

# SENSORITY VSA EXPLORER 2018

## VISUAL STRESS ANALYSIS EXPLORER SOFTWARE

SEN-VSAEXP-201803-PMX SERIES



### VSA Explorer

The first of its kind, a multi-sensing non-invasive system for predictive analytics of psychophysiological and neuropsychological human behavior during interrogation and investigation processes.

VSA Explorer system was developed with an emphasis on increasing the efficiency and accuracy of interrogations. By analyzing video materials recorded during interrogation, artificial intelligence algorithms provide a wide range of stress indications and reactions of the interrogated during interrogation.

The product based on the revolutionary and multidisciplinary paradigm for remote unaware analysis of interrogated by using video cameras, which makes the VSA system the most breaking game player on the interrogation market.



## Key Features

- ✓ Deep analysis of recorded video files during the interrogation process. Any recorded video file is analyzed and segmented into a wide range of psychophysiological and neuropsychological parameters over the all recorded time.
- ✓ An easy-to-use stress-segmentation navigation map that includes 8 basic states and levels of behavior of human stress. Segmented navigation map provides an optimized and effective ways for deep exploration with a focus on most important interrogation points.
- ✓ interactive and fast playback of any segment of the video recording including displaying relevant metadata relating to a given time interval. These capabilities allowing to effectively focus only on the suspect time slots of the interrogation.
- ✓ Export capabilities, allowing to export the processed video's metadata to csv files as well as to generated by system PDF report which summarizing useful information for brief review.
- ✓ Interactive video reports. VSA Explorer allows to export any video segment with overlapped metadata which relevant to the focused time scope. Further, these video reports can be displayed at anytime and anywhere.
- ✓ Each processed video file is converted to custom encrypted storage file type. This file type (.vsa) stores encrypted metadata extracted and predicted during the system processing. VSA file can be imported into the VSA Explorer anytime for re-analysis and playbacks.
- ✓ Exploration charts which displaying the most important behavioral data channels including BVP, heartrate, respiration, stress types and a lot of other useful parameters which all together provides a wide range behavioral picture of the interrogated.
- ✓ Flexible and modular UI which allowing you to adapt the software for your preferable requirements of usability. Including enlarging of any data chart and separation of any visual data module to other windows.
- ✓ Compatibility and synchronization with **VSA RecorderX** software. RecorderX is an interactive interrogation recording software that allowing to record video files corresponding to the best quality required by VSA Explorer software.

## Advantages

- ✓ Artificial Intelligence algorithms which makes a high-accuracy prediction based on more than 100 psychophysiological and neuropsychological features extracted from the video files.
- ✓ Product has been developed based on **TLVA** – the world’s first remote multi-sensing technology platform for non-invasive human analysis and behavior prediction. **TLVA** represents an innovative in-house technology, developed by the Sensority.
- ✓ The lack of opportunities to sabotage the interrogation process due to lack of information about the fact that a standard video camera can perform a remote analysis of the behavior of the interrogated.
- ✓ Predictive analytics algorithms are taking into account a part of behavioral parameters related to the subconscious of the interrogated.
- ✓ lack of any sensors and other equipment that is often taken during interrogation. By using Sensority VSA Explorer, the sphere of interrogations is taken to a new level.

## Technical Specifications

WORKSTATION ACCESSORIES		SOFTWARE OPERABILITY	
Suitcase	Pelican Suitcase	Storage Capacity	> 200 Processed Videos
Computer	Lenovo ThinkPad p51	Processing Time speed	~60% From the Video Length
Camera	Sony 4K FDR-AX100 Camcorder	Simultaneous Analysis	1 - Subject
Camera Tripod	SLIK Mini - 2 Tripod	Simultaneous Processing	1 – Video File
Camera HDMI Capture	Magwell USB Capture HDMI 4K Plus	Environment Measures	Lighting, Noise, Subject Size, Face & Eyes Visibility
Hardware Dongle Key	Software & Data protection by hardware dongle		
Video Analysis Software	<b>Sensority VSA Explorer 2018</b> – One user license		
Video Recording Software	<b>Sensority VSA RecorderX 5.0</b> – One user license		

## Preferable Requirements

USE CASE		VIDEO FILE & RECORDING	
<b>Operability Place</b>	Interrogation room or any closed space.	<b>Video Resolution</b>	4K, FHD, HD
<b>Presence policy</b>	Two subjects – Investigator and Interrogated	<b>Video Length</b>	3 minutes and higher
<b>Subject Dynamics</b>	Average stability with face rotation in $\pm 45^\circ$ from the camera	<b>FPS</b>	25 frames per second
		<b>Video Format</b>	AVI, MP4, MOV, MPEG-4, RMF (RecordeX Media Format)
		<b>Compression</b>	Uncompressed or JPEG independently compression is preferable.
		<b>Monitor</b>	15" Color Monitor
		<b>Color Space</b>	RGB, BGR, YUVL, YUV
		<b>Pixel Depth</b>	16 bits per pixel.

  

PHYSICAL ENVIRONMENT	
<b>Distance from camera</b>	Up to 3 meters
<b>Lighting</b>	500 – 1000 lux. LED lighting is preferable
<b>Room temperature</b>	20-24° C
<b>Head/Frame height ratio</b>	At least $\frac{1}{4}$ of frame height.

## ABOUT SENSORITY

Sensority is a video analytics and AI company which provides advanced remote multi-sensing solutions for predicting and analyzing human behavior. Starting with the foundation in 2015, the company developed with a vision of providing an ultimate and revolutionary paradigm for the remote detection of dangerous people through multi-sense remote analysis using standard video cameras. The company targeted its technology to the global security and HLS market for breaking the formed trend of crime and terrorism activity as well as bringing the interrogation processes to the new level.