

**INTERNATIONAL ORGANISATION FOR STANDARDISATION  
ORGANISATION INTERNATIONALE DE NORMALISATION  
ISO/IEC JTC1/SC29/WG11  
CODING OF MOVING PICTURES AND AUDIO**

**ISO/IEC JTC1/SC29/WG11  
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**Source:** ENST

**Status:** To be considered at the 64<sup>th</sup> MPEG meeting

**Title:** Comments on ATG extensions and Implementation status

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## **1. General Comments**

Mostly everything is implemented in Osmose and stable. Cross-checking by third-parties other than ENST is requested. Templates and Quantization properties need to be further looked at to insure that there is no problem. Two big issues remain:

- Status of the SynthesizedTexture nodes: Status of the SynthesizedTexture nodes: Since work is done on the definition of the nodes, their implementation in Osmose has not yet started.
- Status of the new Font Management nodes. A binary library (not released on the CVS server) for support of OpenType and MicroType Express has been provided by AGFA Monotype and integrated with success in Osmose. However, the correct behavior of the nodes is not guaranteed. Work needs to be done in this area.

## **2. Detailed Comments**

### **FontData**

No change, no work done.

### **AdvancedFontStyle**

No Change, no work done.

### **Viewport**

In the semantic section, change from:

The **description** field specifies a textual description of the **Viewpoint2D** node.

To:

The **description** field specifies a textual description of the **Viewport** node.

### **TransformMatrix2D**

No change. Stable.

## **XCurve2D**

No work done. Possible future changes:

- Remove relative commands because the gain with quantization is not yet proven and it doubles the number of commands and therefore increases the bit occupancy of the type field.
- Add parabolic arcs and maybe some more.
- Improve the N-Bézier behaviour. There is currently no way to concatenate an N-Bézier curve with any other command.

## **XLineProperties**

Stable.

Consider adding support for texture using two new fields of types `SFTextureNode` and `SFTextureTransformNode`.

Consider changing the word 'butt' into 'flat'.

Consider adding more linejoin and linecap types.

## **Clipper2D**

Stable.

The cascading of Clipper2D nodes is not yet frozen. Two possibilities:

- current one. The scope of a Clipper2D node is the next sibling nodes and their children.
- Make this node a grouping node.

Consider having a depth indication.

## **ColorTransform**

Stable.

One question remains: Do we apply the color transformation to the textures (e.g. Gradients, MovieTexture, ImageTexture, PixelTexture). Current implementation (in Osrose) does not do it. One answer could be only apply color transformation to synthetic textures (Gradients and PixelTextures).

## **RadialGradient, LinearGradient**

No work done. Half stable.

Work items:

- enable the use of a different coordinate system other than the object one.
- Check Quantization depending on the previous item

In the RadialGradient semantics section, change :

The **RadialGradient** node is a material node that generates a texture procedurally.

To:

The **RadialGradient** node is a texture node that generates a texture procedurally.

In the LinearGradient semantics section, change :

The **LinearGradient** node is a material node that generates a texture procedurally.

To:

The **LinearGradient** node is a texture node that generates a texture procedurally.

In both semantics section, change :

Only a Transform2D node can be present here.

To:

Only a 2D Transformation node (e.g. **Transform2D**, **TransformMatrix2D**) can be present here.

### **SynthesizedTexture, SynthesizedTextureCurve, SynthesizedTexturePatch, ColorProfile**

No work done.

### **Ellipse**

No work done. Stable.

### **Layout**

No work done. Not yet implemented in Osmose. Implementation and probable changes to come.

### **CompositeTexture2D, CompositeTexture**

Stable. Change to be reflected in the templates and reference software.

### **Form**

Stable. No work done.

### **MatteTexture**

Consider including the following clarification proposed in Awaji on texture repeat since no complaint have been raised:

Repeat pattern (repeatS and repeatT) of a MatteTexture node is given by the repeat pattern of the SurfaceB texture of the MatteTexture node

### **Misc.**

Possibility to use TransformMatrix2D as an SFTTextureTransformNode in order to support texture skewing.