

Security Management System – Client Workstation Fine Tuning

A good configuration computer hardware is recommended for the client / workstation computer, in order to handle the video display for multiple cameras.

Most important hardware requirements are -

- (a) Processing power,
- (b) Graphics card

(Please refer to the 'Hardware recommendation' document for information about recommended hardware configurations)

The Security Management System Client software uses default settings, assuming sufficient hardware support. In most of the deployment situations, no changes are needed to the default settings of the client software.

However, if the hardware support is not available, performance issues may be observed at the client / workstation computers (in single site connection mode or multi-site connection mode). In such cases, following configurations are recommended.

The sequence of the steps is important. When the performance improvement is observed, conclude the configurations for that client / workstation computer and skip further steps.

Following sections describe each of these steps in detail

Fine Tuning Steps

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Control 'number of screens' and 'maximum number of cameras in a screen'

- 1. Access 'Settings -> Settings' menu, from the menu bar available at the top of the main screen of the client software.
- 2. Navigate to the 'User interface settings (Client) -> Display settings' settings page
- 3. Click on the 'Edit' button (available in the top-right corner of the settings page), to enable the user interface

Site_001E678B6740	User interface settings(Client) → Display settings		
Video devices			
Audio devices	Ask confirmation while closing video display		
Device groups	🔲 Display square pixels	-74	
Status	Display square pixels for panorama view streams		
Reports and Export	Display view count across video screens		
Keyboards and Joysticks (Client)	Initialize high resolution video using default video	0	
Security devices	Remember tab selection for every video		
Users and Privileges	Screen settings		
Alarm management	Total map screens: 1		
Client settings	Total live video screens: 1		
User interface settings(Client)	Total playback video screens: 1		
Alarm settings	Maximum number of cameras in live screen: 16		
Display settings	Maximum number of cameras in playback screen: 4		
Overlay settings	☑ Use main screen as live screen		
	High resolution video window Settings Full screen <th></th>		
	Display resolution selection threshold: 20%		
	Tree control channel list: Display Site Name		

- 4. Under 'Screen Settings' group, set following options -
 - (a) Enable 'Use main screen as live screen'
 - (b) Set 'Total live video screens' as 1
 - (c) Set 'Total playback video screens' as 1
 - (d) Set 'Maximum number of cameras in live screen' to a lower value. This value should be minimum possible, as per the deployment requirement.
 - (e) Set 'Maximum number of cameras in playback screen' to 4. If the hardware support is not good and if the recording is being done at high resolution and is the deployment requirements permit, this can be set to 1 as well.
- 5. Click on the 'Save' button (available in the top-right corner of the settings page), to save the settings and to disable the user interface. Accept any warnings displayed.
- 6. Close the settings dialog box, by clicking on the standard Windows Close ('X') button in the dialog title-bar



Adjust 'Video Decoder Optimization' settings

- 1. Access 'Settings -> Settings' menu, from the menu bar available at the top of the main screen of the client software.
- 2. Navigate to the 'Client settings -> Resources' settings page
- 3. Click on the 'Edit' button (available in the top-right corner of the settings page), to enable the user interface

Site_001E678B6740	Client settings → Resources
Video devices	
Audio devices	Memory Optimization
Device groups	Mode: None 😽 🙀
Status	
Reports and Export	Display Optimization
Keyboards and Joysticks (Client)	Mode: Hardware acceleration - Full
Security devices	
Users and Privileges	
Alarm management	Quality: High 🔹
Client settings	Optimization
Application Maintenance	level:
Computer Maintenance	Video Decoder Optimization
Import and Export	Mode: Optimized for up to 3MP video resolution (Advanced)
Resources	
Preferences	Resource Monitoring
User interface settings(Client)	Enable Resource Monitoring
	Delete Monitoring Logs After : 10 Days

- 4. Under 'Video Decoder Optimization' group, set following options -
 - (a) Select 'Mode' as 'Optimized for up to 3MP video resolution (Advanced)'. (If there are video streams with resolution more than 3 megapixels, please select option 'Optimized for more than 3MP video resolution (Advanced)')
- 5. Click on the 'Save' button (available in the top-right corner of the settings page), to save the settings and to disable the user interface. Accept any warnings displayed.
- 6. Close the settings dialog box, by clicking on the standard Windows Close ('X') button in the dialog title-bar



Adjust 'Display Optimizations' settings 1

(NOTE – this step should be used only if the client workstation computer has graphics card installed. The graphics card should be external PCI card. On-board video/graphics memory is not useful for optimizations, and hence should not be considered)

- 1. Access 'Settings -> Settings' menu, from the menu bar available at the top of the main screen of the client software.
- 2. Navigate to the 'Client settings -> Resources' settings page
- 3. Click on the 'Edit' button (available in the top-right corner of the settings page), to enable the user interface

Site_001E678B6740	Client settings → Resources
Video devices	
Audio devices	Memory Optimization
Device groups	Mode: None 🔹 👩
Status	
Reports and Export	Display Optimization
Keyboards and Joysticks (Client)	Mode: Hardware acceleration - Full
Security devices	
Users and Privileges	
Alarm management	Quality: High
Client settings	Optimization
Application Maintenance	level:
Computer Maintenance	Video Decoder Optimization
Import and Export	Mode: Optimized for up to 3MP video resolution (Advanced)
Resources	
Preferences	Resource Monitoring
User interface settings(Client)	Enable Resource Monitoring
	Delete Monitoring Logs After : 10 Days

- 4. Under 'Display Optimization' group, set following options –
 (a) Select 'Mode' as 'Hardware acceleration Full'
- 5. Click on the 'Save' button (available in the top-right corner of the settings page), to save the settings and to disable the user interface. Accept any warnings displayed.
- 6. Close the settings dialog box, by clicking on the standard Windows Close ('X') button in the dialog title-bar

Important - Close the client software and restart it. This will apply the new settings.

Important – if the client software is not able to display one or more videos after restart, or does not perform well, it indicates that the workstation computer does not have compatible graphics card installed. Hence the settings done in this step should be reverted back and the client software should be restarted again.



Adjust 'Display Optimizations' settings 2

- 1. Access 'Settings -> Settings' menu, from the menu bar available at the top of the main screen of the client software.
- 2. Navigate to the 'Client settings -> Resources' settings page
- 3. Click on the 'Edit' button (available in the top-right corner of the settings page), to enable the user interface

Site_001E678B6740	Client settings → Resources		
Video devices			
Audio devices	Memory Optimization		
Device groups	Mode: None		
Status			
Reports and Export	Display Optimization		
Keyboards and Joysticks (Client)	Mode: Hardware acceleration - Full		
Security devices			
Users and Privileges			
Alarm management	Quality: Standard		
Client settings	Optimization		
Application Maintenance	level:		
Computer Maintenance	Video Decoder Optimization		
Import and Export	Mode: Optimized for up to 3MP video resolution (Advanced)		
Resources			
Preferences	Resource Monitoring		
User interface settings(Client)	Enable Resource Monitoring		
	Delete Monitoring Logs After : 10 Days		

- 4. Under 'Display Optimization' group, set following options –
 (a) Select 'Quality' as 'Standard'
- 5. Click on the 'Save' button (available in the top-right corner of the settings page), to save the settings and to disable the user interface. Accept any warnings displayed.
- 6. Close the settings dialog box, by clicking on the standard Windows Close ('X') button in the dialog title-bar



Disable video overlays

- 1. Access 'Settings -> Settings' menu, from the menu bar available at the top of the main screen of the client software.
- 2. Navigate to the User interface settings (Client) -> Overlay settings' settings page
- 3. Click on the 'Edit' button (available in the top-right corner of the settings page), to enable the user interface

Site_78E4000CF131	User interface settings(Client) 🗆 Overlay	settings	
Video devices Audio devices Device groups	Text color settings		
Reports and Export Reyboards and Joysticks (Client) Security devices Users and Privileges Alarm management Client settings User interface settings(Client) Alarm settings Display settings	Normal video Show camera name Show time stamp Show IP address Show bit rate Show FPS Show video resolution Show no audio indicator Show video recording state	High resolution video Show camera name Show time stamp Show IP address Show bit rate Show FPS Show video resolution Show no audio indicator Show video recording state	
Overlay settings	Other settings Display video overlay indicator f Display video overlay indicator f	ior video disconnection ior offline camera	

- 4. Disable all overlay settings available under 'Normal video' and 'High resolution video' groups
- 5. Click on the 'Save' button (available in the top-right corner of the settings page), to save the settings and to disable the user interface.
- 6. Close the settings dialog box, by clicking on the standard Windows Close ('X') button in the dialog title-bar



Reduce monitor resolution

From the Windows standard Control Panel, access the 'Display' settings for the computer monitor. Set the monitor resolution to closes possible resolution to 1024X768. (In case of some monitors, especially HD monitors, 1024X768 display resolution option will not be available. Please select the closest available resolution, in such cases)