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AMENDMENT 1
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Information processing systems — Computer graphics — Metafile for the storage and transfer of picture description information —

Part 4 :
Clear text encoding

AMENDMENT 1

Systèmes de traitement de l'information — Infographie — Métafichier de stockage et de transfert des informations de description d'images —

Partie 4: Codage en clair des textes

AMENDEMENT 1

Reference number
ISO 8632-4 : 1987/Amd. 1 : 1990 (E)

Foreword

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Part 4:
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AMENDMENT 1

Page 8

Sub-clause 5.3.1. Change the text in the first sentence from : "INTEGERS, INTEGER COORDINATES, INDICES, and ...." to:

INTEGERS, INTEGER COORDINATES, INDICES, NAMES, and.....

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Add the following to the end of 5.3.5

N ::= <I> {name}

VC ::= <R>|<I> {viewport coordinate data}

{The abstract parameter type VC, a single VC value, is either a real or an integer, depending on the declaration of the picture descriptor element DEVICE VIEWPORT SPECIFICATION MODE. When DEVICE VIEWPORT SPECIFICATION MODE is 'fraction of display surface', the value is real. When DEVICE VIEWPORT SPECIFICATION MODE is 'millimetres with scale factor' or 'physical device coordinates', the value is integer.}

VPOINTREC ::= <VC><SEP><VC>

VP ::= <VPOINTREC>|< <LEFT PAREN><OPTSEP><VPOINTREC><OPTSEP>
<RIGHT PAREN> >

{COORDINATE in viewport coordinate space. Parentheses are optional. If they are used, they shall group exactly two real or integer numbers, depending on DEVICE VIEWPORT SPECIFICATION MODE. The parenthesized form is intended to aid readability of the metafile.}

TM ::= <<R: a11>
<SEP>
<R: a12>
<SEP>
<R: a21>
<SEP>
<R: a22>
<SEP>
<VDC: a13>
<SEP>
<VDC: a23>>

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Add the following at the end of 5.4.3

ALL
COPY
FIGURE

FILTER
FORCED
FRACTION
GKSM
INTERSECTION
LOCUS
MATRIX
NAME
NEW
OUTPUT
PICK
REGION
SAVE
SHAPE
THEN

Page 12

Add the following at the end of 5.4.4:

ATTRIBUTE(S)	ATTR
CLIPPING	CLIP
CONNECTING	CONN
CONTEXT	CONT
COORDINATE(S)	COORD
DEVICE	DEV
DISPLAY	DISP
EXTENDED	EXT
HIGHLIGHTING	HIGHL
IDENTIFIER	ID
INHERITANCE	INH
MAPPING	MAP
MILLIMETRE	MM
PHYSICAL	PHY
PLACEMENT	PLACEM
PRESENTATION	PRES
PRIMITIVE(S)	PRIM
PRIORITY	PRI
REPRESENTATION	REP
RESTORE	RES
REVERSED	REV
SEGMENT	SEG
STATELIST	STLIST
TRANSFORMATION	TRAN
TWO	2
VIEWPORT	VP

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Add the following at the end of 5.4.5:

BEGIN SEGMENT	BEGSEG
END SEGMENT	ENDSEG
BEGIN FIGURE	BEGFIGURE
END FIGURE	ENDFIGURE
NAME PRECISION	NAMEPREC
MAXIMUM VDC EXTENT	MAXVDCEXT
SEGMENT PRIORITY EXTENT	SEGPRIEXT
DEVICE VIEWPORT	DEVVP
DEVICE VIEWPORT SPECIFICATION MODE	DEVVPMODE
DEVICE VIEWPORT MAPPING	DEVVPMAP
LINE REPRESENTATION	LINEREP

MARKER REPRESENTATION	MARKERREP
TEXT REPRESENTATION	TEXTREP
FILL REPRESENTATION	FILLREP
EDGE REPRESENTATION	EDGEREP
LINE CLIPPING MODE	LINECLIPMODE
MARKER CLIPPING MODE	MARKERCLIPMODE
EDGE CLIPPING MODE	EDGECLIPMODE
NEW REGION	NEWREGION
SAVE PRIMITIVE CONTEXT	SAVEPRIMCONT
RESTORE PRIMITIVE CONTEXT	RESPRIMCONT
CIRCULAR ARC CENTRE REVERSED	ARCCTRREV
CONNECTING EDGE	CONNEDGE
PICK IDENTIFIER	PICKID
COPY SEGMENT	COPYSEG
INHERITANCE FILTER	INHFILTER
CLIP INHERITANCE	CLIPINH
SEGMENT TRANSFORMATION	SEGTRAN
SEGMENT VISIBILITY	SEGVIS
SEGMENT HIGHLIGHTING	SEGHIGHL
SEGMENT DISPLAY PRIORITY	SEGDISPPRI
SEGMENT PICK PRIORITY	SEGPICKPRI

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Add the following at the end of 6.2:

BEGIN SEGMENT ::= BEGSEG
<SOFTSEP>
<N:SEGID>
<TERM>

END SEGMENT ::= ENDSEG <TERM>

BEGIN FIGURE ::= BEGFIGURE <TERM>

END FIGURE ::= ENDFIGURE <TERM>

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Add at the end of METAFILE ELEMENT LIST:

The words VERSION2, EXTPRIM and VERSION2GKSM may also be used in this string

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Add the following at the end of sub-clause 6.3:

NAME PRECISION ::= NAMEPREC
<SOFTSEP>
<I:MININT>
<SEP>
<I:MAXINT>
<TERM>

```
MAX VDC EXTENT              ::= MAXVDCEXT
                                <SOFTSEP>
                                <P:FIRSTCORNER>
                                <SEP>
                                <P:SECONDCORNER>
                            <TERM>

SEGMENT PRIORITY EXTENT     ::= SEGPRIEXT
                                <SOFTSEP>
                                <I:MINSEGPRI>
                                <SEP>
                                <I:MAXSEGPRI>
                            <TERM>
```

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Add the following at the end of 6.4

```
DEVICE VIEWPORT             ::= DEVVP
                                <SOFTSEP>
                                <VP:FIRSTCORNER>
                                <SEP>
                                <VP:SECONDCORNER>
                            <TERM>

DEVICE VIEWPORT SPECIFICATION
MODE                        ::= DEVVPMODE
                                <SOFTSEP>
                                <FRACTION|MM|PHYDEVCOORD>
                                <SEP>
                                <R:SCALEFACTOR>
                            <TERM>

DEVICE VIEWPORT MAPPING     ::= DEVVPMAP
                                <SOFTSEP>
                                <NOTFORCED|FORCED>
                                <SEP>
                                <LEFT|CTR|RIGHT>
                                <SEP>
                                <BOTTOM|CTR|TOP>
                            <TERM>

LINE REPRESENTATION         ::= LINEREP
                                <SOFTSEP>
                                <I:BUNDLEINDEX> {positive}
                                <SEP>
                                <I:LINETYPE>
                                        {1=solid, 2=dash
                                        3=dot, 4=dash-dot
                                        5=dash-dot-dot
                                        <0 implementation dependent}
                                <SEP>
                                <V:LINEWIDTH> {non-negative}
                                <SEP>
                                <K:LINECOLR>
                            <TERM>
```

NOTE - Line types with values above 5 are reserved for registration.

```
MARKER REPRESENTATION       ::= MARKERREP
                                <SOFTSEP>
```

<I:BUNDLEINDEX> {positive}
<SEP>
<I:MARKERTYPE>
{1=dot, 2=plus
3=asterisk, 4=circle
5=cross (x)
<0 implementation dependent}
<SEP>
<V:MARKERSIZE> {non-negative}
<SEP>
<K:MARKERCOLR>
<TERM>

NOTE - Marker types with values above 5 are reserved for registration.

TEXT REPRESENTATION ::= TEXTREP
<SOFTSEP>
<I:BUNDLEINDEX> {positive}
<SEP>
<I:FONTINDEX> {positive}
<SEP>
<STRING|CHAR|STROKE>
<SEP>
<R:SPACING>
<SEP>
<R:FACTOR>
<SEP>
<K:TEXTCOLR>
<TERM>

FILL REPRESENTATION ::= FILLREP
<SOFTSEP>
<I:BUNDLEINDEX> {positive}
<SEP>
<HOLLOW|SOLID|PAT|HATCH|EMPTY>
<SEP>
<K:FILLCOLR>
<SEP>
<I:HATCHINDEX>
{1=horizontal,2=vertical
3=positive slope
4=negative slope
5=horizontal/vertical cross
6=+/- slope cross
<0 implementation dependent
<SEP>
<I:PATINDEX> {positive}
<TERM>

NOTE - Hatch indices with values above 6 are reserved for registration.

EDGE REPRESENTATION ::= EDGEREP
<SOFTSEP>
<I:BUNDLEINDEX> {positive}
<SEP>
<I:EDGETYPE>
{1=solid, 2=dash
3=dot, 4=dash-dot
5=dash-dot-dot
<0 implementation dependent}
<SEP>
<V:EDGEWIDTH> {non-negative}

```
                    <SEP>
                    <K:EDGECOLR>
                <TERM>
```

NOTE - Edge types with values above 5 are reserved for registration.

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Add the following at the end of 6.5

```
LINE CLIPPING MODE          ::= LINECLIPMODE
                                    <SOFTSEP>
                                    <LOCUS|SHAPE|LOCUSTHENSHAPE>
                                <TERM>

MARKER CLIPPING MODE        ::= MARKERCLIPMODE
                                    <SOFTSEP>
                                    <LOCUS|SHAPE|LOCUSTHENSHAPE>
                                <TERM>

EDGE CLIPPING MODE          ::= EDGECLIPMODE
                                    <SOFTSEP>
                                    <LOCUS|SHAPE|LOCUSTHENSHAPE>
                                <TERM>

NEW REGION                  ::= NEWREGION <TERM>

SAVE PRIMITIVE CONTEXT      ::= SAVEPRIMCONT
                                    <SOFTSEP>
                                    <I:CONTEXTNAME>
                                <TERM>

RESTORE PRIMITIVE
  CONTEXT                   ::= RESPRIMCONT
                                    <SOFTSEP>
                                    <I:CONTEXTNAME>
                                <TERM>
```

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Add the following at the end of 6.6

```
CIRCULAR ARC CENTRE
  REVERSED                  ::= ARCCTRREV
                                    <CTRARCSPEC>
                                <TERM>

CONNECTING EDGE             ::= CONNEDGE  <TERM>
```

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Sub-clause 6.7: Add the following note after the description of LINE TYPE:

NOTE - Line types with values above 5 are reserved for registration.

Page 24

Sub-clause 6.7: Add the following note after the description of MARKER TYPE:

NOTE - Marker types with values above 5 are reserved for registration.

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Sub-clause 6.7: Add the following note after the description of HATCH INDEX:

NOTE - Hatch indices with values above 6 are reserved for registration.

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Sub-clause 6.7: Add the following note after the description of EDGE TYPE:

NOTE - Edge types with values above 5 are reserved for registration.

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Add the following at the end of 6.7

```
PICK IDENTIFIER          ::= PICKID
                               <SOFTSEP>
                               <I:PICKID>
                             <TERM>
```

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Add the following after 6.9:

6.10 Encoding segment control and segment attribute elements

```
COPY SEGMENT             ::= COPYSEG
                               <SOFTSEP>
                               <I:SEGID>
                               <SEP>
                               <TM:TRANMATRIX>
                               <NO|YES>
                             <TERM>

INHERITANCE FILTER       ::= INHFILTER
                                     <SOFTSEP>
                                     <ELEMORGROUPNAME>
                                     <<SEP><ELEMORGROUPNAME>>*
                                     <SEP>
                                     <STLIST|SEG>
                             <TERM>

ELEMORGROUPNAME          ::= <LINEINDEX|
                             LINETYPE|
                             LINEWIDTH|
                             LINECOLR|
                             LINECLIPMODE|
                             MARKERINDEX|
                             MARKERTYPE|
                             MARKERSIZE|
                             MARKERCOLR|
                             MARKERCLIPMODE|
                             TEXTINDEX|
                             TEXTFONTINDEX|
                             TEXTPREC|
                             CHARACTEREXPAN|
                             CHARACTERSPACE|
                             TEXTCOLR|
```

CHARHEIGHT|
CHARORI|
TEXTPATH|
TEXTALIGN|
FILLINDEX|
INTSTYLE|
FILLCOLR|
HATCHINDEX|
PATINDEX|
EDGEINDEX|
EDGETYPE|
EDGEWIDTH|
EDGECOLR|
EDGEVIS|
EDGECLIPMODE|
FILLREFPT|
PATSIZE|
AUXCOLR|
TRANSPARENCY|
LINEATTR|
MARKERATTR|
TEXPRESANDPLACEMATTR|
TEXTPLACEMANDORIATTR|
FILLATTR|
EDGEATTR|
PATATTR|
OUTPUTCTRL|
PICKID|
ALLATTRCTRL|
ALLINH|
LINETYPEASF|
LINEWIDTHASF|
LINECOLRASF|
MARKERTYPEASF|
MARKERSIZEASF|
MARKERCOLRASF|
TEXTFONTINDEXASF|
TEXTPRECASF|
CHARACTEREXPANASF|
CHARACTERSPACEASF|
TEXTCOLRASF|
INTSTYLEASF|
FILLCOLRASF|
HATCHINDEXASF|
PATINDEXASF|
EDGETYPEASF|
EDGEWIDTHASF|
EDGECOLRASF|
ALLLINE|
ALLMARKER|
ALLTEXT|
ALLFILL|
ALLEDGE|
ALL>

NOTE - ALLINH means all attributes, control elements and ASFs. ALLLINE, ALLMARKER, ALLTEXT, ALLFILL, ALLEDGE and ALL have the meaning defined in 6.7.

CLIP INHERITANCE ::= <CLIPINH
<SOFTSEP>
<STLIST|INTERSECTION>
<TERM>