Comments on

ISO/IEC FDIS 19775-1

by
Web3D Consortium

General

The following comments apply to the entire document:

G1: Ensure all bookmark links are working (e.g., Table 35.1 link to 35.2.3; Table 41.1 link to 41.4.12; Table L.2 link to GeoProximitySensor; Node Index link to X3DVolumneNode)

G2: Ensure that only HTML characters and entities are used throughout the document.

G3: Ensure that all text are correctly formatted for line length and spacing (e.g., 40.4.5, paragraph 6)

G4: Change the use of a vertical bar (|) as an inclusive-or to separate values of an MFString array to a comma (,).

Technical

Clause 4.4.2.3, Add entry

T1: Hierarchy Node definitions and descriptions in the X3D Geospatial Component should note that GeoOrigin usage is deprecated.

Clause 7.2.4.2, First paragraph – Add data type

T2: Change the first sentence to:

This part of ISO/IEC 19775 specifies three basic representation types: strings, single-precision and double-precision floating point values, booleans, and integers.

Clause 7.3.4, New Paragraph

T3: Add the following to the clause as new paragraph 2:

The specification of a non-empty value for the name field is required.

Clause 7.4.1, DatatypeDefinition – Incorrect Name

T4: Change field name from MFBoolean to MFBool.

Clause 9.2.2

T5: Replace entire section with the following:

Relative URLs are handled as described in 2.[RFC1808]. All name scopes (see 4.4.7) maintain a base URI which is used for all relative URLs within that name scope. Whenever a node with a relative url is defined, that node may only reference assets available within its name scope. It has no advance knowledge of how it may or may not be included by an INLINE or referenced by an external prototype instantiation. The base document for EXTERNPROTO statements or nodes that contain a URL field is:

a. The X3D file in which an EXTERNPROTO is declared, namely the externprotoURL of clause _7.2.5.8 EXTERNPROTO statement_.
b. The X3D file in which the parent PROTO is declared, if the statement is inside the body of a prototype declaration, namely the protoDefinition of clause _7.2.5.7 PROTO statement_.

c. The X3D file in which a Script is defined.
d. Otherwise, the X3D file from which the statement is read.

Note that, IMPORT statements (see 9.2.5) may be used to access nodes in other name scopes. Similarly, EXPORT statements (see 9.2.6) may be used to make nodes accessible by other name scopes. However, the base URL for those nodes accessed using IMPORT/EXPORT is still the X3D file in which the node is defined.

Figure 11.1

T6: Replacement figure will be provided bythe Web3D Consortium at the editor's meeting that clearly shows the clip planes and their effect on rendering.

Clause 12.4.3,Paragraph 3

T7: In the second sentence: replace "the last point of the list of points" with "the last point for each individual list of points".

Clause 16.5, Table 16.2

T8: Remove 'Rendering 1' and 'Shape 1' from prerequisites.

Clause 18.4.9, New Paragraph

T9: Insert the following as paragraph 11:

The textureCompression field specifies the preferred image compression method to be used during rendering. Valid values are in Table 18.10.

Clause 19.2.4

T10: Replace all occurances of "Catmull-Rom" with "Hermite" in this clause.

Clause 27.3.2, Node Definition

T11: Change default value of 'controlPoint' from "[]" to "NULL".

T12: Change default value of 'metadata' from "[]" to "NULL".

T13: Change default value of 'texCoord' from "[]" to "NULL".

Clause 30.4.6

T14: In the field definition, add default value of -1 to integerKey.

T15: Add following text at the end of paragraph 2:

The value of set_boolean shall be ignored.

Clause 35.4.2, Change in Field bounds

T16: Change the bounds for the field 'activeLayer' to [0, infinity].

Clause 35.4.3, Node Definition

T17: In node signature, change "X3DGroupingNode" to "X3DViewportNode".

Clause 37.4.13, Node Definition

T18: Change the range on sliderForce to $(-\infty, \infty)$.

Clause 38.3.1, 5th Paragraph

T19: Replace the second sentence with the following:

The value "NONE" overrides the presence of any other string values in this objectType field, thereby disabling picking for this node.

T20: Insert the following as the third sentence:

Presence of the "ALL" value indicates that all pickable objectTypes defined within a scene are eligible.

Clause 38.3.2, Multiple positions

T21: Insert the following as the second sentence of the fourth paragraph:

The value "NONE" overrides the presence of any other string values in this objectType field, thereby disabling picking for this node.

T22: Add the following line to the node definition prior to 'metadata':

SFString [in,out] matchCriterion "MATCH_ANY" ["MATCH_ANY" | "MATCH_EVERY" | "MATCH_ONLY_ONE"]

T23: Insert the following as the 5th paragraph:

The matchCriterion field defines whether the X3DPickSensorNode pick is matching one or more objectType value(s), as follows.

· "MATCH_ANY" means that any match of objectType values is acceptable

· "MATCH_EVERY" means that every objectType label in the X3DPickSensorNode shall match an objectType label in the X3DPickableObject

· "MATCH_ONLY_ONE" means that one and only one objectType label can match.

Clause 38.3.2, Node Definition

T24: Replace existing text for the allowed values for the field 'intersectionType' with "["GEOMETRY"|"BOUNDS"|…]". This change flows to the following concrete nodes: 38.4.1 LinePickSensor; 38.4.3 PointPickSensor; 38.4.4 PrimitivePickSensor; and 38.4.5 VolumePickSensor.

Clause 38.4.9, New Paragraph

T25: Insert the following as paragraph 11:

The textureCompression field specifies the preferred image compression method to be used during rendering. Valid values are in Table 18.10.

Clause 39.3.1, Node Definition

T26: Change default value of 'duration' from 0 to 1.

Clause 39.4.1, Field Limit

T27: Change the limit for all destination and values fields to [0,1].

Clause 39.4.2, Field Limit

T28: Change the limit for all destination and values fields to [0,1].

Clause 40.4.5

T29: In the node definition, change 'X3D2DTectureNode' to 'X3DTexture2DNode' in the fields: 'backTexture', 'bottomTexture', 'frontTexture', 'leftTexture', 'rightTexture', and 'topTexture'.

T30: Add following text as paragraph 14 (just prior to "The *particleSize* field…"

particleLifetime is the relative length of time in seconds that each particle is computed and rendered.

T31: Add the following text for missing definition of 'maxParticles':

maxParticles indicates the maximum number of particles to be generated at one time (subject to player limitations).

T32: Need definition for 'lifetimeVariation'. Text to be supplied at Editor's Meeting.

Clause 40.4.7, Node Definition

T33: Remove the definition for 'set_coordinate' and insert the following:

MFInt32 [in] set_coordIndex

Clause 40.4.8, Node Definition

T34: Remove the field definitions of 'set_coordinate' and 'coordIndex'.

Clause 40.4.9, Node Definition

T35: Remove the definition for 'set_coordinate' and insert the following:

MFInt32 [in] set_coordIndex

Clause 40.5, Table 40.2, New Entry

T36: Need minimum number of particles browsers must support for each Level to be conformant. The actual number will be supplied at the Editor's Meeting.

Clause 41.4.1, Node Definition

T37: Change default value of 'renderStyle' from "[]" to "NULL".

Clause 41.4.2

T38: Change the default values in the node signature as follows:

    boundaryOpacity   .9
    opacityFactor   2
    retainedOpacity   .2

T39: Replace the images in figure 41.2 with images to be provided by the Web3D Consortium at the editor's meeting. Preliminary version of the images are included as Figure-41.2_left.png and Figure-41.2_right.png.

Clause 41.4.5, Node Definition

T40: Change the limits on gradientThreshold from "[0,1]" to [0,π]".

Clause 41.4.13, Node Definition

T41: Change default value of 'renderStyle' from "[]" to "NULL".

T42: Change default value of 'voxels' from "[]" to "NULL".

Annex B, Table B.3

T43: Add entry for MetadataBoolean/No restrictions./Full support.

Annex C, Table C.3

T44: Add entry for MetadataBoolean/No restrictions./Full support.

Annex E, Table E.3

T45: Add entry for MetadataBoolean/No restrictions./Full support.

Annex H

T46: Add required support for Networking Component Level 2. Also propagate the induced changes to the Node Support Table (H.3).

T47: Make necessary changes to support the Inline node for this profile.

T48: In Table H.3, add entry for MetadataBoolean/No restrictions./Full support.

Editorial

Clause 19, Figues and ToC

E1: Change the number on the existing Figure 19.2 to 19.1.

E2: Add a reference to new Figure 19.1 to ToC (Table 19.1).

Clause 27.4.8, paragraph 1 – Wording change

E3: Change the first paragraph to:

NurbsPositionInterpolator describes a 3D NURBS curve using dimension, keyValue, keyWeight, knot, and order as specified in 27.4.4 NurbsCurve.

and link "27.4.4 NurbsCurve" to section 27.4.4.

Clause 27.4.14, Figure 27.4 – Incorrect number

E4: Correctly number this figure to 27.5 and ensure that all links refer to the correct figure.

Clause 30.2.3, paragraph 2

E5: Correct spelling of "event" in the sentence:

The BooleanTrigger node generates a Boolean output even*t* upon receiving a time input event.

Clause 35.2.3

E6: Change 'viewpoint' to 'viewpoints' in the last sentence.

Clause 36.4.4, paragraph 2

E7: Add the following text to the end of the existing paragraph:

Thus the distance between the baseline of each line of text is (spacing × pointSize) in the appropriate direction..

Clause 38.3.1, paragraph 2

E8:   Change "effects" to "affects" in the phrase "This only effects children".

Figure 38.1, Misspelling in caption

E9:   Fix the spelling of 'intersections' in the caption for the figure.

Clause 38.3.2, paragraph 2

E10:   Fix the spelling of the penultimate word in the second paragraph to 'additional'.

Clause 38.4.5, Second paragraph – wording change

E11:   Change the first sentence of the second paragraph to:

A pick is successful if any vertex of the pickTarget geometry intersects the volume defined by the pickingGeometry.

Clause 40.4.5, Multiple Locations

E12:   Paragraph 3, Bullet 3, Sentence 2: Change spelling of "effected" to "affected"

E13:   Paragraph 3, Bullet 5, Sentence 2: Replace the phrase "hall take effect this frame" with "shall be applied during current computation of the next frame to be rendered"

E14:   Insert the following as a new paragraph 7:

The particleLifetime field determines the nominal duration in seconds of any particle. The lifetimeVariation field specifies the amount of allowed linear random variation in the lifetime of any particle.

Clause 40.4.7, Paragraph 1, Sentence 3

E15:   Correct the spelling of 'particles'.

Clause 41.4.1

E16: Replace last sentence in paragraph 2 (begins "The final colour") with the following while maintaining the link to Table 41.3:

The values of w1 and w2 depends on the weightFunction1 and weightFunction2 fields, respectively, as defined in Table 41.3.

E17: Replace Table 41.3 with the one identified as Table41-3.html included with this document.

Clause 41.4.8, Node Definition

E18: Change the access type to [in,out] for 'type' field.

Clause 41.4.10, phaseFunction Field – Change limit definition

E19: Change the limits on the phaseFunction field to:
["Henyey-Greenstein", "NONE", …]

E20: In the penultimate paragraph (begins "The phaseFunction field is used to"), change 'None' to 'NONE'.

E21: In the penultimate paragraph (begins "The phaseFunction field is used to"), add as a new last sentence:

Browsers may choose to support other values. If a value is specified that is not supported by the browser, "Henyey-Greenstein" shall be used.