

**COMMITTEE T1
CONTRIBUTION**

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STANDARDS PROJECT: Analog Interface Performance Specifications for Digital
Video Teleconferencing/Video Telephony Service

TITLE: Process for Completion of the VTC/VT Draft
Performance Standard

ISSUE ADDRESSED: Objective and Subjective Video Performance Testing

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DISCLAIMER:

Introduction

This document presents a process and time schedule for completion of the VTC/VT draft performance standard. Much of the process presented here has been discussed and agreed upon at previous meetings of the VTC/VT Sub-working group. In addition, the appendix to the current VTC/VT draft standard (T1A1.5/92-107) describes the validation process for proposed objective measures.

Outline of Process

1. Determine how many laboratories would be willing to participate in the subjective test that will be used for validating the objective performance measures. Each laboratory would volunteer to conduct subjective tests according to CCIR-500. This would involve collecting subjective ratings from approximately 30-40 people for 4, half-hour viewing sessions. For impairment testing, each viewer would rate no more than 2 clips per minute or 240 clips total. A clip is defined as a test scene - hypothetical reference circuit combination. A portion of these 240 clips would be used for training and inter-laboratory consistency checks (clips that are rated by all the laboratories to check for laboratory-to-laboratory consistency). Given that N laboratories agree, then the product of the number of test scenes and hypothetical reference circuits can be no greater than 240 times N.
2. Select test scenes to use from the list of proposed test scenes. This involves selection of the scene and the particular time interval that the viewer will see (some of the test scenes are more than 10 seconds).
3. Select hypothetical reference circuits (i.e., video systems under test) to use from the list of proposed reference circuits.
4. Determine all of the objective test waveforms to include in the test.
5. Edit a master source tape that contains all of the test scenes and objective test waveforms. Editing should be performed using the highest quality source that is available.
6. Play the master source tape through each hypothetical reference circuit and record the output. This step produces one output tape for each hypothetical reference circuit.
7. Take the master source tape and the output tapes with the test clips (generated from step 6) and edit viewing tapes with random clip ordering. The clip randomization should be performed in such a manner that the viewers do not see the same test scene consecutively.
8. Perform subjective tests and distribute output objective test waveforms to participants (so the participants can perform their objective measures).
9. Correlate subjective ratings with the objective measures.
10. Select the set of best objective measures based upon step 9.
11. Editorial meeting - put objective measures from step 10 above into the draft standard.
12. Submit final draft for T1A1.5 approval.

Time Schedule

The following presents a reasonable time schedule for completion of the above process.

