REDZ
SMART COMMUNICATION

ZR AUTOMATION

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ZRAutomation.Cloud

ZRAutomation.Cloud runs on a server at the site, on the site's own network.

The site reads Modbus TCP devices on its network, from any maker.

The web screen is opened in a browser on the site's local network, on a computer or on a wall tablet.

The site, its devices, the web screen on the local network, the cameras and the time blocks, including those that follow sunrise and sunset, work without the internet.



A shared page with value, gauge, bar, trend, switch and button widgets. The Gate button holds its output for 3 seconds and opens a camera for 30 seconds when used.

It reads the site's devices every 3 seconds, shows their values, switches their outputs, keeps their history, raises alarms and runs the site's time blocks and scenarios. It keeps doing all of this whether or not anyone is looking at a screen, while its trial or licence runs.

What It Does

1. **Dashboards:** The Operations Dashboard shows live values from your devices as widgets, arranged on one or more pages.
2. **Devices:** Fleet Status shows the devices your role covers, as cards or as a list.
3. **Alarms:** An alarm is raised when a value crosses a limit, when a digital channel is in a given state, or when a device stops answering.
4. **Time Blocks:** A time block writes one value to an output at its start time and another at its end time, on the days you choose.
5. **Scenarios:** A scenario watches one channel and writes a value to an output when a condition holds.
6. **Holidays:** The Holidays tab lists the days on which time blocks with Do not run on Holidays do not run.
7. **History:** The Historical Values page shows how channels changed over time, as a chart, a summary and a table.
8. **Cameras:** The site shows the cameras of its video recorder.
9. **Roles:** The account's role decides which pages and devices it sees and what it may change, on the web screen and in the app alike.
10. **Remote access:** Remote access connects the site to REDZ's relay, so that the mobile app can reach it from outside the local network.
11. **System:** Three places look after the site itself: the System Logs page, the System Health page and the System Settings tab of the Management page.
12. **Licence:** A licence sets the number of devices.

Key Figures

3 s
every device read every 3 seconds

Modbus TCP
devices from any maker

Seven widget types
for the dashboard pages

8 channels
compared at once, from any of your devices

30-day trial
with every part and no limit on the number of devices

No internet
needed for the site, its devices and the web screen

Main Features

Dashboards and widgets

- Anyone can add personal pages; adding or changing shared pages needs the Shared Dashboards permission.
- A widget of a device your role does not cover is not shown.
- Without the Edit (Update) action, switches and buttons are marked view only: you can watch the channel but not change it.

Devices and channels

- Coils, discrete inputs, holding registers and input registers.
- For an LKM meter reader the channels can be filled from a table instead.
- Export CSV saves the devices your role covers and their channels in one CSV file.

Alarms

- Alarms nobody has acknowledged come first, then by priority (High, Medium, Low), newest first.
- Mute on this screen silences only the browser you are using, for example a wall tablet, and not the other screens.

Logic and automations

- Time blocks can follow sunrise and sunset.
- The end can be after midnight, for example from sunset to sunrise.
- Holidays do not affect scenarios.

History, analysis and export

- Raw shows every recorded change instead of intervals.
- Excel saves the analysis of the current choices as a workbook.

Cameras

- The pictures come through the site, so a browser or a phone never connects to the recorder itself.
- Up to 2 live videos at a time.
- A switch or button widget can open cameras when it is used, for example the gate camera when the gate button is pressed.

Accounts and Security

- After 5 failed attempts the account is locked for 15 minutes.
- Optional 6-digit e-mail codes for sign-ins from outside the local network.
- A password has at least 10 characters.

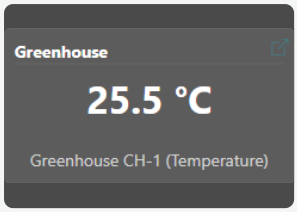
Getting Started

1. ZRAutomation.Cloud is installed on the site server by REDZ or by a person REDZ has authorised, with its setup program.
2. Devices, cameras, accounts and roles are then set up on the web screen.
3. Remote access is set in Remote Access on the System Settings tab of the Management page.
4. Install the ZRAutomation app from Google Play and open it.

Good to Know

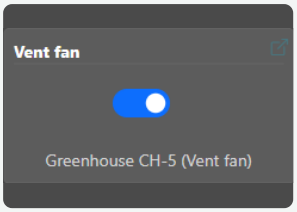
- The System Health page shows how long the site has been running since it last started.
- Accounts, personal dashboard pages, passwords and the remote access settings are not in a backup, and neither is the switch that requires sign-in codes.

Widget Types



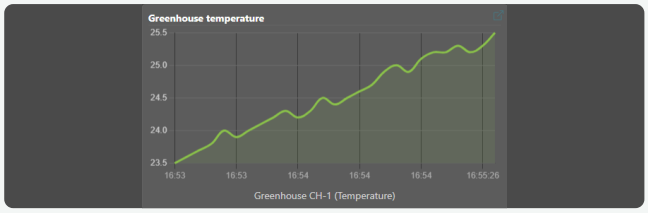
Value

The channel's latest value with its unit.



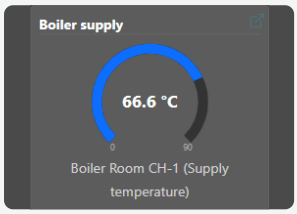
Switch

An on and off switch. Turning it on writes 1 to the channel; turning it off writes 0.



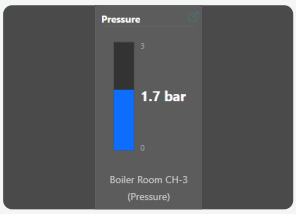
Trend

A line chart of the channel's recent values, updated as new values arrive.



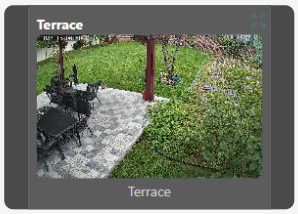
Gauge

A dial showing where the value stands within a range you set. For a role with the Alarms permission, the channel's limit alarms that are on are marked on it. Not available for digital channels.



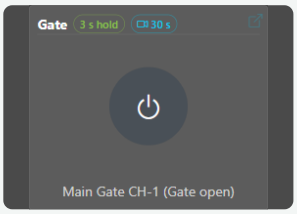
Bar

The same as a gauge, drawn as a bar.



Camera

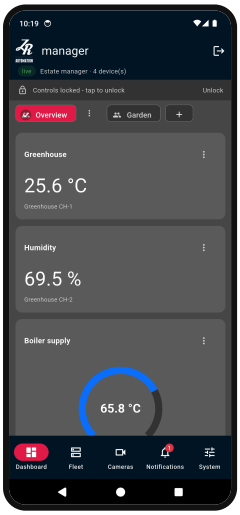
A camera picture. Selecting it opens the camera full screen.



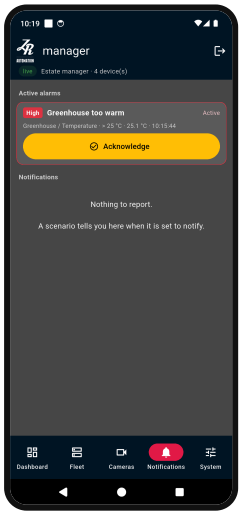
Button

For digital outputs only. Without a duration, the output is on while you hold the button and off when you let go. With a duration, one tap turns the output on and the site turns it off after that time, even if the browser tab is closed.

The ZRAutomation App



The Dashboard tab with the control lock above the widgets.



The Notifications tab: the alarms waiting to be acknowledged, then the notices.

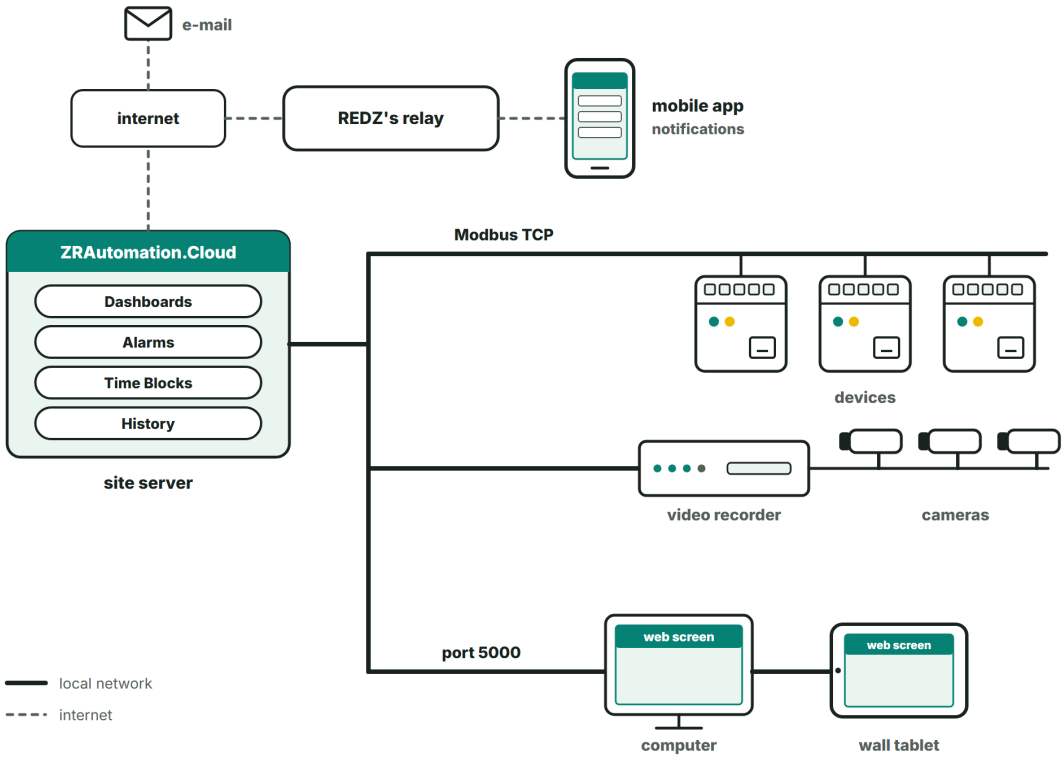
On the Phone

- The mobile app shows the site on a phone, through remote access, and tells the phone about alarms.
- Alarm notifications on the phones of the accounts whose role covers the device.
- Notifications travel through remote access.
- In the app, switches, buttons and outputs are locked so that a phone in a pocket cannot switch anything.
- The site connects out to REDZ's relay; no port has to be opened towards the site.

Technical Data

Server	A computer at the site that stays switched on, on the same network as the site's devices and its video recorder.
Operating system	64-bit Windows: Windows 11, Windows 10 Enterprise LTSC or IoT Enterprise LTSC, or Windows Server 2016 or later.
Installation	The setup program runs with an administrator account on the server.
	Nothing else to install: the program brings everything it needs.
Service	The program runs as a Windows service named ZRAutomation.Cloud, under its own Windows account.
Web screen	The web screen's address is the server's address followed by :5000.
Firewall	The setup program opens that port in the Windows firewall for the server's own local network only.
Remote access	For remote access, an internet connection from the server.
Data formats	Ten data formats for registers, 16, 32 and 64 bit.
Capacity	No fixed limit on the number of devices, channels, accounts, dashboard pages, cameras, alarms or scenarios.
Channel history	Kept 90 days unless changed.
Sign-in	A sign-in lasts 8 hours without use.
Mobile app	The ZRAutomation app from Google Play.
Language	The web screen and the app are in English.

Typical Application



- The site server runs the site. Everything the system does happens there.
- The cameras are shown through the site's video recorder; the pictures come through the site.

The manual. Help at the top right of the web screen opens the manual on redzsoftware.com in a tab of its own. Its address: redzsoftware.com/zrautomation-cloud/manual/.