INTERNATIONAL STANDARD ISO/IEC 9592-1:1989
TECHNICAL CORRIGENDUM 1

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Information processing systems – Computer graphics – Programmer's Hierarchical Interactive Graphics System (PHIGS) –

Part 1: Functional description

TECHNICAL CORRIGENDUM 1

Systèmes de traitement de l'information – Infographie – Interface de programmation du système graphique hiérarchisé (PHIGS) –

Partie 1: Description fonctionnelle

RECTIFICATIF TECHNIQUE 1

Technical corrigendum 1 to International Standard ISO/IEC 9592-1:1989 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Page 29

Subclause 4.4.5

Replace the third paragraph with the following:

A function is provided to delete a structure network. The DELETE STRUCTURE NETWORK function will delete the indicated structure and structures in the structure network originating with the specified structure. The handling of structures referenced by other structures outside the specified structure network is controlled by a reference handling flag. When this flag is specified as KEEP, those structures of the specified structure network which have at least one maximal ancestor path which does not contain the specified structure are not deleted. Those structures of the specified structure network for which all maximal ancestor paths contain the specified structure are deleted as if DELETE STRUCTURE were called to delete each structure individually. A maximal ancestor path of a structure S is a path ((A1,E1),(A2,E2), ..., (S,0)) where A1 is not referenced in any EXECUTE STRUCTURE element in the CSS. When this flag is specified as DELETE each structure of the specified structure network is deleted as if DELETE STRUCTURE were called to delete each structure individually. The specified structure is deleted; the effect is the same as if DELETE STRUCTURE were called with the specified structure.

UDC 681.3.01 : 681.3.072.2 (084) **Ref. No. ISO/IEC 9592-1:1989/Cor.1:1993 (E)**

Descriptors : data processing, information interchange, graphic data processing, data handling, data transfer, description.

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Page 30

Subclause 4.4.6

Third paragraph, change "path order" to "truncation method" in two places.

Page 32

Subclause 4.4.7

Fourth paragraph, change "path order" to "truncation method" in two places.

Page 43

Subclause 4.5.3

Replace the third paragraph with the following:

> The linewidth is calculated as a nominal linewidth multiplied by the linewidth scale factor. If necessary, the linewidth scale factor is adjusted by the workstation to give the nearest available linewidth. For example, if the value is less than or equal to zero (0), the thinnest available linewidth is used.

Page 44

Subclause 4.5.4

Replace the third paragraph with the following:

> The marker size is calculated as a nominal marker size multiplied by the marker size scale factor. If necessary, the marker size scale factor is adjusted by the workstation to give the nearest available marker size. For example, if the value is less than or equal to zero (0), the smallest available marker size is used. Marker type 1 is always displayed as the smallest displayable dot.

Page 60

Subclause 4.5.8

In the sentence beginning "The pattern box is...", insert the words "of equal size" after the word "cells".

Page 65

Subclause 4.5.15

Final paragraph, replace the second and third sentences with the following:

> The range of accessible names shall be [0..(number of available names-1)] and during traversal, any NAME SET shall be able to contain all of the names in that range. In addition, workstation filters shall be able to contain all of the names in that range.

Page 67

Subclause 4.6.1

First paragraph, replace the fifth sentence with the following:

> Data in the centralized structure store may be displayed under application control on any open workstation which has output capability.

Page 76

Subclause 4.6.6

Second paragraph, add the words "or through registration" at the end of the second sentence.

Page 87

Subclause 4.7.5

In the first full paragraph, add the word "boundaries" after "view window" in the fifth line.

Page 92

Subclause 4.7.7

Sixth paragraph, first sentence, insert the text "(without regard to the current clipping indicators)" after the words "clipping limits" in the first line.

Page 98

Subclause 4.8.3

Add the following text to the end of the second last paragraph:

> For the Prompt and Echo Types (PETs) defined in 5.10.2, the measure value is not changed when a trigger is received. For other registered or implementation-defined PETs, the description of the PET should document the impact on the measure value when a trigger is received while in EVENT mode.

Page 100

Subclause 4.8.4

Item b), first sentence and item e), first sentence, insert the text "(without regard to the current clipping indicators)" after the words "clipping limits".

Page 102

Subclause 4.8.6

Item a), delete the third and fourth sentences.

Page 120

Subclause 5.2

Item f), in the note, replace "INQUIRE WORKSTATION STATE" with "INQUIRE DISPLAY UPDATE STATE".

Page 134

Subclause 5.4.2

SET LINETYPE Effect section, replace the final paragraph with the following:

> When an element of this type is interpreted, if the element's linetype is not available on the workstation, the 'current linetype' entry in the PHIGS traversal state list is set to 1.

Page 135

Subclause 5.4.2

SET LINEWIDTH SCALE FACTOR Effect section, replace the final paragraph with the following:

> When an element of this type is interpreted, the element's linewidth scale factor value is multiplied by the nominal linewidth on a workstation; if the resulting linewidth is not available on the workstation, the linewidth scale factor is adjusted to give the nearest available linewidth.

SET POLYLINE COLOUR INDEX Effect section, replace the final paragraph with the following:

> When an element of this type is interpreted, if the element's polyline colour index is not available on the workstation, the 'current poyline colour index' entry in the PHIGS traversal state list is set to 1.

Page 136

Subclause 5.4.2

SET MARKER SIZE SCALE FACTOR Effect section, replace the final paragraph with the following:

> When an element of this type is interpreted, the element's marker size scale factor value is multiplied by the nominal marker size on a workstation; if the resulting marker size is not available on the workstation, the marker size scale factor is adjusted to give the nearest available marker size.

Page 149

Subclause 5.4.2

ADD NAMES TO SET Effect section, add a third paragraph as follows:

> When an element of this type is interpreted, only those members of the name set associated with the element which are contained in the range [0..(number of available names - 1)] are processed. Any members of the name set associated with the element which are outside of the range [0..(number of available names - 1)] are ignored.

REMOVE NAMES FROM SET Effect section, add a third paragraph as follows:

When an element of this type is interpreted, only those members of the name set associated with the element which are contained in the range [0..(number of available names - 1)] are processed. Any members of the name set associated with the element which are outside of the range [0..(number of available names - 1)] are ignored.

Page 158

Subclause 5.4.5

SET HIGHLIGHTING FILTER Effect section, add the following to the end of the first paragraph:

Only those members of the highlighting filter parameter which are contained in the range [0..(number of available names - 1)] are used to set the 'highlighting filter' entry in the workstation state list of the specified workstation. Any members of the highlighting filter parameter which are outside of the range [0..(number of available names - 1)] are ignored.

Page 159

Subclause 5.4.5

SET INVISIBILITY FILTER Effect section, add the following to the end of the first paragraph:

Only those members of the invisibility filter parameter which are contained in the range [0..(number of available names - 1)] are used to set the 'invisibility filter' entry in the workstation state list of the specified workstation. Any members of the invisibility filter parameter which are outside of the range [0..(number of available names - 1)] are ignored.

Page 160

Subclause 5.4.7

SET HLHSR IDENTIFIER Effect section, insert the following text between the two paragraphs:

The HLHSR IDENTIFIERS are as follows:

<= 0	implementation dependent
> 0	reserved for registration

SET HLHSR MODE Effect section, insert the following text between the two paragraphs:

The HLHSR {IDENTIFIERS/MODES} are as follows:

<= 0	implementation dependent
> 0	reserved for registration

Page 163

Subclause 5.5.1

SET MODELLING CLIPPING VOLUME 3 Effect section, add a paragraph after the note as follows:

When an element of this type is interpreted, if the resulting modelling clipping volume exceeds the "maximum number of distinct planes in modelling clipping volumes" specified in the PDT, the structure element is ignored.

Page 164

Subclause 5.5.1

SET MODELLING CLIPPING VOLUME Effect section, add a paragraph after the note as follows:

When an element of this type is interpreted, if the resulting modelling clipping volume exceeds the "maximum number of distinct planes in modelling clipping volumes" specified in the PDT, the structure element is ignored.

Page 165

Subclause 5.5.2

SET VIEW INDEX Effect section, add a third paragraph as follows:

When an element of this type is interpreted, if the element's view index is not supported by the workstation, the 'current view index' entry in the PHIGS traversal state list is set to 0.

SET VIEW REPRESENTATION 3 Effect section, second paragraph, first line, delete the second occurrence of "OUTIN".

Page 166

Subclause 5.5.2

SET VIEW REPRESENTATION Effect section, second paragraph, first line, delete the second occurrence of "OUTIN".

Page 175

Subclause 5.5.4

COMPOSE TRANSFORMATION MATRIX 3 Effect section, first paragraph, insert the following text between the first and second sentences:

The composition is the same as COMPOSE MATRIX 3 (specified matrix, defined matrix).

Page 176

Subclause 5.5.4

COMPOSE TRANSFORMATION MATRIX Effect section, first paragraph, insert the following text between the first and second sentences:

The composition is the same as COMPOSE MATRIX (specified matrix, defined matrix).

Page 182

Subclause 5.6

SET ELEMENT POINTER AT LABEL Effect section, replace the second sentence with the following:

Whether or not the 'element pointer' is already positioned at an occurrence of the specified label, the search for the specified label begins with the next structure element (if any).

Page 183

Subclause 5.6

DELETE ELEMENTS BETWEEN LABELS Effect section, replace the second sentence with the following:

A search for label identifier 1 is first performed starting at the next element after the 'element pointer'. A search for label identifier 2 is then performed starting with the element following label identifier 1. If either of these searches fail, an error is generated, the deletion operation is not performed, and the 'element pointer' is left unchanged.

Page 185

Subclause 5.7

DELETE STRUCTURE Effect section, add a third paragraph as follows:

If the deleted structure is referenced by an element in the currently open structure, and if the 'element pointer' is positioned after the "execute structure" element to be deleted, the 'element pointer' is updated such that it still refers to the same element. If the 'element pointer' is positioned at the "execute structure" element to be deleted, the 'element pointer' will be positioned at the preceding element after the structure deletion operation.

DELETE STRUCTURE NETWORK Effect section, replace the second paragraph with the following:

If the reference handling flag is KEEP, those structures of the specified structure network which have at least one maximal ancestor path which does not contain the specified structure are kept. Those structures of the specified structure network for which all maximal ancestor paths contain the specified structure are deleted as if DELETE STRUCTURE were called to delete each structure individually. A maximal ancestor path of a structure S is a path ((A1,E1),(A2,E2), ..., (S,0)) where A1 is not referenced in any EXECUTE STRUCTURE element in the CSS.

DELETE STRUCTURE NETWORK Effect section, replace the last paragraph with the following:

The specified structure is deleted; the effect is the same as if DELETE STRUCTURE were called with the specified structure. If the specified structure does not exist, no action is taken.

Page 188

Subclause 5.8

POST STRUCTURE, replace the Effect section with the following:

If the specified structure is not already in the 'list of posted structures' in the workstation state list of the specified workstation, it is added to that list. The workstation identifier is added to the 'list of workstations to which posted' in the structure state list. If the specified structure is already in the 'list of posted structures', the display priority associated with the structure in that list is replaced with the display priority in this invocation of POST STRUCTURE. In both cases, the structure is treated as the most recently posted structure for the purpose of deriving the implicit display priority. If the specified structure does not exist, a new empty structure is created.

UNPOST STRUCTURE Effect section, replace the third sentence with the following:

If the specified structure does not exist in the 'list of posted structures' in the workstation state list of the specified workstation, no action takes place.

Page 193

Subclause 5.9

RETRIEVE PATHS TO ANCESTORS Parameters section, replace

"In path order (TOPFIRST,BOTTOMFIRST) E"

with

"In truncation method (HEAD,TAIL) E".

Page 194

Subclause 5.9

RETRIEVE PATHS TO ANCESTORS Effect section, in the first paragraph replace the two occurences of "path order" with "truncation method". In the second paragraph, delete the second sentence, replace "path order = TOPFIRST" with "truncation method = HEAD" and replace "path order = BOTTOMFIRST" with "truncation method = TAIL".

RETRIEVE PATHS TO DESCENDANTS Parameters section, replace

"In path order (TOPFIRST,BOTTOMFIRST) E"

with

"In truncation method (HEAD,TAIL) E".

RETRIEVE PATHS TO DESCENDANTS Effect section, in the first paragraph replace the two occurrences of "path order" with "truncation method". In the second paragraph, delete the second sentence, replace "path order = TOPFIRST" with "truncation method = HEAD" and replace "path order = BOTTOMFIRST" with "truncation method = TAIL".

Page 197

Subclause 5.10.1

SET PICK FILTER Effect section, add the following to the end of the first paragraph:

Only those members of the pick filter parameter which are contained in the range [0..(number of available names -1)] are used to set the 'pick filter' entry in the workstation state list of the specified workstation. Any members of the pick filter parameter which are outside of the range [0..(number of available names - 1)] are ignored.

Page 220

Subclause 5.10.4

REQUEST STROKE Errors section, replace

"060 Ignoring function, specified workstation is not of category OUTIN"

with

"061 Ignoring function, specified workstation is neither of category INPUT nor of category OUTIN".

Page 240

Subclause 5.12.5

INQUIRE HLHSR MODE Effect section, replace

"057 Ignoring function, specified workstation is of category MI"

with

"059 Ignoring function, the specified workstation does not have output capability (i.e., the workstation category is neither OUTPUT, OUTIN, nor MO)".

Page 261

Subclause 5.12.6

INQUIRE HLHSR FACILITIES Effect section, replace

"057 Ignoring function, specified workstation is of category MI"

with

"059 Ignoring function, the specified workstation does not have output capability (i.e., the workstation category is neither OUTPUT, OUTIN, nor MO)".

Page 265

Subclause 5.12.6

INQUIRE POLYLINE FACILITIES Effect section, second paragraph, in the fourth line replace "value and the linetype" with "value of the linetype".

Page 266

Subclause 5.12.6

INQUIRE POLYMARKER FACILITIES Effect section, second paragraph, in the fourth line replace "value and the marker type" with "value of the marker type".

Page 267

Subclause 5.12.6

INQUIRE TEXT FACILITIES Parameters section, delete "DC" from the line containing "range of character expansion factors".

Page 270

Subclause 5.12.6

INQUIRE INTERIOR FACILITIES Effect section, second paragraph, in the fourth line replace "value and the hatch style" with "value of the hatch style".

Page 272

Subclause 5.12.6

INQUIRE EDGE FACILITIES Effect section, second paragraph, in the fourth line replace "value and the edge type" with "value of the edge type".

Page 292

Subclause 5.12.8

INQUIRE ELEMENT TYPE AND SIZE Effect section, replace the third sentence of the second paragraph with the following:

If the 'element position' is 0, the NIL value is returned in the element type parameter.

Page 296

Subclause 5.12.8

ELEMENT SEARCH Effect section, replace the two occurrences of "open" in the third paragraph with "specified".

Pages 316 and 317

Subclause 6.6

Move the entries "HLHSR update state", "requested HLHSR mode", and "current HLHSR mode" from the group "do not exist for category MI" into the group "do not exist for category INPUT and MI".

Page 320

Subclause 6.7

Move the entries "number of available HLHSR identifiers", "list of available HLHSR identifiers", "number of available HLHSR modes", and "list of available HLHSR modes" from the group "do not exist for category MI" into the group "do not exist for category INPUT and MI".

Page 324

Subclause 6.7

Fifth line, remove the entry "maximum number of hatch styles".

Page 349

Clause D.3

Renumber item a) 6) as a) 7) and insert a new item a) 6) as follows:

6) Description of the implementation of a non-continuous range of display priorities.

Page 377

Subclause I.6.3.5

Change the value of x_G to 0.268.