

# **AKCess Pro Server**

Upgrading Manual - 2024

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### Preparation

The APS upgrades should be done in stages v13 -> v14 -> v15 -> v16. This will ensure there are no issues, as each version contains many changes. This is especially important for customers having video recording configured, and existing recorded videos as there will be an automatic video file conversion in v14. Please note that it is not possible to directly restore v12 APS backup to v16.

We always advise making backups prior to any upgrades.

This ensures that you can effortlessly restore the previously working environment, in case something goes wrong during the upgrade process or you have issues with the upgraded version.

#### Please do the following for making backups:

Make a backup from within APS first. Then make another, manual backup by ZIPing the **C:\ProgramData\AKCP** folder.

To make sure the databases are in a consistent state, this ZIP file should be made with the APS service shut down – use the Server Manager and choose the "stop service" option:





After the ZIP file is made, you can attempt the upgrade with the new APS installer (no need to restart the service).

If anything goes wrong, you could restore a good working state using the ZIP backup as described below.

#### **Reinstall and restore instructions:**

Get the backup ZIP file you made in the previous step ready (the APS backup file works in a similar manner, but you should restore that from within APS WebUI menu).

Uninstall the problematic or corrupt APS installation from the Programs list; clear all user data when asked and check that the **C:\ProgramData\AKCP** folder is removed.

Copy back the contents from the ZIP file into C:\ProgramData\AKCP folder.

Reinstall the previous APS version using the original installer. APS will recognize and use the user data you copied back from the ZIP archive, but you still have to re-enter the admin user password.



### APS v12

The latest v12 release is 12.5.3 and you should upgrade to this first, if you have an older version installed.

Installer link:

https://akcp-downloads.s3.us-west-2.amazonaws.com/APS/old/AKCessProServer-12.5.3.exe



Note about the APS license

Make sure your APS license is updated to be used with v16.

Contact support and sales, and request additional licenses if required by your system. This is due to differences in licensing between APS versions.

If you're using a new license that is compatible with APS v16 you will not have any license-related problems during the upgrade process.

The new license can also be used with the v12, but you will have to activate the license code manually (online activation will fail).

KCess Pro		- 🗆 X
		☑ Local machine
	Server	localhost 🗸
AKCess Pro Server	Port	5000
	User name	e
AKCess Pro Server	Password	
Management Software		Save password
		Enable secure connection
Version : 12.5.3		OK Cancel



AKCess Pro : adn	min@WIN2019VM -	Workspace										_	0	×
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Friday, 20 Septemb	ber 2024 - 02:57:1	5 PM										Q. W	rsion : 12	5.3
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APS v12 uses the wxClient interface, and this will not be migrated over to the later WebUI, so you will have to recreate the desktop gadgets after the upgrade.





### APS v13

The latest v13 release is 13.6.1941.

Installer link:

https://akcp-downloads.s3.us-west-2.amazonaws.com/APS/old/AKCProServer-13.6.1941.exe

The optional wxClient doesn't have to be installed, since this will be removed during the v14 upgrade stage.

AKCPro Server 13.6.1941 S	Setup			_		×
Server Port Please enter server port.						
	5350					
Server Port	5000					
HTTP Port	8080					
HTTPS Port	8081					
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Define the ports for the WebUI HTTP and HTTPS service.



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÷	$\rightarrow$ G	8 Not secure	https://	127.0.0.1:8081	☆	ø	Ď	:
<	→ C	Not secure	Attacke passwo NET::ERR Pioceed	127.0.0.1:8081         connection is not private         rs might be trying to steal your information from 127.0.0.1 (for example, rds, messages, or credit cards). Learn more about this warning         cERT_AUTHORITY_INVALID         Turn on enhanced protection to get Chrome's highest level of security         advanced         Back to safety         ver could not prove that it is 127.0.0.1; its security certificate is not trusted by your er's operating system. This may be caused by a misconfiguration or an attacker thing your connection.         to 127.0.0.1 (unsafe)	*			

The v13 uses forced HTTPS mode for its WebUI after installation.

The browser warning has to be accepted, and you must click on "Proceed" in order to be able to log in (click the Advanced button and then the Proceed link).



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Usern	ame
adm	in
_	
	LOG IN

✓ ¶ AKCPro Server ×	+		-	
← → C ONot secure https:	//127.0.0.1:8081/app.html#/	۹ 🕁	👳 🗅	I 😩 🗄
= <b>AKCP</b> AKCPro Server	r			
DEVICES WORKSPACE MAPS	🖲 Workspace > 🔵 New Desktop +		\$ <b>.</b>	:: ×
Q Search Ping :	Sensor (Host 127.0.0.1)			*
Add Device Q. Scan Network  Add Device Q. Scan Network  Add Device Server  Host Status  Ping Sensor  Network Period (192 368 11)	Reachable			
Host Status	ork Device (192.168.1.1) : C ×			
Playback Video with Sensors	learch work Device (192.168.1.1) is now online work Device (192.168.1.1) y2024 14:59:38 work Device (192.168.1.1) y9/2024 14:56:42			
Friday, 20 September 2024 15:01:20	Copyright 2024   AKCP   All Rights Reserved			Version: 13.6.1941



Your wxClient desktop from the v12 is not migrated, so you will have to recreate any gadgets, logs etc. that was set up previously.

After this, your desktop will be preserved in later upgrades.

= <b>AKCP</b> A	<cpro s<="" th=""><th>erver</th></cpro>	erver
DEVICES WORKSPACE	MAPS	🔄 Workspace > 🔵 New Desktop 🛨
<b>Q</b> Search		Ping Sensor (Host 127.0.0.1) 🗄 江 🗙
🕀 Add Device 🔍 Scan Net	work	
C AKCPro Server	÷.	
Host Status	:	Reachable
Ping Sensor	:	
X Network Device (192.168.1.1	) :	
Host Status	:	Network Device (192.168.1.1) : :: X
Playback Video with Sensors		Network Device(192.168.1.1) is now online Network Device (192.168.1.1) 20/09/2024 14:59:38
		Network Device(192.168.1.1) is now online Network Device (192.168.1.1) 20/09/2024 14:56:42





Open the Server Settings menu and go to Services.



	Server
Server Settings	Services Settings / Services
✔ VPN Event Logs	Active Services
Notification     NTP	HTTP Port 8080
LDAP	Secure Web Interface (HTTPS)
Services	HTTPS Port 8081 Unland Configure File
	Select Certificate File BROWSE UPLOAD SAVE CANCEL

Click to re-enable the **HTTP service**.

Services				
Settings / Server Settings / Services				
Active Services				
Web Interface (HTTP)				
HTTP Port 8080				

The default is the 8080 port; remember which port it is set to as it will be needed for the correct URL.

If you change the port, the APS service will restart.





✓	Server	× +					
$\leftrightarrow$ $\rightarrow$ G	0	http://127.0.0.1:8080					
= AKC	© /	AKCPro Server - http://127.0.0.1:8080 ×					
Server Settings	۹ ۱	http://127.0.0.1:8080 - Google Search					
Connections	S I	Log In - http://127.0.0.1:8080/app.html#/monitoring					
OT VPN	-	Active Services					
🔽 Event Logs		Web Interface (HTTP)					
Notification							
() NTP		8080					
LDAP		Secure Web Interface (HTTPS)					

After it's restarted, you can test the HTTP mode login:

#### http://127.0.0.1:8080/login.html

In later APS versions, the HTTP is the primary protocol and HTTPS is optional. You should use HTTPS only with a valid SSL certificate.

#### Additional optimizations

Increasing the memory limit

Open the APS Server Manager and edit the **memory limits** for the main process (AKCProServer.exe) by selecting the process name, then clicking on the Advanced button.

The recommended new limit is 500 MB for both physical and virtual limit.



AKCPro Server Ma	nager v13.6.1941 -	- 🗆 🗙			
File Tools Service	1		Watchdog Properties		×
Name	Status	Start			
AKCProServer.exe	Running	Stop	Process Name AKCProServer.	exe	
notificationServer.exe	e Running		Server Port	5000	•
videoServer.exe	Running	Advanced			•
videoRecorder.exe	Running		HIIP Port	8080	•
Information			HTTPS Port	8081	▲ ▼
Nerra		<b>^</b>	HeartBeat Interval	20	sec
Executable Name Ak	inue KCProServer.exe		Resource / Functional Interval	24	sec
Status Ru	unning		CPU Usage Threshold	80	÷ %
CPU Usage 0.0	05 %		Memory Usage Threshold	500	MByte
Physical Memory 40	) MByte		VirMemory Usage Threshold	500	MBvte
Virtual Memory 47	' MByte				• mojec
Start Time 20	September 2024 14:5	9:36		ОК С	ancel
	4506 0000007				
Connected C	CPU 0.05 %	Mem 158.00 MByte			

Repeat the same for the notificationServer.exe process

Watchdog Properties						
Process Name notificationSet	rver.exe					
HeartBeat Interval	10	sec				
Resource / Functional Interval	24	sec				
CPU Usage Threshold	80	▲ %				
Memory Usage Threshold	500	🔶 MByte				
VirMemory Usage Threshold	500	📥 MByte				
	ОК	Cancel				



Disable the HTTP debug logs

Open this file for editing:

"C:\ProgramData\AKCP\AKCPro Server\control.conf"

And change the option

enableWriteHttpLog=1 to enableWriteHttpLog=0

and save the file.

If the option is not yet present, you can add it as the last line.

control.conf - Notepad <u>File Edit Format View Help</u> port=5000 http\_port=8080 https\_port=443 addr=0.0.0.0 upnp=1 firewall=1 enableWriteWindowLog=0 enableWriteHttpLog=1

These browser debug logs appear as text files at the following paths, you can safely delete them (these are just for WebUI troubleshooting):

#### C:\ProgramData\AKCP\Logs\http\_accesses.log

#### C:\ProgramData\AKCP\Logs\http\_errors.log



### APS v14

The latest v14 release is 14.2.53.

Installer link:

https://akcp-downloads.s3.us-west-2.amazonaws.com/APS/old/AKCProServer-14.2.53.exe

AKCPro Server 14.2.53 Set	tup			_		×
Server Port Please enter server port.						
Server Port	5000					
HTTP Port	8080					
HTTPS Port	8081					
		< <u>B</u> ack	<u>N</u> ext	:>	Car	ncel

The v14 introduces some changes about the APS license compared to the v13.

The installer will display a warning about it.





The additional big change in v14 is the removal of wxClient support, and the video subsystem's changes.

Many video recording features have been deprecated that were working in v12 and v13, such as the time event recording and video archiving.

The existing recorded videos will have to be converted to the new format (more about this below).

The graph subsystem has also been changed.

A graph conversion will run in the background to convert the old RRD files to GDS format.

This might take a long time if you have lots of graph files, so before progressing further with the upgrade, check the following path and ensure the folder size is not growing further and the Work subdirectory is empty:

#### "C:\ProgramData\AKCP\AKCPro Server\RRDTool"

**IMPORTANT:** The WebUI may not load correctly after the upgrade over APS v13.

This is because of HTTPS – HTTP changes, and the WebUI component differences.

Try to open the login link directly:

http://127.0.0.1:8080/login.html

Press CTRL-F5 to reload all page elements.



• 3 127.0.0.1:8	3080/se	etup.html × +	
← → C	S	127.0.0.1:8080/app.html	
Error 404: Not Found Not found	Я	Log In - <b>127.0.0.1:8080</b> /login.html	
	Q	127.0.0.1:8080 - Google Search	
	S	AKCPro Server - 127.0.0.1:8080	
	Q	AKCPro Server - 127.0.0.1:8080/app.html	:
			-

The page might want to open the /setup.html link which is invalid.

Try to open the main page directly after logging in:

http://127.0.0.1:8080/app.html

This might still fail and the browser still forcefully keep trying to open the /setup.html page.

If this happens, open a new Incognito browser window and using the HTTP link try to log in again:

http://127.0.0.1:8080/login.html

In the Incognito window the page should open correctly.





Upon the first login to the v14 WebUI, you will get a prompt about video conversion:

#### Design Change

As of Version 14.0

Due to major changes in the server's video features, the previously recorded video files are no longer playable. To be able to play back older video files, we have provided a Video Conversion Tool which can convert the old files to a new format.

Important : you will need to have enough free disk space, at least 2x the size of your current video folder. Also you will have to manually remove the old video files (.AMC) from your disk after conversion.

Do you want to convert now?

Converting previous videos to the new format is necessary if you want to review them.



There is a video conversion menu, so you don't have to do the conversion right away.

✓	er	× +			—	
← → C C	) 127.0	0.0.1:8080/app.html#/videoMigration	Q	☆	<b>⇔</b> In	cognito
≡ Menu		Pro Server				
Monitoring		rersion				
Sensors		Video Conversion				
Hosts						
🚍 Events	~	No videos need to be converted.				
Access Control	~					
2. Time Attendance	~					
A Notifications	~					
Video Recording	^					
Recording Policie	s					
🞢 Video Conversion	1					



#### Note

Make sure that you have the videos converted, and the graphs updated to RRD format before upgrading the system further!



#### Recommended optimization: disable the HTTPS service

= <b>AKCP</b> akcf	ro Server
Server Settings	Services
Connections	Settings / Server Settings / Services
Or VPN	Active Services
Event Logs	Web Interface (HTTP)
Notification	HTTP Port
Language	Secure Web Interface (HTTPS)
Services	HTTPS Port 8081
	Upload Certificate File
	Select Certificate File UPLOAD
	SAVE CANCEL

Open the **Settings / Services** menu and you can **disable the HTTPS service**, if you don't use a valid SSL certificate.



### APS v15

The latest v15 release is 15.2.48.

Installer link:

https://akcp-downloads.s3.us-west-2.amazonaws.com/APS/old/AKCProServer-15.2.48.exe

Upgrading to v15 should be less problematic, but the WebUI cache may have to be refreshed manually if you're seeing a similar login prompt:

<b>AKCPro Server</b>
LOGIN_NAME_PLACEHOLDER admin
LOGIN_PASSWORD_PLACEHOLDER
LOG IN
Copyright 2024   AKCP   All Rights Reserved

Press CTRL-F5 to refresh the page cache with new files.

The login prompt should be fixed by this.



<b>AKCPro Server</b>	
Username	
admin	
Password	
LOG IN	
Copyright 2024   AKCP   All Rights Reserved	

After logging in, an empty page may be shown.

This is also due to the previous version of WebUI cached elements.

~	0	127.0.0.	1:8080/ap	p.html	×	+			
←	$\rightarrow$	G	0 1	27.0.0.1:80	)80/app.ł	itml			

Press CTRL-F5 again to refresh the page elements, then it will load correctly.



✓	× +				-		×
← → C ③ 127.0.0.1	8080/app.html#/	Q	☆	٩	Ď		:
≡ ЯКСР	● Workspace > ● New Desktop - 🕒			1	•	:3	Î.
DEVICES     WORKSPACE     MAPS       Q     Search     Image: Constraint of the search of the s	Ping Sensor (Host 127.0.0.1)       I: C: X         Reachable       Image: Comparison of the compari						
Enday, 20 September 2024 15:21:50	Copyright 2024   AKCP   All Rights Reserved					Versio	n: 15.2.48

Now all of the previous RRD graph files should have been finished the conversion to the new GDS format.

Check the contents of this folder, where the graph storage is:

#### "C:\ProgramData\AKCP\AKCPro Server\RRDTool\DB"

You can remove all old graph files with .RRD, .OK, .ERR extension as these are no longer used and just taking disk space.

APS v14 and later uses only the .GDS files.



Note

Be careful and don't remove other files than .RRD, .OK, .ERR extension!



### APS v16

The current v16 release is 16.2.146.

Installer link:

https://akcp-downloads.s3.us-west-2.amazonaws.com/APS/v16/AKCProServer-16.2.146.exe

During the upgrading to v16 the installer will display another notice about the license changes.

This is why it's better to start the whole upgrading with a v16 compatible license, to avoid having any disabled hosts or virtual sensors due to license changes.

🕹 АКСРі	ro Server 16.2.84 Setup X
?	Design Change As of Version 16.0 - The host license is required to monitor devices. - The board license is required to monitor expansion modules. - The device virtual sensor license is required to monitor virtual sensors created on the device. Do you want to continue to install?
	<u>Y</u> es <u>N</u> o

After logging in to the WebUI, it's recommended to refresh the page elements again with CTRL-F5.



Image: Contract of the contract	✓ S AKCPro Server	× +				-	-		×
Image: Control of the state of the stat	← → C (i) 127.0.0.1:80	)80/app.html#/	Q	☆	e	5	Ĵ		:
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► Sensor Playback	DEVICES     WORKSPACE     MAPS       Search     Add Device     Q. Scan Network       Add Device     Q. Scan Network     Image: Comparison of the status       Host Status     Image: Comparison of the status     Image: Comparison of the status       Host Status     Image: Comparison of the status     Image: Comparison of the status       Host Status     Image: Comparison of the status     Image: Comparison of the status	Ping Sensor (Host 127.0.0.1)       : :: : ×         Image: Constraint of the sense							

The upgrade is now finished.

#### **Recommended optimization settings**

NTP sync

Set up an external NTP server to sync clock with.

#### Go to Settings / NTP menu.

This is highly recommended to use an external NTP server, since installing APS on the computer will disable the built-in Windows NTP service and the clock can go out of sync.

You can set up your own NTP server or use a public one, such as ntp.ubuntu.com



<b>≡ ЯК</b>	CP CONTRACTOR
Server Settings	Network Time Protocol
Connections	Settings / Server Settings / Network Time Protocol
MQTT	A NTP service is stopped.
Mireless	
SNMP	
OT VPN	NTP Server 1 ntp.ubuntu.com
Event Logs	NTP Server 2
Notification	
NTP	NTP Server 3
LDAP	NTP Server 4
Language	
Services	PING
# CFD Simula	n SAVE CANCEL

#### Additional optimizations

These folders may contain a lot of large files, you can check and empty the contents safely without causing a problem:

#### C:\ProgramData\AKCP\CrashDumps

#### C:\ProgramData\AKCP\AKCPro Server\ProbeManager\firmware

#### C:\ProgramData\AKCP\AKCPro Server\ProbeManager\configuration



This concludes our manual.

Please contact <a href="mailto:support@akcp.com">support@akcp.com</a> if you have any further technical questions or problems.

## Thanks for Choosing AKCP!