

Compression Comparisons

	Advantages	Disadvantages
MPEG4	Ideal for streaming (very efficient compression, especially); simpler decode process than encode; prevalent PC standard	Complicated encoding; long process latency; weak error resilience (transmission errors affect multiple frames); License and user content fees for MPEG4; no still image capability (legal implications); not ideal for video editing; very limited scalability
JPEG2000	Low process latency (ADV202); better compression efficiency; complete scalability; bit-error resilient; lossy / lossless capable; suitable for text and images;	

JPEG2000 in CCTV Applications (FAQ)

Why consider JPEG2000 when there is MPEG4 ?

JPEG2000 is more flexibility

Low latency - useful in remotely operating a camera

Multiplexing multiple cameras - not possible with MPEG4

Regions of motion can be enhanced - not possible with MPEG4

Higher image quality - MPEG4 is not conducive toward this trend since it is 8-bits only and has no still image capability

Legal Issues – Some countries (Australia) do not allow MPEG4 still images as legal evidence

MPEG4 is “digital VHS”– nothing can be done with the data

Is MPEG4 picture size smaller ?

No!!

If same picture quality

JPEG2000 picture size is smaller.

Is MPEG4 transmission speed higher than JPEG2000 ?

No!!

JPEG2000 has scalability, it can adjust the transmission speed,

User can get high quality picture but speed is slower,

or speed is faster but picture quality is a little poor.

JPEG2000	VS.	MPEG4
Hyper 720x240 Size:28K		Best 720x480 Size:34K?
 <p>2006/OCT/03 04:15:27 000/100 CAM A1 SAMPO CH-01</p>		 <p>CAM A1 SAMPO 2006/10/03 PM04:15:27</p>
Super 720x240 Size:24K		Standard 720x480 Size:28K?
 <p>2006/OCT/03 04:25:07 1X 000/100 CAM A1 SAMPO CH-01</p>		 <p>CAM A1 SAMPO 2006/10/03 PM04:25:07</p>
High 720x240 Size:20K		Mid 720x480 Size:22K?
 <p>2006/OCT/03 04:36:16 1X 033/100 CAM A1 SAMPO CH-01</p>		 <p>CAM A1 SAMPO 2006/10/03 PM04:36:16</p>
Mid 720x240 Size:16K		Fair 720x480 Size:16K?
 <p>2006/OCT/03 05:12:42 1X 091/100 CAM A1 SAMPO CH-01</p>		 <p>CAM A1 SAMPO 2006/10/03 PM05:12:42</p>
Low 720x240 Size:12K		Low 720x480 Size:10K?
 <p>2006/OCT/03 05:13:08 1X 092/100 CAM A1 SAMPO CH-01</p>		 <p>CAM A1 SAMPO 2006/10/03 PM05:13:08</p>

JPEG2000

VS.

MPEG4

Hyper 360x240xZoom Size:14K

Best 720x240 Size:17K?



Super 360x240xZoom Size:12K

Standard 720x240 Size:14K?



High 360x240xZoom Size:10K

Mid 720x240 Size:11K?



Mid 360x240xZoom Size:8K

Fair 720x240 Size:8K?



Low 360x240xZoom Size:6K

Low 720x240 Size:6K?



JPEG2000

VS.

MPEG4

Hyper 360x120xZoom Size:7K

Best 360x240 Size:14K?



Super 360x120xZoom Size:6K

Standard 360x240 Size:11K?



High 360x120xZoom Size:5K

Mid 360x240 Size:8K?



Mid 360x120xZoom Size:4K

Fair 360x240 Size:5K?



Low 360x120xZoom Size:3K

Low 360x240 Size:2K?

