ViperVision Software

Monitor for Process Control

Windows-based software that provides real-time monitoring, data acquisition and imaging post-analysis of industrial processes

Automate your process with ViperVision

ViperVision connects to all FLIR A-series thermal imaging cameras and Axis visual cameras, as well as some specific models from ICI and AST.

Viper's systems increase efficiency and continuously monitor temperature which helps customers avoid a broad range of potential problems. These problems can be caused by situations such as rapid temperature change to process, overheating of critical components and product non-uniformity.

ViperVision software packages allow for real-time monitoring, data acquisition, and imaging post-analysis of the industrial processes. Automate your process with ViperVision.

FOR YOUR PEOPLE

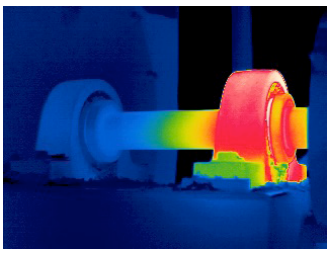
FOR YOUR COMPANY

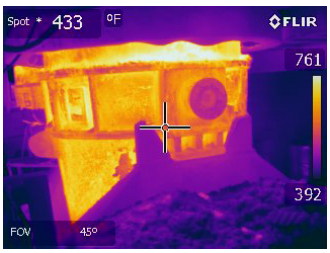
FOR YOUR EQUIPMENT

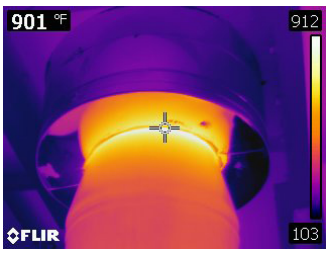
Applications

ViperVision is beneficial for many industrial processes. Some common applications and key benefits include:

- **Critical Asset Monitoring**
  Alarm based on a percentage of pixels being over set threshold
- **Elevated Body Temperature (EBT) Detection**
  Mitigate the spread of illness with pre-screening
- **Fire Prevention and Detection**
  Identify hot spots before fire occurs
- **General Industrial Process Monitoring**
  Automated start/stop of process based on image recognition
- **Hot Spot Detection for Critical Vessels**
  Early detection of refractory breakdown
- **Steel Mill Refractory Monitoring**
  View, analyze, record, and trend critical data with ViperTrack package
- **Substation Critical Assets**
  identify hot spots before critical asset failure







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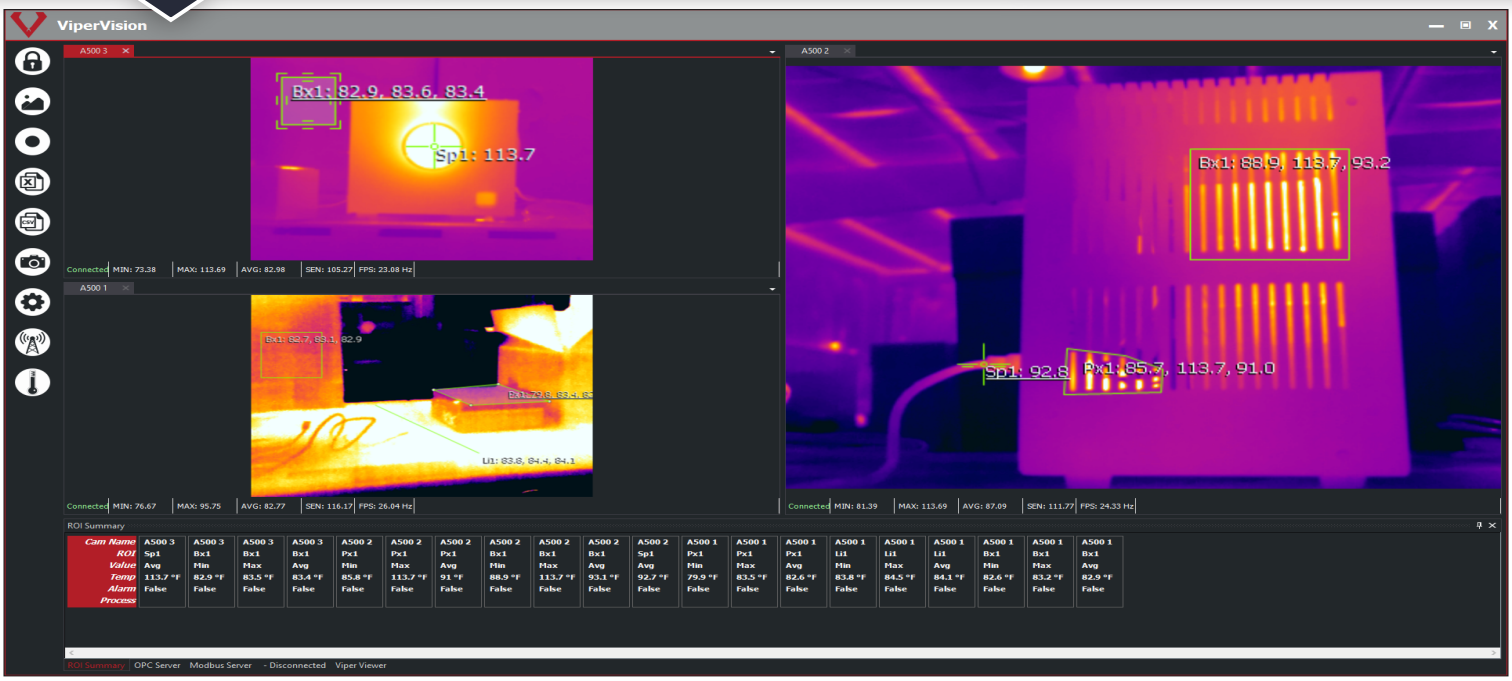
ViperVision Software

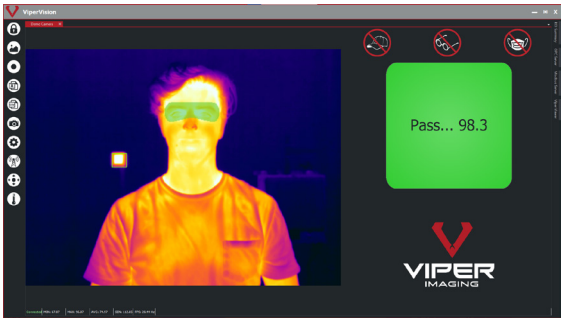


ViperVision Overview

No need to choose between power and ease of use - select the best full-featured software package for your application. ViperVision software supports communication standards for connection to the plant control system including OPC, Modbus, and physical I/Os such as relays and analog outputs. The software will analyze and compare the data against predefined parameters and will trigger an alarm if warranted. These parameters can easily be adjusted based on the specific application needs.

- Camera connectivity (all FLIR A-series, Axis visual cameras, and some AST and ICI models)
- Region of interest (ROI) measurements (50+ per image) and real-time processing
- Feed from up to 32 cameras on a single workstation
- Ability to view remotely via web server - snapshot, video and Excel functionality

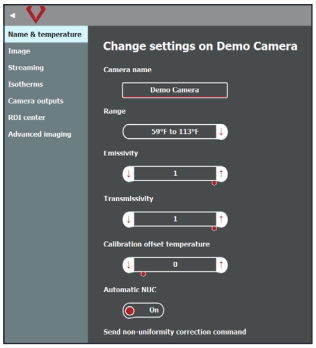
ViperVision EBT is capable of access control integration, works with RFID badge readers, and allows for optional badge printer.



Alarming

- Based on temperature, rate of change and standard deviation
- Based on a percentage of pixels being over set threshold
- Based on the difference between two measurements
- Hot and cold spot detection
- Visual, email, and audible options - each alarm can have its own distinct audio
- Save thermal data on alarm
- Analog in/out and Digital in/out
- PLC communication

Configure with Ease



- Ability to create multiple configurations, even user-specific display settings
- Password-protected interface
- Multiple display configuration tool
- Remote camera function control
- Adjustable range, emissivity, transmission, and background settings
- Adjustable image palettes (color, span)
- Isotherms
- Multiple types of ROI with temperature display
- ROI minimum, maximum, average, and temperature information from every pixel
- Auto-start feature
- Simple right-click option allows for camera-specific actions

ViperVision Software

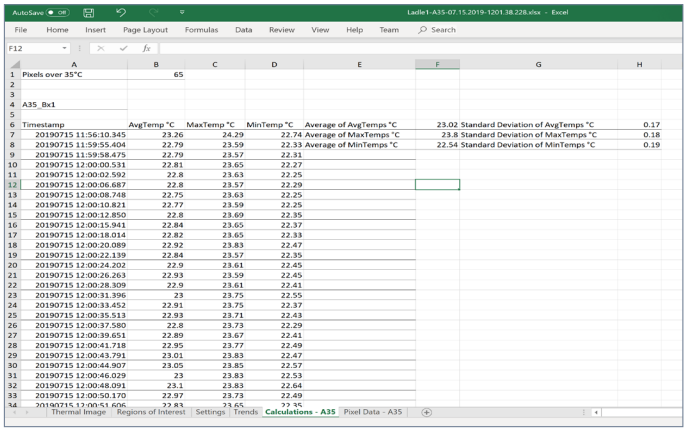
FEATURES & FUNCTIONS

Database Feature

- Automated data storage management
- Save videos and thermal images
- Playback and analyze recorded images/video
- Enhanced post-analysis features within ViperViewer

Excel Report Generation

- Create one report for all cameras
- Reports include standard deviation calculations
- Temperature and alarm data is saved to report

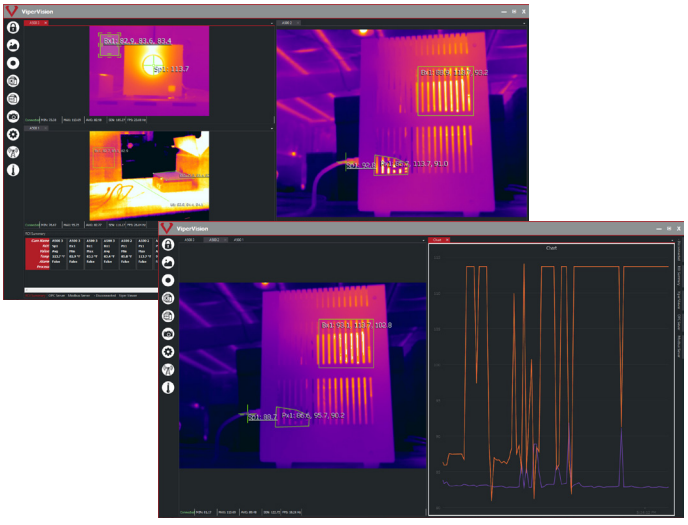


	A	B	C	D	E	F	G	H
1	Pixels over 35°C		65					
2								
3								
4	A35_Bx1							
5								
6	Timestamp	AvgTemp °C	MaxTemp °C	MinTemp °C	Average of AvgTemps °C	23.02	Standard Deviation of AvgTemps °C	0.17
7	20190715 11:56:10.345	23.26	24.29	22.74	Average of MaxTemps °C	23.8	Standard Deviation of MaxTemps °C	0.18
8	20190715 11:59:55.404	22.79	23.59	22.33	Average of MinTemps °C	22.54	Standard Deviation of MinTemps °C	0.19
9	20190715 11:59:58.475	22.79	23.57	22.31				
10	20190715 12:00:00.531	22.81	23.65	22.27				
11	20190715 12:00:02.592	22.8	23.63	22.25				
12	20190715 12:00:06.687	22.8	23.57	22.29				
13	20190715 12:00:08.748	22.75	23.63	22.25				
14	20190715 12:00:10.821	22.77	23.59	22.25				
15	20190715 12:00:12.850	22.8	23.69	22.35				
16	20190715 12:00:15.941	22.84	23.65	22.37				
17	20190715 12:00:18.014	22.82	23.65	22.33				
18	20190715 12:00:20.089	22.92	23.83	22.47				
19	20190715 12:00:22.139	22.84	23.57	22.35				
20	20190715 12:00:24.202	22.9	23.61	22.45				
21	20190715 12:00:26.263	22.93	23.59	22.45				
22	20190715 12:00:28.309	22.9	23.61	22.41				
23	20190715 12:00:31.396	23	23.75	22.55				
24	20190715 12:00:33.452	22.91	23.75	22.37				
25	20190715 12:00:35.513	22.93	23.71	22.43				
26	20190715 12:00:37.580	22.8	23.73	22.29				
27	20190715 12:00:39.651	22.89	23.67	22.41				
28	20190715 12:00:41.718	22.95	23.77	22.49				
29	20190715 12:00:43.791	23.01	23.83	22.47				
30	20190715 12:00:44.907	23.05	23.85	22.57				
31	20190715 12:00:46.029	23	23.83	22.53				
32	20190715 12:00:48.091	23.1	23.83	22.64				
33	20190715 12:00:50.170	22.97	23.73	22.49				
34	20190715 12:00:51.606	22.83	23.65	22.35				

Thermal Image | Regions of Interest | Settings | Trends | Calculations - A35 | Pixel Data - A35

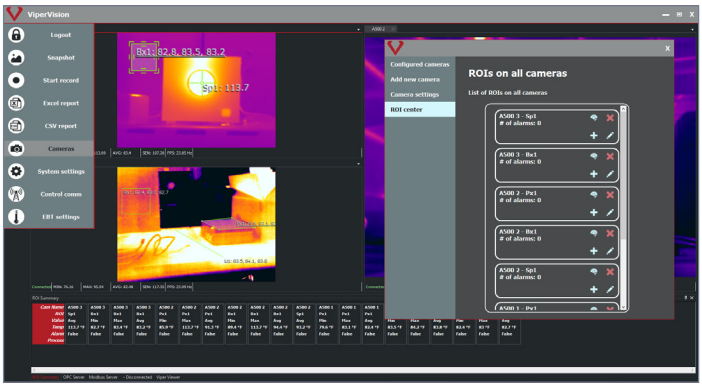
Charting

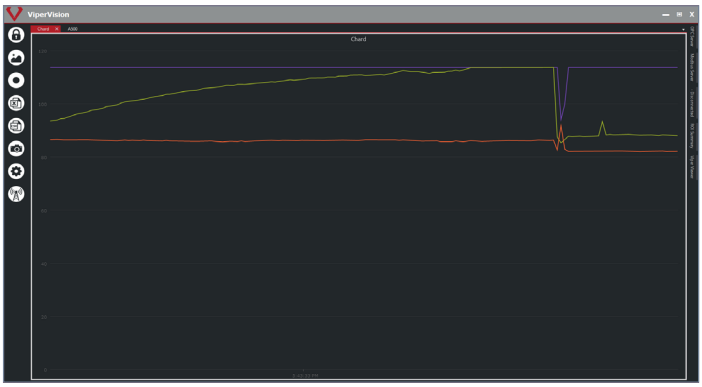
- Customizable charts and graphs
- Display data from different ROIs and different cameras on same chart
- Chart holds 500 data points and updates in real time



Control Communication Functionality

- Alarm
- Temperature output
- Thermal .jpeg files (individual or on interval)
- Record video
- Export with Excel
- System heartbeat
- Part numbers
- Load configuration
- Standard deviation output
- Trigger saving to database
- Archive database
- Freeze image





ViperTrack: This image shows two cameras with ROIs drawn, and a chart displaying trending data from each ROI. The user can zoom in on the chart by hovering over it and scrolling the mouse wheel.

ViperVision Computer Specifications
Please visit our website for the minimum requirements.
Scan QR code, or visit this URL:
viperimaging.com/products/vipervision-software

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ViperVision Package Comparison Chart

	ViperViewer	ViperVision Lite	ViperVision Max	ViperTrack	ViperVision Ultra
Offline viewer for all thermal and visible images	✖	✖	✖	✖	✖
Connects to all FLIR A-series cameras		✖	✖	✖	✖
Connects to Axis visible cameras		✖	✖	✖	✖
Controls for color palette, range, focus		✖	✖	✖	✖
Multiple camera display- customizable		✖	✖	✖	✖
Create custom Regions of Interest (ROIs)- spot, line, ellipse, rectangle, polygon	✖	✖	✖	✖	✖
Record thermal jpeg or video (seq/avi) files	✖	✖	✖	✖	✖
Alarming based on high, low, average, and delta		✖	✖	✖	✖
Email output based on alarm or time		✖	✖	✖	✖
Communications Module- Modbus, OPC, Siemens, Allen Bradley			✖	✖	✖
TimeLapse Module- allows recording over time and playback through ViperViewer			✖	✖	✖
Pan/Tilt controls- on-screen controls, automated routing and connectivity to manual joystick (sold separately)			✖	✖	✖
Database Module- includes automated reporting based on customized trending				✖	✖
On-screen Charting				✖	✖
Standard deviation calculations				✖	✖
Machine Vision algorithms for ROI correction					✖
Elevated Body Temperature Detection (EBT) Module			✖	✖	✖

SYSTEM SOLUTIONS FOR INDUSTRIAL PROCESS MONITORING

Application Engineering Specialists

TeleEye South Africa/GoThermal is a Certified Integrator and leading supplier of FLIR-based thermal imaging systems and industrial process monitoring equipment.

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