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OTIO TSC Proposal

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CDLEffect



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Color Decision Lists

Overview

Colour decision lists are a metadata format for exchanging colour correction information between post-production tools. They contain a set of three parameters that are used to modify the RGB values of an image, as well as a global saturation value.

As with the transform effect, the addition of a standardised CDL effect object in the OTIO schema will facilitate the accurate transposition of CDL effects between applications.

Intended for Preview (Conform and Review purposes)



Formula

Formula

The parameters that define a CDL transform are slope, offset, and power, which are expressed in the formula below, with i representing the input pixel value.

$$out = (i \times s + o)^p$$



Suggested Schema

The image below shows an example of a CDLEffect object we're suggesting for inclusion in the OTIO schema, with default values. It is made up of fields containing the basic parameters required for the calculation of the output color, in addition the inclusion of the simple 'working_space' field.

```
{  
  "OTIO_SCHEMA": "CDLEffect.1",  
  "metadata": {},  
  "offset": [0.0, 0.0, 0.0],  
  "power": [0.5, 0.5, 0.5],  
  "slope": [1.0, 1.0, 1.0],  
  "saturation": 0.0,  
  "working_space": "scene_linear"  
}
```



working_space and OCIO Support

The *working_space* field is only relevant if an application supports OCIO, or has it's own way to interpret this simple working space field into it's own Colour management system.

In order to know whether a particular *working_space* is supported, an application will need to know the OCIO configuration, or equivalent methodology that was being used in the incoming OTIO file.

Therefore, additional timeline metadata referring to that configuration should be included in the schema