User manual

Eximio

Operator interface

IntuVision™

Versionsnummer: 4.0.0.12

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1 Content

2 Document guide

For easier identification in the documentation, the document types are represented with symbols and colours, *Figure 1*.

Customised documentation (CD)

Customised information such as application drawings, piping drawings and wiring diagrams.

System description (SD)

General description of the system.

Product description (PD)

Information about the product such as function, technical data, spare parts and installation.

Installation description (ID)

Information on how the equipment is to be installed.

User manual (UM)

Information about how to manage the system and trouble shooting.

Maintenance manual (MM)

Information about how to maintain the system.

Figure 1

The actual symbol is found in the upper right corner of the document. The document type is shown in the document's footer. *Figure 2* shows an example of a product description (PD).

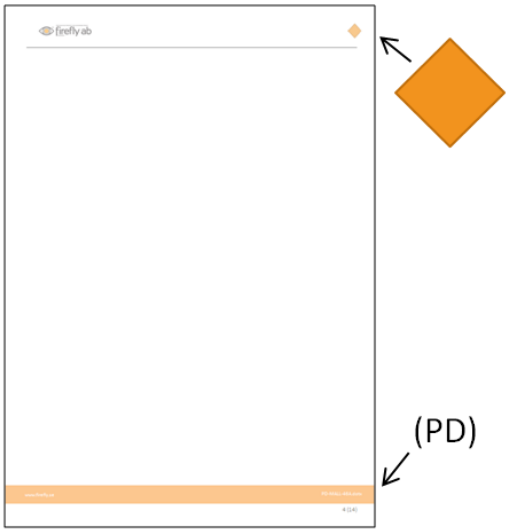


Figure 2

3 User manual Eximio IntuVision™

All screenshots in this document is in English. Use the IntuVision interface on your local Eximio control unit with preferred language as a complement to this manual.

3.1 Symbols

The system's overall view is displayed after start-up. Zones and all different symbols and appearance are presented in *Figure 3* and *Table 1*.

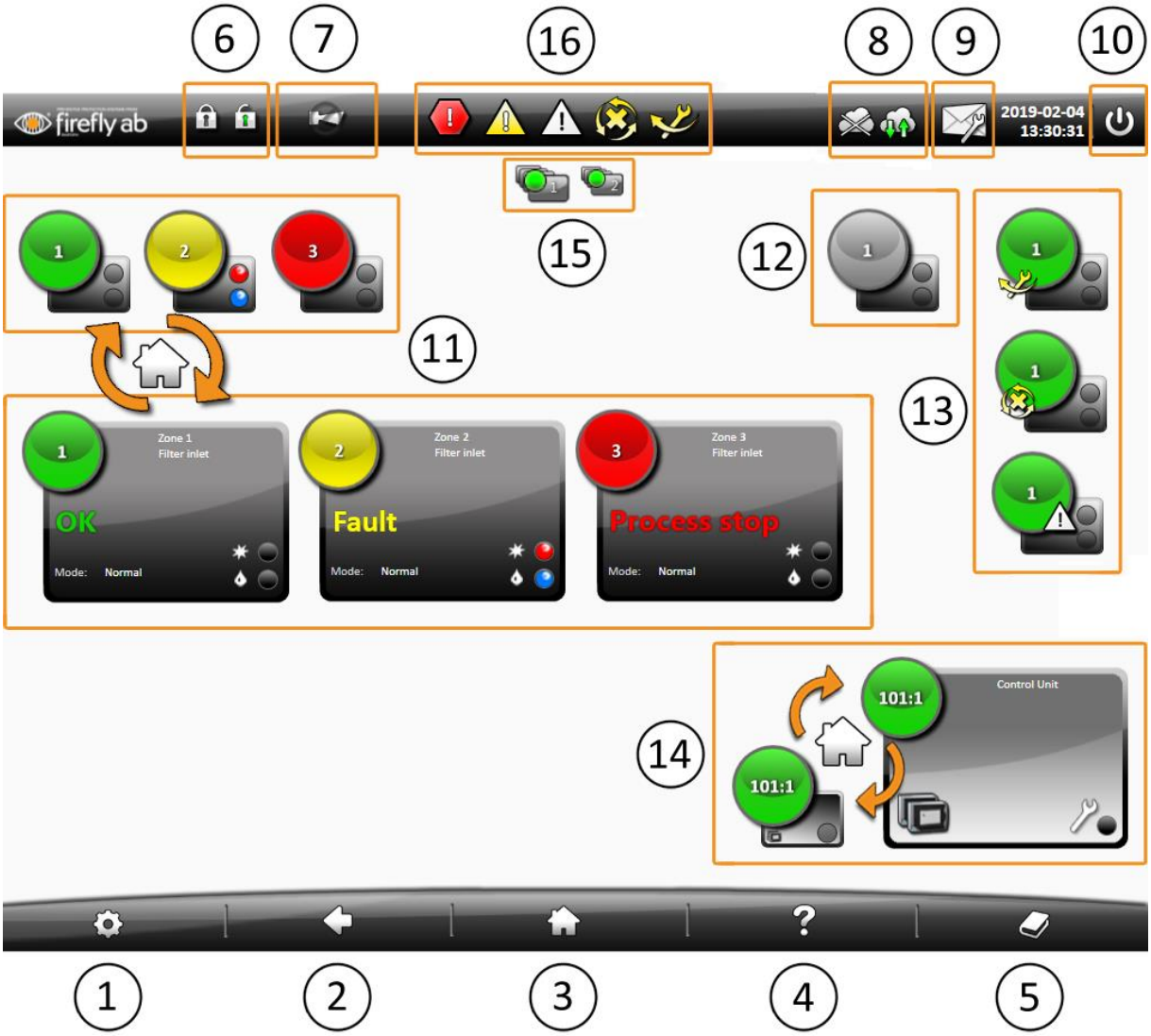


Figure 3

	ICON/SYMBOL	Description
1	Settings	System settings
2	Back	Displays the previous screen view.
3	Home	Toggles between small and medium Zone views.
4	Help	The help view describes the header and footer buttons, equipment, zone views and log.
5	System event log	Event log for the entire system. In the system event log, filtering of the various events can be made, and desired time interval specified.
6	Lock	System operator interface locked System operator interface unlocked
7	Sounder unit	Mute sounder unit
8	Network connection	Disconnected Connection OK
9	Message	Service message - System service required
10	Screen saver	Blanks screen. Automatic screen savers can be configured in *Settings*.
11	Zone	Presents zone information. Green/OK: No active faults, operating mode *Normal*. Yellow/Fault: Fault on connected equipment. Red/Process stop: Process stop signal active. Red light flashing indicates detection. Blue light flashing indicates an output for action is active.
12	Zone disconnected	No connection with zone
13	Zone service Zone deactivated Zone warning	The yellow wrench and arrow symbol indicates a zone is set to service mode. The yellow x and arrow symbol indicates a zone is set to deactivated mode. The white warning triangle indicates a warning in the zone.
14	System view	Access complete system view with connected zones.
15	Pages	Change between zone display pages
16	Zone/system states	These symbols show different system-/zone states. They represent alarm/process stop, fault, warning, deactivated and service. Pressing on a lit symbol will display the active event window for events in the system which requires an action, for example, acknowledgement of a fault.

Table 1

3.2 Detailed zone view

Figure 4

1. Zone information.
2. Connected equipment (*Figure 6*).
3. Event management, operation and service.
4. Active events for the zone.
5. Displayed zone/Change zone

(1) Zone information

	Zone designation.
Colour/Text:	The zone's status is displayed with both colour and text:
	Green: No active faults, operating mode *Normal*.
	Yellow: Fault on connected equipment.
	Red: Process stop signal active.
	The white warning triangle indicates a warning in the zone.
	The yellow symbol to the left indicates that the zone is set to service mode.
	Zone symbol with zone number.
Text to the right:	Zone's name.
Operating mode:	*Normal*, *Service* or *Deactivated* displays the zone's current operating mode.
	Red indicates detection.
	Blue indicates that an output for action is active.

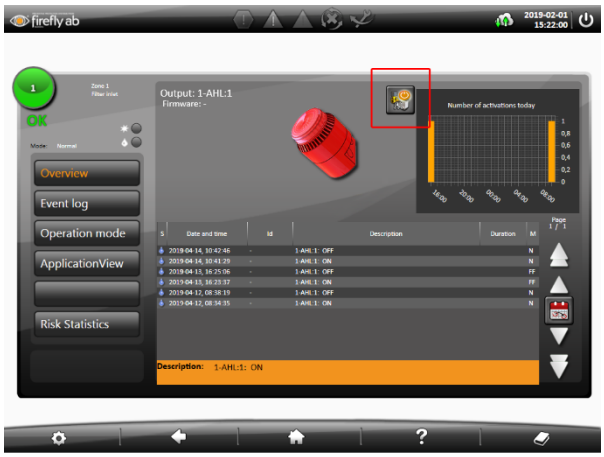
(2) Connected equipment/zones - Overview

Green:	No active faults, operating mode *Normal*.
Yellow:	Fault on connected equipment in the zone / Not initialised, no contact with the equipment in the zone.
Red:	Process stop signal active.

3.3 Detailed equipment view

Figure 5

1. Equipment name, information and additional parameters.
2. Equipment event log.
3. Detection diagram, operation and service and spark counter.
4. Equipment illustration.
5. Set event time interval.



- Reset active output *(Figure 6)*

Figure 6

3.3.1 System view

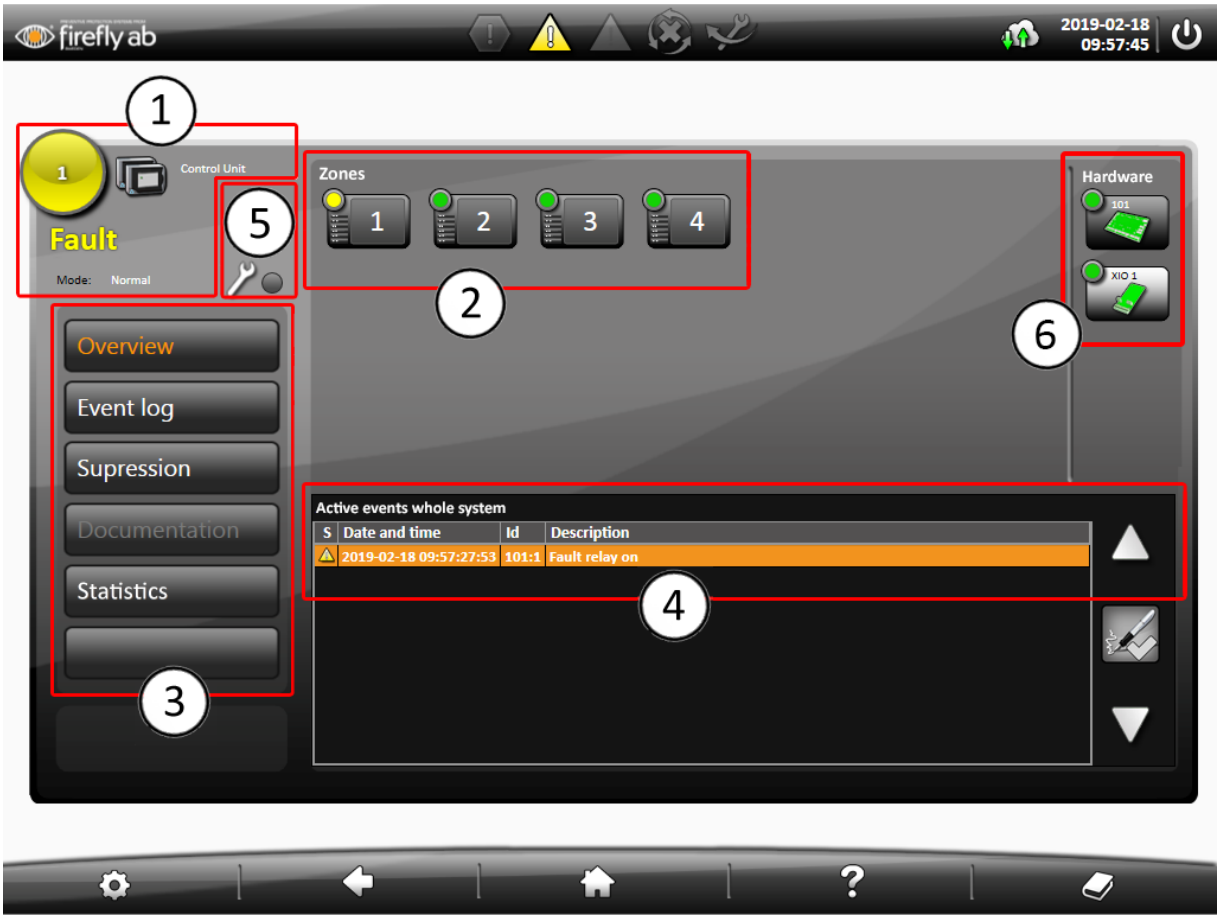
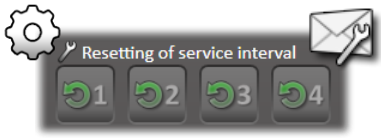


Figure 7 System view

The system view is divided into the following areas (*Figure 7*):

1. System information and system symbol.
2. Connected zones.
3. Event management.
4. Active events for the system.
5. Service required. Orange is lit when this system service is required. A service message icon appears in the header which contains measures for servicing the system. Once these steps have taken place, go to *Settings* and reset current service interval, refer to *Figure 25*.



6. Hardware located inside the actual control unit (motherboard, batteries, power supply and expansion card with additional inputs (“XIO”)).

3.4 Event management, operation and service

3.4.1 Overview

The overall view contains a list of active, unacknowledged zone events. Warning, fault, and process stop are all events which result in an event in the active event list *(Figure 8)*.

3.4.1.1 Warning

A warning triangle in the zone symbol is displayed in the event of warning. The zone symbol is green, but in the list of active events a warning symbol is displayed. The white triangle in the header informs about unacknowledged events. An event is displayed in the event list for the zones, *Figure 8*. The overview of the equipment displays which equipment in the zone is affected.

Figure 8 Event for warning on digital input

3.4.1.2 Fault

In the event of a fault on the equipment the status colour on the zone symbol changes to yellow and *Fault* is displayed in the zone information and the yellow triangle is lit on the header. The triangle informs about unacknowledged events. When a fault is displayed, a start interlock relay in the control unit is activated (*Figure 9*).

Figure 9 Event for detector fault

The system view is divided into the following areas (*Figure 9*):

1. Current zone fault display.
2. Equipment fault.
3. Event acknowledgement.
4. Open active events window, *Figure 13*.

3.4.1.3 Process stop

In the event of a process stop the zone symbol becomes red and *Process stop* is displayed in the zone information (1). A timer counts down a pre-set duration and when it reaches zero the process stop can be reset (2), *Figure 10*. The red hexagon symbol in the header informs about an unacknowledged process stop (3). A process stop event is displayed in the zone's event list and the status symbol is red (4). The overview of the equipment displays which equipment in the zone is affected (4). When a process stop is displayed, a process stop relay in the control unit is activated (4).

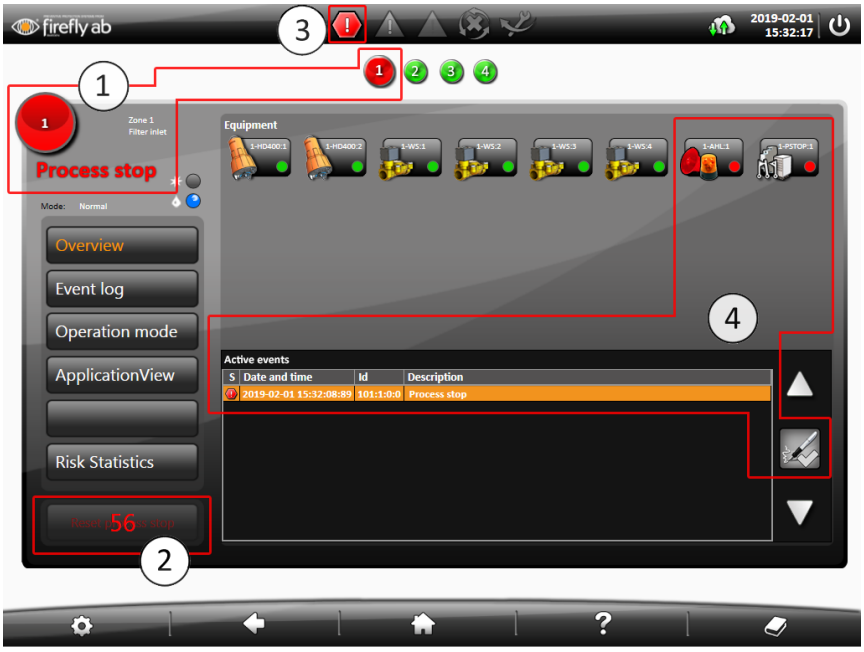


Figure 10 Process stop active

3.4.1.4 Guide for resetting process stop

To reset the system after a process stop:

1. Check the process for the cause of the process stop.
2. Rectify the fault in the process.
3. Reset the process stop in the current zone. This is conducted in *the detailed zone view*. Resetting the process stop make the relay drop and enable restart of the process.

3.4.2 Acknowledgment of event

An active event should be rectified and thereafter acknowledged. Zone related events are acknowledged in the *Detailed zone view*, *Figure 11* while system related events are acknowledged in the system view, *Figure 12*. When the event has been rectified the status colour of the event changes to green and the event can be acknowledged. Acknowledgment is done by moving the orange highlighted event row with the up and down arrows and then pressing on the acknowledgement symbol (1), *Figure 11*. The other alternative is pressing the symbol (2), in *Figure 12*, and acknowledge the event in the "Active event window" (*Figure 13)*. The event then disappears from the list.

Figure 11 Acknowledgment of an event in a zone

Figure 12 Acknowledgment of a system related event

3.4.2.1 Active event window

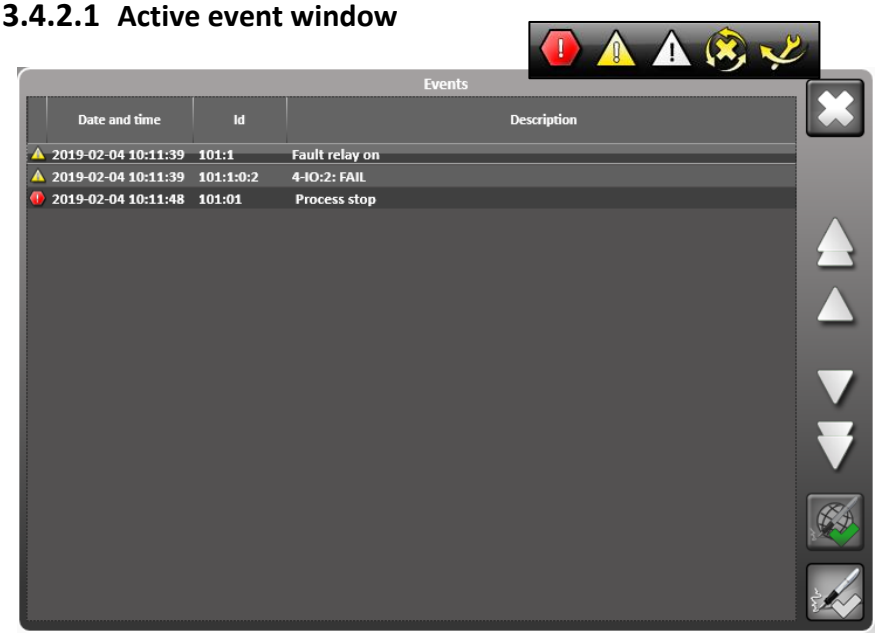


Figure 13 Acknowledgement of events in the "Active event window"

- Acknowledge all events **NOTE!** Only to be used when all events in the list have been rectified.

3.4.3 Operating mode

Normal:	Use during normal operation, *Figure 14*.
Service mode:	Use during test and service of the system.
Deactivate:	Use when all outputs in a zone needs to be deactivated.

3.4.3.1 Operating mode - Normal

Figure 14

When changing the operating mode to *Service* or *Deactivate* the following occurs:

- A dialog box opens where the change needs to be confirmed.
- The start interlock relay generates an event.
- An event is displayed in the list of active events.
- A symbol is lit on the header is displayed for informing a zone is in service/deactivated mode.

3.4.3.2 Operating mode - Service

Operating mode *Service* is used during test and for system service. By pressing the buttons, the outputs can be activated or deactivated, *Figure 15*. When an output relay is set to *Off* the output will not be activated during any detection in the selected part of the system.

Figure 15

Figure 16

Service - System view

- The start interlock relay generates an event.
- One or several zone/zones are not in operation mode *Normal*.

Figure 17

Service mode - Deactivate

When operating mode *Deactivate* is selected all the outputs in the zone are switched off.

Figure 18

Figure 19

When operating mode *Deactivate* has been selected, the following events are displayed in the system event list, *Figure 20*:

- The start interlock relay generates an event.
- One or several zone/zones are not in operation mode *Normal*.

Figure 20

When the operating mode is reset to *Normal*, the symbol in the header becomes inactive, *Figure 21*.

Figure 21

3.4.4 Suppression of sounder unit

In this menu you can deactivate the output, which the sounder unit is connected, up to 240 hours, *Figure 22*. This stops sounder units and sirens from sounding and flashing.

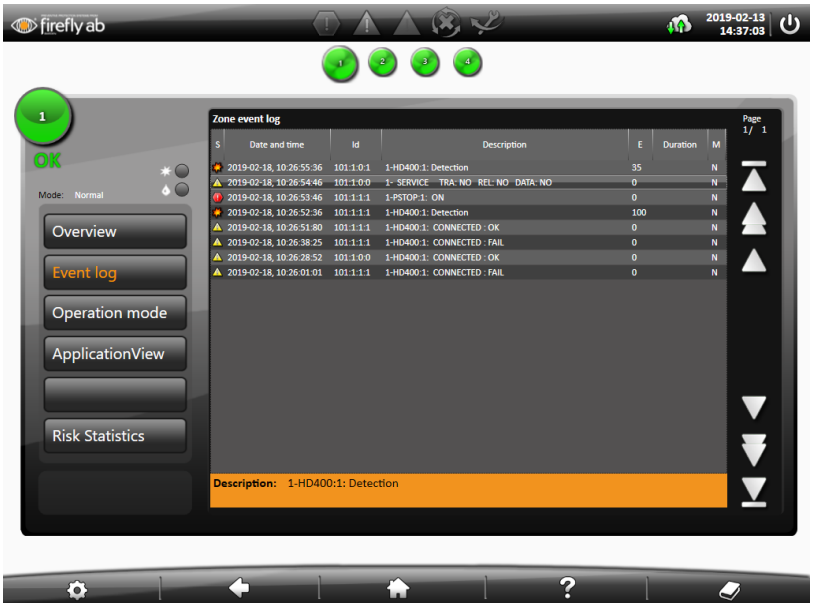
Figure 22

3.4.5 Zone event log

For each event the following is displayed:

S (*Status*): Status/event symbol. See below

M (*Operating mode*): Displays whether the zone was in operation mode *Normal* (N), *Service* (S), *Deactivate* (D) or *Firefly AB Service* (FF) when the operation mode was changed.



Status/event symbols

- Detection
- Extinguishing
- Warning
- Process stop
- Info
- Fault

Figure 23

3.4.6 System event log

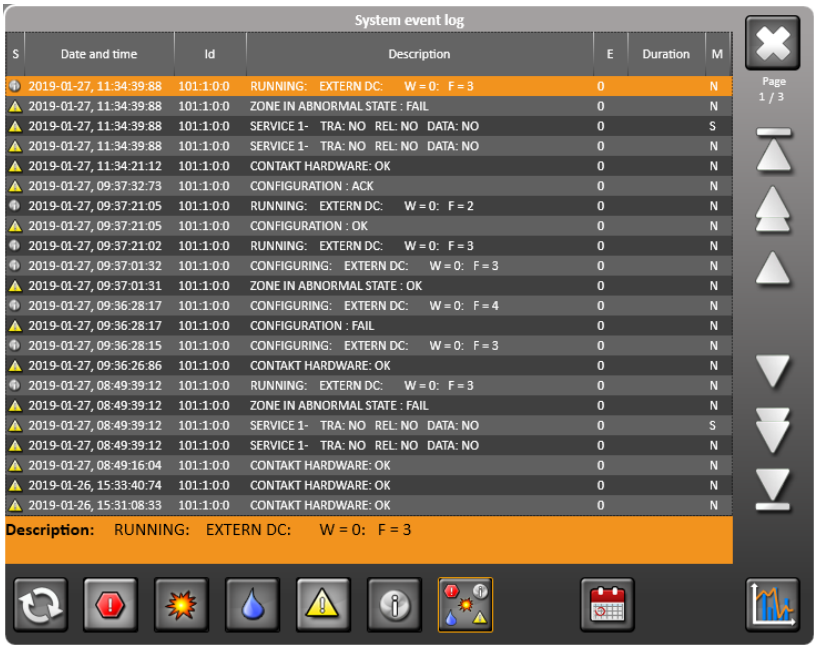


Figure 24

Filtering symbols

 - Refresh event log

 - Process stop

 - Detection

 - Extinguishing

 - Fault

 - Info

 - Display all

 - Choose time and date

 - Risk statistic (Add-On, Contact Firefly AB for information)

3.5 Settings

NOTE! Changed settings only apply when saved.

 Save changes

 Cancel

 - Restart control unit

 - Enable Autostart of Control unit IntuVision

Figure 25

Figure 26

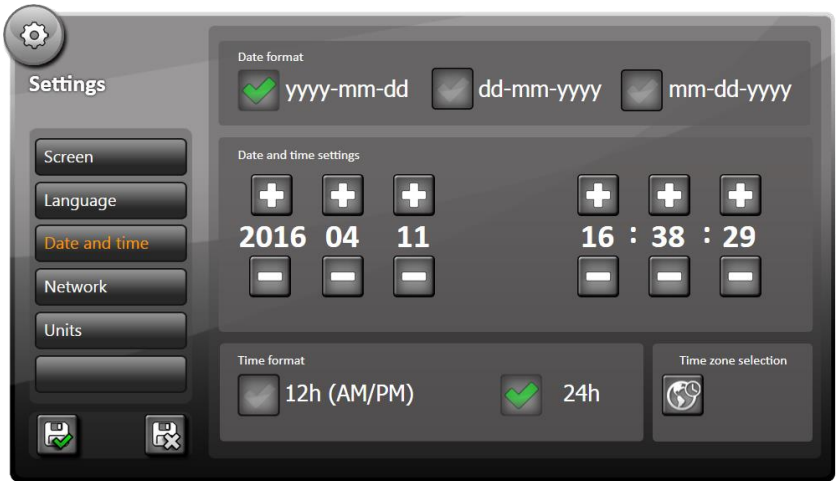


Figure 27

Figure 28

Figure 29

Figure 30

Figure 31

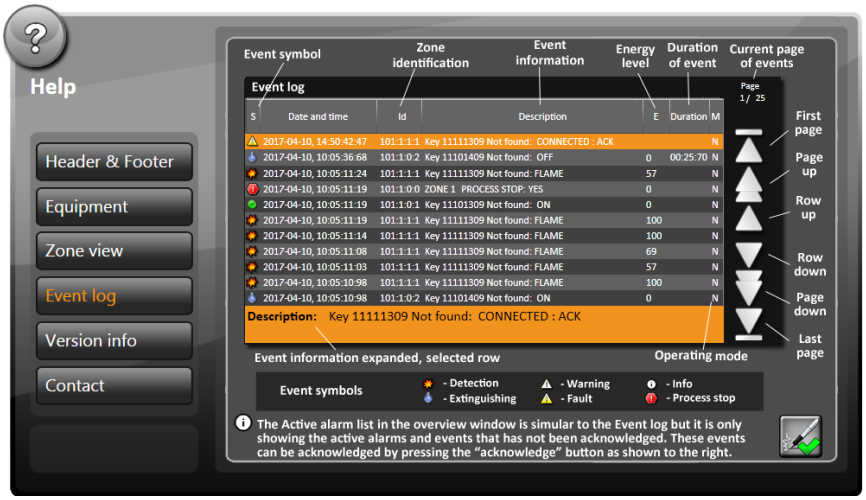


Figure 32

Figure 33


Help
Header & Footer
Equipment
Zone view
Event log
Version info
Contact
firefly EXIMIO
IntuVision™
E-mail: servicesupport@firefly.se
Home page: www.firefly.se
Phone: +46 0(8) 449 25 00

Figure 34

3.6 Use of system-specific equipment

3.6.1 Use of Multi-Gas Detector (MGD)

When a detector of type MGD is connected, a graph is shown for the concentration of the present gas components (*Figure 35*). When the total value of these gas components exceeded alarm limits for pre-alarm and alarm and the classification is correct, this will be visualized in the chart. The window can be set to display the last 2, 12 or 24 hours. The chart is accessed by pressing the MGD icon in the overview for the zone in which the MGD-detector is connected.

Figure 35 Gas component chart

3.6.2 Resetting a Deluge Valve

When a Deluge valve has been triggered and closed one must wait until the process stop countdown timer has ended. Reset the process stop and then reset the valve by first pressing the miniature Push-button icon in the overview window (4-RST:2, *Figure 36*), and then the "I/O"-symbol in the Detail view for the Push button input (*Figure 37*).

Figure 36

Figure 37

3.6.3 Use of analogue sensor

When using an analogue sensor, such as a temperature sensor, a graph is presented where temperature data is displayed and can be filtered at different time intervals.

- Zoom chart

- Show live chart

- Set date/time interval

- Refresh chart

Figure 38

3.6.4 Customised background view

A customised schematic background can be shown for easier access and more visual overview of the different protection zones.

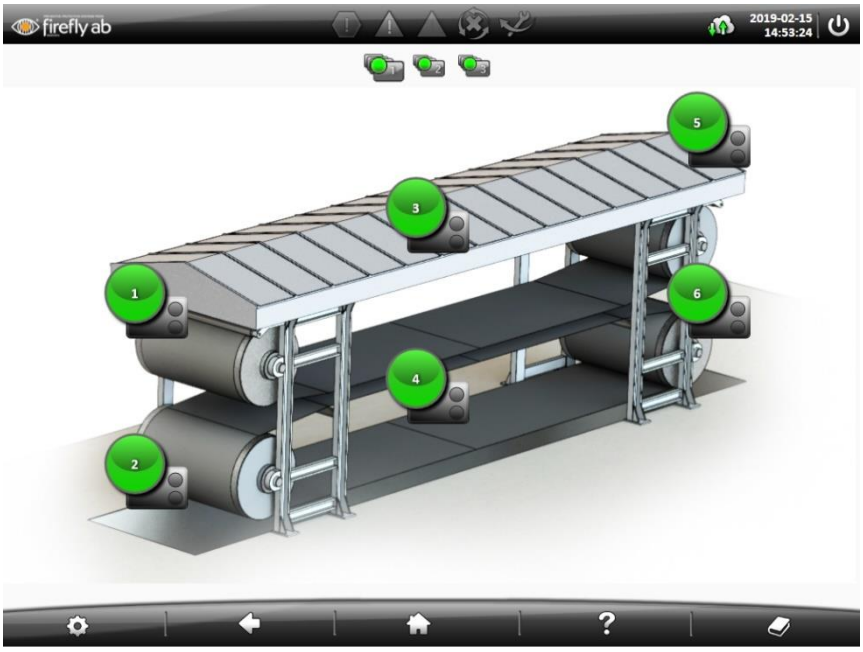
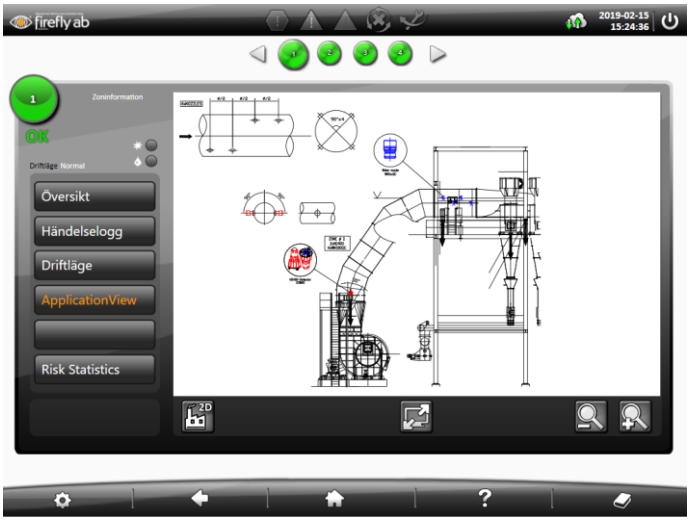


Figure 39

3.7 Application View

ApplicationView™ can be used to display process pdf-drawings on the IntuVision™ control unit.



- Show 2D drawing
- Show full screen
- Zoom in
- Zoom out

Figure 40

3.8 Trouble shooting

3.8.1 Fault

1. Press on the zone which is highlighted in yellow. The event list in the overall view specifies the equipment with faults.
2. Rectify the fault.
3. When the fault has been rectified the event should be acknowledged in the zone view and if necessary also in the system view.

3.8.2 The fault does not disappear despite acknowledgment

The fault has been rectified and acknowledged, but the yellow triangle still appears in the header.

1. Switch to system view and check whether there are rectified unacknowledged events in the list.
2. Select the row and acknowledge the event.

Some faults should also be acknowledged on the system view for the fault status to disappear.

The fault cannot be rectified and acknowledged, and still appear in the “Active event-list”

1. Check the time and date - If they don´t match, set them and try to acknowledge again.
2. If the events are still active - Reboot the computer.
3. A system configuration has been updated without clearing the old event log.

The system clock can be set incorrect due to extended power failure.

3.8.3 IntuVision™ does not start after power failure

1. Open the control unit with a key.
2. Restart the control unit via the *ON/OFF* button on the motherboard.
3. IntuVision™ will start automatically.

3.8.4 The screen is black

1. The screen saver has been activated. Press the screen to switch it on.
2. Check that the control unit has power supply.
3. Restart the program. Refer to *3.8.3 IntuVisionTM does not start after power failure*.

3.8.5 The control unit shows "The detector is not connected," but detector glows green

1. Check the cable connection from the detector to its terminal in the control unit. Any of the conductors may be connected incorrectly.

   Correct connection of the power supply conductor to the detector will flash blue although other leaders are incorrectly connected.

3.8.6 Changing names of zones and equipment

All name changes of zones and equipment shall be done by Firefly AB's service engineers at the commissioning or remotely by Firefly AB. Contact Firefly AB Service/Support for information.

3.8.7 No contact with CAN

Repeated "No contact with hardware"-message despite several reboots and correct connection of the equipment.

1. The TRM- and SVC terminal are malfunctioning. Try shutting down the computer with the ON/OFF-button and then restart it. If the problem still appears - Contact Firefly AB Service/Support.

3.8.8 Starting the system event log seems to not responding

1. When opening the system event log the loading sequence can be delayed - When completed, the functionality will be restored.
   When the event log is full, a clean-up sequence will automatically initiate starting with the oldest events.

3.8.9 Wrong date and time in Event log and unacknowledged faults after a power failure

1. If a system runs on battery power for so long that it depletes the battery and begins to restart there is a risk that the computer’s internal CMOS-clock will get wrong date and time. The solution is to check date and time and correct any faults as soon as possible after a power failure.

3.8.10 Extinguish symbol seems to be malfunctioning

1. If the control unit and IntuVision starts while the system is extinguishing the extinguish symbol will not work until the next detection/extinguish cycle.

3.9 Contact

Please contact Firefly AB Service support for system support.

4 Appendix

4.1 Eximio event list

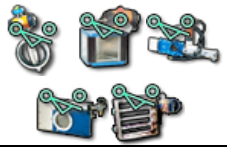
Table 2 display all system events together with event generator and its location. *Table 3* display corresponding event symbols. Event messages generated from detectors, inputs and outputs will also contain the name/ID of that equipment. For example, if detector HD400:1 Is reporting a fail in optical self-test, the event generated will be: *HD400:1 – Detector self-test fail*

Event message	Event generator	Event description	Appears
CONNECTED: FAIL	Detector	Detector not responding	Zone
Detector base type fail	Detector	Wrong base type of detector connected	Zone
Detector power fail	Detector	Supply voltage to detector above/below specification	Zone
Detector self-test fail	Detector	Optical self-test in detector failed	Zone
Detector temp measure fail	Detector	Temperature sensor in detector not responding	Zone
Detector type id fail	Detector	Wrong type of detector connected	Zone
Detector version too old	Detector	Wrong firmware version in detector	Zone
HUMIDITY: WARNING	Detector	Humidity in detector above/below specification	Zone
Level not calibrated	Detector	Calibration fault in detector	Zone
TEMP: WARNING	Detector	Temperature in detector above/below specification	Zone
Wrong type of detector connected!	Detector	Wrong family of detectors connected	Zone
FAIL	Digital Input	Equipment connected to Digital Input reporting Fault	Zone
Loop Range Error	Digital Input	Digital input outside specified range, shorted or open circuit	Zone
WARNING	Digital Input	Equipment connected to Digital Input reporting Warning	Zone
CONNECTED: FAIL	Output	Output load below specification	Zone
SHORTED	Output	Output load above specification	Zone
3,3 V DC	System	Internal 3.3VDC in control critically unit low	System
5 V DC	System	Internal 5VDC in control unit critically low	System
6 V DC	System	Internal 6VDC in control unit critically low	System
Battery capacity will soon be low	System	Battery voltage in Control Unit critically low	System
Battery charger voltage	System	Battery charger voltage low	System
BATTERY CONNECTED: FAIL	System	Battery in Control Unit not connected	System
Battery voltage	System	Battery voltage in Control Unit above/below specification	System
Configuration state fail	System	Corrupt configuration in CPU	System
Crc error Analog input	System	Corrupt Analog Input configuration in CPU	System
Crc error Detector	System	Corrupt Detector configuration in CPU	System
Crc error Digital input	System	Corrupt Digital Input configuration in CPU	System

Event message	Event generator	Event description	Appears
Crc error Input block	System	Corrupt configuration in CPU	System
Crc error Output block	System	Corrupt configuration in CPU	System
Crc error Zone block	System	Corrupt configuration in CPU	System
Crc-error expansion card	System	Corrupt configuration in CPU	System
Fault relay on	System	Fault relay activated	System
INPUT VOLTAGE: FAIL	System	Input voltage to Control Unit above/below specification	System
Internal status: Battery capacity low	System	Battery voltage in Control Unit low	System
NO INPUT POWER	System	No incoming power to control unit	System
One or more zones are not in normal state	System	One or more zones in the system are set to Service and/or Deactivated	System
Temperature warning controller	System	Temperature in control unit above/below specification	System
Warning 3,3 V DC	System	Internal 3.3VDC in control unit low	System
Warning 5 V DC	System	Internal 5VDC in control unit low	System
Warning 6 V DC	System	Internal 6VDC in control unit low	System
Warning battery charger voltage	System	Charging voltage for batteries in Control Unit above/below specification	System
Warning battery voltage	System	Battery voltage in Control Unit almost above/below specification	System
Warning input voltage	System	Input voltage to Control Unit almost above/below specification	System
Warning relay warning	System	Warning relay is activated	System
CONTACT HARDWARE: FAIL	Zone	Front panel cannot communicate with control unit	Zone
Mode: Deactivated	Zone	Zone set to Deactivated	Zone
Mode: Service	Zone	Zone set to Service mode	Zone
No contact with global node	Zone	Front panel cannot communicate with control unit	Zone
Process stop	Zone	Alarm/Process stop in a Zone	Zone
Exp Board X: No Conf	System	Installed but not configurated XIO-card	System
Out Of Range	Analogue input	Measured values out of range	Zone
Exp Board X: No response	System	Configurated but not installed XIO-card	System

Table 2

4.2 Event symbols

Event generator	Symbol	Description
Detector		HD detector, FD detector
		MGD detector
		FD-UV Detector, FD-UVIR Detector, FD-UV2IR Detector, FD-4IR Detector, FD-5IR Detector
Digital input		Limit switch, Isolation valves
		Limit switch, Steam valve
		Limit switch, Deluge valve
		Limit switch, Water valve
		CO2 level indicator
		Water extinguishing, flow sensor
		Water extinguishing, pressure sensor
		Water extinguishing, Heating system, Temperature sensor
		General purpose input
		Omniguard, Detector input
		Push button for manual activation
		Air filtration
		Linear Heat Sensor Cable

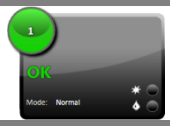
Event generator	Symbol	Description
Output		Sounder unit
		Visible alarm unit
		Isolation valve
		Steam valve
		Deluge valve
		CO2 valve
		Water solenoid
		General purpose output
		Relay output
System		System view
Zone		Zone view

Table 3