

AxxonSoft

The  
**Axxon Smart**

Software Package

Recommended platforms

Version 1.0.4

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# 1 Recommended hardware platforms for Server and Client

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

Recommended hardware platforms for Server and Client are presented below (Tab. 1—1).

*NOTE. Server means a computer with Axxon Smart installed as Server and Client, Client means a computer with Axxon Smart installed as Client.*

*Types of installation (Server and Client, Client) are described in the document titled Axxon Smart Software Package. User Guide.*

**Tab. 1—1 Recommended hardware platforms for Server and Client**

Platform component	Axxon Smart 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® 5660 @2.8 GHz or higher
RAM	2 Gb	4 Gb	6 Gb
Video card	GeForce 9500 (512 Mb) or higher Video card must support OpenGL version 1.3 and higher for displaying GUI correctly		
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 Smart 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.*

## 2 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 from formula (Formula 2—1):

### Formula 2—1 Size of disk subsystem

$$\text{Size of Disk subsystem (Mb)} = \text{Time of storing an archive (days)} \times \text{Cameras number} \times \\ \times \text{Rate of recording (fps)} \times 3,51 \times \text{Time of guaranteed recording from a camera (h/day)} \times \\ \times \text{Average frame size (Kb)}$$

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;

$$3,51 = \frac{60 \text{ sec in min} \times 60 \text{ min in hour}}{1024 \text{ kb in Mb}}$$

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 1. Average frame size for 640x480 resolution is (Tab. 2—1):

Tab. 2—1 Average frame size for 640x480 resolution

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 2. 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 also doubled (this rule is a relative one and can be applied only to some cameras' models).

Examples of calculating a size of disk subsystem from Formula 2—1 are presented below (Tab. 2—2):

Tab. 2—2 Examples of calculating a size of disk subsystem

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

Recording parameters	Calculating results
	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

### 3 Supported operating systems

Axxon Smart software package is compatible with 32-bit and 64-bit licensed versions of Microsoft Windows operating system (Tab. 3—1).

Tab. 3—1 Supported operating systems

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 <a href="http://www.microsoft.com">http://www.microsoft.com</a>	
	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 <a href="http://www.microsoft.com">http://www.microsoft.com</a>	
Windows Vista SP2 (x86, x64)	Home Basic	Restrictions, imposed by OS edition (1 physical processor, 5 SMB connections) – see <a href="http://www.microsoft.com">http://www.microsoft.com</a>	
	Home Premium	Restrictions, imposed by OS edition (1 physical processor) – see <a href="http://www.microsoft.com">http://www.microsoft.com</a>	
	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.	
Windows 7 SP1 (x86, x64)	Starter (x86)	Restrictions, posed by OS edition (2GB of main memory, 1 physical processor, 1 monitor) - see <a href="http://www.microsoft.com">http://www.microsoft.com</a>	Stretch cards are supported in 32-bit version only
	Home Basic	Restrictions, posed by OS edition (1 physical processor) - see <a href="http://www.microsoft.com">http://www.microsoft.com</a>	

Windows version	Supported edition	Note	
	Home Premium	Restrictions, posed by OS edition (1 physical processor) - see <a href="http://www.microsoft.com">http://www.microsoft.com</a>	
	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.	