

Is Bandwidth Making You Miss the Big Picture?

DETERMINE WHAT FRAME RATE IS REQUIRED FOR YOUR APPLICATION

Often times you will hear that video needs to be recorded at 30 frames-per-second (fps). Does it? Whether you are considering installing your own system or working with an end-user client on specifying their system, determining the appropriate fps for viewing and recording will ensure you satisfy the requirement and remain in budget.

In order to establish what frame rate is right, you first have to decide what image quality you want (i.e. General Surveillance, Forensic Detail or High Detail), and what type of camera you are going to install (i.e. 1MP, 2MP, 3MP, or 5MP).

With these 2 factors, you can now identify how many images you will capture of the subject at each recording rate. The table below illustrates this concept:

EXAMPLE:

You need Forensic Detail quality images (131 pixels/meter) of subjects travelling at up to 60 KPH.

SOLUTION:

With a 2 megapixel IQeye camera, and only 10fps, you can capture seven images of your subject with Forensic Detail resolution. That's seven opportunities to identify a bank robber, capture a license plate number or recognize a shoplifter.

THE RESULT:

Identifying which frame rate is the correct one not only ensures that security needs are met, but it can also reduce bandwidth and storage directly related to overall system costs.

SUBJECT SPEED		IMAGES CAPTURED @ 10 fps w/inHFOV					IMAGES CAPTURED @ 5 fps w/inHFOV					IMAGES CAPTURED @ 2 fps w/inHFOV				
KPH	M/Second	VGA	1MP	2MP	3MP	5MP	VGA	1MP	2MP	3MP	5MP	VGA	1MP	2MP	3MP	5MP
10	2.8	20	34	43	55	69	10	17	21	27	34	4	6	8	11	13
20	5.6	10	17	21	27	34	5	8	10	13	17	2	3	4	5	6
40	11.1	5	8	11	14	17	2	4	5	7	8	1	1	2	2	3
60	16.7	3	5	7	9	11	1	2	3	4	5	0	1	1	1	2
80	22.2	2	4	5	7	8	1	2	2	3	4	0	0	1	1	1
100	27.8	2	3	4	5	7	1	1	2	2	3	0	0	0	1	1

Calculations are based on 131 pixels-per-meter (forensic detail). New calculations are required for high detail or general surveillance. Distance covered is calculated by camera horizontal resolution/ppm.