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JUMO Cloud

IoT Platform for Reliable Process Management

Brief description

The IoT platform for process visualization as well as data acquisition, evaluation, and archiving enables worldwide access to measurement data using common web browsers. The JUMO Cloud is characterized by a high degree of security as well as valuable visualization, alarm, and planning functions.





Global access

to your process information with individually configurable user rights and dashboards



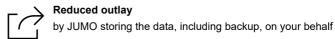
High level of data security

due to certification, end-to-end encryption, and redundant infrastructure



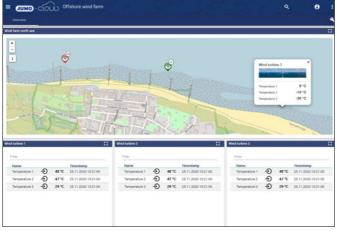
Unlimited access

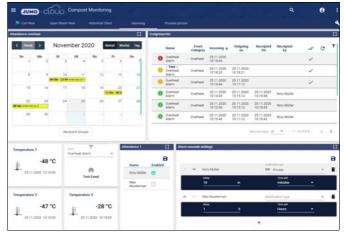
to the dashboards with any number of end devices via common web browsers without carrying out installation



Alarm management

through data evaluation, availability planning, monitoring and remote alarm functions





Availability planning and remote alarm

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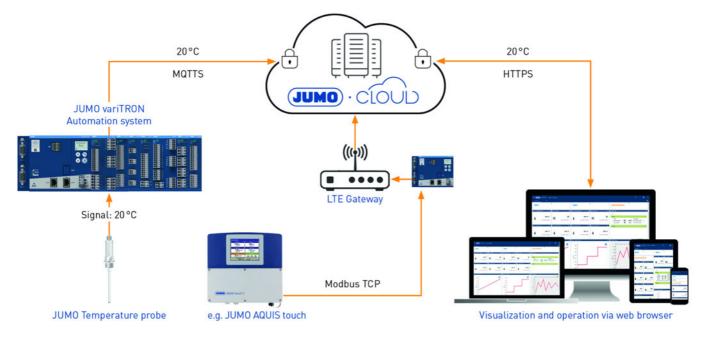
Data transport

Different process value signals can be processed in the JUMO Cloud. A **signal** may be, for example, a sensor's measured temperature value (example for 20 °C signal shown in the image below). It is securely sent to the JUMO Cloud computer center via a device from the JUMO variTRON family using an encrypted protocol.

The signal/measured temperature value in the JUMO Cloud can be viewed and managed via www.jumo.cloud. Here, the entire communication is also encrypted. In order to ensure extra security for the client, the data is efficiently saved redundantly in a German computer center in compliance with the GDPR.

And JUMO can also easily answer the question "Who does the data belong to?": it is only you!

Diagram of data transport for a temperature signal





NOTE

An Internet connection is required to transfer the data from the JUMO variTRON to the computer center. The transfer can be wireless or cable-based.



NOTE

If you use the JUMO variTRON as a gateway, further information from different devices can be sent to the JUMO Cloud. The following protocols are supported, amongst others: OPC UA, Ethercat, Modbus TCP, Profinet.



FURTHER INFORMATION!

Further information on the JUMO variTRON:



qr-705002-en.jumo.info

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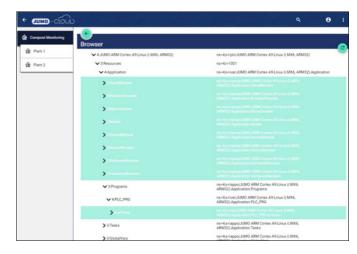
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Functions

Data and facts

Data archiving:

- Configurable data acquisition .
- Acquisition of the average value, last value, minimum and/or maximum
- Acquisition according to the delta event method
- Acquisition cycle at a speed of up to 1 second
- Extremely compact storage of raw data



Data compression:

- Minor interval can be set; 15 minutes as standard .
- Hourly interval, two-hourly interval, daily interval, weekly interval, . monthly interval, quarterly interval, and annual interval preconfigured
- Min/max reference can be set per evaluation (for example daily data with max/max values from the two-hour values)
- . In-memory calculation of predefined intervals and free intervals possible at any time
- Extremely compact storage of pre-compressed data

•		۹ 😝 ۱
Composit Monitoring	III Configuration Inverting ♥ Details ● ◆ Access Rights	H
B Plant 1	Compost Monitoring - Signal: Temperature 1	
A	Compost Monitoring - Signal. Temperature 1	
R Plant 2	Basic configuration	
	Signal Settings	Ŷ
	Recording Settings	ě
	Compression settings	+
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Trends, reports, and scheduler

Trends:

- Display of current and historical data
- Value/timing charts
- Any number of axes and lines; any number of lines per axis
- Display as line, step line, or bar chart
- Time comparisons across multiple time axes
- Zoom using mouse/touch, shifting of the time range using time bars
- Automatic key
- Ruler for reading the values and time with a locking function
- User configurable balloon tool tips for the value at the time that is shown
- Export of data to CSV, XLSX, and PDF as well as printing directly from the chart
- Pie chart

Reports:

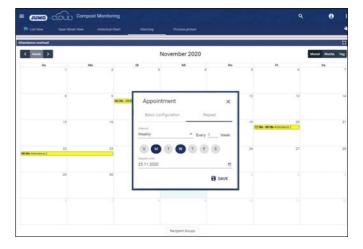
- · Web-based reports
- · Output in the browser, download as PDF or Excel file
- Templates can be designed using HTML, more complex calculations can be programmed via JavaScript
- User configurable manual inputs for manual counter or laboratory data
- Industry-specific templates for energy, water, and wastewater





Scheduler:

- Timer/timer program
- One-time events and series
- Value changes at the start and end of an event can be parameterized



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Alarm and event system

Alarm system:

- User configurable event classes with classification (note, warning, malfunction) and acknowledgement requirement yes/no
- Any number of conditions per signal with logical comparators (>, >=, =, <=, <, ?=) and values; separate for when the event occurs and when the event stops
- Start and stop delay can be configured per condition
- Linking of conditions with logical AND and OR elements for an event

pisachiv								
Name	Event Calegory	incoming +	Outgoing on	Receipted On	Receipted by	1	c	
Overheat Alarm	Overhead	25.11.2020 10:30:45				~		
😑 – Test – Overheat Alarm	Overheat	25 11 2020 10 29 29	25.11.2020 10.29.30			1		
Overheat Alarm	Overhead	2511.202010:28.45	25.11.2020 10:29.12			1		
Overheat Alarm	Overheat	25.11.2020 10:26:46	25.11 2020 10 27 12	25.11.2020 10:30.46	Nico Müller			
Overheat Alarm	Overheat	25.11.2020 10:24.46	25.11.2020 10:25.12	25.11.2020 10:29:36	Nico Müller			
Overheat Alarm	Overheat	25.11.2020 10:22:45	25.11 2020 10 23 12	25.11.2020 10:29:35	Nico Müller			
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 Nico Müller 				time and minutes				
Nico Miller								

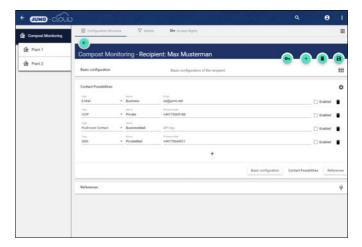
Monitoring:

- Minimum/leakage/pipe leakage monitoring
- Maximum and periodic maximum monitoring
- Change rate monitoring
- Plausibility monitoring

		θ	
🏠 Compost Monitoring	Econoperation thurstere V Initials Ov Access Rights		Ш
🛱 Plant 1	Compost Monitoring - Monitoring		_
Plant 2			
	Basic configuration		***
	MIN - Max Monitoring		
	Description		
	inse Composit Montering		
	PMI .		
	Minimum Munitaring		
	Maximum Monitoring		
	Penodic Maximum Monitoring		
	Change Rate Monitoring		
	Plausfully Munitoring		
	Position Monitoring		

Remote alarm:

- Availability planner
- Recipient and recipient group management
- Establishing of alarm cascades
- Multiple cycles of an alarm cascade possible
- SMS and email
- Push messages sent to smartphone app, sound until they are acknowledged
- · Voice calls with synthesized voice for outputting any message text
- Archiving of all remote alarm steps



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Add-ons

Maintenance:

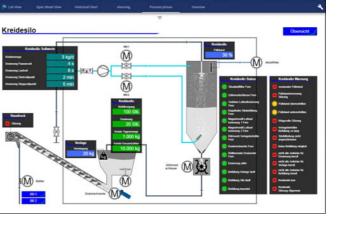
- Definition of maintenance tasks possible in a time or signal-based manner
- Document attachment
- Acknowledgement of maintenance and resetting of specific operating hours counter possible

Process visualization:

- Vector-based, self-scaling process screens
- · Editor with integrated animation and test tool
- Configurable links and interactions

Camera integration:

- Integration of (M)JPEG camera (standard IP camera)
- Display of live image
- Archiving of camera images and sequences in a manner that is event and time-controlled
- · Call up of camera images and sequences
- User configurable acknowledgement requirement for camera images and sequences
- Integration of up to 5 cameras (as standard) per customer



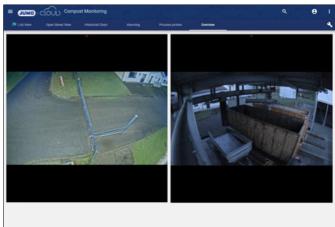


Image: Contract Muchaning Q O I Image: Contract Muchaning Version Version

Energy package/ISO 50001 compliant:

- Heat map
- Sankey/flow chart with any number of nodes and connections between them
- Combined with functions from trending and reporting

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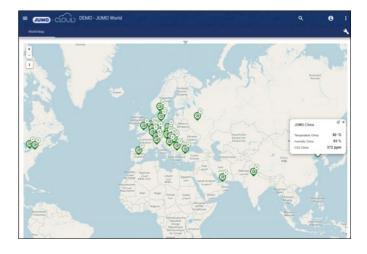


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Map and GPS integration

- Map as dashboard element
- Display of fixed markers with animation (e.g. malfunction at station) and link
- OpenStreetMap
- Live display of GPS trackers on the map
- Geofencing/position monitoring of GPS trackers



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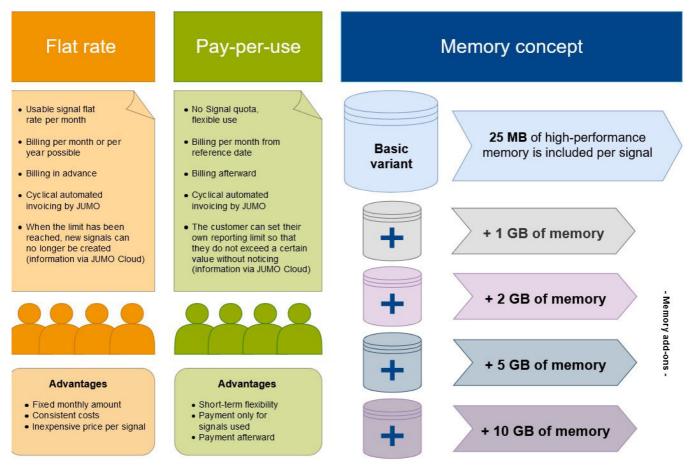
Payment and storage model

In the basic variant, a value can be stored 1.1 million times in the Cloud per signal. This corresponds to 25 MB of high-powered memory per signal. A storage quota is derived from the number of signals purchased and the memory that results from this. The customer can use this as they choose.

An example: A customer purchases 100 signals. This corresponds to a storage quota of 2500 MB and 110 million storage options in the Cloud. For each signal, the customer can now select how long they would like to have it saved. The longer and more frequently they save a signal, the more their storage quota is reduced. Every signal and its historical values are each designed as ring buffers. When 80% of the available storage quota is reached, the customer receives a warning with the possibility to buy additional monthly memory. If the customer would like to store data in the Cloud for longer than is possible in the basic variant, they can also buy additional memory as required.

Depending on the payment model of flat rate or pay-per-use, the customer can buy a certain number of signals per month. For the flat rate model, a defined signal flat rate per month is bought. In contrast, with the pay-per-use model, the signals used on the reference date are billed. Invoicing is on-going depending on the model.

Payment and storage model scheme



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Sample calculation

Signals required:	200 signals			
Memory cycle:	200 signals every 5 minutes (1)			
Storage time required:	10 years (due to audit)	10 years (due to audit)		
Available storage quota:	200 signals × 25 MB = 5000 MB			
Storage options:	200 × 1.1 million = 220 million			
(1) Required storage:	200 signals × 10 years × (525 600 minutes : 5) = 210 240 000			
Required storage quota:	210 240 000 × (25 : 1 100 000) = 4 779 MB			
Required memory add-on:	None as required storage quota < available storage quota			



NOTE

1 year has 525 600 minutes or 31 540 000 seconds

Available storage quota with add-on:	4 500 MB	
Required memory add-on:	2 GB	
Required storage quota:	(52 560 000 + 105 120 000) × (25 : 1 100 000) = 3 584 MB	
(2) Required storage:	40 signals × 5 years × 525 600 minutes = 105 120 000	
(1) Required storage:	60 signals × 5 years × (525 600 minutes : 3) = 52560 000	
Storage options:	100 × 1.1 million = 110 million	
Available storage quota:	100 signals × 25 MB = 2 500 MB	
Storage time required:	5 years (due to audit)	
	40 signals every minute (2)	
Memory cycle:	cle: 60 signals every 3 minutes (1)	
Signals required:	100 signals	

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Access to Cloud

1. Register and look at demo applications



Register at www.jumo.cloud, confirm email, and log in.

2. Send request to JUMO

Send request to the applicable sales employee or to mail@jumo.net.

- 3. Consulting and discussion of concept together
- 4. Test phase with JUMO Cloud starter kit and JUMO online documentation possible (please see "Worth knowing")
- 5. Place order and select payment model
- 6. Set up JUMO Cloud dashboards yourself, request engineering services or JUMO Campus training



In the "Public" tab, activate demos.

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Worth knowing

Always up-to-date

When using the JUMO Cloud, you regularly receive the latest updates and functions which you can use with immediate effect and integrate into your process.

Completely secure

All of the data stored in the JUMO Cloud belongs to you! It is not forwarded to any third-party states, companies, or institutions. The computer center is also certified in accordance with ISO 27.001, is GDPR compliant, and is subject to the strictest access restrictions. The entire communication path is also encrypted.

Do you need support?

If you need more information, simple explanations, training courses, or support on the JUMO Cloud, there are a range of options available to you from JUMO.



documentation

Detailed JUMO Cloud

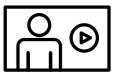




JUMO Engineering

Questions and information Services JUMO Campus

Training courses



YouTube-Channel Explanatory videos

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Order details

	(1)	Basic type
701810		JUMO Cloud – IoT platform for reliable process management
	(2)	Payment variant
1		Flat rate
2		Pay-per-use
	(3)	Billing
1		monthly
2		annually
	(4)	Signals, monthly flat rate
00		None
100		100 signals
150		150 signals
300		300 signals
500		500 signals
750		750 signals
	(5)	Signals, annual flat rate
00		None
25		25 signals
50		50 signals
100		100 signals
150		150 signals
300		300 signals
500		500 signals
750		750 signals
	(6)	Signals, monthly pay-per-use
00		None
100 - 149		100 - 149 signals
150 - 299		150 - 299 signals
300 - 499		300 - 499 signals
500 - 749		500 - 749 signals
750 - 1000		750 - 1000 signals
1000 - 100000		1000 - 100000 signals
	(7)	Extra codes (optional)
		(1) (2) (3) (4) (5) (6) (7)
Order code		
Order example		701810 / 1 - 2 - 00 - 150 - 00 /

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Accessories

Designation	Part no.
Memory add-on +1 GB	00751309
Memory add-on +2 GB	00748799
Memory add-on +5 GB	00748797
Memory add-on +10 GB	00748804

Starter kit (only one starter kit per customer possible)			
JUMO Cloud access with own test client (for test duration of 30 days) + JUMO variTRON 300 + JUMO wTRANS T01	00748800		
JUMO Cloud access with own test client (for test duration of 30 days) + JUMO variTRON 500 + controller module	00748802		