Recommended platforms

Recommended hardware platforms for Server and Client

In the current implementation, *Axxon Next* software package is intended for use with IBM compatible PCs.

The required hardware configuration (motherboard, CPU, and hard disk) can be determined with the help of the AxxonSoft calculator.

Note
If you increase RAM speed by using memory with a higher frequency or using memory in dual-channel (or more) mode, you will reduce CPU usage and boost the performance of *Axxon Next*.

Minimum and recommended requirements for graphics cards are given below:

Recommended requirements	NVIDIA® GeForce® 200 or higher ATI Radeon™ HD 5000, AMD Radeon™ HD 6000 or higher OpenGL version 2.0 and higher Availability the **ARB_vertex_program**, **GL_EXT_blend_func_separate**, **GL_ARB_framebuffer_object** extensions for OpenGL
Minimum requirements	GPU: GeForce 7300LE 512MB IGP: Intel HD Graphics 530 OpenGL version 2.0 Availability the **ARB_vertex_program**, **GL_EXT_blend_func_separate**, **GL_ARB_framebuffer_object** extension for OpenGL

Attention!
We recommend that you use the latest drivers for both Integrated (on-board) and Dedicated (shared) Graphics Cards .

Note
Extensions availability can be checked using the OpenGL Extension Viewer program (download).

Size of disk subsystem

Size of disk subsystem will be calculated on the basis of frame resolution and compression, rate of video signal frames per second, number of cameras recording events to the hard drives and other recording parameters.

Take into account the size of the system log and metadata databases.

Size of archives

Size of disk subsystem can be calculated by formula:

Size of Disk subsystem (Mb) = **Time of storing an archive** (days) x **Cameras number** x **Rate of recording** (fps) x3,51 x **Time of guaranteed recording from a camera** (h / day) x **Average frame size** (Kb),

where **Time of storing an archive** is the required time of storing an archive from one camera, days;

Cameras number is the number of cameras recording to the archive;

Rate of recording is the frame rate of recording to the archive, frames per second;

3,51 = (60 sec in min x 60 min in hour)/(1024 kb in Mb) – is the coefficient used for kb/s-Mb/h conversion,

Time of guaranteed recording from a camera is the number of hours of guaranteed recording from one camera to the archive per day,

Average frame size is the average size of the camera frame, kilobytes.

Note
Average frame size for 640x480 resolution is:

Video codec	Average frame size
H.264	from 8 Kb to 17 Kb
MPEG4	from 8 Kb to 35 Kb
MJPEG	from 23 Kb to 60 Kb

Average frame size may vary over a wide range depending on the vendor, model and settings of the camera and video image complexity

Note
To calculate the frame size one can use the ratio, that while increasing vertical or horizontal resolution two times, the average frame size will be increased four times (this rule is a relative one and can be applied only to some cameras' models)

Examples of calculating a size of disk subsystem (without size of syslog database) are presented below.

Recording parameters	Calculating results
4 cameras with 25 fps and 640x480 resolution, guaranteed recording of 24 hours per day during one week	H.264: from 500 GB to 1 TB MPEG4: from 500 GB to 2 TB MJPEG: from 1.3 TB to 3.5 TB
16 cameras with 12 fps and 640x480 resolution, guaranteed recording of 12 hours per day during one week	H.264: from 500 GB to 1 TB MPEG4: from 500 GB to 2 TB MJPEG: from 1.3 TB to 3.5 TB
4 cameras with 25 fps and 1280x960 resolution, guaranteed recording of 24 hours per day during one week	H.264: from 2 TB to 4 TB MPEG4: from 2 TB to 8 TB MJPEG: from 5.3 TB to 14 TB

Database of the system log

The size of syslog database is to be taken into account when the size of disk subsystem is calculated. Estimated size of syslog database is calculated by formulas:

The capacity of the system log database (low detection activity) = D * T * (0.01 GB / day);

The capacity of the system log database (average detection activity) = D * T * (0.03 GB / day);

The capacity of the system log database (high detection activity) = D * T * (0.12 GB / day);

where **D** is the total number of detectors created in system,

T is the estimated duration of syslog storage, days.

Object trajectory database

The following formulas can help to determine the required disk size for the trajectory database:

Size of object trajectory database = **N**×**T**×(0,5Gb / day)– sufficient disk size;

Size of object trajectory database = **N**×**T**×(1Gb / day)– sufficient disk size plus reserve space;

Size of object trajectory database = **N**×**T**×(5Gb / day)– sufficient disk size plus a large reserve.

N equals the number of video cameras in the system actively recording metadata; **T** equals the period of time (number of days) that metadata will be stored. By default, T = 30 days.

If you have less than 5 Gb of free disk space, the Object Tracking DB is overwritten - new data records over the oldest data records.

Supported operating systems

Axxon Next software package is compatible with 32-bit and 64-bit licensed versions of Microsoft Windows operating system.

Windows version	Supported edition	Note	
Windows Vista SP2 (x86, x64)	Home Basic	Restrictions, imposed by OS edition (1 physical processor, 5 SMB connections) – see http://www.microsoft.com	
	Home Premium	Restrictions, imposed by OS edition (1 physical processor) – see http://www.microsoft.com	
	Business	OS edition, enabling to use all realized product features	
	Enterprise	OS edition, enabling to use all realized product features	
	Ultimate	OS edition, enabling to use all realized product features	
Windows Server 2008 SP2 (x86, x64)	Enterprise	OS edition, enabling to use all realized product features.	Full Installation type is supported.Server Core Installation type is not supported
	Datacenter	OS edition, enabling to use all realized product features.	
	Standard	OS edition, enabling to use all realized product features.	
	Web	OS edition, enabling to use all realized product features.	
	HPC	OS edition, enabling to use all realized product features.	
Windows Server 2008 R2 SP1 (x64)	Enterprise	OS edition, enabling to use all realized product features.	Full Installation type is supported.Server Core Installation type is not supported
	Datacenter	OS edition, enabling to use all realized product features.	
	Standard	OS edition, enabling to use all realized product features.	
	Web	OS edition, enabling to use all realized product features.	
	HPC	OS edition, enabling to use all realized product features.	
	Foundation	OS edition, enabling to use all realized product features.	
Windows 7 SP1 (x86, x64)	Starter (x86)	Restrictions, posed by OS edition (2GB of main memory, 1 physical processor, 1 monitor) - see http://www.microsoft.com	Stretch cards are supported in 32-bit version only
	Home Basic	Restrictions, posed by OS edition (1 physical processor) - see http://www.microsoft.com	
	Home Premium	Restrictions, posed by OS edition (1 physical processor) - see http://www.microsoft.com	
	Professional	OS edition, enabling to use all realized product features.	
	Enterprise	OS edition, enabling to use all realized product features.	
	Ultimate	OS edition, enabling to use all realized product features.	
Windows 8 (x86, x64)	Core	OS edition, enabling to use all realized product features.	
	Pro	OS edition, enabling to use all realized product features.	
	Enterprise	OS edition, enabling to use all realized product features.	
Windows Server 2012 (x64)	Foundation	Restrictions, posed by OS edition (1 physical processor)	Full Installation type is supported.Server Core Installation type is not supported
	Essentials	Restrictions, posed by OS edition (2 physical processors)	
	Standard	OS edition, enabling to use all realized product features.	
	Datacenter	OS edition, enabling to use all realized product features.	
Windows Server 2012 R2 (x64)	Essentials	Restrictions, posed by OS edition (2 physical processors)	Full Installation type is supported.Server Core Installation type is not supported
	Standard	OS edition, enabling to use all realized product features.	

	Datacenter	OS edition, enabling to use all realized product features.	
Windows Server 2016 (x64)	Essentials	Restrictions, posed by OS edition (2 physical processors)	Full Installation type is supported.Server Core Installation type is not supported
	Standard	OS edition, enabling to use all realized product features.	
	Datacenter	OS edition, enabling to use all realized product features.	
Windows 10 (x86, x64)	Pro	OS edition, enabling to use all realized product features.	
	Enterprise	OS edition, enabling to use all realized product features.	
	Education	OS edition, enabling to use all realized product features.	
	Home Edition	OS edition, enabling to use all realized product features.	