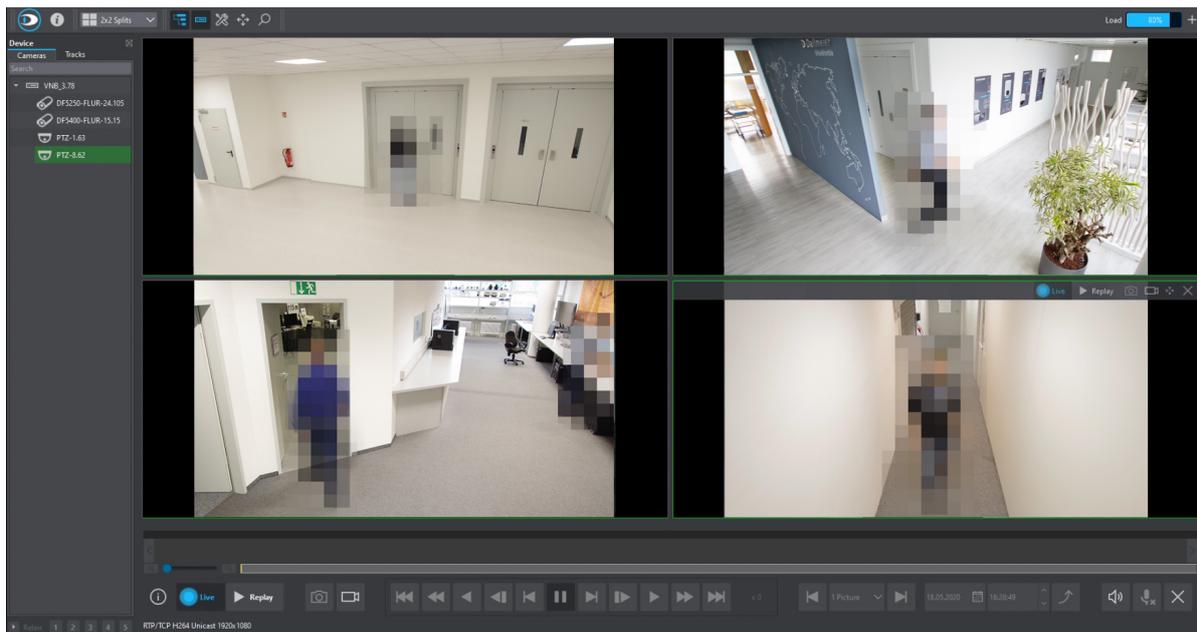# SeMSy® Compact AI Pixelation

SeMSy® Compact function for the display of video streams with pixelated persons
in connection with the analysis of the Pixelation AI Server software based on neural networks

SeMSy® Compact in combination with the Pixelation AI Server Software allows the pixelation of people while displaying a video stream. The function is available for both live images and recordings and can be activated for a defined user group.

Function

SeMSy® Compact enables the simultaneous display of up to four video streams with active pixelation of moving persons. After a video stream (live or playback) is requested from the recording system, it is first forwarded to the Pixelation AI Server Software, which uses a powerful neural network to recognize the persons in the image and makes the correspondingly pixelated video stream available for display almost in real time.

Performance

The Pixelation AI Server Software supports the simultaneous analysis of up to four cameras (Dallmeier or 3rd Party), which deliver a video stream with Full-HD resolution (1920 × 1080 pixels). In each video stream, several persons (up to 100), which are displayed with a minimum size of one fifth of the picture height, can be reliably detected and pixelated. In this context, a frame rate of approx. 23-25 fps can be achieved for each video stream. However, it should be noted that insufficient ambient conditions with poor contrast ratios (e.g. due to fog, low light) reduce the detection performance and that fisheye and thermal cameras are not supported.

Display

When using the AI Pixelation function, the split types 1×1, 2×2 and 1+1 are available for displaying the pixelated video streams. All the usual functions can be used in both live display and playback. However, to ensure data protection requirements, preview images are not displayed for the SmartFinder function.

User Groups

SeMSy® Compact controls the pixelated display of video streams via rights management. First, a user group with the relevant operators is created, which is then deprived of the right to display unpixelated video streams. After an operator in this group has logged in, only pixelated video streams are displayed. In addition, to ensure data protection requirements, this operator cannot create backups and can only store pixelated snapshots. Operators of other user groups can use SeMSy® Compact as usual with unpixelated display after their login.

Licensing

The SeMSy® Compact AI Pixelation function is licensed with a code that is entered on the connected recording system. The recording system also has to have a valid license for the use of comfort functions and maintenance.

Installation

SeMSy® Compact and the Pixelation AI Server Software are installed and operated on a common workstation, which must be equipped with two powerful GPU cards for analyzing the video streams based on the integrated neural network.

System Requirements

Dallmeier Workstation 3 (variant 411) or comparable:

- CPU 8-core 3.8 GHz
- RAM 32 GB
- SSD 256 GB
- HDD 2000 GB
- GPU card 2× GeForce RTX 2080TI
- Operating system Windows 10 Pro

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	License for SeMSy® Appliance
008021	**DLC – SC AI Pixelation (IPS 10000)** License for the use of the SeMSy® Compact AI Pixelation function (pixelation of persons while displaying a video stream), only in connection with the Pixelation AI Server software on an external AI server, only in connection with recording systems with a valid license for the use of comfort functions and maintenance

	AI Software
008015	**Pixelation AI Server Software** Pixelation AI Server Software for the analysis of video streams based on neural networks with a powerful object classification for pixelation of persons during display with SeMSy® Compact, licensing through SeMSy® Compact in connection with a recording system

	AI Workstation	
007472.411		**Workstation 3 Rack-Mount** Workstation, 4 RU rack mount, 8-core 3.8 GHz CPU, 32 GB DDR4 RAM, 1× 256 GB SSD, 1× 2000 GB HDD, 2× GPU card (GeForce RTX 2080TI), 2× power supply (non-redundant), license for Microsoft Windows 10 Pro included

See more.

Dallmeier

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