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# QuickTime Conferencing: H.261 Compression Read Me File (10/95)

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Security: Everyone

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TOPIC --------------------

This article contains the ReadMe file about H.261 compression included with the QuickTime Conferencing software.

DISCUSSION --------------------

About H.261 Compression

The H.261 QuickTime Component is a software-only realization of the H.261 video-conferencing compression standard. It allows bit rates of 64 Kbits/sec to 384 Kbits/sec of 352x288 pixels or smaller frames. It can be used to compress QuickTime movie files, as well as video input from cameras.

System requirements and installation

This version of H.261 QuickTime Component works only on Power Macintosh computers. (You cannot send video to a 68000–based Macintosh using this method of compression.) The frame rate is dependent on the processing speed of your computer.

The H.261 coder decoder (codec) is installed in the Extensions folder (within the System Folder) by the QuickTime Conferencing Installer.

You should allow 1 MB of extra random-access memory (RAM) for the codec in addition to the 3 MB recommended for the Apple Media Conference application program. (You might try quitting other application programs or reducing the memory of the programs you are running.)

Setting options

You set compression options in the Video Settings dialog box. From the Apple Media Conference application program, choose Video Settings from the Settings menu. Select Compression in the Video Settings dialog box, then select H.261

from the Compressor pop-up menu.

Setting Video Bandwidth:
To set video bandwidth, you use the Quality slider in the Video Settings dialog box. The bandwidth changes linearly from 64 Kbits/sec. with the Quality slider set at Least, to 384 Kbits/sec. with the Quality slider set at Most.

When you are communicating over low-bandwidth networks (for example, Internet or ISDN), you should set the Quality slider to Least or Low.

Setting Key Frames:
Key frames improve video integrity when communicating over unreliable or low-bandwidth networks (at the expense of reducing image quality). The Key Frame option is accessed by opening the Video Settings dialog box. When the Key Frame option is unchecked, key frames are sent continuously. You can reduce the frequency of key frames by clicking on the Key Frame checkbox and entering a new key frame frequency. We recommend that you start with key frames every 25 or more frames.

Tips and troubleshooting

Window Sizes:
The current codec supports window sizes up to 352x288 pixels. The codec operates fastest when the window size is less than 176x144 pixels (note: Normal Size is 160x120). For medium and large window sizes, set the Quality slider at Medium, High, or Most.

Dropped Frames and Ghosting Artifacts:
If frames are dropped by the network, "ghosting" artifacts (that is, pieces or moving edges left over from previous frames) will persist in the image until the next key frame. This problem should not persist for more than a few frames (that is, less than a second) with QuickTime Conferencing.

"Ghosting" artifacts occur when receiving computer is too busy to decode the frames, or if the bandwidth of the connection between computers is too small. Here are some ways to alleviate ghosting problems:

On the sending computer:
- Set the Quality slider to a lower setting.
- Make the Self View window smaller.
- Use a key frame every 15 frames.
- Select Thousands from the Depth pop-up menu in the Video Settings dialog box.

On the receiving computer:
- Set your monitor to use Thousands or Millions of colors.
- Click the caller's window to make it active, and choose Normal Size from the Window menu.

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