

SOURCE: Japan
TITLE : Switching Method for Picture Format

1. INTRODUCTION

This document describes the switching method about transmitting the mode QCIF/FCIF. In the current specification H.261 and H.221, there are two transmitting methods to indicate the picture format, QCIF or FCIF.

METHOD A ; At first, picture format indication is transmitted by using BAS code, then transmitted 1 bit by BIT 4 in TYPE 1.

METHOD B ; Picture format indication is transmitted only 1 bit by BIT 4 in TYPE 1.

2. DISCUSSIONS

There are several advantage and disadvantage between methods A and B. These two methods have following merits.

METHOD A ;

- (1) It allows convenience of transmitting several additional service control signal in the future by using such as AC channel.
- (2) Many freedoms are considered to video codec design.

METHOD B ;

- (1) There is no definite application by using doubled negotiation.
- (2) The most important item is the influence to TYPE 1 from bit error owing to line bits slip. There is no advantage in METHOD A to bit error tolerancy.

3. CONCLUSION

According to Doc.#560, the limit of tolerancy to bit error ratio (BER) is improved at $BER=10^{-5}$ to 10^{-8} by using FEC. When the coding frame rates are k frames/s, the probability of the influence to BIT 4 becomes 3.17 years/k. If coding rates are 30 frames/s, this probability becomes 37 days. This means few influence to TYPE1 signal from BER.

We conclude that picture format indication is transmitted only 1 bit by BIT4 in TYPE 1.