

## APPENDIX F – CAMERA INTEGRATION LIMITATIONS

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## 1. ASSET INTEGRATION

### 1.1. Description and use of camera

This integration will support Asset cameras which operate via the Hunt CCTV

### 1.2. Specifications

#### 1.2.1. MODELS TESTED

These models have been grouped together Aasset in the Cathexis software

#### 1.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264

---

**Resolution :** 1600x1200

---

**Audio :** Not supported

---

#### 1.2.3. MULTICAST

Not supported

#### 1.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 1.2.5. PTZ CONTROL

Software controlled

#### 1.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041F3

---

**Camera Firmware :** V1.0.10\_Y

---

## 2. ACTI INTEGRATION

### 2.1. Description and use of camera

This integration was intended to support the older Acti acti SED2610 multi-channel MPEG-4 encoder. This product has been discontinued.

### 2.2. Specifications

#### 2.2.1. MODELS TESTED

These models have been grouped together ACTI in the Cathexis software

#### 2.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MPEG4

---

**Resolution :** 4CIF (704x576 pixels)

---

**Audio :** Not available

---

#### 2.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** MPEG4

---

**Resolution :** 4CIF (704x576 pixels)

---

**Audio :** Not available

---

#### 2.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION/STOPMOTION

---

#### 2.2.5. PTZ CONTROL

Transparent serial channel.

#### 2.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042B2 and later

---

**Camera Firmware :** Version unknown

---

#### 2.2.7. LIMITATIONS

- Multicast streaming is problematic.

## 3. ACTI H264 INTEGRATION

### 3.1. Description and use of camera

This integration supports the Acti single channel H.264 T-series cameras/encoders. It is recommended to use firmware version greater or equal to V4.09.

### 3.2. Specifications

#### 3.2.1. MODELS TESTED

These models have been grouped together under **Acti H264** in the Cathexis software



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**TCM-4301**

H.264 Megapixel IP  
Cube Camera

[More information](#)

---

### 3.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

### 3.2.3. MULTICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4

---

**Resolution :** Camera dependent

---

### 3.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION\_1, STARTMOTION\_2, STARTMOTION\_3.

---

**Number of zones:** 3

---

### 3.2.5. PTZ CONTROL

Implemented, but not tested. Support PTZ and presets.

### 3.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** V4.09

---

### 3.2.7. LIMITATIONS

- Event triggers only available on firmware version 4.09 and above.
- PTZ Control has been integrated, but not tested
- Multicast channel setups link directly to the unicast channel setups, multicast will only be available on channels that have been configured to provide H.264/MPEG-4 streams.
- Multicast worked on firmware V4.08, with some start/stop issues. On firmware V4.09 there are a lot of issues with the multicast RTSP session, mostly due to Acti not following the industry norm of how a RTSP session will work.
- Do not use firmware versions lower than V4.08!

## 4. ARECONT INTEGRATION

### 4.1. Description and use of camera

This integration supports Arecont H.264 cameras/encoders

### 4.2. Specifications

#### 4.2.1. MODELS TESTED

These models have been grouped together Arecont in the Cathexis software

#### 4.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG

---

**Resolution :** Camera Dependent

---

**Audio :** Not Supported

---

#### 4.2.3. MULTICAST

Not supported

#### 4.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 4.2.5. PTZ CONTROL

N/A

#### 4.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041E3/5042A2 and later

---

**Camera Firmware :** 61430

---

#### 4.2.7. LIMITATIONS

- No image scaling except by half. Allows image cropping though.

## 5. ARECONT H264 INTEGRATION

### 5.1. Description and use of camera

This integration supports Arecont H.264 cameras/encoders.

### 5.2. Specifications

#### 5.2.1. MODELS TESTED

These models have been grouped together Arecont H264 in the Cathexis software

#### 5.2.2. UNICAST

**Number of streams :** 2

---

**Format :** MJPEG, H.264

---

**Resolution :** Camera dependent

---

**Audio :** No

---

#### 5.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** H.264

---

**Resolution :** ¼ of Max Resolution

---

**Audio :** Not supported

---

#### 5.2.4. MOTION DETECTION TRIGGERS

---

**Trigger String :** STARTMOTION

---

#### 5.2.5. PTZ CONTROL

Not Supported

#### 5.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041F2/5042B2 and later

---

**Camera Firmware :** 61430

---

#### 5.2.7. LIMITATIONS

- No image scaling except width and height by half.

- Image not centered when.

## 6. AXIS INTEGRATION

### 6.1. Description and use of camera

This integration supports the Axis Mpeg-4 products which use the “Axis Vapix 2 API” (Firmware Version: 4.xx).

### 6.2. Specifications

#### 6.2.1. MODELS TESTED

These models have been grouped together AXIS in the Cathexis software

#### 6.2.2. UNICAST

**Number of streams :** 2

---

**Format :** MJPEG, MPEG4

---

**Resolution :** Camera dependent

---

**Audio :** No

---

#### 6.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** Mpeg-4

---

**Resolution :** Camera Dependant

---

**Audio :** Not Supported

---

#### 6.2.4. MOTION DETECTION TRIGGERS

---

**Trigger String :** STARTMOTION

---

#### 6.2.5. PTZ CONTROL

Yes

#### 6.2.6. SOFTWARE COMPATIBILITY

---

**Cathexis Software :** 5041D8

---

**Camera Firmware :** 4.33

---

## 7. AXIS H264 INTEGRATION

### 7.1. Description and use of camera

This integration supports older Axis H.264/Mpeg-4 products which use the “Axis Vapix 3 API” (Firmware Version: 5.xx).

## 7.2. Specifications

### 7.2.1. MODELS TESTED

These models have been grouped together under **Axis H.264** in the Cathexis software



**P3343**

Indoor fixed dome with remote focus and zoom

[More information](#)



**Q1755**

HDTV network camera with zoom and H.264

[More information](#)

### 7.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264/MJPEG

---

**Resolution :** Camera dependent

---

**Audio:** G711u available with H.264 streams

---

### 7.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** H.264

---

**Resolution :** Camera dependent

---

**Audio :** Available on H.264 feeds, if configured on the unicast feed.

---

### 7.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

### 7.2.5. PTZ CONTROL

Yes

#### 7.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** 5.20

---

## 8. BOSCH INTEGRATION

### 8.1. Description and use of camera

This integration supports Bosch Mpeg-4 cameras/encoders which use the Bosch RCP Plus (V3) API.

### 8.2. Specifications

#### 8.2.1. MODELS TESTED

These models have been grouped together Bosch in the Cathexis software

#### 8.2.2. UNICAST

**Number of streams :** 2

---

**Format :** MJPEG, MPEG4

---

**Resolution :** 704x576

---

**Audio :** No

---

#### 8.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** Mpeg-4

---

**Resolution :** Camera Dependant

---

**Audio :** Not Supported

---

#### 8.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 8.2.5. PTZ CONTROL

Transparent Serial Channel

#### 8.2.6. SOFTWARE COMPATIBILITY

Cathexis Software : 5041e4

Camera Firmware : 01.08.00.04

### 8.2.7. LIMITATIONS

- When streaming MPEG4 and JPEG at the same time. JPEG frame rate will be very slow.

## 9. BOSCH H264 INTEGRATION

### 9.1. Description and use of camera

This integration supports Bosch H.264/Mpeg-4 cameras/encoders which use the Bosch RCP Plus (V4) API.

### 9.2. Specifications

#### 9.2.1. MODELS TESTED

These models have been grouped together under **Bosch H.264 / Bosch** in the Cathexis software.



**Bosch Vip-X1**  
Single-channel  
Video Encoder

[More information](#)

**Bosch VIP X1 XF**  
Single-channel  
Video Encoder

[More information](#)

**X-40**  
Network Camera  
Indoor fixed dome  
with remote focus  
and zoom

[More information](#)

**AutoDome 200**  
Series  
PTZ Camera  
System

[More information](#)

**NDN-921-V03-PS**  
FlexiDomeHD  
720p

[More information](#)

**NBN-921**  
DinionHD 720p  
Day/Night  
IP Camera

[More information](#)

Note: For older MPEG-4 only cameras/encoders use 'Bosch' driver

#### 9.2.2. UNICAST

**Number of streams :** 2

**Format :** H.264/MPEG-4/MJPEG

**Resolution :** Camera dependent

#### 9.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** The first MPEG-4/H.264 stream found will be used for multicast

---

**Resolution :** Camera dependent

---

#### 9.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 9.2.5. PTZ CONTROL

Supports transparent serial channel for PTZ control.

#### 9.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Onvif Version:** Onvif Core Spec Ver.1.02

---

#### 9.2.7. LIMITATIONS

- On HD cameras the first feed is the HD feed, and the second feed's capability is usually limited to 4CIF
- The system will use the first MPEG-4/H.264 feed found in the configuration as the multicast feed.

## 10.CATHEXIS SAM3XXX INTEGRATION

### 10.1. Description and use of camera

The Sam3 products integrate cameras into security systems by means of an Ethernet network. In applications where an Ethernet network already exists, this is a significant cost-saver as it does away with the requirement for cabling. With the Power over Ethernet option there is also no need for external power feeds to the encoders.

Conveniently, there is no hardware installation on the NVR (Network Video Recorder) – each SAM-3 encodes an analogue camera feed, converting it to a high quality digital format, which is transmitted as a digital feed to the DVR.

The encoders integrate seamlessly into the NVR user interface so that each appears as simply another camera on the site.

With “IP-based” cameras, it is possible to implement (VVMS) Virtual Video Matrix Switchers. VVMS is an IP-based video matrix switch that enables the operator to quickly display any site camera on any monitor on a video wall.

The compression ratio and resolution can be scaled independently for each encoder, providing optimum image quality under all conditions. This also enables flexible customisation of encoders to optimise the network bandwidth.

The SAM-3 uses advanced dual streaming technology making it possible to multicast the video feed to multiple users without compromising the network bandwidth.

### 10.2. Specifications

#### 10.2.1. MODELS TESTED

These models have been grouped together SAM3XXX in the Cathexis software



#### 10.2.2. UNICAST

<b>Number of streams :</b>	2
<b>Format :</b>	H264
<b>Resolution :</b>	176 x 144 to 704 x 576
<b>Audio :</b>	Yes

#### 10.2.3. MULTICAST

<b>Number of streams :</b>	2
<b>Format :</b>	H264
<b>Resolution :</b>	176 x 144 to 704 x 576
<b>Audio :</b>	Yes

#### 10.2.4. PTZ CONTROL

Yes

#### 10.2.5. SOFTWARE COMPATIBILITY

<b>Cathexis Software :</b>	5042C3
<b>Camera Firmware :</b>	16,109,28

## 11. CATHEXIS SAM2XXX/CAM2XXX INTEGRATION

### 11.1. Description and use of camera

The Sam2xx1 products integrate cameras into security systems by means of an Ethernet network. In applications where an Ethernet network already exists, this is a significant cost-saver as it does away with the requirement for cabling. With the Power over Ethernet option there is also no need for external power feeds to the encoders.

Conveniently, there is no hardware installation on the NVR (Network Video Recorder) – each SAM-2xx1 encodes an analogue camera feed, converting it to a high quality digital format, which is transmitted as a digital feed to the DVR.

The encoders integrate seamlessly into the NVR user interface so that each appears as simply another camera on the site.

With “IP-based” cameras, it is possible to implement (VVMS) Virtual Video Matrix Switchers. VVMS is an IP-based video matrix switch that enables the operator to quickly display any site camera on any monitor on a video wall.

The compression ratio and resolution can be scaled independently for each encoder, providing optimum image quality under all conditions. This also enables flexible customisation of encoders to optimise the network bandwidth.

The SAM-2xx1 uses advanced dual streaming technology making it possible to multicast the video feed to multiple users without compromising the network bandwidth.

## 11.2. Specifications

### 11.2.1. MODELS TESTED

These models have been grouped together SAM2XXX in the Cathexis software



### 11.2.2. UNICAST

<b>Number of streams :</b>	1
<b>Format :</b>	H264
<b>Resolution :</b>	352x288 or 704x576 or 640 x 480 or 320 x 240
<b>Audio :</b>	Yes (AAC)

### 11.2.3. MULTICAST

<b>Number of streams :</b>	1
<b>Format :</b>	H264
<b>Resolution :</b>	Same as unicast
<b>Audio :</b>	Yes (ACC)

#### 11.2.4. PTZ CONTROL

Yes

#### 11.2.5. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042C3

---

## 12. CATHEXIS SAM1XXX INTEGRATION

### 12.1. Description and use of camera

The SAM-1000/1100/1200 is an MPEG-2 single-channel encoder that enables an integrator to utilise existing TCP/IP networking infrastructure in order to distribute video without the additional cost of installing coaxial camera cabling. Up to 16 SAM-1x00 encoders can be integrated with the Cathexis Digital Surveillance System (DSS).

### 12.2. Specifications

#### 12.2.1. MODELS TESTED

These models have been grouped together SAM1XXX in the Cathexis software



#### 12.2.2. UNICAST

**Number of streams :** 1

---

**Format :** Mpeg2

---

**Resolution :** 360x288 or 720x576

---

**Audio :** Yes (Mpeg)

---

#### 12.2.3. PTZ CONTROL

Yes

#### 12.2.4. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042C3

---

## 13.CATHEXIS TEST ENCODER INTEGRATION

### 13.1. Description and use of camera

This is software that would mimic preset settings. The client is required to contact support so that these settings can be configured by our engineers.

### 13.2. Specifications

#### 13.2.1. MODELS TESTED

These models have been grouped together Test encoder in the Cathexis software

#### 13.2.2. UNICAST

Supported and is subjected to settings.

#### 13.2.3. MULTICAST

Supported and is subjected to settings.

#### 13.2.4. MOTION DETECTION TRIGGERS

Trigger String : STARTMOTION

---

#### 13.2.5. PTZ CONTROL

Yes

#### 13.2.6. SOFTWARE COMPATIBILITY

Cathexis Software : 5042D

---

---

#### 13.2.7. LIMITATIONS

- Has to be configured by a Cathexis software engineer.

## 14.GRANDEYE INTEGRATION

### 14.1. Description and use of camera

This integration supports GrandEye 360 degree fish-eye cameras

## 14.2. Specifications

### 14.2.1. MODELS TESTED

These models have been grouped together Grandeye in the Cathexis software

### 14.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG

---

**Resolution :** 640x480

---

**Audio :** No

---

### 14.2.3. MULTICAST

Not supported

### 14.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION/STOPMOTION

---

### 14.2.5. PTZ CONTROL

Software transform available for 360 degree fish-eye lens models.

### 14.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041e3

---

**Camera Firmware :** 0.40.11

---

## 15. HIKVISION INTEGRATION

### 15.1. Description and use of camera

This integration supports the Hikvision single channel H.264 cameras. Some modifications may be required for newer models.

### 15.2. Specifications

#### 15.2.1. MODELS TESTED

These models have been grouped together under **Hikvision** in the Cathexis software



---

#### DS-2CD883F-E

5 Megapixel CMOS-based Network  
Camera

#### [More information](#)

#### 15.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264

---

**Resolution :** Camera dependent

---

**Audio :** N/A

---

#### 15.2.3. MULTICAST

Not supported

#### 15.2.4. MOTION DETECTION TRIGGERS

Not supported

#### 15.2.5. PTZ CONTROL

Not supported

#### 15.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** V3.0.0101111

---

#### 15.2.7. LIMITATIONS

- Owing to API problems with the Hikvision camera, stream setups have to be done by the user via the camera web interface. The stream formats need to be matched on the dss setup.
- The multicast address and port reflects incorrectly in the web interface, but when multicasting is started the feed is sent to the wrong port.

- Do not set up motion triggers, as this will result in the camera sending a huge volume of data to the DSS from the Hikvision trigger system.

## 16.HITRON INTEGRATION

### 16.1. Description and use of camera

This integration supports Hitron 540L cameras.

### 16.2. Specifications

#### 16.2.1. MODELS TESTED

These models have been grouped together Hitron in the Cathexis software

#### 16.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG, MPEG-4 Camera dependent

---

**Resolution :** 640x480

---

**Audio :** N/A

---

#### 16.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** MPEG-4

---

**Resolution :** 640x480

---

**Audio :** N/A

---

#### 16.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 16.2.5. PTZ CONTROL

Not supported

#### 16.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042E3 and later

---

**Camera Firmware :** 4.1.2-1

---

## 17.HONEYWELL INTEGRATION

## 17.1. Description and use of camera

This integration supports HoneyWell Mpeg-4 cameras.

## 17.2. Specifications

### 17.2.1. MODELS TESTED

These models have been grouped together Honeywell in the Cathexis software

### 17.2.2. UNICAST

**Number of streams :** 1

---

---

**Format :** MPEG4

---

---

**Resolution :** 640x480

---

---

**Audio :** N/A

---

### 17.2.3. MULTICAST

Not supported

### 17.2.4. MOTION DETECTION TRIGGERS

**Scene change Detection** "STARTFOV" & "STOPFOV"

---

---

**Blur detection** "STARTBLUR" & "STOPBLUR"

---

---

**Blind detection** "STARTBLIND" & "STOPBLIND"

---

### 17.2.5. PTZ CONTROL

Transparent serial channel using Pelco-D/Pelco-P protocols.

### 17.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041E3

---

---

**Camera Firmware :** 5.4.0

---

### 17.2.7. LIMITATIONS

- Only support via firmware version 5.4.0 and above for HCS554IP and firmware version 1.4.9 and above for ACUIX-IP

## 18. IQEYE INTEGRATION

### 18.1. Description and use of camera

This integration supports IqEye Jpeg cameras

### 18.2. Specifications

### 18.2.1. MODELS TESTED

These models have been grouped together lqeye in the Cathexis software

### 18.2.2. UNICAST

**Number of streams :** 1

---

**Format :** Jpeg

---

**Resolution :** CIF

---

**Audio :** Not Supported

---

### 18.2.3. MULTICAST

Not supported

### 18.2.4. MOTION DETECTION TRIGGERS

Not supported

### 18.2.5. PTZ CONTROL

Not supported

### 18.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041e1

---

**Camera Firmware :** Unkown

---

## 19.MANGO INTEGRATION

### 19.1. Description and use of camera

This integration supports Mango DSP multi channel encoders

### 19.2. Specifications

#### 19.2.1. MODELS TESTED

These models have been grouped together Mango in the Cathexis software

#### 19.2.2. UNICAST

**Number of streams :** 2 per channel

---

**Format :** MJPEG,MPEG4

---

**Resolution :** 4CIF

---

#### 19.2.3. MULTICAST

**Number of streams :** 1 per channel

---

**Format :** Mpeg-4

---

**Resolution :** 4CIF

---

#### 19.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** The “Rule Name” and “View” are used for trigger messages on the DSS  
If rule name is “Rule1” and view name is “View1” the trigger string is  
“Rule1 View1”

---

#### 19.2.5. PTZ CONTROL

Transparent serial channel.

#### 19.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041E3

---

**Camera Firmware :** 5.4.0

---

#### 19.2.7. LIMITATIONS

- DVR and Encoder are set to the same video format (PAL/NTSC) for streaming to work.

## 20.MOBOTIX INTEGRATION

### 20.1. Description and use of camera

This integration supports Mobotix cameras

### 20.2. Specifications

#### 20.2.1. MODELS TESTED

These models have been grouped together Mobotix in the Cathexis software

#### 20.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG

---

**Resolution :** 1280x960

---

**Audio :** Not supported

---

#### 20.2.3. MULTICAST

Not supported

#### 20.2.4. MOTION DETECTION TRIGGERS

Not supported

#### 20.2.5. PTZ CONTROL

Not supported

#### 20.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041e3

---

**Camera Firmware :** MX-V3.0.8.7

---

#### 20.2.7. LIMITATIONS

- MxPEG not supported

## 21.OBSERVISION INTEGRATION

### 21.1. Description and use of camera

This integration supports Observision multi channel encoders

### 21.2. Specifications

#### 21.2.1. MODELS TESTED

These models have been grouped together OBServision in the Cathexis software

#### 21.2.2. UNICAST

**Number of streams :** 2

---

**Format :** MJPEG,MPEG4

---

**Resolution :** 4CIF

---

**Audio :** No

---

#### 21.2.3. MULTICAST

N/A

#### 21.2.4. MOTION DETECTION TRIGGERS

**Input Trigger String :** OPTO1/OPTO2

---

**Motion Trigger Strings:** STARTMOTION/STOPMOTION

---

#### 21.2.5. PTZ CONTROL

Transparent serial channel.

#### 21.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041F2/5042B2 and later

---

**Camera Firmware :** Unknown

---

#### 21.2.7. LIMITATIONS

- Lag in video for JPEG
- Integration document does not specify SOAP integration.
- Configuration on Observision is difficult. Has to be done via LDAP gui by Observision. Events and PTZ must be configured using the LDAP gui.
- No GOP length specification.

## 22.ONVIF INTEGRATION

### 22.1. Description and use of camera

Onvif phase 1 integration only provides the user with basic unicast and PTZ functionality.



### 22.2. Specifications

#### 22.2.1. MODELS TESTED

These models have been grouped together under **Onvif** in the Cathexis software



**Bosch X40**  
Rugged Video Encoder

[More information](#)



**Bosch VIP X1 XF**  
Single-channel Video Encoder

[More information](#)



**AXIS P3343**  
Network Camera Indoor fixed dome  
with remote focus and zoom

[More information](#)

#### 22.2.2. UNICAST

**Number of streams :** 1 (The encoder implementation goes through media profile list and chooses the first match to our requirements. No changes are made to existing streaming profiles. Only read-Only mode supported)

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

#### 22.2.3. MULTICAST

Not supported

#### 22.2.4. MOTION DETECTION TRIGGERS

Not supported

#### 22.2.5. PTZ CONTROL

Only supports Onvif V2 continuous PTZ Velocity space, has not been tested yet.

#### 22.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Onvif Version:** Onvif Core Spec Ver.1.02

---

#### 22.2.7. LIMITATIONS

- The media profile setup does not get changed.
- PTZ control has not been tested, as most encoders only support Onvif PTZ control V1

## 23.PANASONIC INTEGRATION

### 23.1. Description and use of camera

This integration supports Panasonic HCM cameras.

### 23.2. Specifications

#### 23.2.1. MODELS TESTED

These models have been grouped together Panasonic in the Cathexis software

#### 23.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG

---

**Resolution :** 640x480

---

**Audio :** No

---

### 23.2.3. MULTICAST

Not Supported

### 23.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** Use camera IP address as the motion trigger string

---

### 23.2.5. PTZ CONTROL

Not Supported

### 23.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042c2 and later

---

**Camera Firmware :** Unknown

---

## 24.PANASONIC WV OLD SERIES INTEGRATION

### 24.1. Description and use of camera

This integration support Panasonic WV-474 cameras

### 24.2. Specifications

#### 24.2.1. MODELS TESTED

These models have been grouped together Panasonic WV Old Series in the Cathexis software

#### 24.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG

---

**Resolution :** CIF/VGA

---

**Audio :** Not supported

---

#### 24.2.3. MULTICAST

No support.

#### 24.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** Use camera IP address as the motion trigger string

---

#### 24.2.5. PTZ CONTROL

No support.

#### 24.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042C2 and later

---

**Camera Firmware :** Unkown

---

## 25.PANASONIC WV INTEGRATION

### 25.1. Description and use of camera

This integration supports Panasonic WV cameras.

### 25.2. Specifications

#### 25.2.1. MODELS TESTED

These models have been grouped together under **Panasonic WV** in the Cathexis software



---

#### WV-NP304

Megapixel Day/Night  
Network Camera

[More information](#)

---

#### WV-NF284

i-Pro Network Colour Dome  
Camera

[More information](#)

---

#### WV-NP240

Colour Network Camera

[More information](#)

---

#### WV-NS202

Colour Network PTZ Dome  
Camera with SDIII

[More information](#)

#### 25.2.2. UNICAST

**Number of streams :** 2

---

**Format :** MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

#### 25.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** MPEG-4

---

**Resolution :** Camera dependent

---

#### 25.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 25.2.5. PTZ CONTROL

Tested on NS202

#### 25.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** WV-NP304: 1.60  
WV-NF284: 1.60  
WV-NP240: 1.80  
WV-NS202: 2.70

---

#### 25.2.7. LIMITATIONS

- A specific stream cannot stream unicast and multicast simultaneously. The DSS needs to be configured to only provide one of the methods to ensure reliable streaming. This is a limitation of the camera.

## 26.PANASONIC IPRO AND SMARTHD INTEGRATION

### 26.1. Description and use of camera

This integration supports the newer generation Panasonic I-Pro H.264 cameras, as well as older I-Pro MPEG-4 cameras as long as they have been updated to the latest firmware for the specific camera. To check if camera will be compatible with this integration, execute the following URL

[http://<cameraIP>/cgi-bin/get\\_capability](http://<cameraIP>/cgi-bin/get_capability)

If a capability response is received (a list of camera capabilities), the camera will be supported.

### 26.2. Specifications

#### 26.2.1. MODELS TESTED

These models have been grouped together under **Panasonic IPro/SmartHD** in the Cathexis software



**WV-NP304**  
Megapixel Day/Night



**WV-NF284**  
i-Pro Network Colour Dome



**WV-NP240**  
Colour Network Camera



**WV-NS202**  
Colour Network PTZ Dome

---

Network Camera

Camera

[More information](#)

Camera with SDIII

[More information](#)

[More information](#)

[More information](#)

#### 26.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

#### 26.2.3. MULTICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4

---

**Resolution :** Camera dependent

---

#### 26.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 26.2.5. PTZ CONTROL

Tested on NS202

#### 26.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** WV-NP304: 1.60

WV-NF284: 1.60

WV-NP240: 1.80

WV-NS202: 2.70

---

#### 26.2.7. LIMITATIONS

- Cannot select one stream to be H.264 and the other MPEG-4, the streams need to be configured to be the same format. One stream can be set to MJPEG though.
- Multicast channels link directly to the unicast channels, multicast will only be available on channels that have been configured to provide H.264/MPEG-4 streams.
- A specific stream cannot stream unicast and multicast simultaneously. The DSS needs to be configured to only provide one of the methods to ensure reliable streaming. This is a limitation of the camera.

## 27. PELCO SARIX/SPECTRA HD INTEGRATION

## 27.1. Description and use of camera

This integration supports Pelco Sarix and Spectra HD camera/encoder range.

## 27.2. Specifications

### 27.2.1. MODELS TESTED

These models have been grouped together under **Pelco Sarix/Spectra HD** in the Cathexis software.  
Streams from Vivotek/Axis cameras



IXS0	IXS20
Sarix0.5 MP Standard Definition Camera	Sarix 2.1MP Megapixel Camera
<a href="#">More Information</a>	<a href="#">More Information</a>

### 27.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264

---

**Resolution :** Stream dependant

---

### 27.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** H.264

---

**Resolution :** Stream dependant

---

### 27.2.4. MOTION DETECTION TRIGGERS

Motion messages are constructed of the zone name (if present) and the uppercase characters of the analytic function:

<Zone Name>:<Analytic Event>

E.g. If the AdaptiveMotion is enabled and set the Zone name to "Zone 1" the message trigger will be:

"Zone 1:AM"

If the analytic function does not specify a zone name when set up on the camera, omit <Zone Name>. The message trigger for Sabotage Detection will be:

"SB"

If the message trigger is set to "STARTMOTION", all message triggers from the camera will trigger the event

The zone name NOT be longer than 16 characters.

#### 27.2.5. PTZ CONTROL

Implemented, but has not been tested.

#### 27.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Firmware Version:** Pelco Sarix IXS0 : 1.6.13.9080-A1.4657

Pelco Sarix IXE20C : 1.6.13.9080-A1.4657

---

#### 27.2.7. LIMITATIONS

- Due to the complexity of the stream setups, this has to be done by the user via the camera web interface. Please note that only H.264 streaming is supported.
- Refer to <http://trac.cat.co.za/support/wiki/pelcosetup> for setup notes
- Need to set up streams on camera web interface.

## 28. PELCO SPECTRA MINI INTEGRATION

### 28.1. Description and use of camera

This integration supports Pelco Spectra Mini IP PTZ Cameras

### 28.2. Specifications

#### 28.2.1. MODELS TESTED

These models have been grouped together Pelco Spectra Mini in the Cathexis software

#### 28.2.2. UNICAST

**Number of streams :** 2

---

**Format :** MPEG4

---

**Resolution :** 4CIF

---

**Audio :** No

---

#### 28.2.3. MULTICAST

Not supported.

#### 28.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 28.2.5. PTZ CONTROL

Yes

#### 28.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042C2 and later

---

**Camera Firmware :** 01.00.0022

---

---

## 29.PIXORD INTEGRATION

### 29.1. Description and use of camera

This integration supports Pixord Mjpeg cameras

### 29.2. Specifications

#### 29.2.1. MODELS TESTED

These models have been grouped together Pixord in the Cathexis software

#### 29.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG/MPEG4

---

**Resolution :** QCIF, CIF, 4CIF

---

**Audio :** Not supported

---

#### 29.2.3. MULTICAST

Not supported

#### 29.2.4. MOTION DETECTION TRIGGERS

Not supported

#### 29.2.5. PTZ CONTROL

Not supported

#### 29.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042C2 and later

---

---

Camera Firmware : Unknown

---

## 30. PIXORD MPEG4 SERIES INTEGRATION

### 30.1. Description and use of camera

This integration supports Pixord Mpeg-4 cameras

### 30.2. Specifications

#### 30.2.1. MODELS TESTED

These models have been grouped together Pixord MPEG4 in the Cathexis software

#### 30.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MPEG4, MJPEG

---

**Resolution :** QCIF, CIF, 4CIF

---

**Audio :** Not supported

---

#### 30.2.3. MULTICAST

Not supported

#### 30.2.4. MOTION DETECTION TRIGGERS

Not supported

#### 30.2.5. PTZ CONTROL

Transparent serial channel

#### 30.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041e3

---

**Camera Firmware :** unknown

---

#### 30.2.7. LIMITATIONS

- VMD and digital inputs are coupled

## 31. RTSP STREAMER INTEGRATION

### 31.1. Description and use of camera

This integration supports streaming via RTSP from any IP camera/encoder.

## 31.2. Specifications

### 31.2.1. MODELS TESTED

These models have been grouped together under **RTSP Streamer** in the Cathexis software.  
Streams from Vivotek/Axis cameras

### 31.2.2. UNICAST

**Number of streams :** 1

---

**Format :** H.264,MPEG-4,MJPEG via UDP (RTP)

---

**Resolution :** Stream dependant

---

### 31.2.3. MULTICAST

Multicast not available.

### 31.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** Not supported

---

### 31.2.5. PTZ CONTROL

Not supported

### 31.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

### 31.2.7. LIMITATIONS

- Rtsp url can have a maximum length of 60 characters

## 32.SAMSUNG INTEGRATION

### 32.1. Description and use of camera

This integration supports Samsung Mpeg-4 cameras

## 32.2. Specifications

### 32.2.1. MODELS TESTED

These models have been grouped together Samsung in the Cathexis software

### 32.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG, MPEG4

---

**Resolution :** CIF, 4CIF

---

**Audio :** Not supported

---

#### 32.2.3. MULTICAST

Not supported.

#### 32.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION/STOPMOTION

---

#### 32.2.5. PTZ CONTROL

Yes

#### 32.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042F1 and later

---

**Camera Firmware :** Unknown

---

#### 32.2.7. LIMITATIONS

- Obtaining of API took very long
- No dual streaming support

## 33.SANYO INTEGRATION

### 33.1. Description and use of camera

This integration supports Sanyo Mjpeg cameras.

### 33.2. Specifications

#### 33.2.1. MODELS TESTED

These models have been grouped together Sanyo in the Cathexis software

#### 33.2.2. UNICAST

**Number of streams :** 1

---

**Format :** MJPEG

---

**Resolution :** 4CIF

---

**Audio :** Not supported

---

### 33.2.3. MULTICAST

Not supported

### 33.2.4. MOTION DETECTION TRIGGERS

Not supported

### 33.2.5. PTZ CONTROL

Yes

### 33.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041D4

**Camera Firmware :** 1.01-00<L06042504

---

---

## 34.SANYO HD INTEGRATION

### 34.1. Description and use of camera

This integration supports Sanyo HD cameras

### 34.2. Specifications

#### 34.2.1. MODELS TESTED

These models have been grouped together Sanyo HD in the Cathexis software

#### 34.2.2. UNICAST

**Number of streams :** 2

---

**Format :** JPEG,H.64

---

**Resolution :** Camera dependant

---

**Audio :** Not supported

---

#### 34.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** H.264

---

**Resolution :** Camera dependant

---

**Audio :** Not supported

---

#### 34.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

#### 34.2.5. PTZ CONTROL

Yes

#### 34.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042C2 and later

---

**Camera Firmware :** Firmware - CAM MAIN  
Ver. 1.03-01 (100906-01)

---

#### 34.2.7. LIMITATIONS

- Need to setup streams on camera web interface.
- Stream formats on our encoder setup has to match settings on the camera.

## 35.SIQURA HD6X INTEGRATION

### 35.1. Description and use of camera

This integration supports Siquira HD6x PTZ dome camera range.

### 35.2. Specifications

#### 35.2.1. MODELS TESTED

These models have been grouped together under **Siquira HD6x** in the Cathexis software



---

#### HD62

IP PTZ dome with day/night  
(outdoor)

[More information](#)

#### 35.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4

---

**Resolution :** Camera dependent

---

### 35.2.3. MULTICAST

**Number of streams :** 1

---

**Format :** The first MPEG-4 stream found will be multicasted

---

**Resolution :** Camera dependent

---

### 35.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

### 35.2.5. PTZ CONTROL

Tested on HD62

### 35.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** 1.33

---

### 35.2.7. LIMITATIONS

- The encoder implementation will go down the feed list to find the first MPEG-4 feed, this feed will be used as the multicast feed.

## 36.SONY SNC INTEGRATION

### 36.1. Description and use of camera

This integration supports most of the Sony SNC H.264 cameras, as long as they have been updated to the latest firmware version. Owing to the fact that the only camera that was investigated was the SNC-CH110 there is the possibility that some other models might need some modification.

### 36.2. Specifications

#### 36.2.1. MODELS TESTED

These models have been grouped together under **Sony** in the Cathexis software



---

**SNC-CH110**

Compact fixed HD (720p)  
resolution network security  
camera

**[More information](#)**

### 36.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

### 36.2.3. MULTICAST

**Number of streams :** 2

---

**Format :** H.264

---

**Resolution :** Camera dependent

---

---

**Trigger String :** STARTMOTION

---

### 36.2.4. MOTION DETECTION TRIGGERS

### 36.2.5. PTZ CONTROL

Implemented

### 36.2.6. SOFTWARE COMPATIBILITY

---

**Cathexis Software :** 5042d and later

---

**Camera Firmware :** 1.33.00

---

### 36.2.7. LIMITATIONS

- PTZ Control has not been fully tested.
- Multicast channels link directly to the unicast channels, multicast will be available on H.264, MPEG4 and Jpeg streams.
- MPEG-4 streaming has not been tested.

## 37.VCS INTEGRATION

### 37.1. Description and use of camera

This integration supports interfacing to a VCS server that is used by Prorail.

### 37.2. Specifications

#### 37.2.1. MODELS TESTED

These models have been grouped together VCS in the Cathexis software

#### 37.2.2. UNICAST

**Number of streams :** 1 (The encoder implementation goes through media profile list and chooses the first match to our requirements. No changes are made to existing streaming profiles. Only read-Only mode supported)

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

#### 37.2.3. MULTICAST

Not supported

#### 37.2.4. MOTION DETECTION TRIGGERS

Not supported

#### 37.2.5. PTZ CONTROL

Only supports Onvif V2 continuous PTZ Velocity space, has not been tested yet.

#### 37.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5041E5

---

**Camera Firmware :** Unknown

---

## 38.VIDEOIQ INTEGRATION

### 38.1. Description and use of camera

This integration supports VideoIQ camera/encoder range.

## 38.2. Specifications

### 38.2.1. MODELS TESTED

These models have been grouped together under **Videolq** in the Cathexis software



---

iCVR Encoder and Camera

[More information](#)

### 38.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264, One stream is always low quality

---

**Resolution :** Camera dependent

---

### 38.2.3. MULTICAST

Multicast was not available at time of integration

### 38.2.4. MOTION DETECTION TRIGGERS

The trigger string is composed from the Rule name and the type of activity the user wants to trigger from. Note that in the DSS setup abbreviations of activity types are used. Maximum length of rule name should not exceed 16 characters.

Message trigger = 'Rule Name:Activity'

E.g. If the rule name is 'Zone 1' and the trigger activity is a "Scene Change" the message trigger would be

"Zone 1:SC"

Rule name	Abbreviation
Direction Violated	DV
Object Crossed	OC

<b>Object Left</b>	OL
<b>Object Present</b>	OP
<b>Object Removed</b>	OR
<b>Monitored Object Missing</b>	OM
<b>Scene Change</b>	SC
<b>Too Few</b>	TF
<b>Too Many</b>	TM

#### 38.2.5. PTZ CONTROL

Implemented, but not tested

#### 38.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d and later

**Camera Firmware :** Unknown

#### 38.2.7. LIMITATIONS

- Reviewing/Streaming? Of footage recorded on the VideoIQ unit cannot be accessed from the Cathexis system.
- When the video input is disconnected a huge volume of p-frames will be received. If this is detected the streams will be stopped.

## 39.VIVOTEK INTEGRATION

### 39.1. Description and use of camera

This integration supports Vivotek 7xxx and 8xxx series cameras.

### 39.2. Specifications

#### 39.2.1. MODELS TESTED

These models have been grouped together under **Vivotek** in the Cathexis software



---

**Vivotek FD8161**

Day/Night 2MP H.264  
Network Camera

[More information](#)

### 39.2.2. UNICAST

**Number of streams :** 2

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

**Audio :** G711a available with H.264 streams

---

### 39.2.3. MULTICAST

Multicast support is now available for H.264/MPEG-4 and JPEG feeds

**Number of streams :** 2

---

**Format :** H.264/MPEG-4/MJPEG

---

**Resolution :** Camera dependent

---

**Audio :** G711a available with  
H.264 streams

---

### 39.2.4. MOTION DETECTION TRIGGERS

**Trigger String :** STARTMOTION

---

### 39.2.5. PTZ CONTROL

Yes

### 39.2.6. SOFTWARE COMPATIBILITY

**Cathexis Software :** 5042d1 and later

---

**Camera Firmware :** FD8161-VVTK-0103a

---

#### 39.2.7. LIMITATIONS

- Configure stream as H.264 if multicast audio is required.
- Selection Audio In / Mic In cannot be done via web interface and has to be done via CGI command by the user.
- Timestamps of MPEG-4 feeds from 8xxx series cameras are wrong. This is a firmware problem on the Vivotek camera.