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Information technology — Coding of audio-visual objects —

Part 20:
Lightweight Application Scene Representation (LASeR) and Simple Aggregation Format (SAF)

AMENDMENT 1: Extensions to support SVGT1.2

Technologies de l'information — Codage des objets audiovisuels —

Partie 20: Représentation de scène d'application allégée (LASeR) et format d'agrégation simple (SAF)

AMENDEMENT 1: Extensions pour soutien de SVGT1.2

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Foreword

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The main task of the joint technical committee is to prepare International Standards. 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.

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Amendment 1 to ISO/IEC 14496-20:2006 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

Information technology — Coding of audio-visual objects —

Part 20:
Lightweight Application Scene Representation (LASeR) and Simple Aggregation Format (SAF)

AMENDMENT 1: Extensions to support SVGT1.2

In Clause 2, add the following reference:

W3C SVGT12, Scalable Vector Graphics (SVG) Tiny 1.2 Specification [Recommendation], http://www.w3.org/TR/SVGMobile12/

Throughout the document, substitute references to [2] by references to [W3C SVGT12]

In Table 3, add these lines:

"screenOrientationLandscape"	urn:mpeg:mpeg4:laser:2005	The screen orientation has changed to typical "landscape" orientation Note – screenOrientationLandscape is sent either with screenOrientation0 or screenOrientation180	No	No
"screenOrientationPortrait"	urn:mpeg:mpeg4:laser:2005	The screen orientation has changed to typical "portrait" orientation Note – screenOrientationPortrait is sent either with screenOrientation90 or screenOrientation270	No	No

After 6.5.6.1, add the following subclause:

6.5.6.2   ScreenOrientationEvent

```
interface ScreenOrientationEvent : Event
{
   readonly attribute unsigned long screenWidth;
   readonly attribute unsigned long screenHeight;
   readonly attribute unsigned long screenAngle;
}
```

No defined constants.

Attributes:
screenWidth - contains the new screen display or viewport width
screenHeight - contains the new screen display or viewport height
screenAngle - documents the angle from the horizontal positive x axis to the axis of the longest dimension of the screen, measured clockwise.

No defined methods.

The orientation is reported in degrees in screenAngle, to the best of the terminal's capability. This is measured as the angle between the positive X-axis of an un-rotated frame of reference, and the orientation of the longer of the X or Y axis of the screen, as rotated, as shown in Figure AMD2.1. Specifically, for a screen that is normally portrait and in its normal position, the screenAngle is 90 degrees, since the longest axis is vertical, and the Y-axis is downward in SVG. Similarly, for a terminal that is normally landscape and in its normal position, the screenAngle is 0 degrees, since the longest axis is horizontal, and is the X-axis. This angle therefore would normally be close to 90 or 270 in portrait events, and close to 0 or 180 in landscape events, and 0 or 90 in terminals that are in their normal orientation, and 180 or 270 in terminals that are inverted.
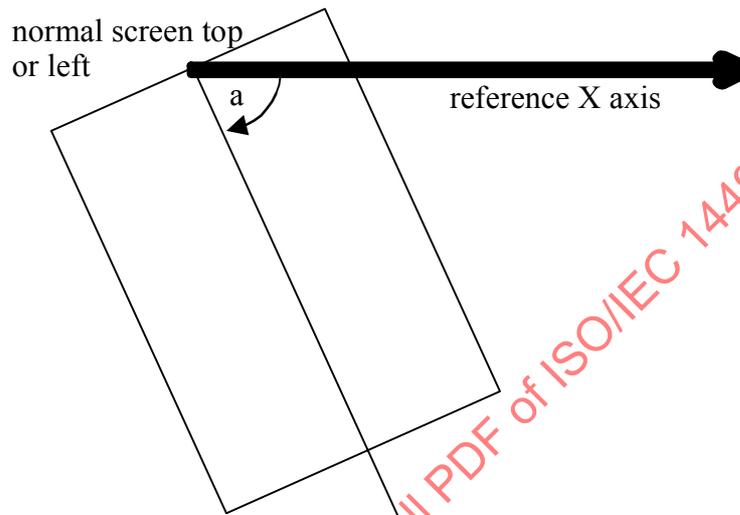
Figure AMD2.1 — Angle measurement procedure

In 6.6.2.2, add at the end:

Note – Data is saved as a set of four values, using the URI, pathComponents and useFullRequestHost from the stream containing the save command:
- the domain-name formed from the URI and useFullRequestHost;
- the path formed from the URI and pathComponents;
- the groupID (known as 'name' in [RFC 2965]);
- the set of {element-ID, attribute-name, value} triplets.

When a restore command is executed all saved sets with the same (equal) groupID, and also where the URI of the stream containing the restore command matches the saved domain-name and path, are restored. This matching is defined in section 4.3.4 of [RFC 2965].

The same matching rules are used for the clean command.

In 6.7.1, add at the end of the paragraph on the waiting tree:

Scripts also have access to the waiting tree in the same way as LASeR Commands.

In 6.7.3.1, add at the end:

The Clean command behaves exactly the same as a Save command that saves no state; as is normal for the Save command, any other saved state with the same domain-name, path, and groupID is replaced, in this case, with an empty set of saved data. This is functionally equivalent to deleting that saved state, as nothing would be restored.

In 6.7.6.4, replace document.svgDocument.root with document.documentElement

In 6.7.7.4, replace document.svgDocument.root with document.documentElement

In 6.7.10.1, add at the end:

The Save command saves the values of a set of attributes, each identified by element ID and attribute name. Each save operation uses a groupID. Any other saved state with the same domain-name, path, and groupID is replaced.

In 6.7.11.2, add to the event bullet:

The XML syntax for this attribute with events accessKey, longAccessKey, shortAccessKey and repeatKey includes the reference key name between parentheses, e.g. **event="accessKey(FIRE)"**, regardless of whether the key code is defined in LASeRML or not.

After 6.7.14, add the following new subclauses:

6.7.15 Immediate Script Execution

6.7.15.1 Semantics

The doScript command supplies a script for immediate execution as specified in [3GPP DIMS].

The following example retrieves the rect element with id "myRect" child of the root svg element, removes it from the document tree and append it in another position as a child of a g element with id "myGroup":

```
<doScript type="application/ecmascript">
 var myrect = document.getElementById("myRect");
 document.documentElement.removeChild(myrect);
 document.getElementbyId("myGroup").appendChild(myrect);
</doScript>
```

6.7.15.2 Attributes

type - is a string that identifies the scripting language used. It takes a suitable MIME type [19] from the IANA registry, such as "application/ecmascript" (see [14]).

6.7.16 Seeking in the scene stream

6.7.16.1 Semantics

The command seek results in a seek in the scene media timeline. The effect is the same as if the current scene stream was played inside an animation element, with currentMediaTime being the current media time of the scene stream, and the following actions were performed:

- the animation element is stopped;
- the clipBegin attribute of the animation element is modified to currentMediaTime+seekOffset;
- the animation element is started again.

6.7.16.2 Attributes

seekOffset: a clock value from section 16.2.8 of [W3C SVGT1.2].

After 6.8.2, add the following paragraph:

The attribute dims:active, specified in [3GPP DIMS], shall be supported on all elements.

After 6.8.53, add the following subclauses:

6.8.54 SVGT1.2 discard

The *SVGT12 discard* element is specified in section 5.4 of [W3C SVGT1.2].

6.8.55 SVGT1.2 handler

The *SVGT12 handler* element is specified in section 15.5 of [W3C SVGT1.2].

6.8.56 SVGT1.2 prefetch

The *SVGT12 prefetch* element is specified in section 5.9.3 of [W3C SVGT1.2].

6.8.57 SVGT1.2 solidColor

The *SVGT12 solidColor* element is specified in section 11.13.4 of [W3C SVGT1.2].

6.8.58 SVGT1.2 tBreak

The *SVGT12 tBreak* element is specified in section 10.11.2 of [W3C SVGT1.2].

6.8.59 SVGT1.2 textArea

The *SVGT12 textArea* element is specified in section 10.11.3 of [W3C SVGT1.2].

In 6.9, replace the table "Summary of Possible Attributes per Element" by:

Element name	Attributes
a	audio-level color color-rendering display display-align externalResourcesRequired fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage target text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type
animate	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keySplines keyTimes max min repeatCount repeatDur restart to values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
animateColor	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keySplines keyTimes max min repeatCount repeatDur restart to values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
animateMotion	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keyPoints keySplines keyTimes max min path repeatCount repeatDur restart rotate to values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
lsr:animateScroll	id class xml:base xml:lang xml:space xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show by from to delayAtStart delayAtEnd speed direction begin dur end fill restart repeatCount repeatDur
animateTransform	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keySplines keyTimes max min repeatCount repeatDur restart to type values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
animation	id class xml:base xml:lang xml:space requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts audio-level display image-rendering pointer-events shape-rendering text-rendering viewport-fill viewport-fill-opacity visibility lsr:rotation lsr:scale lsr:translation transform xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable fill focushiglight width height x y externalResourcesRequired begin end dur min max restart repeatCount repeatDur syncBehavior syncTolerance syncMaster pereserveAspectRatio type lsr:syncReference lsr:clipBegin lsr:clipEnd initialVisibility
audio	audio-level begin class dur end externalResourcesRequired id lsr:syncReference repeatCount repeatDur requiredExtensions requiredFeatures requiredFormats syncBehavior syncTolerance systemLanguage type xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space type
circle	audio-level class color color-rendering cx cy display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-weight font-variant id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events r requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space

Element name	Attributes
lsr:conditional	id class begin enabled externalResourcesRequired xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show xml:base xml:lang xml:space
lsr:cursorManager	id class xml:base xml:lang xml:space xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show x y
defs	audio-level class color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight id image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
desc	class id xml:base xml:lang xml:space
discard	id class xml:base xml:lang xml:space begin xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show
ellipse	audio-level class color color-rendering cx cy display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats rx ry shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
font	id class xml:base xml:lang xml:space externalResourcesRequired horiz-adv-x horiz-origin-x
font-face	id class xml:base xml:lang xml:space accent-height alphabetic ascent bbox cap-height descent externalResourcesRequired font-family font-stretch font-style font-variant font-weight hanging ideographic mathematical overline-position overline-thickness panose-1 slope stemh stemv strikethrough-position strikethrough-thickness underline-position underline-thickness unicode-range units-per-em widths x-height
font-face-src	id class xml:base xml:lang xml:space
font-face-uri	id class xml:base xml:lang xml:space externalResourcesRequired xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show
foreignObject	audio-level class color color-rendering display display-align externalResourcesRequired fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight height id image-rendering line-increment pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility width x xml:base xml:lang xml:space y
g	id class xml:base xml:lang xml:space audio-level color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style text-decoration font-weight font-variant image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering viewport-fill viewport-fill-opacity vector-effect visibility lsr:rotation lsr:scale lsr:translation transform requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable focusHighlight externalResourcesRequired
glyph	id class xml:base xml:lang xml:space arabic-form d glyph-name horiz-adv-x lang unicode externalResourceRequired xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show
hkern	id class xml:base xml:lang xml:space g1 g2 k u1 u2
handler	id class xml:base xml:lang xml:space externalResourcesRequired type ev:event

6

Element name	Attributes
image	class display externalResourcesRequired nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable height id lsr:rotation lsr:scale lsr:translation opacity pointer-events requiredExtensions requiredFeatures requiredFormats systemLanguage transform transformBehavior type visibility width x xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space y type preserveAspectRatio viewport-fill viewport-fill-opacity
line	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility x1 x2 xml:base xml:lang xml:space y1 y2
linearGradient	audio-level class color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight gradient-units id image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility x1 x2 xml:base xml:lang xml:space y1 y2
ev:listener	id enabled event handler observer phase propagate defaultAction target
metadata	class id xml:base xml:lang xml:space
missing-glyph	id class xml:base xml:lang xml:space d horiz-adv x
mpath	class id xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
path	audio-level class color color-rendering d display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pathLength pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
polygon	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events points requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
polyline	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events points requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
prefetch	id class xml:base xml:lang xml:space xlink:herf xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show bandwidth mediaCharacterEncoding mediaContentEncodings mediaSize mediaTime

Element name	Attributes
radialGradient	audio-level class color color-rendering cx cy display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight gradient-units id image-rendering line-increment pointer-events r shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
rect	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight height id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats rx ry shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility width x xml:base xml:lang xml:space y
lsr:rectClip	id class xml:base xml:lang xml:space audio-level color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style text-decoration font-weight font-variant image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering viewport-fill viewport-fill-opacity vector-effect visibility lsr:rotation lsr:scale lsr:translation transform requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable focusHighlight externalResourcesRequired size
script	begin class enabled externalResourcesRequired id type xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space type
lsr:selector	id class xml:base xml:lang xml:space audio-level color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style text-decoration font-weight font-variant image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering viewport-fill viewport-fill-opacity vector-effect visibility lsr:rotation lsr:scale lsr:translation transform requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable focusHighlight externalResourcesRequired choice
set	attributeName begin class dur enabled end fill id max min repeatCount repeatDur restart to xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
lsr:setScroll	id class xml:base xml:lang xml:space begin increment to direction xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type
lsr:simpleLayout	id class xml:base xml:lang xml:space audio-level color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style text-decoration font-weight font-variant image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering viewport-fill viewport-fill-opacity vector-effect visibility lsr:rotation lsr:scale lsr:translation transform requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable focusHighlight externalResourcesRequired size
solidColor	id class xml:base xml:lang xml:space solid-color solid-opacity

Element name	Attributes
stop	audio-level class color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight id image-rendering line-increment offset pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
streamSource	id class xml:base xml:lang xml:space sources sourceIndex width height mode
svg	audio-level baseProfile class color color-rendering contentScriptType display display-align externalResourcesRequired fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight height id image-rendering line-increment playbackOrder pointer-events preserveAspectRatio shape-rendering snapshotTime solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width syncBehaviorDefault syncToleranceDefault text-anchor text-rendering timeLineBegin vector-effect version viewBox viewport-fill viewport-fill-opacity visibility width xml:base xml:lang xml:space zoomAndPan
switch	audio-level class color color-rendering display display-align externalResourcesRequired fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
tBreak	id class xml:base xml:lang xml:space
text	audio-level color color-rendering display display-align editable fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats rotate shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility x y
textArea	audio-level class color color-rendering display display-align editable fill fill-opacity fill-rule focusable focusHighlight font-family font-size font-style font-variant font-weight height id image-rendering line-increment lsr:rotation lsr:scale lsr:translation nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left pointer-events requiredExtensions requiredFeatures requiredFonts requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility width x xml:base xml:lang xml:space y
title	class id xml:base xml:lang xml:space
tspan	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
updates	externalResourcesRequired requiredExtensions requiredFeatures requiredFormats systemLanguage xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type begin class dur end id lsr:syncReference repeatCount repeatDur syncBehavior syncTolerance type xml:base xml:lang xml:space clipBegin clipEnd security flow

Element name	Attributes
use	audio-level class color color-rendering display display-align externalResourcesRequired fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation overflow pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility x xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space y
video	audio-level begin display dur end externalResourcesRequired fullscreen nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable height lsr:rotation lsr:scale lsr:syncReference lsr:translation overlay pointer-events repeatCount repeatDur requiredExtensions requiredFeatures requiredFormats syncBehavior syncTolerance systemLanguage transform transformBehavior type visibility width x xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type y type preserveAspectRatio viewport-fill viewport-fill-opacity

After 8.3, add the following new subclause:

8.4   LASeR Main

8.4.1   Applications

Rich-media services on all types of devices.

8.4.2   Comparison with existing profiles and object types

This is a superset of LASeR Core and mini.

8.4.3   List of Tools/Functionalities

8.4.3.1   LASeR Commands

All LASeR Commands are supported.

8.4.4   Profile definition

This table defines the allowed elements in the profile and the list of their possible attributes, possibly with restrictions when listed in bold.

Element name	Attributes
a	audio-level color color-rendering display display-align externalResourcesRequired fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage target text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type
animate	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keySplines keyTimes max min repeatCount repeatDur restart to values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
animateColor	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keySplines keyTimes max min repeatCount repeatDur restart to values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
animateMotion	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keyPoints keySplines keyTimes max min path repeatCount repeatDur restart rotate to values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
lsr:animateScroll	id class xml:base xml:lang xml:space xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show by from to delayAtStart delayAtEnd speed direction begin dur end fill restart repeatCount repeatDur
animateTransform	accumulate additive attributeName begin by calcMode class dur enabled end fill from id keySplines keyTimes max min repeatCount repeatDur restart to type values xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
animation	id class xml:base xml:lang xml:space requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts audio-level display image-rendering pointer-events shape-rendering text-rendering viewport-fill viewport-fill-opacity visibility lsr:rotation lsr:scale lsr:translation transform xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable fill focushiglight width height x y externalResourcesRequired begin end dur min max restart repeatCount repeatDur syncBehavior syncTolerance syncMaster pereserveAspectRatio type lsr:syncReference lsr:clipBegin lsr:clipEnd initialVisibility
audio	audio-level begin class dur end externalResourcesRequired id lsr:syncReference repeatCount repeatDur requiredExtensions requiredFeatures requiredFormats syncBehavior syncTolerance systemLanguage type xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space type
circle	audio-level class color color-rendering cx cy display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-weight font-variant id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events r requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
lsr:conditional	id class begin enabled externalResourcesRequired xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show xml:base xml:lang xml:space
lsr:cursorManager	id class xml:base xml:lang xml:space xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show x y

Element name	Attributes
defs	audio-level class color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight id image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
desc	class id xml:base xml:lang xml:space
discard	id class xml:base xml:lang xml:space begin xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show
ellipse	audio-level class color color-rendering cx cy display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats rx ry shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
font	id class xml:base xml:lang xml:space externalResourcesRequired horiz-adv-x horiz-origin-x
font-face	id class xml:base xml:lang xml:space accent-height alphabetic ascent bbox cap-height descent externalResourcesRequired font-family font-stretch font-style font-variant font-weight hanging ideographic mathematical overline-position overline-thickness panose-1 slope stemh stemv strikethrough-position strikethrough-thickness underline-position underline-thickness unicode-range units-per-em widths x-height
font-face-src	id class xml:base xml:lang xml:space
font-face-uri	id class xml:base xml:lang xml:space externalResourcesRequired xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show
foreignObject	audio-level class color color-rendering display display-align externalResourcesRequired fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight height id image-rendering line-increment pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility width x xml:base xml:lang xml:space y
g	id class xml:base xml:lang xml:space audio-level color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style text-decoration font-weight font-variant image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering viewport-fill viewport-fill-opacity vector-effect visibility lsr:rotation lsr:scale lsr:translation transform requiredFeatures requiredExtensions systemLanguage requiredFormats requiredFonts nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable focusHighlight externalResourcesRequired
glyph	id class xml:base xml:lang xml:space arabic-form d glyph-name horiz-adv-x lang unicode externalResourceRequired xlink:href xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show
hkern	id class xml:base xml:lang xml:space g1 g2 k u1 u2
handler	id class xml:base xml:lang xml:space externalResourcesRequired type ev:event
image	class display externalResourcesRequired nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable height id lsr:rotation lsr:scale lsr:translation opacity pointer-events requiredExtensions requiredFeatures requiredFormats systemLanguage transform transformBehavior type visibility width x xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space y type preserveAspectRatio viewport-fill viewport-fill-opacity

Element name	Attributes
line	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility x1 x2 xml:base xml:lang xml:space y1 y2
linearGradient	audio-level class color color-rendering display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight gradient-units id image-rendering line-increment pointer-events shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility x1 x2 xml:base xml:lang xml:space y1 y2
ev:listener	id enabled event handler observer phase propagate defaultAction target
metadata	class id xml:base xml:lang xml:space
missing-glyph	id class xml:base xml:lang xml:space d horiz-adv x
mpath	class id xlink:actuate xlink:arcrole xlink:href xlink:role xlink:show xlink:title xlink:type xml:base xml:lang xml:space
path	audio-level class color color-rendering d display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pathLength pointer-events requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
polygon	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events points requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
polyline	audio-level class color color-rendering display display-align fill fill-opacity fill-rule nav-right nav-next nav-up nav-up-right nav-up-left nav-prev nav-down nav-down-right nav-down-left nav-left focusable font-family font-size font-style font-variant font-weight id image-rendering line-increment lsr:rotation lsr:scale lsr:translation pointer-events points requiredExtensions requiredFeatures requiredFormats shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width systemLanguage text-anchor text-rendering transform vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space
prefetch	id class xml:base xml:lang xml:space xlink:herf xlink:title xlink:type xlink:role xlink:arcrole xlink:actuate xlink:show bandwidth mediaCharacterEncoding mediaContentEncodings mediaSize mediaTime
radialGradient	audio-level class color color-rendering cx cy display display-align fill fill-opacity fill-rule font-family font-size font-style font-variant font-weight gradient-units id image-rendering line-increment pointer-events r shape-rendering solid-color solid-opacity stop-color stop-opacity stroke stroke-dasharray stroke-dashoffset stroke-linecap stroke-linejoin stroke-miterlimit stroke-opacity stroke-width text-anchor text-rendering vector-effect viewport-fill viewport-fill-opacity visibility xml:base xml:lang xml:space