

**From:** Anders Klemets  
**Sent:** Thursday, September 20, 2001 4:09 PM  
**To:** Cory West; Dawson Dean  
**Cc:** Richard Saunders  
**Subject:** RE: Seeking server info related to playback rate for time compression

Here are your answers:

1. Progressive Streaming at faster than real-time rates works with RTSP and HTTP/1.1. It does not work with MMS or HTTP/1.0. This functionality is tested daily. It is also possible to use Accelerated Streaming to stream the entire file at rates faster than real-time. This would work with all streaming protocols. Usually, Accelerated Streaming is only in effect for the first 10 seconds, but it is possible to tell the server for how long to do Accelerated Streaming. I don't think that has been tested, but the underlying mechanism at the server is the same as for Progressive Streaming.

2. It should be possible to do Progressive Download at rates faster than real-time, too, but it has never been tested so I cannot guarantee that it will work on the very first try.

Anders

-----Original Message-----

**From:** Cory West  
**Sent:** Thursday, September 20, 2001 12:09 PM  
**To:** Dawson Dean; Anders Klemets  
**Cc:** Richard Saunders  
**Subject:** Seeking server info related to playback rate for time compression  
**Importance:** High

Hello gentlemen.

I'm trying to get a sense of the risk and cost of time compression functionality on the server. What the SDK is being asked to provide is a mechanism that allows for content from net sources to be delivered faster than real time (somewhere closer to 2x speed), so it can be passed through the time compression DMO on the client.

My understanding is that the SDK supports "playback rate" with the server today - this is how FF and RW work. What we need to add is a mode that requests these increased rates without requesting "key frames only" for video streams and without disabling audio streams. I believe that we can do this without any additional support from the server.

My questions for you two are:

1. Do you know of anything on the server that might prevent us from doing prolonged high-rate playback? Is high-rate playback tested and supported over all the streaming protocols?
2. Would this work for progressive download?

Let me know what you think as soon as you are able. We need to close this out today.

Thanks,  
Cory

4/22/2003

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EXHIBIT 11  
Althea L. Miller  
CSR No. 3353  
Date: 4/30/03  
Witness: *Barthelme*

Plaintiff's Exhibit  
7003  
Comes V. Microsoft

MS-PCIA 5000625