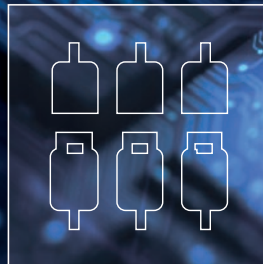


IIoT



Production Monitoring Platform

for Manufacturing Industries



ProCom
AUTOMATION

CONNECTIVITY WITHOUT BORDERS

Limitless Machine Monitoring!

"Clouver, the IIoT production monitoring platform, collects, analyses, and visualises every machine's data – from the raw material to the finished product."

Industrial production processes are often complex and involve a variety of different types of machines in one production chain. It is all the more important to synchronise all your machines and ensure production runs smoothly without any bottlenecks.

Clouver, the IIoT production monitoring platform, collects, analyses, and visualises every machine's data – from the raw material to the finished product!

A close-up look at each of your machines reveals stoppages, bottlenecks, and uncovers potentials to optimise your processes in the long-term.

Take your production's profitability into your own hands. A holistic overview of your production process is key to lasting profitability. Start today with Clouver and make your production smart.



HIGHLIGHTS

Customisation: Our experts develop new functions and apps to adapt Clouver to your individual needs!

Simple to start - considerable impact: All machines in your production are connected to Clouver within few hours. Whether new, old, or even manual workstation equipment – there are no costly retrofits.

Made for everyone: Clouver provides you both as manager and machine operator with valuable information to improve and facilitate your daily work.

Digital and sustainable: Keep track of all downtime and discover long-term optimisation opportunities – paperless and user-friendly for everyone.

Securely receive valuable information from your machines in real-time and access that information from anywhere.

YOU DECIDE: AS MUCH AS YOU NEED

Clouwer is modular in both hardware and software functions of the platform. This means that you find the optimal solution for every requirement: each customer selects the functions they need for their individual requirements – no less, no more. Perfect flexibility.

Basic Modules



Administration

With the Administration app, you can manage user roles, memberships, applications, and rules, as well as configure a range of settings for different accounts. Access to your data is always protected. You have control over who can see or edit what and when.



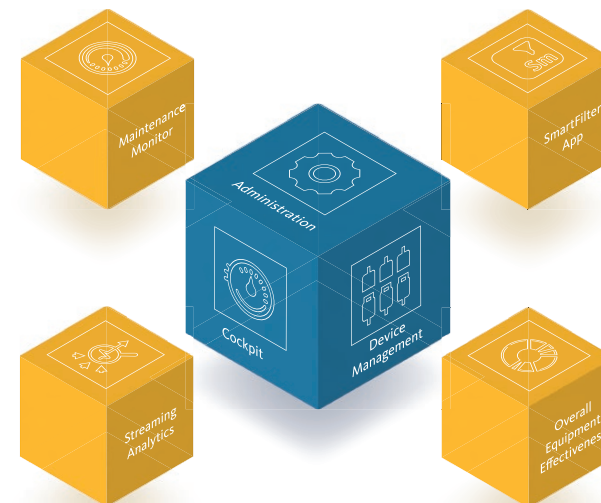
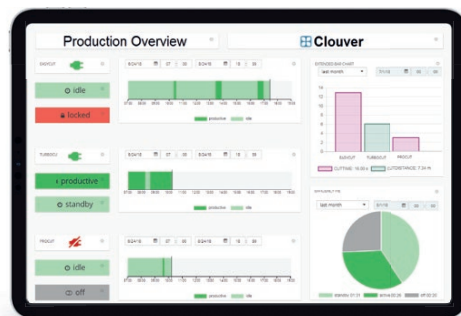
Cockpit

The Cockpit app offers you the possibility of configuring an individual dashboard with various diagrams and widgets. This allows you to keep track of all the information that is most important to you. You can react directly to bottlenecks and optimisation areas without delay.



Device Management

The Device Management app is used to manage and control all the connected machines and devices, including group assignments, registration, and activation/deactivation. This gives you direct access to all measurement data, events, connections, and status information on all of your machines and devices.



Optional Modules



Maintenance Monitor

The Maintenance Monitor app provides you with information about the maintenance status of a machine, which is determined on the basis of operating times. This enables you to proactively plan maintenance and makes sure your machinery is always productive.



SmartFilter

The user-friendly configuration editor in the SmartFilter app allows you to convert data from multiple sources and different formats into your own individual KPIs. Thanks to customised KPIs, potentials for optimisation are made evident and revealed more quickly.



Overall Equipment Effectiveness (OEE)

The OEE app visualises a machine's overall equipment effectiveness by analysing the operating grade, performance, and quality of the parts produced. This allows you to understand one of the most important KPIs in your production and draw decisive conclusions for potential areas to optimise.



Streaming Analytics

Real-time analytics allow you to access, analyse, and act on both historical and fast-moving live data from IoT devices. Transmission problems can be resolved before they cause problems in your production and generate faulty or incorrect data.

EASY TRANSFER OF INFORMATION TO THE CLOUD

Sometimes, machine data alone is not sufficient to establish a proper picture of production; it is essential to improve machine data with valuable information from the machine operator. Clouver combines information from your machine and its operator to create an optimised human-machine interface. By manually entering downtime causes via the TouchPanel, operators make a crucial contribution to creating a complete information overview. At the same time, Clouver makes your every-day work more convenient by organising production orders without any paper at all. A perfect symbiosis to transfer your valuable information to the cloud easily and quickly!



Different Types of Machines – One Solution to Connect Them All

Thanks to Clouver's unique SmartKit solution, IoT networking is successful even with old and differing machines: any type of machine can be connected and each process's production data can be visualised. Installation is completed within 60 minutes and can be carried out easily and quickly by your company electrician. If support is required, ProCom Automation's experts will help you anytime.

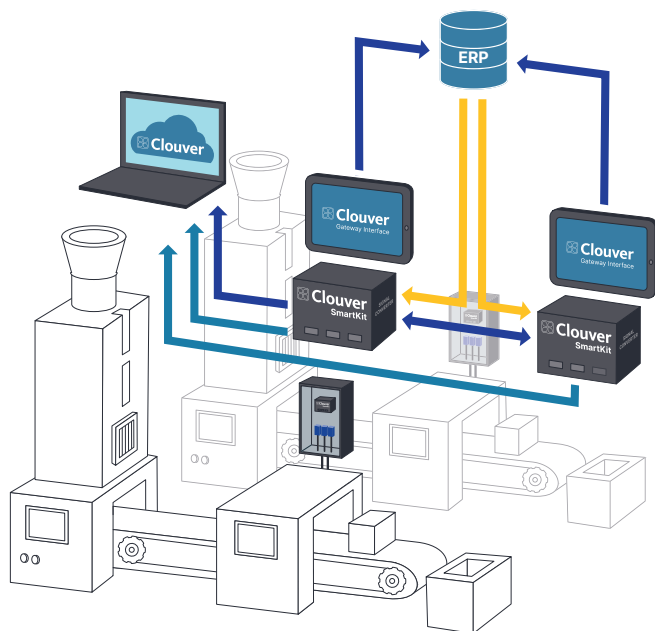
MORE THAN JUST SUSTAINABLE: MANAGING PRODUCTION ORDERS PAPERLESSLY

When you hear the term 'paperless production', the first thing that comes to mind is saving paper. However, for manufacturing companies, digital order management conceals numerous advantages that result in enormous savings of time and effort – both for production employees in operations and for production managers in data evaluation.

Advantages of Paperless Production

- ▶ **Enormous time savings:** Through the use of digital order management, your production orders quickly reach the 'place of action', both to the machines and their operators and back again. Long walking distances are eliminated efficiently. Time spent printing, filling out, collecting, entering data into the PC, and filing is also eliminated – a considerable time saving thanks to consistently streamlined processes!
- ▶ **Better communication through mobility:** Digital data can be accessed and shared quickly and easily. With mobile devices such as tablets or smartphones, you and your employees can access and update job information at any time and from anywhere. This promotes collaboration and improves communication.
- ▶ **Real-time updates:** Digital systems make it possible for you to monitor and update the status of orders in real-time. This allows you to quickly recognise disruptions or deviations from the plan and react immediately before overproduction or faulty parts occur.
- ▶ **Sustainable without paper archives:** By dispensing with paper – and thus reducing CO2 emissions and the consumption of wood, water, and energy – you make a valuable contribution towards conserving resources. For your company, this has further advantages, as costs for paper procurement, printing, and storage are eliminated.
- ▶ **Avoidance of errors:** Paperless systems reduce the likelihood of human errors such as data loss, incorrect entries, or wrongly assigned orders. For you, this results in a permanent productivity increase. Accurate production planning also enables your fast and flexible adaptation to new market trends and customer needs in order to remain competitive in the long term.
- ▶ **Transparency and data security:** Digital data can be easily tracked. At the same time, they can be encrypted and secured in such a way that only the people who are supposed to see the data have access to them.

HOW CLOUWER PAPERLESS WORKS



- ▶ The production order list is sent from the ERP system to the machines' SmartKits and TouchPanels.
- ▶ The SmartKits transfer the order list to Clouwer, where it is then displayed on the dashboard in the Clouwer platform.
- ▶ When a job is being processed, the operator taps the job on the TouchPanel. The SmartKit then sends the information about the job that has been started to Clouwer, the other machines, and to the ERP system.
- ▶ As soon as the job has been completed, further information on the production order – such as the number of parts produced – can be entered into the TouchPanel with a simple click.

BYE-BYE PENS – A TOUCHPANEL IS BEST NOW

All relevant production information such as the number of parts produced, the production time, the production date, the operator, and information on faulty parts are either automatically added to the order or they can be entered by the operator easily and in a matter of seconds. Manually filling in order slips is a thing of the past, and pens are obsolete where production is concerned.



TIME SPENT WITH AND WITHOUT PAPERLESS ORDER MANAGEMENT

Calculation Example

Without Paperless	Min./Day	With Paperless	Min./Day
▶ Printing and distributing production order slips	30	▶ Digitally sending production orders to the machines	0
▶ Entering the production data on slips of paper (approx. 20 orders per day)	100	▶ Inputting of production information into the TouchPanel	60
▶ Collecting slips and handing them in at the office	20	▶ Inputting data digitally	0
▶ Digitising the data by manually entering them into tables and documents, and filing the slips in folders	30	▶ Automatically transferring, evaluating, and storing digital data	0
▶ Manually transferring data from the documents into the ERP system	20	▶ Automatically transferring data to the ERP system	0
SUM	200	SUM	60

YOUR TIME SAVINGS: 200-60= 140 Min./Day



THE KEY? TRANSPARENCY!

Our goal is to improve the productivity of both your individual machines and your entire production line little by little every day, so you are always one decisive step ahead of your competition. The key to this is creating complete transparency of your production data. We guide you on your path to a transparent factory – from the initial consultation, through implementation and installation, to comprehensive after-sales service. Grow with us and be inspired by the innovations found in our IIoT solutions. Together with us, you shape the path to your digital future!

Book a free, non-binding initial consultation. Our experts will be happy to advise you in detail. **Simply scan the QR code and select your preferred date.**



ABOUT PROCOM AUTOMATION

ProCom Automation is a specialist in automation solutions in the cutting and separating industry. For more than 40 years, the experts at ProCom are developing high-tech control solutions featuring CNC and CAM software, high-quality hardware, and an optimised IIoT solution for the cutting industry.

Machine manufacturers all over the world benefit from cutting-edge automation solutions for a wide range of cutting technologies such as knife, laser, waterjet, plasma, and foam contour cutting. With product development focused on market and customer needs, ProCom Automation delivers unique features with significant added value to provide customers with a key competitive advantage for their success.

Clouver, the IIoT production monitoring platform, connects heterogeneous machine parks and brings transparency to production processes. With the targeted data evaluation of Clouver, unused potentials become visible and productivity is optimised sustainably.

The company with its headquarter in Aachen (Germany) is well-established in the European and Chinese markets and, for maximum efficiency and flexibility, continuously invests in the ongoing development and expansion of its product portfolio, as well as in future-oriented technologies like digitalisation.

ProCom
AUTOMATION

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