

Dahua

Integration Manual

Device Category

ACS	IAS	FPS	✓ CCTV	✓ DVR	Perimetry	Building	External	Other
-----	-----	-----	--------	-------	-----------	----------	----------	-------

Supported Functionality

Import From File	Combined Credentials
Lift	Encrypted Communication
Device Auto Import	Time Synchronization
Time Zone Support	● Live Video Streaming
✓ Recorded Video Streaming	✓ Video Records Downloading
Voice Transmitting	Audio Streaming
✓ PTZ	✓ Presets
✓ Motion Detection	✓ Live Stream Snapshot
✓ Recorded Stream Snapshot	✓ Multiple Stream Types
Fire Panel Networking Mode	Card Learning
Dynamic Upload	Access Time Restriction
Holidays Support	Pin Management
Card Management	Fingerprint Management
Reserved Memory Zones	Antipassback Forgiveness
Handicapped Flag	Alarm Suppression
Fire Alarm Counter	Device Audit Log Retrieval
Remote Device Control	✓ Dynamic Command State
Wiegand Biometric Support	

Legend:

- ✓ – Fully supported functionality.
- – Partially supported functionality, see results of integrations tests for more details.

Licensed Unit

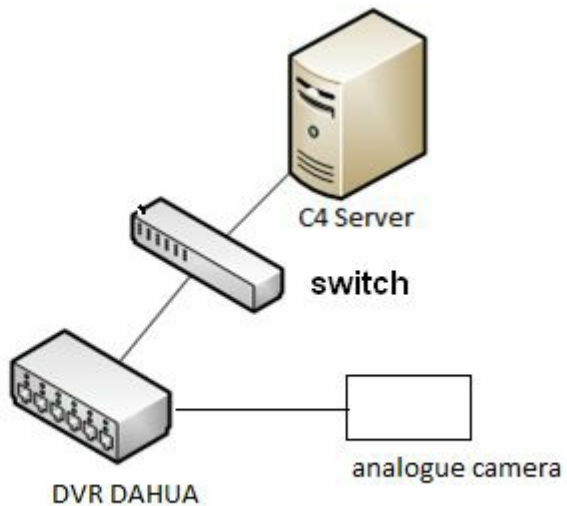
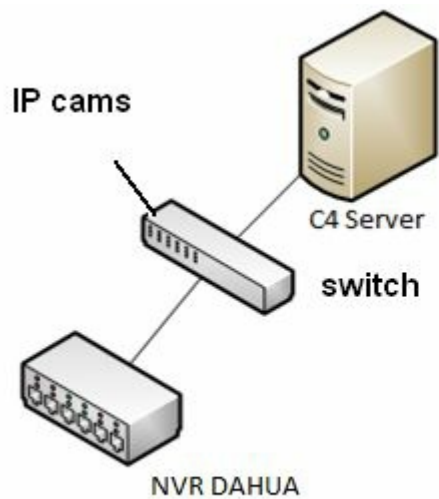
- Video recorder Dahua

Default Credentials

Key	Value
admin	admin

How to Connect Device to C4

Connect the central unit according to the installation documentation and this scheme.



Configuration

Bus Controller

PROPERTY	RANGE	DEFAULT
IP address		
Network address		
Port	0-65535	37777
Endpoint of communication in an operating system		
Account		
User name		
Password		
A secret word or expression used by authorized persons to prove their right to access		
Enabled	YES/NO	YES
Tells whether device configuration is enabled or not		
Time Zone		System Time Zone
One of the 24 regions or divisions of the globe approximately coinciding with meridians at successive hours from the observatory at Greenwich, England.		

Camera

- This device can be added under device *Bus Controller*.

PROPERTY	RANGE	DEFAULT
Address	0-256	
For analogue cameras it is the channel number to which the camera is connected.		
Record Playback Delay		00:00:10
Playback delay for Show Recorded Video command		

PTZ camera

- This device can be added under device *Bus Controller*.

PROPERTY	RANGE	DEFAULT
Address	0 - 256	
For analogue cameras it is the channel number to which the camera is connected.		
Record Playback Delay		00:00:10
Playback delay for Show Recorded Video command		
MoveSpeed	1 - 8	3
Motion speed of PTZ camera		

Integration Tests

Test	Name	Result
Supported Functionality > Live Video Streaming		
T30QEA	Video Functions - Live Video Streaming	✓ Passed
T30YED	Detection of Loss and Recovery of Video Signal Comment: Not supported by SDK.	⊗ Not supported
Supported Functionality > Recorded Video Streaming		
T20BPK	Video Functions - Recorded Video Controls	✓ Passed
T20GOP	Video Functions - Recorded Video Streaming	✓ Passed
Supported Functionality > Video Records Downloading		
T20FFJ	Video Functions - Records Downloading	✓ Passed
Supported Functionality > PTZ		
T30OID	Video Functions - PTZ	✓ Passed
Supported Functionality > Presets		
T30LSA	Video Functions - Saving Preset	✓ Passed
T30NHX	Video Functions - Activating Preset	✓ Passed
Supported Functionality > Motion Detection		
T30USU	Video Functions - Motion Detection	✓ Passed
Supported Functionality > Live Stream Snapshot		
T30CRB	Video Functions - Live Stream Snapshot	✓ Passed
Supported Functionality > Recorded Stream Snapshot		
T20JTD	Video Functions - Recorded Stream Snapshot	✓ Passed
Supported Functionality > Multiple Stream Types		
T30ICQ	Video Functions - Multiple Stream Support	✓ Passed
Device Category > CCTV		
T0FAFL	Unified Time Management - Time Synchronization When Changed on Device Comment: not supported by SDK	⊗ Not supported
T0FWIK	Unified Time Management - Time Synchronization on Driver Startup Comment: not supported by SDK	⊗ Not supported
T0FYDS	Unified Time Management - Periodical Synchronization Comment: not supported by SDK	⊗ Not supported
T30DPU	Video Functions - Voice Transmitting Comment: Not supported by Design.	⊗ Not supported
T30PLU	Video Functions - Audio Streaming Comment: Not supported by Design.	⊗ Not supported
T30QCP	Video Functions - Video Stream on External Monitor or Matrix Comment: Not supported by SDK.	⊗ Not supported
T3FIGI	Output Activation and Deactivation Comment: Not supported by Device.	⊗ Not supported
T7FHSW	Missing HW Item Comment: Not supported by Design.	⊗ Not supported
Device Category > DVR		
T0FAFL	Unified Time Management - Time Synchronization When Changed on Device Comment: not supported by SDK	⊗ Not supported
T0FWIK	Unified Time Management - Time Synchronization on Driver Startup Comment: not supported by SDK	⊗ Not supported
T0FYDS	Unified Time Management - Periodical Synchronization Comment: not supported by SDK	⊗ Not supported

T2FESO	Device Audit Log Retrieval Comment: Not supported by SDK	⊘ Not supported
T30DPU	Video Functions - Voice Transmitting Comment: Not supported by Design.	⊘ Not supported
T30PLU	Video Functions - Audio Streaming Comment: Not supported by Design.	⊘ Not supported
T30QCP	Video Functions - Video Stream on External Monitor or Matrix Comment: Not supported by SDK.	⊘ Not supported
T3FIGI	Output Activation and Deactivation Comment: Not supported by Device.	⊘ Not supported
T7FHSW	Missing HW Item Comment: Not supported by Design.	⊘ Not supported

Appendix A

Integration Tests

T20BPK - Video Functions - Recorded Video Controls

This test verifies the functionality of driver providing control of recorded stream from DVR or device with similar functionality.

Standard controlling buttons provides following functionalities:

Pause and Resume Recorded Stream. Play Forward Recorded Stream. Play Backward Recorded Stream. Step Forward Recorded Stream. Step Backward Recorded Stream.

Test Steps

Start the endpoint

On chosen camera execute command "Show Recorded Video"

Select time to play recorded video and press Start

To control Recorded Video Stream use displayed standard controlling buttons

Expected Results

Buttons invoke required functionalities, stream replay reacts accordingly

Following events are stored in audit log:

'PERSON' requested recorded playback for 'DEVICE' for time 'TIME'.

Where

PERSON represents a name of person who is executing the command.

DEVICE represents the camera name from which is the recorded video stream requested.

TIME represents specific date and time from which is recorded video stream requested

Notes:

In case that is no Record Available the black/white screen or any other visual indication is shown instead of Recorded Video Stream signalling that the stream is not available.

Test is considered as passed, when all controlling buttons supported by device are working.

T20FFJ - Video Functions - Records Downloading

This test verifies the functionality of driver providing a standardized interface allowing to store the selected video recording to a local drive of the client.

Test Steps

Start the endpoint.

On chosen camera execute command "Show Recorded Video"

Select time to play recorded video and press Start.

Execute command "Save record"

Select time to save the Recorded Video Stream and press OK

Expected Results

Recorded Video Stream is saved to the specified place on the local disk.

This video can be replayed on some external player

Following events are stored in audit log:

```
'PERSON' sent command 'Show Recorded Video' to 'DEVICE'.  
'PERSON' requested record playback for 'DEVICE' for time 'TIME'.  
'PERSON' sent command 'Save Recorded Video' to 'DEVICE'.  
'PERSON' requested recorded video export for 'DEVICE' for time 'TIME1' to 'TIME2'
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents the camera name from which is the recorded video stream requested

TIME represents specific date and time from which is recorded video stream requested.

TIME1 represents starting date and time from which is recorded video stream exported

TIME2 represents ending date and time from which is recorded video stream exported

T20GOP - Video Functions - Recorded Video Streaming

This test verifies the functionality of driver providing a standardized recorded video stream.

Test Steps

Start the endpoint

On chosen camera execute command "Show Recorded Video"

Select time to play recorded video and press Start.

Expected Results

You see a recording from the specified camera and time

Following events are stored in audit log:

```
'PERSON' sent command Show Recorded Video to 'DEVICE'.  
'PERSON' requested record playback for 'DEVICE' for time 'TIME'.
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents the camera name

TIME represents specific date and time from which is recorded video stream requested

T20JTD - Video Functions - Recorded Stream Snapshot

This test verifies the functionality of driver providing capability to take snapshot of the actual recorded video stream frame displayed on the client.

Test Steps

Start the endpoint

On chosen camera execute command "Show Recorded Video"

Select time to play recorded video and press Start.

Execute command "Capture picture" and fill the name for the snapshot

Expected Results

Snapshot is stored on specified place on disk

Following events are stored in audit log:

```
'PERSON' sent command 'Show Recorded Video' to 'DEVICE'.  
'PERSON' requested record playback for 'DEVICE' for time 'TIME'.  
'PERSON' sent command 'Capture Picture' to 'DEVICE'.  
'PERSON' requested video capture of 'DEVICE' from 'TIME1'.
```

Where

PERSON represents a name of person who is executing the command.

DEVICE represents the camera name

TIME represents specific date and time from which is recorded video stream requested.

TIME1 represents the time from which is the Snapshot requested.

T30CRB - Video Functions - Live Stream Snapshot

This test verifies the functionality of driver providing capability to take snapshot of the actual live video stream frame displayed on the client.

Test Steps

Start the endpoint

On chosen camera execute command "Show"

Execute command "Capture picture" and fill the name for the snapshot

Expected Results

Snapshot is stored on specified place on disk

Following events are stored in audit log:

```
'PERSON' sent command 'Show' to 'DEVICE'.  
'PERSON' requested live video for 'DEVICE'.  
'PERSON' requested video capture of 'DEVICE' from 'TIME'.
```

Where

PERSON represents a name of person who is executing the command.

DEVICE represents the camera name.

TIME represents the time from which is the Snapshot requested

T30ICQ - Video Functions - Multiple Stream Support

This test verifies the functionality of driver allowing to make selection between multiple pre-configured video stream configurations from the device.

Test Steps

Start the endpoint
On chosen camera execute command "Show"
Select desired Stream type

Expected Results

Video stream with selected Video Stream Type is shown

T30LSA - Video Functions - Saving Preset

This test verifies the functionality of driver providing functionality allowing to save PTZ presets.

Test Steps

Start the endpoint

On chosen PTZ Camera execute command "Show".

Move camera to desired location

Click on record button and chose Preset number then click on play to save

Expected Results

Preset is stored on the device

Following events are stored in audit log:

```
'PERSON' sent command 'Store Preset' to 'DEVICE'.  
Preset 'NUMBER' on 'DEVICE' stored by user 'PERSON'.
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents the camera name

NUMBER represents preset number

T30NHX - Video Functions - Activating Preset

This test verifies the functionality of driver providing functionality allowing to activate predefined PTZ presets.

Test Steps

Start the endpoint

On chosen PTZ Camera execute command "Show".

Move camera to random location

Choose Preset number and activate it

Expected Results

1.Camera activates previously saved preset

Following events are stored in audit log:

```
'PERSON' sent command 'Activate Preset' to 'DEVICE'.  
Preset 'NUMBER' on 'DEVICE' activated by user 'PERSON'.
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents the camera name

NUMBER represents preset number

T300ID - Video Functions - PTZ

This test verifies the functionality of driver's capability to provide PTZ functionality, allowing the client to manipulate with camera position, zoom, focus and iris.

Test Steps

Start the endpoint

On chosen PTZ Camera execute command "Show Live Video"

Change position of the camera, focus, iris and zoom

Expected Results

Camera reacts on the PTZ control requests

Following events are stored in audit log:

```
'PERSON' sent command Show Live Video to 'DEVICE'.  
'PERSON' requested live video for 'DEVICE'.  
'PERSON' sent command PTZ Move to 'DEVICE'.
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents a name of PTZ Camera

T30QEA - Video Functions - Live Video Streaming

This test verifies the functionality of live video streaming from IP camera, DVR, encoder or device with similar functionality.

Test Steps

Start the endpoint.

On chosen camera execute command "Show"

Expected Results

A window with live video stream is shown.

Following events are stored in audit log:

```
PERSON' sent command 'Show' to 'DEVICE'.  
'PERSON' requested live video for 'DEVICE'.
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents the camera name from which is the live video stream requested

T30USU - Video Functions - Motion Detection

This test verifies the functionality of driver providing handling of the motion detection events on the cameras.

Test Steps

Start the endpoint

On chosen camera execute command "Arm"

Make motion in front of camera

Expected Results

Camera detects movement and log an alarm.

Status of camera is alarm.

Following events are stored in audit log:

```
'DEVICE' was armed by 'PERSON'.  
Motion detected on 'DEVICE'.
```

Where

PERSON represents a name of person who is executing the command

DEVICE represents the camera name