

# Resolve MUST fix issues for Measured peak bitrate in HLS with mediastreamvalidator

You need to set `buff_size = max_buffer_size * 1.5`, `min_buffer_size = max_buffer_size * 0.92`, `avg_buffer_size = max_buffer_size * 0.96`, `gop=60`, `fps=30` in `ffmpeg` to avoid MUST fix issues with Apple `mediastreamvalidator`.

Apple `mediastreamvalidator` is one of the tools can verify if HLS stream is stable or not. Sometimes its error message is too sensitive, because that does not make any errors on real world - probably the very old legacy device may have issues.

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MUST fix issues  
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```

```
Error: Measured peak bitrate compared to master playlist declared value exceeds error tolerance  
--> Detail: Measured: 6188.66 kb/s, Master playlist: 4815.80 kb/s, Error: 28.51%  
--> Source: https://foo.net/asset/4085de1cd3bc17db0bd71f368de2a79571cae2aa/manifest-7c9b7fbf-1a7b235a-d758c099.m3u8  
--> Compare: dec95656-693de01e-370191fe-255163091-ts-7c9b7fbf-1a7b235a-d758c099.m3u8  
  
--> Detail: Measured: 5168.95 kb/s, Master playlist: 3880.80 kb/s, Error: 33.19%  
--> Source: https://foo.net/asset/4085de1cd3bc17db0bd71f368de2a79571cae2aa/manifest-7c9b7fbf-1a7b235a-d758c099.m3u8  
--> Compare: dec95656-693de01e-370191fe-255163092-ts-7c9b7fbf-1a7b235a-d758c099.m3u8  
  
--> Detail: Measured: 2023.18 kb/s, Master playlist: 1548.80 kb/s, Error: 30.63%  
--> Source: https://foo.net/asset/4085de1cd3bc17db0bd71f368de2a79571cae2aa/manifest-7c9b7fbf-1a7b235a-d758c099.m3u8  
--> Compare: dec95656-693de01e-370191fe-255163094-ts-7c9b7fbf-1a7b235a-d758c099.m3u8
```

You will need to set `minrate:avgrate:maxrate:bufsize = 0.92:0.96:1:1.5` with `ffmpeg` to avoid above case. The `ffmpeg` options you should do is something like below:

```
ffmpeg -i "/tmp/ck_ffmpeg/2021-09-22_305fde4e/src.mp4" \  
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-g 60  
-filter:v:0 "scale=iw*sar*min(1920/(iw*sar)\,1080/ih):ih*min(1920/(iw*sar)\,1080/ih), pad=1920:1080:(ow-  
iw)/2:(oh-ih)/2, format=yuv420p, fps=30" \  
-b:v:0 9.6M \  
-maxrate:v:0 10M \  
-minrate:v:0 9.2M \  
-bufsize:v:0 15M \  
-b:a:0 192k \  
-muxdelay 0 \  
-muxpreload 0 \  
.  
.  
.
```