Audiovisual experiments:

For VQEG Activities

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SAMVIQ (Subjective Assessment Methodology of Video Quality):

- Context
  - Discriminate video or audiovisual quality, in order to give a very simple conclusion.
- Overview of SAMVIQ.
  - Standard ITU-R- BT.1788 (for video only)
  - Continous quality scale (0 to 100) with 5 Quality Items
  - Global evaluation from 10 to 20s
  - Discard methdology (better than ITU BT 500).
  - Random Access to the test conditions.
  - Low and High quality anchors.
  - Explicit reference available.
  - The observer manage their subjective test.
- Goals
  - Evaluate video encoding chain
  - comparison between encoders performance.
  - Impact with or without transmission IP or radio errors.
- Numbers of observers
  - 15 no experts viewers after rejection method applied.

General Environnement1/2:

- Test instructions
  - A very simple and short question without guidance. NO indications about the artefacts.
- Rooms illumination and viewing conditions
  - Respect ITU-R BT. 500.
  - Using a pluge patterns to setup the display.
- Working
  - SAMVIQ is implemented in SEOVQ software (PC).
- Display available:
  - CRT,LCD for SDTV application
  - LCD, PLASMA SDTV/HDTV application.
  - PC screen for multimedia application

General Environnement 2/2:

- Capacities
  - Playback in real-time in raw audio and video samples (up to 1920x1080p60).
- Players:
  - DVS Pronto disk arrays,
  - Video cards AJA, Bluefish.
  - Windows media player, RealOne, QuickTime.
- Audio channels.
  - Often stereo, possile to work in multi-channels.
- Samples.
  - No decoding application during a test, all sequences are decoded before subjectives tests.

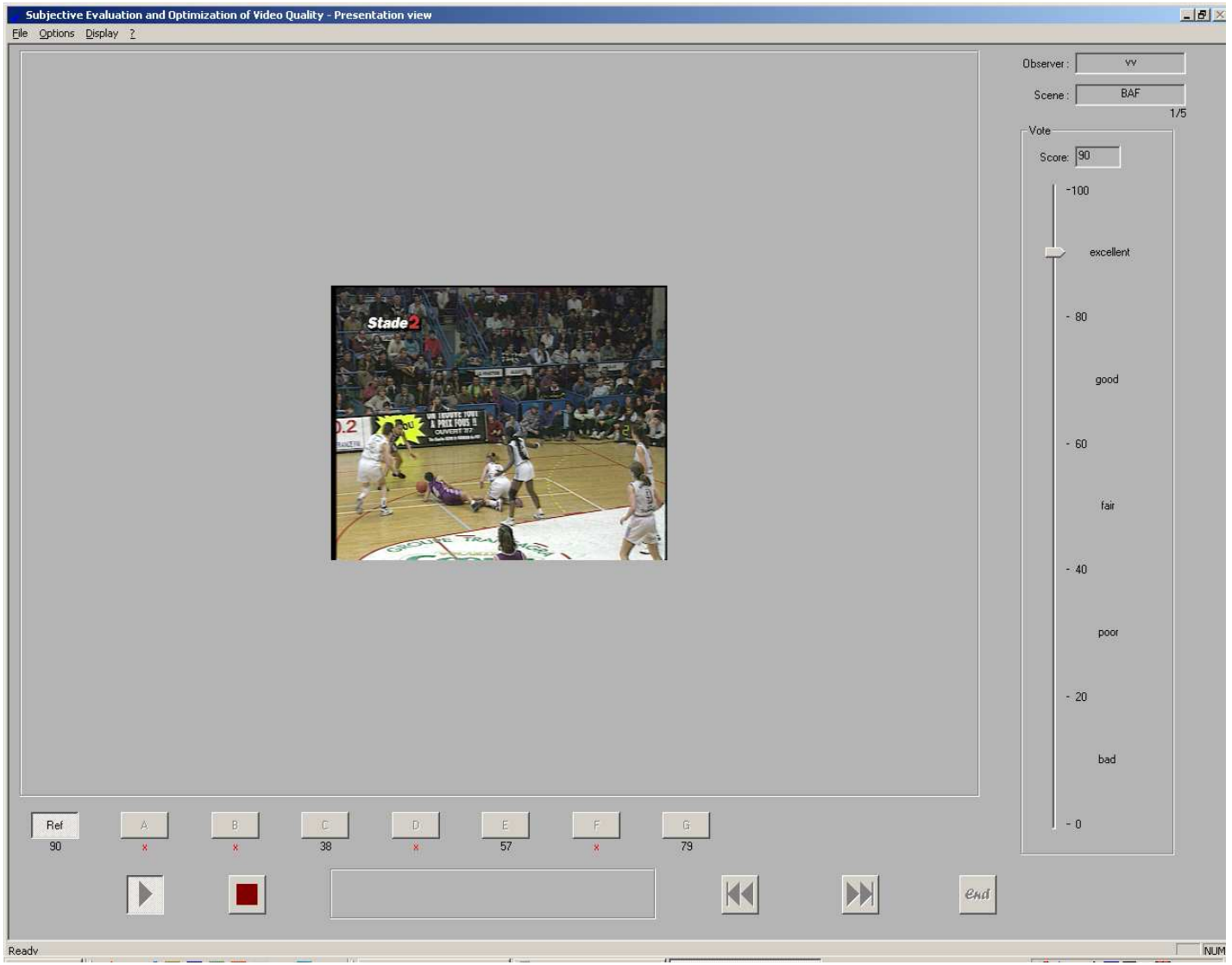
For multimedia context 1/2

- Video Framerate.
  - Can be mixed in a same subjective test.
- Video formats
  - QCIF to VGA formats (can be mixed in the same test).
- Audio sampling rate.
  - Often 48 khz, but sometimes lower for mobile application.
- Audio bitrate.
  - Can be severals
- Headphones or speakers ?
  - Audio level is adjusted by the observers.
  - Mono or stereo signal but binaural presentation.
  - For multimedia often in headphones

For multimedia context 2/2

- Viewing distance.
  - For multimedia: Not fixed, the observers can adjust their own viewing distance according to the image size.
- Image size.
  - Emulation of the real image size of the terminal by modyfing the resolution PC.
- Noise environement.
  - No noise audio is simulated.
- Source materials
  - Come from broadcast solution, or low cost camera (introduce blur).
  - Using low to high complexity scenes.

SAMVIQ : Interface in SEOVQ software (for PC display)



Audiovisual test : example of intrinsic results