

Benefits of the Constant Bitrate Algorithm

When designing networked video security systems, there are usually a number of concerns. System integrators need to know how much bandwidth and storage are required, and how to maintain video and audio quality when the performance of the network is always changing and bandwidth becomes limited.

To help system integrators with these concerns, Sony network security cameras provide JPEG picture quality settings that incorporate a constant bitrate algorithm. These settings can be selected from ten levels with compression ratios ranging from 1/6 to 1/60, as shown in the table below. (Fig. 1)

By choosing the most appropriate level to match their requirements, system integrators can easily calculate the required storage capacity and network bandwidth required for an installation. And because these cameras incorporate a constant bitrate algorithm, smooth-moving, high-quality images can be transmitted via the network without dropping frames – as some other cameras might do – when network bandwidth is insufficient. (Fig. 2)

The Sony constant bitrate algorithm is an indispensable tool for providing consistent and smooth data throughput when transmitting JPEG images over networks, and to help meet the QoS (Quality of Service) requirements outlined for your system.

Level	Data Size (approx.)		Compression Ratio (approx.)
	QVGA (1290 x 960)	VGA (640 x 480)	
10	600 KB	150KB	1/6
9	360 KB	90KB	1/10
8	240 KB	60KB	1/15
7	180 KB	45KB	1/20
6	144 KB	36KB	1/25
5	120 KB	30KB	1/30
4	102.8 KB	25.7KB	1/35
3	90 KB	22.5KB	1/40
2	72 KB	18KB	1/50
1	60 KB	15KB	1/60

Fig. 1 JPEG Picture Quality Settings (SNC-DM160 Megapixel Network Camera)

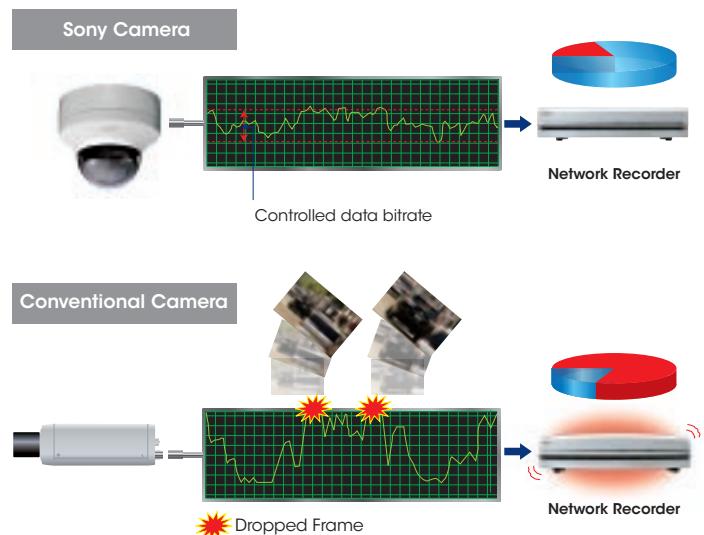


Fig. 2 Constant Bitrate Algorithm

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