

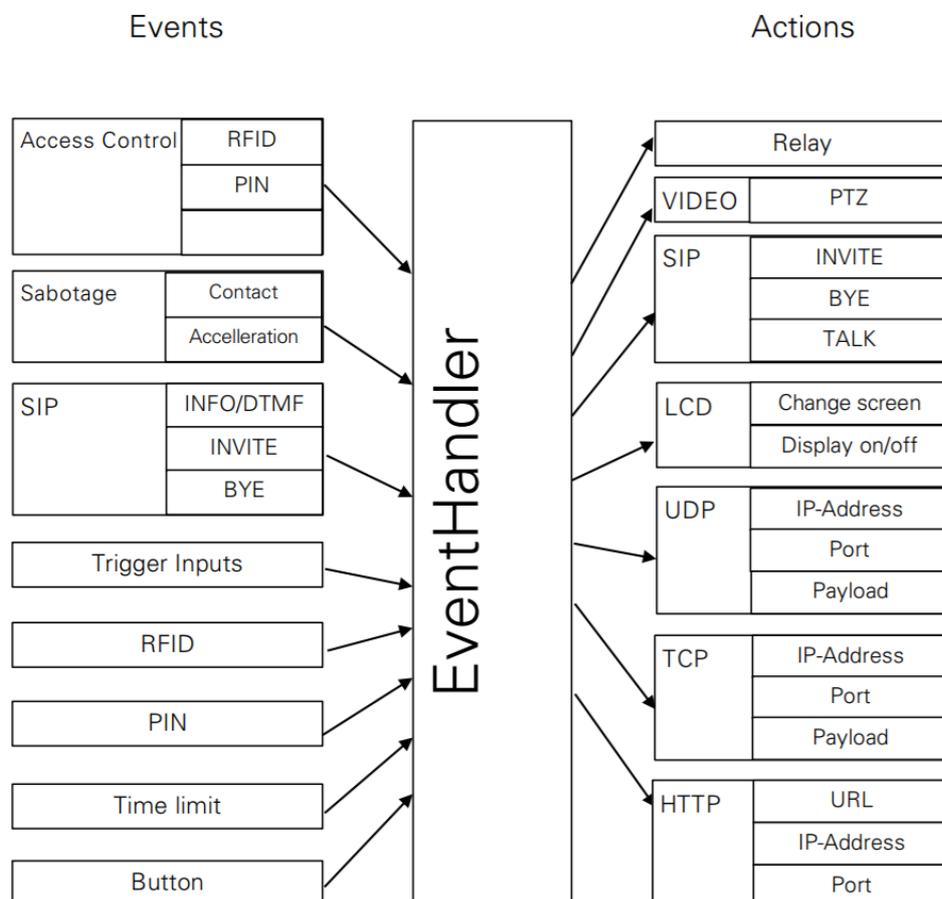
ARGOS Eventhandler

Introduction

The EventHandler was developed to meet the different requirements of our customers without having to create expensive firmware versions. With the EventHandler it is possible to assign certain events to certain actions. In order to achieve the greatest possible flexibility, the customer-specific configuration of the EventHandler is carried out via a configuration file, which can be edited in the Web-Interface. If there are no customer-specific requirements, the EventHandler can be used unchanged and the basic settings can be made on the interface configuration page of the WEB interface. The EventHandler should not be configured by the end customer, but by a trained system integrator. It is recommended to customize the function based on the factory settings by adding new shortcuts or changing shortcuts. When the device is reset to factory settings, any changes in the configuration of the EventHandler are also reset. However, the configuration of the EventHandler can also be reset to factory settings independently of the other configurations.

Note: Existing ACTIONS should not be deleted unless the user knows what he is doing

Function



The EventHandler links events with actions. Up to 50 of these links can be configured. A single event and a single action can also occur in several different relationships. Example: An access event switches (a) a relay, (b) a video snapshot is taken and (c) the screen shows "Access granted". Both the actions and the events are specified more precisely by properties that are specified in the links (e.g. relay number or which DTMF signal). Actions that have bistable states, such as relays, can have both the event for switching on and the event for switching off in a logic operation. Example: A relay is switched on for a SIP DTMF signal and switched off again after a timer has elapsed

Configuration of the EventHandler

The EventHandler links events with actions. Up to 50 of these links can be configured. A single event and a single action can also occur in several different relationships. Example: An access event switches (a) a relay, (b) a video snapshot is taken and (c) the screen shows "Access granted". Both the actions and the events are specified more precisely by properties that are specified in the links (e.g. relay number or which DTMF signal). Actions that have bistable states, such as relays, can have both the event for switching on and the event for switching off in a logic operation. Example: A relay is switched on for a SIP DTMF signal and switched off again after a timer has elapsed.

Note: If the device is reset to factory settings via the Upload/Download button in the WEB GUI, all changes in the EventHandler file are also lost.

Syntax

A link always starts with the line

[ACTION X]

Where x is the number of the shortcut. The number may only appear once in the document.

Numbers from 1 to 50 are allowed.

Note: New ACTIONS should be added in the area between ACTION27 and ACTION40. No blank lines may appear at the beginning of the event handler file.

A name is assigned to the link.

ACTION_NAME="Door open on recognition"

Note: For PIN and RFID events, the ACTION_NAME is displayed as a message on the LCD screen to give the user feedback.

Each link has exactly one action. This is described with the action type and its properties.

ACTION_TYPE=RELAY

RELAY_TYPE=INTERNAL

RELAY_NUMBER=1

Each link has exactly one ON event. This event is described with the event type and its properties.

```
EVENT_ON_TYPE=RECOGNITION
EVENT_ON_PERSON_ID=ff000002
EVENT_ON_GROUP_ID=0
```

Certain actions can also include an OFF event.

```
EVENT_OFF_TYPE=TIMER
EVENT_OFF_TIMEOUT=3
```

A link always ends with the line

```
[END_ACTION]
```

Events

5.1. Access control - RECOGNITION

If a person is identified (via RFID, PIN, face or a combination of these credentials), the RECOGNITION event is always triggered. A unique number (PERSON_ID) and the group (GROUP_ID) to which this person is assigned are sent for each person.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	RECOGNITION
Property	EVENT_ON_PERSON_ID EVENT_OFF_PERSON_ID	If EVENT_XX_PERSON_ID=0 is specified, the event is executed for all persons. If a certain person ID is specified, the event is only triggered when this person is recognized. The ID is specified as a hexadecimal value and can be displayed in the WEB interface with mouse-over using the "Last name" field name (see Figure 1).
Property	EVENT_ON_GROUP_ID EVENT_OFF_GROUP_ID	If EVENT_XX_GROUP_ID=0 is specified, the event is executed for all persons. If a specific group ID is specified, the event is only triggered upon detection of persons assigned to this group. The ID is specified as a hexadecimal value and can be displayed in the WEB interface using the field name "Name" with mouse-over (see Fig. 2).

Example: Opens another door for a specific person

```
[ACTION X]
ACTION_NAME="Door 2 open with recognition"
ACTION_TYPE=RELAY
RELAY_TYPE=NETWORK
RELAY_NUMBER=1 RELAY_NAME=DOOR2
EVENT_ON_TYPE=RECOGNITION
EVENT_ON_PERSON_ID=ff000002
EVENT_ON_GROUP_ID=0
EVENT_OFF_TYPE=TIMER
EVENT_OFF_TIMEOUT=3
[END_ACTION]
```



Figure 1: Tooltip with Information about PERSON_ID

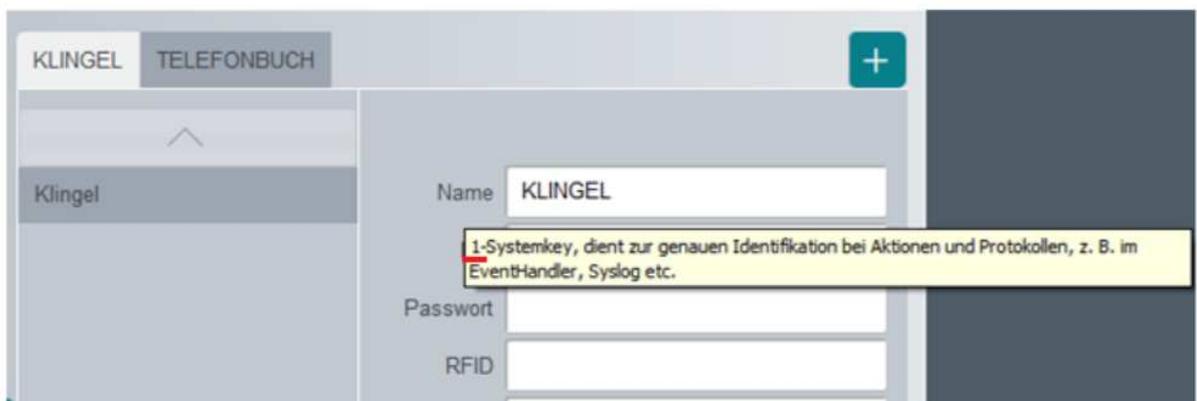


Figure 2: Tooltip with Information about GROUP_ID

5.2. Sabotage contact - TAMPER

If either the sabotage contact is interrupted or the acceleration sensor signals a change in position, the TAMPER event is triggered.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	TAMPER
Property	-	-

Example: Switches the alarm system when the sabotage contact is opened

[ACTION X]

ACTION_NAME="Alarm with sabotage input"

ACTION_TYPE=RELAY

RELAY_TYPE=NETWORK

RELAY_NUMBER=1

RELAY_NAME=ALARMSYSTEM

EVENT_ON_TYPE=TAMPER

EVENT_OFF_TYPE=TIMER

EVENT_OFF_TIMEOUT=3

[END_ACTION]

5.3 Trigger inputs – TRIGGER_IN

Falling or rising edges at the trigger inputs cause TRIGGER_IN events. The number of the trigger input and the triggering edge can be specified as properties of the TRIGGER_IN events

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	TRIGGER_IN
Property	EVENT_ON_TRIGGER EVENT_OFF_TRIGGER	Number of the trigger input 1 or 2
	EVENT_ON_TRIGGER_EDGE	FALLING RISING

Example: Switches to the "Access granted" screen for external trigger input (useful for external access servers if the terminal is used as a reader only).

[ACTION X]

ACTION_NAME="Access granted on trigger in"

ACTION_TYPE=LCD_SCREEN

LCD_SCREEN_ID=ACCESS_GRANTED

EVENT_ON_TYPE=TRIGGER_IN

EVENT_ON_TRIGGER=1

EVENT_ON_TRIGGER_EDGE=FALLING

EVENT_ON_TRIGGER_SYSLOG_SEVERITY=INFO

[END_ACTION]

5.4 Incoming SIP DTMF signal – SIP_DTMF

An ASCII character was transmitted either via SIP-INFO or RFC2833.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	SIP_DTMF
Property	EVENT_ON_SIP_DTMF EVENT_OFF_SIP_DTMF	ASCII character

Example: Opens the door when the SIP DTMF signal '>' is received. This is a standard event used by the PC Doorkeeper to open the door.

[ACTION 13]

ACTION_NAME="Door open with DoorKeeper"

ACTION_TYPE=RELAY

RELAY_TYPE=INTERNAL

RELAY_NUMBER=1

RELAY_NAME=RELAY1

EVENT_ON_TYPE=SIP_DTMF

EVENT_ON_SIP_DTMF=>

EVENT_OFF_TYPE=TIMER

EVENT_OFF_TIMEOUT=3

[END_ACTION]

5.5 Outgoing SIP call – SIP_CALL_TRYING

A SIP call is initiated. The call does not actually have to be built up, just ring the bell.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	SIP_CALL_TRYING
Property	-	-

Example: Switches the light on as soon as the bell rings and switches it off again when the call is ended.

```
[ACTION X]
ACTION_NAME="Light when call is started"
ACTION_TYPE=RELAY
RELAY_TYPE=INTERNAL
RELAY_NUMBER=2
RELAY_NAME=RELAY2
EVENT_ON_TYPE=SIP_CALL_TRYING
EVENT_OFF_TYPE=SIP_CALL_BYE
[END_ACTION]
```

5.6 SIP connection established – SIP_CALL_ESTABLISHED

A SIP call has been set up.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	SIP_CALL_ESTABLISHED
Property	-	-

Example: Switches the light on when a SIP connection is established and switches it off again when the call is ended.

```
[ACTION X]
ACTION_NAME="Light when Call is started"
ACTION_TYPE=RELAY
RELAY_TYPE=INTERNAL
RELAY_NUMBER=2
RELAY_NAME=RELAY2
EVENT_ON_TYPE=SIP_CALL_ESTABLISHED
EVENT_OFF_TYPE=SIP_CALL_BYE
[END_ACTION]
```

5.7 SIP connection terminated – SIP_CALL_BYEW

A SIP call was terminated

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	SIP_CALL_BYE
Property	-	-

Example: see examples in 5.5 and 5.6

5.8 RFID card – RFID

In contrast to the RECOGNITION event, the RFID UID can be specified directly for the RFID event. This allows a card to be configured to switch a function without having to be assigned to a person.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	RFID
Property	EVENT_ON_RFID EVENT_OFF_RFID	UID of RFID card e.g. EVENT_ON_RFID=A003FBE4

Example: Switches off the alarm system when a RFID card is held in front of the device.

```
[ACTION X]
ACTION_NAME="Alarm off on RFID"
ACTION_TYPE=RELAY
RELAY_TYPE=NETWORK
RELAY_NUMBER=1
RELAY_NAME=ALARMSYSTEM
EVENT_ON_TYPE=RFID
EVENT_ON_RFID=ABCDEF
EVENT_OFF_TYPE=TIMER
EVENT_OFF_TIMEOUT=1
[END_ACTION]
```

5.9 PIN code – PIN

In contrast to the RECOGNITION event, the PIN number can be specified directly for the PIN event. This allows a PIN to be configured for switching a function without having assigned this PIN to a person.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	PIN
Property	EVENT_ON_PIN EVENT_OFF_PIN	PIN number

Example: Switches off the alarm system when a PIN number is entered on the device.

```
[ACTION X]
ACTION_NAME="Alarm off on PIN"
ACTION_TYPE=RELAY
RELAY_TYPE=NETWORK
RELAY_NUMBER=1
RELAY_NAME=ALARMSYSTEM
EVENT_ON_TYPE=PIN
EVENT_ON_PIN=1234
EVENT_OFF_TYPE=PIN
EVENT_OFF_PIN=4321
[END_ACTION]
```

5.10 Timer – TIMER

For bistable actions, such as switching relays, a TIMER event can be configured as an OFF event. The timer is started when the action is switched. Once the timer has expired, the following is switched off.

Type	EVENT_OFF_TYPE	TIMER
Property	EVENT_OFF_TIMEOUT	Timeout in seconds

Examples: See examples in chapters above.

5.11 LCD Screen buttons – PUSH_BUTTON

Each list element of the group and phonebook page can trigger an event (in addition to the normal function, such as SIP call). If (without SIP call) only the event is to be triggered, a group must be used to which no persons have been assigned or a person who has no SIP-URI entry, but the check mark in "In the phonebook" is set.

Type	EVENT_ON_TYPE EVENT_OFF_TYPE	PUSH_BUTTON
Property	EVENT_ON_PUSHBUTTON_ID EVENT_OFF_PUSHBUTTON_ID	The ID of the button corresponds to the ID of the group or person represented by the button. See chapter 5.1 Person IDs always start with ffxxxxxxx and must be distinguished from group IDs.

Example: Implementation of a light switch on the home screen (group 1)

```
[ACTION X]
ACTION_NAME="Light"
ACTION_TYPE=RELAY
RELAY_TYPE=INTERNAL
RELAY_NUMBER=2
RELAY_NAME=LIGHT
EVENT_ON_TYPE=PUSH_BUTTON
EVENT_ON_PUSHBUTTON_ID=1
EVENT_OFF_TYPE=TIMER
EVENT_OFF_TIMEOUT=60
[END_ACTION]
```

Example: Implementation of a workshop bell on the homescreen (group 2)

```
[ACTION X]
ACTION_NAME="Workshop bell"
ACTION_TYPE=RELAY
RELAY_TYPE=INTERNAL
RELAY_NUMBER=2
RELAY_NAME=WORKSHOP
EVENT_ON_TYPE=PUSH_BUTTON
EVENT_ON_PUSHBUTTON_ID=FF000018
EVENT_OFF_TYPE=TIMER
EVENT_OFF_TIMEOUT=1
[END_ACTION]
```

6 Actions

6.1 Switching relays – RELAY

The RELAY action switches one of the internal relays or a network relay. The RELAY action has both an ON and an OFF event.

Type	ACTION_TYPE	RELAY
Property	RELAY_TYPE	INTERNAL NETWORK (the address of the network relay can be configured in Web interface)
	RELAY_NUMBER	INTERNAL: 1...2 (depends on device) NETWORK: 1...10
	RELAY_NAME	

Example: See examples in chapters above..

6.2 Video Pan-Tilt-Zoom – VIDEO_PTZ

With the action VIDEO_PTZ the image section (ROI) of the colour sensor can be changed.

Type	ACTION_TYPE	PTZ
Property	PTZ_SELECT	PTZ_LEFT PTZ_RIGHT PTZ_UP PTZ_DOWN PTZ_CENTER PTZ_ZOOM_IN PTZ_ZOOM_OUT To recall the preset positions: PTZ_PRESET1 PTZ_PRESET2 PTZ_PRESET3

Example: Switches to default view 2 (standard event)

```
[ACTION 11]
ACTION_NAME="PTZ Preset2"
ACTION_TYPE=PTZ
PTZ_SELECT=PTZ_PRESET2
EVENT_ON_TYPE=SIP_DTMF
EVENT_ON_SIP_DTMF=7
[END_ACTION]
```

6.3 Initiating SIP call- SIP_CALL

The SIP_CALL action initiates a SIP call.

Type	ACTION_TYPE	SIP_CALL
Property	SIP_CALL_KEY	ID of the person to be called. The ID of a person is displayed in the Access Control area of the Web interface.

Example: A SIP call is triggered via a remote bell connected to the trigger input.

```
[ACTION X]
ACTION_NAME="External Doorbell"
ACTION_TYPE=SIP_CALL
SIP_CALL_KEY=ff000000
EVENT_ON_TYPE=TRIGGER_IN
EVENT_ON_TRIGGER=1
EVENT_ON_TRIGGER_EDGE=FALLING
EVENT_ON_TRIGGER_SYSLOG_SEVERITY=INFO
[END_ACTION]
```

Note: No events should be used for normal SIP calls via the list elements (phone book). The normal SIP call is not controlled by the EventHandler.

6.4 Determine SIP call – SIP_BYE

The SIP_BYE action ends a SIP call.

Type	ACTION_TYPE	SIP_BYE
Property	-	-

Example: A SIP call is started and ended via a switch.

```
[ACTION X]
ACTION_NAME="TRIGGER1"
ACTION_TYPE=SIP_CALL
SIP_CALL_KEY=ff000000
EVENT_ON_TYPE=TRIGGER_IN
EVENT_ON_TRIGGER=1
EVENT_ON_TRIGGER_EDGE=FALLING
EVENT_ON_TRIGGER_SYSLOG_SEVERITY=INFO
[END_ACTION]
```

```
[ACTION X]
ACTION_NAME="TRIGGER1_OFF"
ACTION_TYPE=SIP_BYE
EVENT_ON_TYPE=TRIGGER_IN
EVENT_ON_TRIGGER=1
EVENT_ON_TRIGGER_EDGE=RISING
EVENT_ON_TRIGGER_SYSLOG_SEVERITY=INFO
[END_ACTION]
```

6.5 Audio on/mute – SIP_TALK

With the action SIP_TALK the audio signal is switched on or off. The SIP-TALK action has both an ON and an OFF event.

Type	ACTION_TYPE	SIP_TALK
Property	-	-

Example: Switching audio on and off via '*' on the telephone (standard event)

```
[ACTION 26]
ACTION_NAME="Talk"
ACTION_TYPE=SIP_TALK
EVENT_ON_TYPE=SIP_DTMF
EVENT_ON_SIP_DTMF=*
EVENT_OFF_TYPE=SIP_DTMF
EVENT_OFF_SIP_DTMF=*
[END_ACTION]
```

6.6 Send HTTP Get Request to an HTTP server- HTTP_GET

The HTTP_GET action sends an HTTP_GET header to the defined URL. This can be used to control home automation systems (such as Crestron).

Type	ACTION_TYPE	HTTP_GET
Property	HTTP_URL	Describes the HTTP-Header to be sent in the format http://user:pwd@ip-adresse.de/schalte/alarmanlage or http://ip-adresse.de/schalte/licht
	HTTP_AUTHENTICATION	BASIC DIGEST Mode of authentication of RFC2617

Example: Signal to home automation to switch the light

```
[ACTION X]
ACTION_NAME="Send http request with recognition"
ACTION_TYPE=HTTP_GET
HTTP_URL=http://ip-adresse.de/schalte/licht
HTTP_AUTHENTICATION=DIGEST
EVENT_ON_TYPE=RECOGNITION
EVENT_ON_PERSON_ID=ff000001
[END_ACTION]
```

6.7 Send TCP message- TCP_OUTPUT

With this action a string is output over a TCP connection.

Type	ACTION_TYPE	TCP_OUTPUT
Property	TCP_OUTPUT_IP	IP address or DNS TCP connection 192.168.1.20
	TCP_OUTPUT_PORT	Remote Port of TCP connection
	TCP_OUTPUT_STRING	String to be sent out. Maximum string length is 127 characters.

Example:

```
[ACTION X]
ACTION_NAME="TCP Out"
ACTION_TYPE=TCP_OUTPUT
TCP_OUTPUT_IP=192.168.2.91
TCP_OUTPUT_PORT=80
TCP_OUTPUT_STRING="This string has been sent via TCP_OUTPUT"
EVENT_ON_TYPE=TRIGGER_IN
EVENT_ON_TRIGGER=2
EVENT_ON_TRIGGER_EDGE=FALLING
EVENT_ON_TRIGGER_SYSLOG_SEVERITY=INFO
[END_ACTION]
```

6.8 Changes LCD screen – LCD_SCREEN

Switches to a specific screen. This can be used, for example, to switch off an alarm when an authorized person has been detected.

Type	ACTION_TYPE	LCD_SCREEN
Property	LCD_SCREEN_ID	Selection of displays: ACCESS_GRANTED ACCESS_DENIED ACCESS_WAIT DIALOG_GREEN DIALOG_RED DIALOG_YELLOW DIALOG_GREY PIN_SCREEN ALIGNEMENT_SCREEN
	LCD_SCREEN_TEXT	Displays the desired text. Can only be used with DIALOG_xxx and ACCESS_DENIED. Max. 100 characters

Example: see chapter 5.3