

Subject: Objective Methods

Title: Proposals on Test Material Production and Other Issues (Agendum #4 and #5)

Date: October 6, 1997

Source: Al Morton, AT&T

Test Material Production - Hypothetical Reference Circuit Selection

There has been discussion on the set HRCs prompted by Arthur Webster's proposal. No final consensus has yet emerged, but there is agreement that the TV3 class (secondary distribution) should be included.

This initial study may not be able to qualify methods for all video quality classes. However, some HRCs should be assigned to classes adjacent to the TV3 class for the following reasons:

1. Ideally, measurement methods will be useful for more than one video quality class. The possibility for wider coverage should be examined for each method.
2. Follow-on test efforts would be assisted by a small sample of HRCs from other classes. Results could indicate video classes where success is more likely than others.
3. Adjacent class HRCs help to expand the quality range presented to viewers, while avoiding much (if any) compression of the ratings in the primary video class.

Therefore, this contribution proposes to retain a small number of HRCs from classes adjacent to the primary video class (at least two), and one of these HRCs should employ a different compression method (e.g., ITU-T H.263).

Other Issues - Transmission Impairments

From a Carrier's perspective, it is important to examine any quality method's ability to assess the presence and effect of transmission impairments. The term impairments includes packet/cell losses, bit errors, etc. but it is the resulting degradation in the video we wish to assess here, not the root cause. For example, we may wish to assess the effectiveness of different concealment strategies. Also, detection and assessment of transmission impairments is a key function of In-Service methods.

A small number of HRCs with transmission impairments should be sufficient. The degradation due to transmission impairments should result in some form of (likely) visible degradation other than frame repetition (e.g., block distortion).

Therefore, this contribution proposes to retain a small number (two) of HRCs with transmission impairments.