Safety View

Manage operational risk with confidence.
Superior alarm and bypass management.

Life Is On

Triconex™
by **Schneider** Electric

Safety View

Safety View superior alarm and bypass management allows you to manage operational risk with confidence. It maximizes your return on investment, reduces the likelihood of unscheduled asset downtime, and reduces maintenance costs.

Manage operational risk with confidence

Safety View is the world's first software solution for effective alarm and bypass management that is certified by TÜV Rheinland to IEC 61508 Systematic Capability 3 (SC3) for use in applications up to Safety Integrity Level 3 (SIL3).

Safety View is an online tool that provides situational awareness of critical conditions and the visibility of the risk being managed. Safety View draws the plant operator's attention to changes in critical process conditions that require immediate action. It provides clear indication to operators, maintenance engineers, and shift supervisors of the highest priority/level alarms and/or all safety-critical devices that have been placed in bypass.

A core role of Safety View is to replace expensive and hard-to-modify hard-wired alarm panels and bypass switch arrangements while providing more intuitive information to the operator. Safety View provides contextual information to facilitate decision support and allows users to manage operational risk with confidence.

Safety View meets ANSI/ISA18.1 Annunciator sequences and can be easily and affordably expanded as additional alarms and bypass functions change.

Features and benefits

Safety View delivers a number of benefits, including:

- Ideal replacement or alternative to traditional hard-wired annunciator panels

- Adaptable design allows configuration to your specific requirements

- Standardization lowers costs

- TÜV certified for the highest levels of integrity

- Enhance operator performance

- Provides more contextual and intuitive information to the operator

- Reduce the likelihood of an adverse safety event

- Minimize the likelihood of unscheduled asset downtime

- Minimize operator errors

$10 billion

Estimated cost of annual lost production due to accidents (source: Abnormal Situation Management Consortium)

3 – 8%

The result on production alone from unexpected events typically costs a facility 3 – 8% of capacity (source: Abnormal Situation Management Consortium)

42%

Average percentage of incidents caused by people and work context factors when situations reach alarm conditions (source: Abnormal Situation Management Consortium)

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Safety View provides contextual information to facilitate more informed decision-making.

ISA18.1 alarm functions include:

- Sequence Code M: Manual reset
- Sequence Code A: Automatic reset
- Sequence Code R: Ring back

Safety View alarm functions include:

- Display up to five Process Values per alarm
- Enable/disable individual alarms
- Acknowledge individual and group alarms
- Reactivate alarms acknowledged by an operator during the previous work shift
- Clear first out alarms
- Silence audible alarms
- Reset alarms in the ring back state

Safety View bypass functions include:

- Apply and remove bypass tags
- Add and review notes for bypassed tagnames
- Configurable bypass behavior

Clear visibility of priority alarms

Safety View is a PC-based human-machine interface (HMI) dedicated to the management of the highest priority alarms (often referred to as Priority 1 or Level 1 alarms) and is independent of the distributed control system. Safety View ensures that priority alarms are always visible to the operator and not buried in an alarm page or log.

Providing an alternative to traditional hard-wired annunciator panels, Safety View works with the industry-leading Triconex™ family of Safety Instrumented Systems: Tricon (SIL3), Tricon CX (SIL3), Trident (SIL3), and the Triconex General Purpose System (SIL2).

Each Safety View HMI function is directly mapped to function blocks running in the Triconex logic solver, which provides the appropriate system behaviors and actions. Secure communications between the HMI and logic solver is an integral element of Safety View.

Configurable to your exact requirements

Safety View is configurable to your exact requirements, whatever the size or complexity of your alarm scheme. Special attention has been applied to providing a customizable layout and appearance so that Safety View can meet your individual and unique requirements.

Alarms can be grouped by zones or lines of equipment to reflect the actual plant layout for a more effective operator experience.

Redundancy for maximum availability

Safety View can be used in a simplex or redundant configuration for maximum availability.

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Safety View provides situational awareness or critical conditions and visibility of the risks being managed.

Clear visibility — alarms

Safety View operates independently from the automation system, ensuring that priority alarms are clearly visible to the operators and not buried in an alarm display or alarm log.

The color of each alarm window is configurable allowing color schemes to be configured for each operator's requirement (ideal for use by colorblind personnel).

The size of each alarm zone adjusts automatically to display all configured tag names at one time — scrolling is not required because tag names are never hidden.

When an alarm is activated, the faceplate blinks rapidly, the color changes and the audible alarm sounds.

Each alarm is supported by a more detailed description, providing operators greater context and understanding of the alarm to facilitate better decision making.

Managing group alarms

Up to five process variables can be displayed per alarm. The current process condition is also displayed for each alarm.

Up to 15 tag names can be grouped into a single alarm group (ideal for Fire and Gas applications).

Acknowledging alarms

Alarms can be acknowledged globally, on a specific workstation or even to a specific monitor only. Operators can acknowledge all active alarms, selected alarms or individual alarms.

Silencing alarms

Different alarm sounds can be configured for different alarm types or situations. Active and ringback alarms sound an audible alarm until they are acknowledged or reset. If all audible alarms are manually muted through Safety View, then the speakers will be re-enabled when a new alarm is raised.

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Safety View represents conditions impacting the overall safety of the plant.

First-out alarms

Safety View displays the first-out alarm generated from specific Triconex controller(s), making it quick and easy to identify the first event in a series of events that causes a plant trip or other abnormal process condition.

Ringback alarms

Alarms can be configured to provide a ringback. A ringback alarm occurs when an alarm has been acknowledged and a previously abnormal process condition returns to normal. The audible/visual alarm alerts the operator that the condition is no longer out of range.

Managing bypasses

Safety View indicates any safety-critical devices that have been inhibited or placed in bypass, common during maintenance activities (e.g., testing or calibration of instruments, maintenance and repair of instruments, proof testing equipment, during startup, shutdown, and process transitions, etc.).

Bypassing a tagname places that tag out-of-service and suppresses the alarm so that an alarm will not be triggered even if the related process value exceeds the defined limit. This ensures that the operator is not distracted by alarms associated with items or equipment that have been removed from service.

When a tag is bypassed, it is moved to the dedicated bypass zone. Bypasses can be configured with secondary authentication ensuring that a tagname is not accidently placed in bypass.

Notes can be added and saved to bypasses tags (e.g., why the tag is being bypassed, what maintenance work is being undertaken to repair the device, what needs to be done before the tag bypass can be removed). This is especially useful during shift hand overs when the new operators need to accept responsibility for items in bypass.

General purpose buttons

General purpose buttons can be configured to perform specific commands on an alarm, field device, or plant. For example, if a process goes into an abnormal or unsafe state, then you can use a general purpose button to shut down a piece of equipment instead of using a hard-wired switch to shut it down. General purpose buttons can be used to both execute and reverse a command.

Managing failed field devices

Safety View indicates when a field device has failed along with the alarm state at the time the failure occurred (often known as Device Out Of Service). The field device fault condition continues to appear on the alarm until the controller detects that the device has returned to normal operation.

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Information is displayed in zones making it quick and easy for operators to respond to critical conditions.

Shift change

Shift change is a one-time activation that occurs each time a new user logs on, reactivating all the alarms acknowledged by the previous shift operator.

Secure access and audit trail

Safety View requires operator login and password entry for secure access and provides an audit trail including who performed the action and when (time and date stamped).

Safety View continually displays the alarm states and process conditions even when not logged in. User authentication is only required to perform any action. Permissions can be assigned to specific users and specific actions.

Link health status

Safety View provides clear indication of the connection status of all Safety View components (workstations, controllers, servers, database) as connected, partial connection, and disconnected.

Industries Served

Oil & Gas

Exploration and production

Refining

Chemical

Pipelines and distribution

Energy and power generation

Part Number	Description
7851-100	2k Tag License
7851-200	5k Tag License
7851-300	10k Tag License

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ZERTIFIKAT
CERTIFICATE

No.: 968/EZ 570.00/12

Product tested	Safety View Alarm and Bypass Management Tool	Certificate Holder	Invensys Systems, Inc. — Triconex 26561 Rancho Parkway South Lake Forest, CA 92630 USA
Type designation	For released and approved versions, refer to "Version and Release List"	Manufacturer	See Certificate Holder
Codes and standards forming the basis of testing	IEC 61508 Parts 1-7:2010 (in extract) IEC 61511 Parts 1-3:2004 (in extract)		
Intended application	Safety View Alarm and Bypass Management Tool complies with applicable requirements of the relevant standards (SC3 acc. to IEC 61508) and can be used in applications up to SIL 3 acc. to IEC 61508, IEC 61511. The bypass/unbypass protocol between the Safety View and Safety Systems complies with the requirements IEC 61508 up to SIL 3.		
Specific requirements	For the use of the Safety View Alarm and Bypass Management Tool, the Safety Considerations as Installation Guide, Annex B, and accompanying user guides provided by the manufacturer need to be observed. The current versions of software are specified in the currently valid approved component list. The list is released by the manufacturer in cooperation with the Test Institute.		
This certificate is valid intil 2017-10-30.			

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Functional Safety
Type Approval

FS

The test report-no.: 968/EZ 570.00/12 dated 2012-10-30 is an integral part of this certificate.

The holder of valid licence certificate for the product tested is authorized to affix the test mark shown opposite to products, which are identical with the product tested.

TÜV Rheinland Industrie Service GmbH
Bereich Automation
Funktionale Sicherheit
Am Grauen Stein, 51105 Köln

Köln, 2012-10-30

Certification Body for FS-Products   Dipl.-Ing. Heinz Gall

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