

**Title: FREEZE PICTURE REQUEST - TIMEOUT PERIOD**

**Source:** N, S, UK, F, FRG, NL, I

During multipoint operation a Freeze Picture Request signal causes the decoder to freeze its received picture until a Picture Freeze Release signal is received or a timeout period has expired. The timeout period for this signal is currently under study. This document makes a firm proposal for the value of this parameter.

The current H.120 specification defines a one second timeout period after Freeze Picture Request. Under normal circumstances this timeout period is not in fact used as a Picture Freeze Release signal will arrive and un-freeze the decoder picture well before the timeout period has expired. It is only under error conditions where a decoder misses a Picture Freeze Release signal that the timeout period is used.

The H.261 algorithm has been designed for use at low bit rates where DSP codec designs may be used. It is possible that some low bit rate channel routings may go over multiple satellite hops. In some multipoint conference configurations therefore, the period between a Freeze Picture Request and Picture Freeze Release arriving at a decoder could be rather longer than in the H.120 case. This is because a DSP codec design may not be able to instantly respond to a Fast Update Request and there are increased satellite delays involved. Also, it is conceivable that an encoder has just started coding a frame containing 256kbits when a Fast Update Request signal arrives. In this case the encoder could not issue a Picture Freeze Release for at least 5.5 seconds (assuming a video bitrate of 46.4kbits). It is therefore sensible to increase the timeout period to allow for these effects in the H.261 specification. It should be remembered that the timeout period is only used under error conditions.

We propose setting the timeout period at a minimum of 6 seconds. This will allow some codec designers to have longer timeout periods if required. For example, some codec manufacturers may wish to use 256 CIF frames as the mechanism for achieving timeout. An increased timeout period will merely alter the time it takes for a decoder to recover after an error condition has occurred.