# VQEG notes 21/01/2014

## Group Updates

• Independent Lab Group (ILG)(Pinson/Corriveau)
- Mainly Hybrid test: discussion needed about new bug fixes
- First analysis of subj results available

• AVHD (Huynh-Thu/Schmidmer/Pinson)
- Finalizing test plan
- Add adaptive streaming to the project
- Proposal for new method for AV subj tests: will be presented later this week

• Hybrid – Perceptual/Bitstream (Borer/Lee)
- A lot of progress has been made
- Weekly audio calls were held
- Plan is to finish essential parts at this meeting

• Tools and Subjective Labs Setup Group (Staelens/Van Wallendael)
- Tools for use in different projects can be found on: <http://vqegstl.ugent.be/>

• Project for Collaborative Development (JEG) (Bourett/Le Callet/Brunnström)
- Low activity

• 3DTV (Huynh-Thu, Barkowsky, Le Callet)
- 3 topics:
1: subj assessment methodologies
2:viewing conditions for subj 3D experiments
3:Development of objective metrics

• QART (Leszczuk, Dumke)
- Chairs not yet present.

• JEG-Hybrid (Staelens, Barkowsky, Janowski)
- Large dataset with encoded sequences (H.264/AVC and HEVC)
- New obj metrics are added to the project
- Bi-weekly conf calls are made

• Rice (Hands, Brunnström, Engelke)
- About interactive communication, like video conferencing
- Not a lot of activity

• MOAVI (Wyckens, Borer, Leszcuk)
- Not so much activity
- Mikolaj will report further on during the week

• HDR (Le Callet, Corriveau)
- No activity since last meeting

• UHDTV (Baroncini, Ramzan)
- No activity since last meeting
- Marcus announced that source content should become available
- UHD sequences used within MPEG could be asked to the owners of these sequences
- Florence offers help in possible shooting of 4K sequences

• General (Webster)
- It might help to split projects in active/less active in order to know where to focus on
- Qi: Would a network oriented project be useful to consider?
- Kjel: it could be useful to start a collaborative effort with QUALINET

## Liaison Reports

• MPEG (Baroncini / Van Wallendael)
- Verfication tests for AVC 3D against MVC: successful. There is an agreement with QUALINET that results will be made available. Main outcome, 2/4 significant difference using professional display compared to commercial display. A report to VQEG will be written.
- Evaluation of results of call for proposals for patent free video coding will be done. The result was dramatically unstable, because of the use of a limited number of non-experts. With a new test using 12 experts, there was a stable result.
- Evaluation of contributions to call for proposals on screen content coding. Side by side evaluation will be done with -4 🡪4 quality scale. Slides with more details can be made available.

• ITU-R WP6C (Lee, Baroncini)
- Work in progress for 3D safety guideline development
- Related topics for UHDTV including subjective evaluation methods for UHDTV
- Extensive discussion and interests on IRG-AVQA

• ITU-T SG12 (Berger, Schmidmer)
- P.NATS organized by ITU-T Q17/12
- P.NATS is an extension of the bitstream models as in P.NBAMS towards adaptive streaming
- A call for participation is getting released in these days. Final confirmation of participation is expected by end of February.
- P.NATS is targeting longer sequences, to better incorporate quality changes and longer stalling / re-buffering events

• DVB (Agboma)
- TM 3D TV group: compare different spatial multiplexes: side-by-side, top-bottom
- a new multiplex is called tile format and the company (Sisvel) claims better subj quality
- See slides
- A request is sent about good parameters for the explained subjective test.
- Also, the question is asked whether VQEG or individual labs are willing to perform the subjective test.

• ITU-T SG9 (Huynh-Thu, Pinson, Lee, Webster)
- a series of recommendations for 3D testing are consented and will be looked at Thursday morning
- statistics show that most downloaded recommendation is quality evaluation related

• COST Action IC1003 Qualinet (Brunnström)
- A joint e-mail reflector has been set up
- a gaming task force and 2D/3D video streaming task force ask if there is interest for closer collaboration
- the liaison mentions all task forces within qualinet, so a look can be taken in this document for interested people

• QoMex 2014 (Singapore)
- The next QoMex will be in Singapore in summer hosted by Stephan Winkler

• ITU Intersector Rapporteur Group (Pinson, Berger, Lee)
- Will be discussed Thursday morning

• ICDM Project (Brunnström)
- Not much to inform about

## Hybrid

### Issues regarding PVSs

See hybrid project work document

### Review of the subjective results

See hybrid project work document

## RICE

### Brief intro to CSIRO and Myself (Ulrich Engelke)

See slides

Directions within RICE (Kjell Brunnström):
1) replicate and test whether test environment is still valid
2) new directions like what Ulrich is proposing
3) 3D video conferencing
4) obj metrics

## eLetter

A preliminary version of the first edition of the eLetter is handed to all the meeting participants for review. This is a preliminary version, so not yet an approved version for public release.

## AVHD

### Results from immersive subjective test method: proof of concept (Margaret Pinson)

See slides

Comments:
- How many test samples were there? Only 4 HRCs, so a small test
- This method tries to measure the entire system instead of only the audio or video quality. A vendor would be mainly interested in the performance of the entire system.
- It was remarked that more analysis is needed to explain the higher subjective score of the immersive method.
- Could it be that because of the amount of information that subjects need to take into account, the score would be influenced.
- The test was less exhausting than regular tests showing much PVSs of the same source, which is a big advantage of this method.
- Wouldn’t you need a large pool of sources? 20 SRC and 4HRC were used. So yes you need a lot more sources, but this is more a strength, because a broader range is used. Finding a sufficient amount of sources can be difficult.
- You probably need more subjects than with a regular subj test.
- The environment should be more close to the end environment of the product, so not so controlled as with regular tests. Also, more people doing the test at the same time can be interesting if for example the goal is to rate video quality of football games.
- A similar approach has been taken to playability of games. During the game, the focus of the gamer changes which also changes the requirement of the quality. Friday will this research be presented.
- A concern was raised about this method being too relaxed, making the people less focused on the task. Certainly the distraction questions raise the concern. More research is needed to find out if this is indeed the case.
- The technique seems appropriate for crowdsourcing. Also because of the distraction questions. No resources are available to try that approach.

### Enabler for next generation mobile video applications (Qi Wang)

See slides

Comments:
- Why UDP based instead of TCP? Because of real-time requirement. Even when using TCP with a real time constraint, there will be packet loss.
- Which kind of impairment was observed? For encoder comparison, the artefacts are subtle; here it was easier because of the packet loss. PSNR is measured with decoded sequence, not on original in order to exclude compression impact.
- The main focus of the test bed is mobile video delivery.
- How do you implement adaptivity over RTP although RTP does not give feedback? This work is not based on DASH. The bandwidth is adaptively limited in the core routers by dropping layers. Information for adaptation comes from monitoring equipment in the network. It is network based, not client initiated.
- Experiments are prepared off line and stored. Every viewer gets to see the same distortions.