ACES Working Group Proposal

Proposal submitter
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Proposal submission date
07/23/2018

Description of the problem or question(s) the Working Group will be investigating

1) Testing and Validation of CLFs
- What capabilities should be evaluated, and how? For example: accuracy of processing, robustness of parsing, support for optional features, edge cases (e.g. min/max LUT sizes), floating-point negatives/NaN/Inf handling, etc.
- What materials should be provided to implementers to validate the capabilities of their implementation?
- What set of valid test CLFs should be provided?
- What set of error-producing test CLFs should be provided?
- What recommendations should be made about how to handle flawed CLFs
(e.g. how to handle parsing issues)?
- What combination of input & output bit-depths should reference values be provided for?
- What set of reference images should be provided?
- How should unrecognized elements in the XML stream be handled?
- What guidance should be provided about how parsers should handle older or newer versions of the format.
- Are there any security-oriented tests that should be recommended (e.g. buffer overflow tests, etc.)?

2) How should implementation-related information be communicated to enable implementers (e.g., an annex to the spec, the VWG website, other means)?

3) What is the minimal set of capabilities that should be required of implementers?

4) Should different levels/profiles of CLF support be defined?

5) Would it be helpful to have a "reference implementation"?
- What should a "reference implementation" for CLF look like?
- Should one or more of the existing implementations be given that status?
-     - Compare CPU vs GPU implementation

6) What recommendations (if any) should be provided for how to bake CLFs into approximate representations (e.g. combine all processing operators into a single 3d-LUT)?

7) What recommendations should be provided for how to set and/or propagate the metadata fields?

8) What tests are recommended for the first plug-fest?
- When should the first plug-fest be scheduled for?

Proposed Working Group deliverable(s)
Tests and test files, documentation, plug-fest results, code

List of Proponents
Autodesk, Universal Studios,

Anticipated core Working Group contributors
TBD

Anticipated Working Group lifecycle
2-4 month

ACES Leadership Use

☒ Approved   Review date
☐ Not approved   10/31/2018
☐ Proposal modifications required

Assigned Working Group Name
CLF Implementation Working Group

Assigned Working Group Lead
Doug Walker

Supervising Technical Advisory Committee
☐ Architecture   ☒ Implementation

Anticipated Academy resources required
Staff administration, Staff technical support

Notes
ACES Leadership Notes