<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark of minimum/maximum (hot/cold spot)</td>
<td>For lines and areas</td>
</tr>
<tr>
<td>Input and output of analog/digital values</td>
<td>Via the IO system</td>
</tr>
<tr>
<td>Program interface with customized views</td>
<td>and layout templates</td>
</tr>
<tr>
<td>Configurator and monitor for IO system</td>
<td></td>
</tr>
<tr>
<td>Real-time data saving</td>
<td></td>
</tr>
<tr>
<td>Open saved files and sequences</td>
<td></td>
</tr>
<tr>
<td>Server functionality</td>
<td>For the transmission of live images and alarm states to PYROSOFT Client</td>
</tr>
<tr>
<td>Product switching via IO system</td>
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<td></td>
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<tr>
<td>FFT calculation for ROI lines</td>
<td></td>
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<tr>
<td>Text export</td>
<td></td>
</tr>
<tr>
<td>Video export</td>
<td>(AVI, WMV)</td>
</tr>
<tr>
<td>Defintion of VOI values from calculated ROI</td>
<td>values, e.g.: maximum, average, difference,...</td>
</tr>
<tr>
<td>VOI functions</td>
<td></td>
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<tr>
<td>Functions for image display</td>
<td></td>
</tr>
<tr>
<td>Zoom functions</td>
<td>with auto zoom, full image view, rotation and tilting</td>
</tr>
<tr>
<td>Definition of VOI alarms with fixed or</td>
<td>variable thresholds, teach-in function and hysteresis</td>
</tr>
<tr>
<td>variable thresholds</td>
<td></td>
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<tr>
<td>Display of the visual image</td>
<td></td>
</tr>
<tr>
<td>Definition of VOI alarm combinations (OR/AND)</td>
<td>From calculated VOI alarms</td>
</tr>
<tr>
<td>Display of isotherms</td>
<td></td>
</tr>
<tr>
<td>Alarm saving, alarm logging, alarm text</td>
<td>export</td>
</tr>
<tr>
<td>Correction of emissivity, transmittance and</td>
<td>reflected ambience radiation</td>
</tr>
<tr>
<td>3D display with auto rotation</td>
<td></td>
</tr>
<tr>
<td>Alarm counter, acoustic and visual alarm</td>
<td>display with customized alarm texts</td>
</tr>
<tr>
<td>Integrated report generation with</td>
<td>customized templates for Microsoft® Word</td>
</tr>
<tr>
<td>Online ring buffer (history) for images</td>
<td></td>
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<tr>
<td>2D line image</td>
<td></td>
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<tr>
<td>Filter image with temporal and local filter</td>
<td>functions</td>
</tr>
<tr>
<td>Triggerable difference image display</td>
<td>with selectable reference image</td>
</tr>
<tr>
<td>Lines, circle/ellipse, polygone</td>
<td>(each 1000)</td>
</tr>
<tr>
<td>Compact</td>
<td></td>
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<tr>
<td>Professional</td>
<td></td>
</tr>
</tbody>
</table>

PYROSOFT – Function overview

PYROSOFT: Standard and application specific software
Overview & Features

Software for DIAS infrared cameras in industry and research & development

www.dias-infrared.de
**PYROSOFT Compact, Professional, Professional IO**

*Powerful online and offline software for DIAS infrared cameras*

**PYROSOFT Compact, Professional and Professional IO** are multilingual and universal thermal imaging software applications for all DIAS infrared cameras PYROVIEW and PYROLINE running under Windows®.

**PYROSOFT Compact** is the free software version that is delivered with every DIAS camera. Setup the online data acquisition and automatic data storage of your DIAS camera, open files and sequences, analyze regions of interests, create reports – all this is possible with PYROSOFT Compact.

**PYROSOFT Professional** is the right choice for complex measurement projects with advanced requirements for data analysis. Versatile possibilities for defining regions and alarm values, trend display, multi-report function and much more allow the convenient and easy use in research and development.

**PYROSOFT Professional IO** has additional functions for process integration. Trigger signals, alarm states and measured values can be input and output via an I/O system (PROFIBUS, PROFINET, WAGO, Modbus, OPC, TCP socket or text file). Use PYROSOFT Professional IO to connect your DIAS camera to your process.

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**Acquisition + Display**

You can customize the PYROSOFT program interface by using the versatile views and layout templates. The multi-document structure of PYROSOFT Professional and PYROSOFT Professional IO enables analysis of data from multiple cameras or saved files simultaneously.

Camera measurement data is transferred in real-time via the Ethernet interface to the host PC. On the PC, this data is analyzed by the PYROSOFT software and saved if necessary. Integrated buttons for operation of the camera’s motor focus allows convenient focusing of your DIAS camera to the measurement object.

Choose between different color scales for the display of the thermal image in °C, °F, °K or as radiation values. The temperature range displayed in the image is fully adjustable with auto dynamic or manual temperature. The user can also zoom into a region in the displayed image in order to examine fine details using the zoom function.

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**Features**

- Customizable display of the thermal image
- Various color bars and isotherms display
- Auto dynamic and manual scaling of temperature scale

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**PYROSOFT Compact, Professional, Professional IO – Standard and analysis software**

**Powerful online and offline software for DIAS infrared cameras**

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Analyze + Control

For data analysis of local regions (Regions Of Interest = ROI) points, lines, rectangles, circles/ellipsis and polygons are all available. Calculate hot and cold spots within the ROIs, select specific values of emissivity, transmittance and ambient temperature for every ROI and display histograms and automatic partitions within the ROIs.

Define values (Values Of Interest = VOIs) from calculated ROI minima/maxima/average values or other values (e.g. histogram, spot, FFT) and display them as temporal trend. Specify alarms with fixed or variable thresholds and alarm combinations to detect critical temperatures immediately and display them offline and online, save and log them.

Analyze dynamic processes by using reference and difference images, filter images and 2D line images, detect temporal trends of temperature distributions on their measurement objects.

By using the configurable IO system in PYROSOFT Professional IO, triggers and reference values can be input, and measured values and the alarm states can be output for process control.

Evaluaton + Documentation

Evaluate with the integrated data player recorded sequences, cut and export them as single files, as text, bitmap or video. Derive from your offline evaluation online document templates for recurring measurement tasks. Create album files from different recordings and multi-reports for Microsoft Word with thermal images, result lists of the calculation of ROIs and VOIs, profile and trend charts, histograms, difference images and many more objects.

Generate customized report templates for recurring reports so that they can be generated easily and edited as needed.

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Features

- Customizable display of the thermal image
- Various color bars and isotherms display
- Auto dynamic and manual scaling of temperature scale

ROIs: points, lines, rectangles, circles/ellipsis, polygones
- Calculation of hot and cold spots
- Reference, difference, filter and 2D line images
- Definition of VOIs from ROI values
- Trend, histogram and profile charts
- Alarm functions

Features

- Customizable display of the thermal image
- Various color bars and isotherms display
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Features

PYROSOFT Compact, Professional, Professional IO – Standard and analysis software

Powerful online and offline software for DIAS infrared cameras
**Analyse + Control**

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### PYROSOFT – Function overview

#### User interface
- Multilingual software for Windows® (from version XP)
- Program interface with customized views and layout templates
- Multi document structure for multiple documents or cameras
- Use of document templates

#### File functions
- Open saved files and sequences
- Real-time data saving
- Bitmap export (BMP, JPG, PNG)
- Video export (AVI, WMV)

#### Functions for image display
- Choice of color bars and scaling including autodynamic
- Zoom functions with auto zoom, full image view, rotation and tilting
- Display of the visual image
- Display of isotherms
- 3D display with auto rotation

#### Analysis functions
- Correction of emissivity, transmittance and reflected ambience radiation
- Calculation of the emissivity for a pixel from a target temperature
- Triggerable difference image display with selectable reference image
- Filter image with temporal and local filter functions
- 2D line image
- Online ring buffer (history) for images

#### ROI functions (‘Region Of Interest’)

<table>
<thead>
<tr>
<th>Points</th>
<th>5</th>
<th>1000</th>
<th>1000</th>
<th>1000</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lines</td>
<td>1</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Areas (rectangle, circle/ellipse, polygone)</td>
<td>1</td>
<td>each</td>
<td>1000</td>
<td>each</td>
<td>1000</td>
</tr>
</tbody>
</table>
- Mark of minimum/maximum (hot/cold spot) for lines and areas
- Specific correction of emissivity, transmittance and ambient temperature within a ROI
- Self adjusting SUB-ROI with automatic splitting
- Histogram and spot calculation
- FFT calculation for ROI lines

#### VOI functions (‘Value Of Interest’)
- Definition of VOI values from calculated ROI values, e.g.: maximum, average, difference,...
- Trend display of VOI values
- Definition of VOI alarms with fixed or variable thresholds, teach-in function and hysteresis
- Definition of VOI alarm combinations (OR/AND) from calculated VOI alarms
- Alarm saving, alarm logging, alarm text export
- Alarm counter, acoustic and visual alarm display with customized alarm texts

#### Report function
- Integrated report generation with customized templates for Microsoft® Word
- Multi report for album files of multiple documents

#### Functions for process interface, industry use, server/client connection
- Input and output of analog/digital values via the IO system (PROFIBUS, PROFINET, WAGO, Modbus, OPC, TCP socket, text file)
- Configurator and monitor for IO system
- Management of products and users
- Product switching via IO system
- Server functionality for the transmission of live images and alarm states to PYROSOFT Client
- Program and test of the stand-alone functionality of a camera
PYROSOFT – Function overview

Mark of minimum/maximum (hot/cold spot) for lines and areas

Multilingual software for Windows® (from version XP)

Input and output of analog/digital values via the IO system

Functions for process interface, industry use, server/client connection

Multi report for album files of multiple documents

Specific correction of emissivity, transmittance and ambient temperature within a ROI

Program interface with customized views and layout templates

Configurator and monitor for IO system

Self adjusting SUB-ROI with automatic splitting

Open saved files and sequences

File functions

Use of document templates

Multi document structure for multiple documents or cameras

Real-time data saving

Server functionality for the transmission of live images and alarm states to PYROSOFT Client

Product switching via IO system

Histogram and spot calculation

FFT calculation for ROI lines

Choice of color bars and scaling including autodynamic

Functions for image display

Trend display of VOI values

Zoom functions with auto zoom, full image view, rotation andtilting

Definition of VOI alarms with fixed or variable thresholds, teach-in function and hysteresis

Display of the visual image

Definition of VOI alarm combinations (OR/AND) from calculated VOI alarms

Display of isotherms

Alarm saving, alarm logging, alarm text export

Correction of emissivity, transmittance and reflected ambience radiation

Analysis functions

3D display with auto rotation

Alarm counter, acoustic and visual alarm display with customized alarm texts

Calculation of the emissivity for a pixel from a target temperature

Integrated report generation with customized templates for Microsoft® Word

ROI functions (Online ring buffer (history) for images

Filter image with temporal and local filter functions

Triggerable difference image display with selectable reference image

Lines

Areas (rectangle, circle/ellipse, polygone)

Professional

Professional IOAutomationMultiCamCamZone

We are certified for many years according to ISO 9001

Technical Änderungen vorbehalten. Technical details are subject to change.19.04.16