

HANDOUT: SEDOR® ANALYSIS APPLICATIONS

INTRUDER DETECTION SUMMARY FOR IPS 10 000 RECORDING SYSTEMS

To use the **Intruder Detection** function, the **SEDOR® Analysis** must be integrated into the system as an additional analysis instance. For external object classification, the analysis instance then first fetches the images from the camera, automatically classifies detected objects according to their specific characteristics and sends the detected object classes back to the camera in the form of metadata.

The camera then embeds the received metadata into the corresponding images as close as possible in time.

The camera then sends the images with the embedded metadata to the network (e.g. to a recorder for recording). The events can then be evaluated as usual using the **SeMSy Compact** software.

REQUIREMENTS

Hardware

1. IPS-10 000 (current version; at least version **9.7.10 SP-D**)
2. Built-in GPU

Software

3. For Dallmeier cameras at least software version **11.1.1.17** or **8.5.0.5** or higher
4. PGuard Advance **4.6.4.0** or higher
5. Optional: AI Server

Activations

Acquired licenses can be activated on the camera under **Service > Licenses**, and on the recorder under **System > Service > Activations** (see below).

■ At the IPS 10 000

6. **007370 SEDOR® AI Professional Package** for IPS 10 000
7. Intruder analysis app depending on the (each) camera:
 - **007730 For Third Party (3rd) Cameras** general. Concerns Thermal and other third-party cameras
 - **007374 S/W 8 Panomera**
 - **007373 S/W 4 Panomera**
 - **007372 Dallmeier Single Sensor Camera with VCA**

■ On the S/W 4 Panomeras

- **007076 Lizenze for using the AI/VCA functions** (contained as an additional license in license 007373 as mentioned above).

■ On the S/W 8 Panomeras

- **007075 Lizenz für die Nutzung der Funktion AI/VCA** (contained as an additional license in license 007374 as mentioned above)

CAMERA SETTINGS

Dallmeier Cameras

Activation for the VCA analytics processor (e.g. camera analytics, Sedor)

In order to make the necessary settings, the **Analysis processor** option must be enabled.

- ▶ Click **Service > Licenses**.
- ▶ Enter the code **__VCAExternal__** in the **License Code** field.

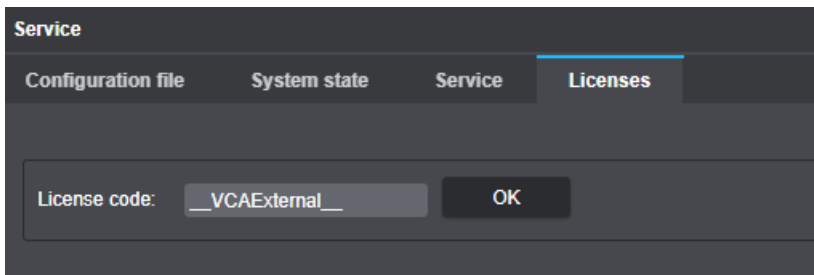


Fig. 2-1 Activation for the VCA Analysis processor (e.g. Camera analysis, Sedor)

- ▶ Confirm with **OK**.

The required option is now available.

Activate VCA

- ▶ In the Configuration Menu, click the **Video Content Analysis**.

The **Analysis** tab is displayed.

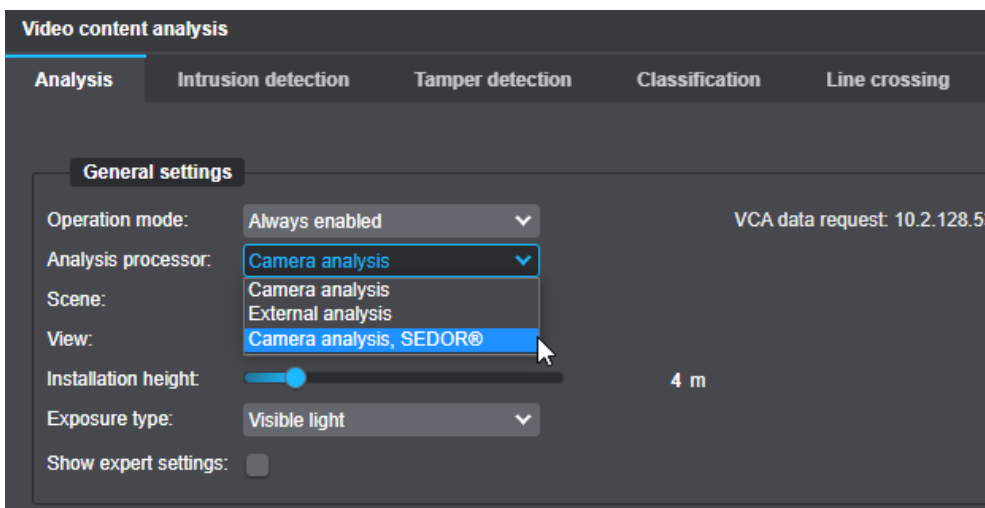


Fig. 2-2

- ▶ Under **Operating Mode**, select **Always active**.
- ▶ Under **Analytical Processor**, select **Camera Analytics, SEDOR®**.
- ▶ Activate the **Show Expert Settings** checkbox.
- ▶ Make sure that the following settings are used for all submodules.

General settings

Operation mode:	Always active
Analysis processor:	Camera analysis, SEDOR®
External analysis processing time:	2,5 - 3 seconds (Reference value for single sensor) 5 - 7 seconds (Reference value for Panomera)

Expert settings

Resolution:	320 x 240
Maximum analysis frame rate:	at least 12.5 frames/second
Sensitivity:	80 – 90
Time until static objects are learned:	20 seconds
Object doubt time:	50 ms
Tracking intervall for motionless objects:	0 seconds

Object sizes

Minimal object width:	2%
Minimal object height:	4%
Maximal object width:	75%
Maximal object height:	75%

- ▶ Disable all other options.

■ Synchronization for Panomeras

- ▶ Check the above settings for all submodules.

Depending on the model or software version, it may be possible to synchronize the VCA settings of the master with the submodules.

- ▶ Open **Video Content Analysis > Panomera**.

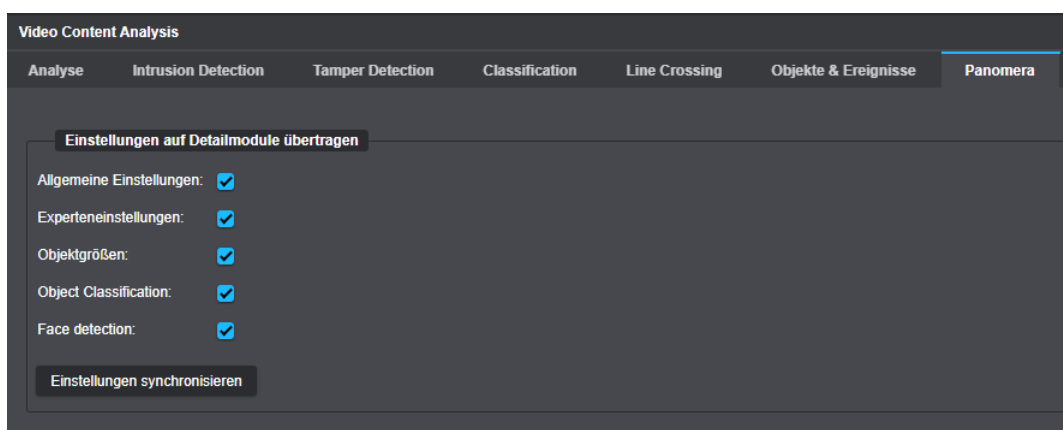


Fig. 2-3

- ▶ Activate the relevant checkboxes if necessary.
- ▶ Click **Synchronize Settings**.

3rd Party IP Cameras

- ▶ Make sure that SEDOR® analyses at a maximum resolution of **640 x 480**.
- ▶ If necessary, use different streams or encoders.

RECORDER SETTINGS (NETCONFIG/GUI)

Recording settings

- ▶ Open the required configuration dialog under **Record > Cameras / Tracks > LP Track**.

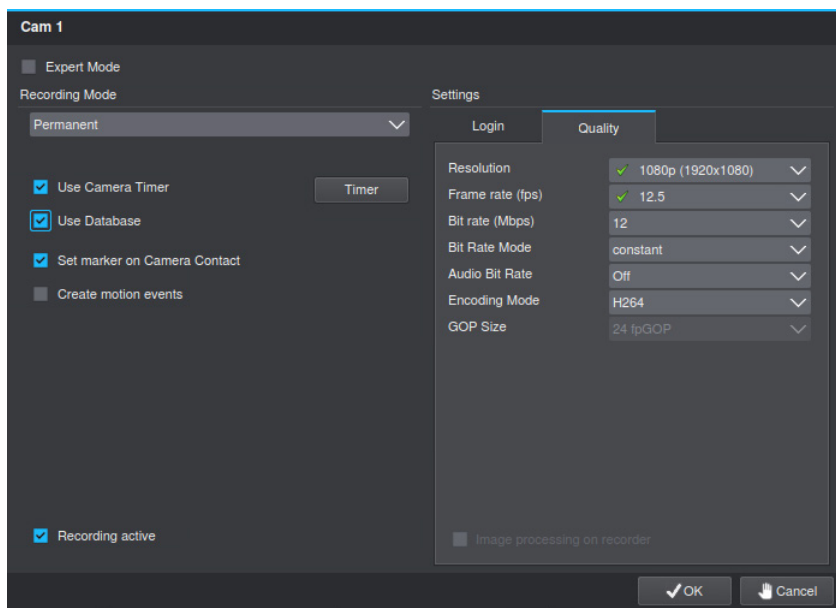


Fig. 2-4

- ▶ Make sure the Use database checkbox is selected.
- ▶ Make sure that the checkbox Use image processing on recorder is deactivated..

Particularities with 3rd Party IP cameras

- Only the recording mode **Permanent** is supported. If a different mode is selected, the object classification may not receive an image from the track in an event.
- For performance reasons, a maximum resolution of **640x 480** should not be exceeded.

Thermal cameras

For object classification, the inversion of the image must be guaranteed.

- ▶ Open the configuration dialog of the required camera under **Record > Cameras / Tracks > LP Track**.

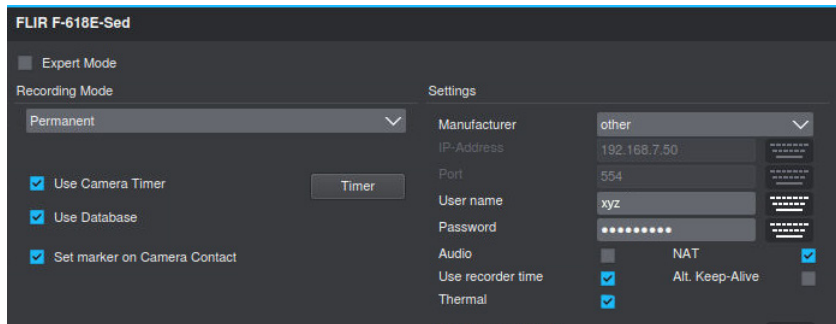


Fig. 2-5

- ▶ Make sure that the **Thermal** checkbox under **Settings** is activated..

ANALYSIS SETTINGS

The exact configuration of the analysis settings is described in detail in the document “**Configuration**” for **SEDOR® AI Intruder Detection**, which is available for download on the Dallmeier website.

Alarmhost Settings

Dallmeier Cameras

- ▶ On the recorder, open **Network > Alarm Hosts**.
- ▶ Select the required **host** in the list with the corresponding checkbox.
- ▶ Click **Settings**.

The **Messages** dialog opens.

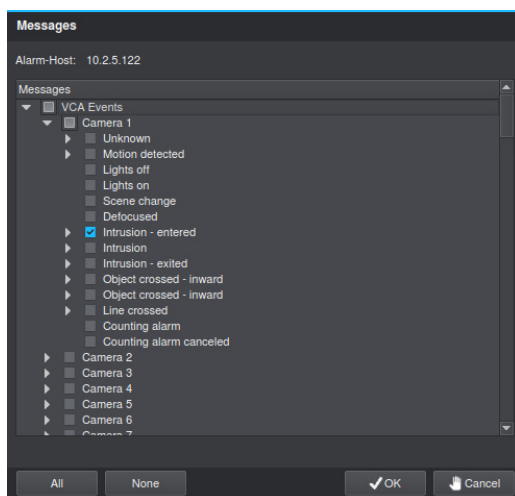


Fig. 2-6

- ▶ Activate the checkbox **Intrusion - entered** for each required camera.
- ▶

 For **Panomeras** it is sufficient to activate the checkbox on the master module.

3rd Party Cameras

For 3rd party cameras the **Array contact** message is sent.

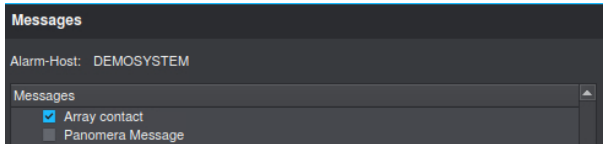


Fig. 2-7

- ▶ Activate the respective **checkbox**.

PGuard

For **Dallmeier** cameras the event **Object entered the motion area** is sent.

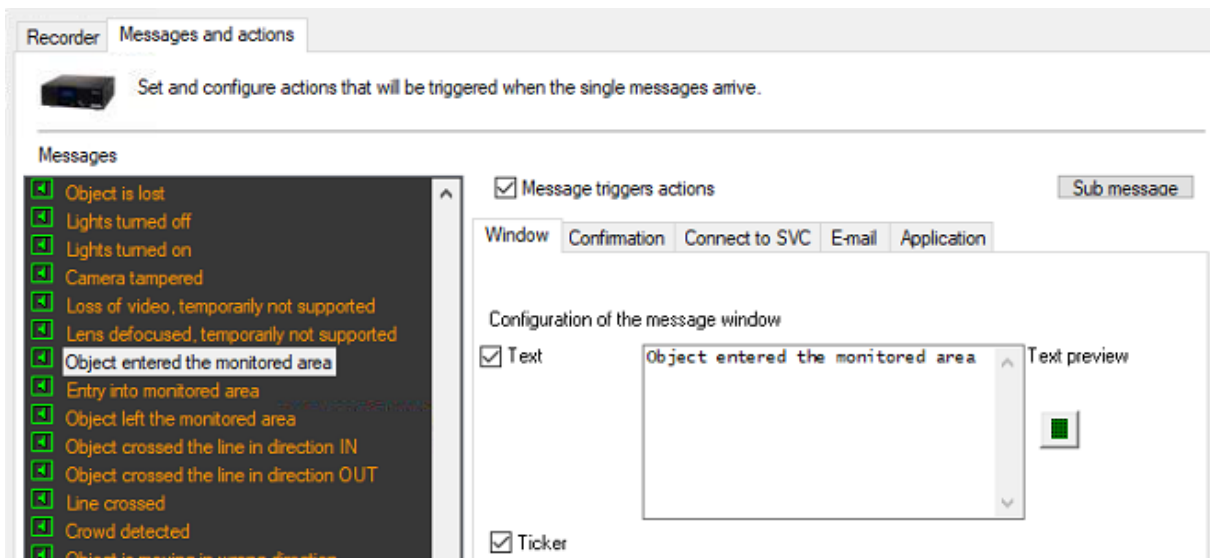


Fig. 2-8

For 3rd party cameras the event **Contact record - DTP, ProCash, Net Serial** is sent.

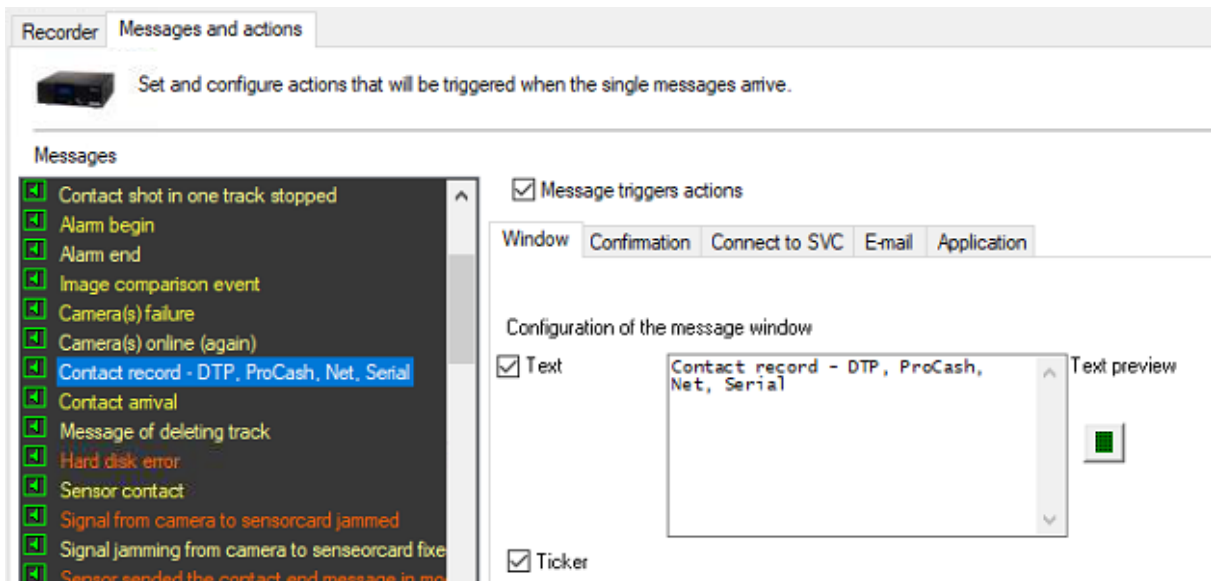


Fig. 2-9

Arrival	Conf.	Departure	Recorder	Camera	Message type	Additional info
16/10/2020, 17:36:09	⚠	16/10/2020, 17:35:43	IPS 10K-18	13	Object entered the monitored area	ObjectTyp:Human/Person;
16/10/2020, 17:36:11	⚠	16/10/2020, 17:35:45	IPS 10K-18	13	Object entered the monitored area	ObjectTyp:Human/Person;
16/10/2020, 17:36:45	⚠	16/10/2020, 17:36:30	IPS 10K-18	18	Contact record - DTP, ProCash, Net, Serial	Contact: Software contact(triggering); Cam: 18;
16/10/2020, 17:36:48	⚠	16/10/2020, 17:36:33	IPS 10K-18	18	Contact record - DTP, ProCash, Net, Serial	Contact: Software contact(triggering); Cam: 18;
16/10/2020, 17:36:49	⚠	16/10/2020, 17:36:22	IPS 10K-18	5	Object entered the monitored area	ObjectTyp:Human/Person;
16/10/2020, 17:36:56	⚠	16/10/2020, 17:36:29	IPS 10K-18	5	Object entered the monitored area	ObjectTyp:Human/Person;
16/10/2020, 17:37:13	⚠	16/10/2020, 17:36:47	IPS 10K-18	5	Object entered the monitored area	ObjectTyp:Human/Person;
16/10/2020, 17:37:17	⚠	16/10/2020, 17:36:50	IPS 10K-18	5	Object entered the monitored area	ObjectTyp:Human/Person;
16/10/2020, 17:37:21	⚠	16/10/2020, 17:36:55	IPS 10K-18	5	Object entered the monitored area	ObjectTyp:Human/Person;

Fig. 2-10

Arm/Disarm

The exact procedure for arming/disarming the analysis is described in the handout [ho_SEDOR_Analysis_Disarm_en.pdf](#), which is available for download on the Dallmeier website.

PROBLEM FIXING

The analysis is receiving no image (Panomera)

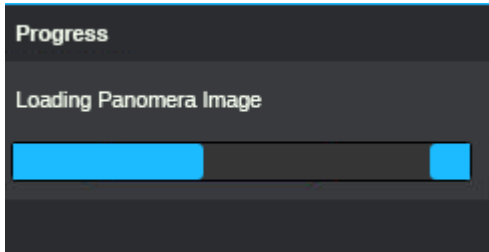


Fig. 2-11

Reason:

Under certain circumstances the **Bandwidth limit** is too tight. As a result, it can take very long (up to 30 min and more) until the Panomera receives the image for analysis.

Recommendation:

- ▶ Open **Network** > **Bandwidth limit** in the web configuration.

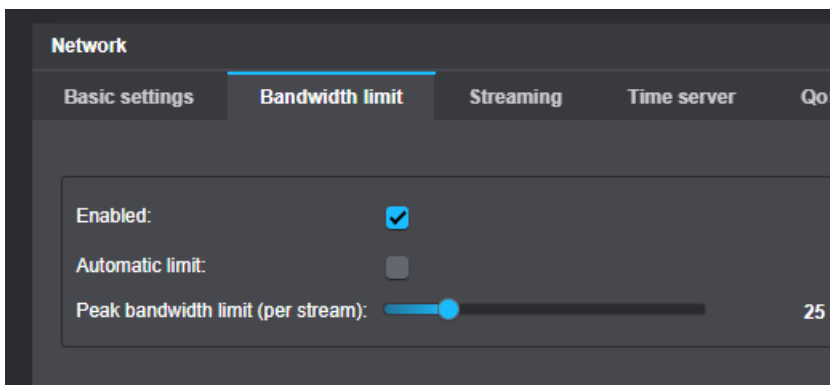


Fig. 2-12

- ▶ Ensure that the **Automatic limit** checkbox is disabled.
- ▶ Manually set the required **Peak bandwidth limit (per stream)**.

The analysis application deactivates itself shortly after it has been selected;

No analysis applications are displayed;

No analyses can be created;

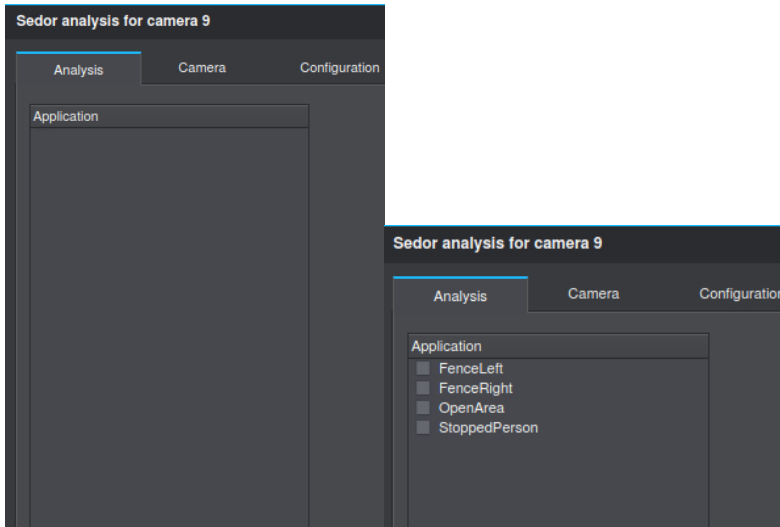


Fig. 2-13

Reason:

An outdated software version is running on the recorder. The problem only affects IPS-10,000 recorders that were shipped with version **9.7.7 or older** and have been updated afterwards.

Recommendation:

With version **9.7.10 - SP-D** this problem is solved

- ▶ Make sure that the recorder is running at least **software version 9.7.10 SP - D**.

In addition, it may be necessary to apply the patch **puupdate_97X-remove_unused_serverrot_dir**, which deletes unused analyses in the analysis directory.

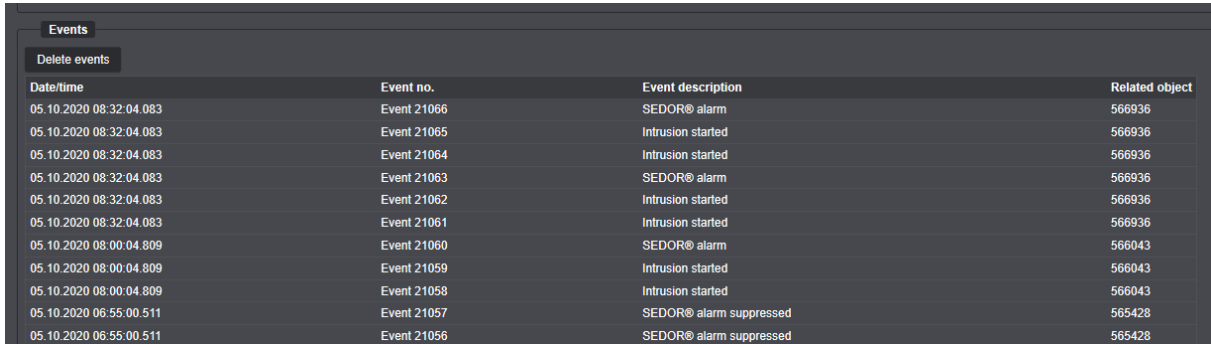
No alarms are generated - Dallmeier cameras

Reason:

Incorrect configuration of the recording system.

Recommendation:

- ▶ Check the settings under **Video Content Analysis > Analysis in the Web Configuration** of the camera.
- ▶ Check if SEDOR® Events are reported under **Video Content Analysis > VCA / Objects & Events**.



Date/time	Event no.	Event description	Related object
05.10.2020 08:32:04.083	Event 21066	SEDOR® alarm	566936
05.10.2020 08:32:04.083	Event 21065	Intrusion started	566936
05.10.2020 08:32:04.083	Event 21064	Intrusion started	566936
05.10.2020 08:32:04.083	Event 21063	SEDOR® alarm	566936
05.10.2020 08:32:04.083	Event 21062	Intrusion started	566936
05.10.2020 08:32:04.083	Event 21061	Intrusion started	566936
05.10.2020 08:00:04.809	Event 21060	SEDOR® alarm	566043
05.10.2020 08:00:04.809	Event 21059	Intrusion started	566043
05.10.2020 08:00:04.809	Event 21058	Intrusion started	566043
05.10.2020 06:55:00.511	Event 21057	SEDOR® alarm suppressed	565428
05.10.2020 06:55:00.511	Event 21056	SEDOR® alarm suppressed	565428

Fig. 2-14

- ▶ If there are **SEDOR®alarm** entries, check the settings in **SeMSy Compact**.
- ▶ Activate **playback** of the required track in **SeMSy Compact**.
- ▶ Activate the checkbox **All Objects** under **Search > Smartfinder > Object Type**.
- ▶ Under **Search > Smartfinder > Events**, activate the checkbox **SEDOR Alarm** or, if necessary, **SEDOR Alarm suppressed**.

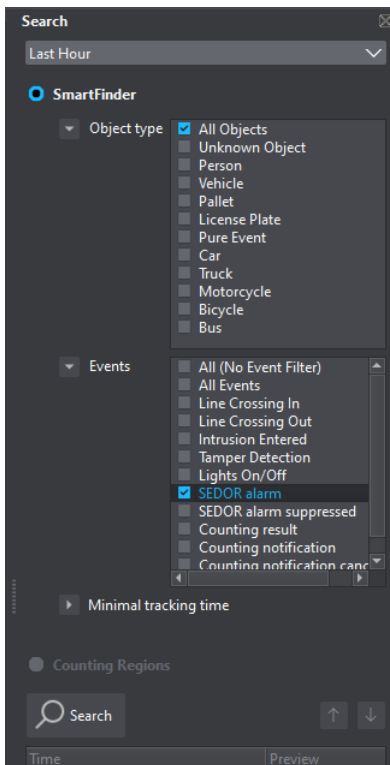


Fig. 2-15

- ▶ Check whether the correct analysis for Dallmeier cameras has been created on the recorder.

If an analysis is created without the VCA being active on the Dallmeier cameras, the analysis is activated for 3rd party cameras which use a different alarm path.

- ▶ Export the **recorder parameters** under **System > System parameters > Save configuration**.
- ▶ Open the file **logs.tar.gz** in the folder **serverroot**.

Name	Größe	Gep:
C01_OpenArea-VCA	2 397 468	
C09_OpenArea-VCA	2 216 001	
C17_FenceRight-VCA	654 854	
C30_OpenArea-VCA	4 071 209	
C32_FenceLeft-Sedor	5 899 159	
C34_OpenArea-Sedor	7 971 628	

Fig. 2-16

All Dallmeier cameras must have the suffix **VCA**. If it says **Sedor**, the camera has been created as a 3rd party camera.

- ▶ In this case delete the corresponding analysis on the recorder under **Recording > Camera / Tracks > Analysis**.
- ▶ Proceed as described in this manual to activate a Dallmeier camera with VCA as analysis.

No alarms are generated- 3rd party camera

Recommendation:

- ▶ Check if the correct event **field contact** has been activated on the **alarm host** (see above).

Possibly the field contact has been deactivated during the analysis.

- ▶ Open **Recording > Cameras / Tracks > Analysis > SEDOR Analysis > Configuration** on the recorder.
- ▶ Make sure that the checkbox **Event Classification** is activated.

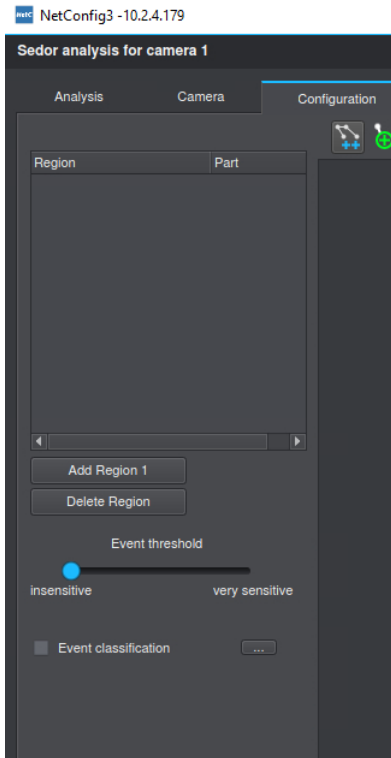


Fig. 2-17

- ▶ Open the **Advanced Settings** dialog with the ... button.

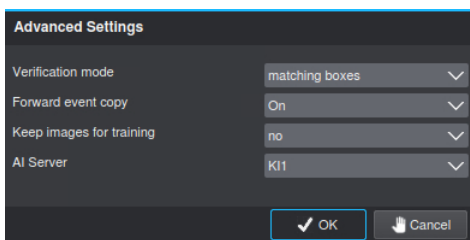


Fig. 2-18

- ▶ Make sure the **Forward event copy** option is set to **On**.

Note: The SEDOR analysis on the Panomera is only permitted with active VCA

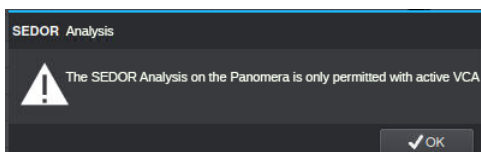


Fig. 2-19

Recommendation:

- ▶ Activate the VCA Settings of the camera as described in this document under “[Recorder Settings \(Net-config/GUI\)](#)” on page 4 and “[Dallmeier Kameras](#)” on page 2.

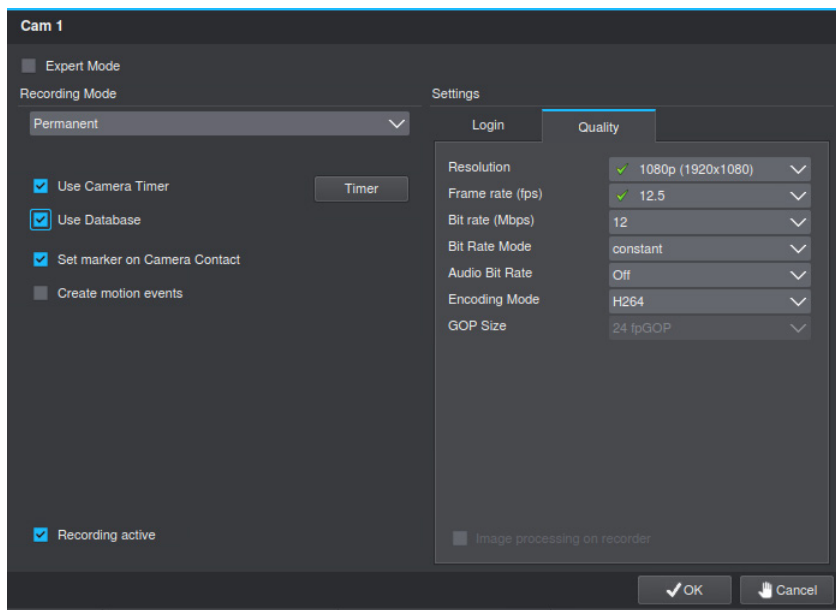


Fig. 2-20

- ▶ In this context make sure that the checkbox Image Processing on Recorder is deactivated.

PANOMERA CAMERAS LACK THE VCA MENU

To make the VCA menu and the corresponding functions available, license **007076** (for B/W4) or **007075** (for B/W8) must be enabled.

This license is included in license **007373/007374** for the **Intruder Analysis** app.

- ▶ Please contact Dallmeier Support to obtain the AI/VCA for the Panomera camera with all modules.

The MAC addresses of all Panomera modules are needed for this

Further relevant documents:

The following documents are available for download on the Dallmeier website

- ds_Sedor_AI-Intruder_Detection_de.pdf
- c_SEDOR_AI_Intruder_Detection_de.pdf
- ho_SEDOR_Analysis_Disarm_de.pdf
- Installation P2000 IPS 10000.pdf