



MC-IF PROFILING WG KICKOFF

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Agenda

- Roll call
- Review of draft charter and discussion on possible revisions
- Review of strawman proposal for sub-profile indicator code points
- Additional discussion and revision of charter
- Solicitation of candidates for WG chair
- Schedule next WG meeting

Draft Charter

- Identify need for profiling, sub-profiling, constraint flags, and sets thereof, initially for VVC
- Communicate MC-IF requests or recommendations to relevant bodies, including VCEG, MPEG
- Consider if MC-IF could act as registration authority for sub-profiles

Strawman proposal for sub-profile indicator code points: Background

- At this WG meeting, strawman proposal is presented only to provide context for WG to consider including sub-profile indicator registration in WG charter
- At March 2019 meeting, JVET decided that the VVC standard will include a sub-profile indicator syntax element, specified by ITU-T T.35.
- 3 bytes are allocated for the sub-profile indicator, with a T.35 mapping of code points as follows:
 - 1 byte for country code
 - 1 byte for terminal provider
 - 1 byte for terminal provider oriented code

Strawman proposal for sub-profile indicator code points: Proposal

- MC-IF will request to be assigned an ITU-T T.35 terminal provider code from a country (probably US)
- MC-IF will create a public registry of code points for sub-profiles
 - The code point space will have 8 bits per VVC profile, so 256 sub-profiles per VVC profile may be assigned
- MC-IF will develop a process to register a sub-profile code point

Strawman proposal for sub-profile indicator code points: Code point allocation request process

Organizations may submit a request for allocation of a sub-profile code point by meeting the following requirements for study by the Profiling WG:

1. Document describing the proposed sub-profile, containing:
 - Sub-profile name
 - Name of VVC profile which is being modified
 - List of any further restricted syntax elements and their allowed values
 - Any other restrictions to the bitstream
2. Set of conformance bitstreams for the sub-profile, with associated description
3. Report from two independent organizations confirming ability to properly decode conformance bitstreams, and description of how confirmation was performed

Strawman proposal for sub-profile indicator code points: Decision process

- Once requirement #1 is met, the submitting organization will be invited to present to a meeting of the Profiling WG
- Once requirements #2 and #3 are met, a majority vote will be held of the Profiling WG participants (one vote per member company) to recommend to allocate a sub-profile code point
- Once the profiling WG recommends allocation of a sub-profile code point, a majority vote of a quorum of the Board of Directors will allocate sub-profile code point

Strawman proposal for sub-profile indicator code points: Publication

- MC-IF will make publicly available on its website:
 - List per VVC profile of MC-IF allocated sub-profile code points
 - For each allocated sub-profile code point:
 - Description document
 - Conformance bitstreams, with associated description

Strawman proposal for sub-profile indicator code points: Example – Progressive Main sub-profile

- Assume that VVC will define a Main profile
- Request submission example
 1. Document
 - Sub-profile name: Progressive Main
 - Name of VVC profile which is being modified: Main
 - List of any further restricted syntax elements and their allowed values:
 - `general_progressive_source_flag` equal to 1
 - `general_interlaced_source_flag` equal to 0
 - `general_frame_only_constraint_flag` equal to 1
 - Any other restrictions to the bitstream: None

Strawman proposal for sub-profile indicator code points: Example – Progressive Main sub-profile

2. Conformance bitstreams generated using VTM reference software with appropriate input config to

- Populate `general_sub_profile_idc` 3 bytes as:
 - 1 byte for country code: `United States`
 - 1 byte for terminal provider: `MC-IF`
 - 1 byte for terminal provider oriented code: `allocated code point value`
- Set allowable values for further constrained syntax elements
 - `general_progressive_source_flag` equal to 1
 - `general_interlaced_source_flag` equal to 0
 - `general_frame_only_constraint_flag` equal to 1

3. Confirmation report from two independent organizations, confirming:

- Proper value of `general_sub_profile_idc` in `profile_tier_level()` syntax structure
- Allowable values of `general_progressive_source_flag`, `general_interlaced_source_flag`, and `general_frame_only_constraint_flag` in `general_constraint_info()` syntax structure

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- Roll call
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Modified Charter?

- Identify need for profiling, sub-profiling, constraint flags, and sets thereof, initially for VVC
- Communicate MC-IF requests or recommendations to relevant bodies, including VCEG, MPEG
- ~~• Consider if MC-IF could act as registration authority for sub-profiles~~
- Define a process for MC-IF to use to serve as a registration authority for VVC sub-profiles

Upcoming Meetings

- Phone call
- Possible face-to-face in Tokyo at Yokohama Landmark Tower
 - Scheduled around May 28 outreach event and MCIF members meeting