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.

Recommended hardware platforms for Server and Client are presented below.

> **Note**
>
> Server means a computer with Axxon Next installed as Server and Client, Client means a computer with *Axxon Next* installed as Client.
>
> Types of installation (Server and Client, Client) are described in the document titled *User Guide*

Platform component	**Axxon Next configuration**		
	From 1 to 16 video channels	**From 16 to 32 video channels**	**From 32 to 64 video channels**
CPU	INTEL Core i3 540 @ 3.06 GHz or higher	INTEL Core i7 930 @ 2.8 GHz or higher	2xIntel® Xeon® X5660 @2.8 GHz or higher
RAM	2 Gb	4 Gb	6 Gb
Video card	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 Extensions availability can be checked using the OpenGL Extension Viewer program (download).		
HDD	SATA II 7200rpm	SATA II 7200rpm	Server: RAID 0 on SATA II 7200rpm or SCSI 10000rpm Client: SATA II 7200rpm

Note

Axis M1031-W camera with 640x480 resolution, 25fps, average quality settings was used for preparing recommendations on the Axxon Next hardware platform.

For other resolutions and rates of video processing there are possible deviations from recommended platforms to higher or lower platform performance.

Similarly, performance may fluctuate for other vendors, models and settings of cameras; it also depends on the video image complexity

Operating with Axxon Next software package it is necessary to take into account the minimal requirements for its launch.

Minimal requirements to hardware platforms for Sever are presented below.

Note

This requirements are applied to minimal Server configuration: one video camera with 0,3 MPx resolution, speed is 5fps, video in mjpeg format is displayed on video-monitor, video constantly stored into archive

Operating system	Minimum processor	Minimum memory	Minimum video card
Windows XP SP3	Intel Celeron 420 @ 1.60GHz AMD Athlon 64 2800+ Intel Pentium 4 3.06GHz	512 Mb	GeForce 7300LE 512MB OpenGL version 1.3 Availability the **ARB_vertex_program** extension for OpenGL Extensions availability can be checked using the OpenGL Extension Viewer program (download).
Windows Vista SP2 x64	Intel Celeron 420 @ 1.60GHz AMD Athlon 64 2800+ Intel Pentium 4 3.06GHz	1 Gb	GeForce 7300LE 512MB OpenGL version 1.3 Availability the **ARB_vertex_program** extension for OpenGL 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.

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)

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:

Size of syslog database = **D*****T***(0,5Gb / day) (enough),

Size of syslog database = **D*****T***(1Gb / day) (more than enough),

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

T is the estimated duration of syslog storage, days.

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

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 XP SP2 (x64)	Windows XP Professional	OS edition, enabling to use all realized product features
Windows XP SP3 (x86)	Windows XP Home Edition	Restrictions, imposed by OS edition (1 physical processor, 5 SMB connections) – see http://www.microsoft.com
	Windows XP Professional	OS edition, enabling to use all realized product features
	Windows XP Tablet PC Edition	OS edition, enabling to use all realized product features
	Windows XP Media Center Edition	OS edition, enabling to use all realized product features
Windows Server 2003 R2 SP2 (x86, x64)	Standard Edition	OS edition, enabling to use all realized product features
	Enterprise Edition	OS edition, enabling to use all realized product features
	Datacenter Edition	OS edition, enabling to use all realized product features

	Web Edition (x86)	Restrictions, imposed by OS edition (2 Gb RAM, 2 physical processors) – see http://www.microsoft.com	
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	Axxon Next cannot be run as a Windows shell.	
	Pro	Axxon Next cannot be run as a Windows shell.	
	Enterprise	Axxon Next cannot be run as a Windows shell.	

Windows Server 2012 (x64)	Foundation	Restrictions, posed by OS edition (1 physical processor) Axxon Next cannot be run as a Windows shell.	Full Installation type is supported.Server Core Installation type is not supported
	Essentials	Restrictions, posed by OS edition (2 physical processors) Axxon Next cannot be run as a Windows shell.	
	Standard	Axxon Next cannot be run as a Windows shell.	
	Datacenter	Axxon Next cannot be run as a Windows shell.	