (averagelen-name,
    averagelen-value-property-list) >
<!ELEMENT averagelen-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT averagelen-value-property-list (average-length+) >
<!ELEMENT average-length (averlen-glyphset-name, avrlen-height, avrlen-width) >
<!ELEMENT averlen-glyphset-name (msg) >
<!-- msg : MESSAGE -->
<!ELEMENT averlen-height (ralr) >
<!-- ralr : REL RATIONAL -->
<!ELEMENT averlen-width (ralr) >
<!-- ralr : REL RATIONAL -->

<!-- DTD for 8.9.5 Generalized Kendot -->

<!ELEMENT genkendot-property (genkendot-name, genkendot-value-property-list) >
<!ELEMENT genkendot-value-property-list (genkendot-offsetx-property|
    genkendot-offsety-property|genkendot-thick-property|genkendot-shape-property)+ >
<!ELEMENT genkendot-offsetx-property (genkendot-offsetx-name,
    genkendot-offsetx-value) >
<!ELEMENT genkendot-offsety-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT genkendot-offsetx-value (ralr) >
<!-- ralr : REL RATIONAL -->
<!ELEMENT genkendot-offsety-property (genkendot-offsety-name,
    genkendot-offsety-value) >
<!-- genkendot-offsety-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT genkendot-offsety-value (ralr) >
<!-- ralr : REL RATIONAL -->
<!ELEMENT genkendot-thick-property (genkendot-thick-name,
    genkendot-thick-value) >
<!ELEMENT genkendot-thick-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT genkendot-thick-value (ralr) >
<!-- ralr : REL RATIONAL -->
<!ELEMENT genkendot-shape-property (genkendot-shape-name,
    genkendot-shape-value) >
<!ELEMENT genkendot-shape-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT genkendot-shape-value (glbname) >
<!-- glbname : STRUCTURED NAME -->

<!-- SGML DTD for 9541-1 AM3 -->

<!-- DTD for 8.10 Interlinear/intercharacter Object Properties -->

<!ELEMENT ILC-property (ILC-name, ILC-value-property-list) >
<!ELEMENT ILC-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-value-property-list (ILC-type-property|ILC-font-size-property|
    ILC-typeface-property|ILC-rotation-property|
    ILC-writing-direction-offset-property|
    ILC-formatting-type-property|
    ILC-line-progression-direction-offset-property)+ >

```

```

<!ELEMENT ILC-type-property (ILC-type-name, ILC-type-value) >
<!ELEMENT ILC-type-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-type-value (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-font-size-property (ILC-font-size-name, ILC-font-size-value-type,
ILC-font-size-value) >
<!ELEMENT ILC-font-size-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-font-size-value-type EMPTY >
<!ATTLIST ILC-font-size-value-type type (ABS|RELATIVE) "ABS" >

<!ELEMENT ILC-font-size-value (relr) >
<!-- relr : REL RATIONAL -->

<!ELEMENT ILC-typeface-property (ILC-typeface-name, ILC-typeface-value) >
<!ELEMENT ILC-typeface-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-typeface-value (glbname) >
<!-- glbname : STRUCTURED NAME -->

<!ELEMENT ILC-rotation-property (ILC-rotation-name, ILC-rotation-value) >
<!ELEMENT ILC-rotation-name (relr) >
<!-- relr : REL RATIONAL -->
<!ELEMENT ILC-rotation-value EMPTY >
<!ATTLIST ILC-rotation-value value (0|90|180|270) "0" >

<!ELEMENT ILC-writing-direction-property (ILC-writing-direction-offset-name,
ILC-writing-direction-offset-value,
ILC-writing-direction-offset-value-type) >
<!ELEMENT ILC-writing-direction-offset-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-writing-direction-offset-value-type EMPTY >
<!ATTLIST ILC-writing-direction-offset-value-type type (ABS|RELATIVE) "ABS" >

<!ELEMENT ILC-writing-direction-offset-value (relr) >
<!-- relr : REL RATIONAL -->

<!ELEMENT ILC-formatting-type-property (ILC-formatting-type-name, ILC-formatting-type-value) >
<!ELEMENT ILC-formatting-type-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-formatting-type-value EMPTY >
<!ATTLIST ILC-formatting-type-value value (HEAD|CENTER|TAIL|JUSTIFICATION)
"HEAD" >

<!ELEMENT ILC-line-progression-direction-offset-property (ILC-line-progression-direction-offset-name,
ILC-line-progression-direction-offset-value,
ILC-line-progression-direction-offset-value-type) >
<!ELEMENT ILC-line-progression-direction-offset-name (glbname) >
<!-- glbname : STRUCTURED NAME -->
<!ELEMENT ILC-line-progression-direction-offset-value-type EMPTY >
<!ATTLIST ILC-line-progression-direction-offset-value-type value (ABS|RELATIVE)
"ABS" >

<!ELEMENT ILC-line-progression-direction-offset-value (relr) >
<!-- relr : REL RATIONAL -->

```

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