INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 1997 - 2000

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STUDY GROUP 12 - CONTRIBUTION xxx

SOURCE*: CSELT (Italy), European Broadcasting Union (Switzerland)

TITLE: Proposal for the validation of objective models for automatic video quality evaluation

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1. Introduction

The need for recommendations on objective models for video quality evaluation has been recognized both by ITU-R and ITU-T and they both have set up Questions of studies related to this topic (ITU-R Q.64-3/11, ITU-T Q.11/12 and ITU-T Q.22/9).

In October 1997 a meeting was held at CSELT, in Turin, to discuss the technical procedures to validate objective measurements of video quality. Experts from ITU-T SG12, SG9 and ITU-R SG 11 took part to the meeting and contributed to the specification of a workplan for this activity. At that meeting it was also decided that the group of experts, will in the future be called Video Quality Expert Group (VQEG), and that they would continue the work by correspondence and an updated report of the status of work would be presented in the different Study Groups by the (special) rapporteurs of the relevant Questions.

This document is intended to inform all the Administrations about the VQEG's proposal concerning the validation of objective measurements of video quality and to solicit submissions of objective models to be included in ITU Verification Process leading to an ITU Recommendation.

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2. Proposal of the Video Quality Expert Group (VQEG)

Requirements of the submitted model

The objective model should be capable of receiving as input both processed sequences and corresponding source sequences. Based on this information, it must provide one unique figure of merit, that estimates the subjective assessment value of the processed material.

The objective model must be effective for evaluating the performance of block-based coding schemes (like MPEG-2 and H.263) in a range of bitrates between 768 kbit/s and 36 Mbit/s on sequences with different amount of spatial and temporal information.

Deadlines

1st of May: Expression of intention

1st of June: Submission of executable program, complete with any input parameters

For any information about this activity you may contact the reflector of the VQEG (E-mail address: ituvidq@ntia.its.bldrdoc.gov). The proposal presented in this document will be discussed during the meetings of the three Study Groups involved (i.e. ITU-T SG12, ITU-T SG9 and ITU-R SG11) and if this activity will be approved, a more detailed workplan will be specified.