

CONTRIBUTION TO T1 STANDARDS PROJECT

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

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TITLE: Report of the Practice Tape Break-out Group Meeting

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SOURCE: Practice Tape Break-out Group

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DATE: August 9, 1993

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DISTRIBUTION: T1A1.5

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ABSTRACT:

The Practice Tape Break-out Group met on April 29, 1993 to select scenes. This tape is intended for use in the subjective testing required by T1A1.5 to complete its video performance specification project. The tape will be available for viewing by the full Working Group at the August 9, 1993 meeting.

Subjective Test Plan Practice Tape Break-out Group Report

Working Group T1A1.5 is in the process of preparing an ANSI standard on video teleconference system performance measurement. At the April 26-30 Meeting in Boulder, CO, the working group formed a break-out group to prepare the practice session video tape. The break-out group met on the afternoon of April 29, 1993 at the NTIA-ITS Lab and had the following members:

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|---------------------|---------------------|
| Al Morton | AT&T Communications |
| Coleen Jones | NTIA-ITS |
| Arthur Webster | NTIA-ITS |
| Steven Wolf | NTIA-ITS |
| Marshall Schachtman | PictureTel |

The break-out group planned to select the video scenes and transmission channels in order to complete their task. The Subjective Test Plan (T1A1.5/93-014 R1, Section 3) gave the following guidance for the break-out group:

There will be a practice session, consisting of 6 cycles through the viewing and voting process. The range of quality displayed to the subjects will represent nearly the full range of quality in the experiment and will also contain one combination with transmission errors.

After discussing the specifications in the test plan, the group selected six nine-second scenes from the NTIA-ITS library. Scenes which had scored high in the voting of the Scene-Selection Ad Hoc Group were given preference where possible. Table 1 assigns the 6 practice scenes to 5 categories based on their pictorial content. It identifies each scene by its short process name. The categories are the same as those used to group the 25 scenes in the test plan (Table 2).

Note that all categories are represented, and the principal use category has two representative scenes.

Table 2 gives the scenes, the transmission channels, the estimated opinion rating, and the video impairments present. The group number comes from Table 3 of the test plan, where the 25 HRC's are divided into 9 groups according to the transmission quality and type of impairments that are to be expected.

It bears repeating that the opinion scores given in Table 2 are only estimates. We used the same 5-point impairment scale as called for in the test plan.

NTIA-ITS agreed to prepare the practice tape and make it available at the August meeting for review by the full working group.

TABLE 1. SCENE CONTENT CATEGORIES

| CONTENT CATEGORY | DESCRIPTION | SCENE NAMES |
|-------------------------|---|--------------------|
| A | Videophone - one person, mainly head and shoulders, limited detail and motion | steve2 |
| B | One person with graphics and more motion and/or detail | pichrt |
| C | Teleconferencing - several people | 3and3 2wmap |
| D | Graphics with motion (pointer) | crswd |
| E | Not related to Teleconferencing | start |

TABLE 2. PRACTICE TAPE DESCRIPTION

| SCENE | GROUP | CHANNEL | OPINION | IMPAIRMENT |
|--------------|--------------|----------------|----------------|-----------------------|
| 2wmap | 1 | Null | 5 | None |
| crswd | 2 | VQ,med.rate | 3 | blurriness,color |
| start | 4 | Prop,med.rate | 1 | blocking,color,errors |
| steve | 6 | QCIF,192kB | 2 | low res blurring |
| pichrt | 7 | CIF,128kB | 2 | jerkiness,blurring |
| 3and3 | 9 | CIF,1544kB | 4 | minimal |

Note: The estimated opinion scores given here represent group consensus and are not derived from subjective tests.