Introduction to countroll®

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Overview

- What is countroll®
- Why
- Terminology
- Identification of rollers
- Roller data
- How does everything interact

What is countroll®

countroll® is a user-friendly all-in-one industrial IOT platform allowing you to CONSULT, MANAGE, ANALYZE and MONITOR your roller data through the countroll® web portal and the countroll® mobile application.

Why

countroll® has several advantages for Hannecard and its customers.

Hannecard

- paperless
- internal automation
  - gain time (& money) at reception
  - manage stock of raw materials
  - less overhead for internal sales
- keep track of historical roller data to improve its products
- better planning

Customer

- paperless
- all roller data centralized
- accessible from anywhere, anytime
- improve process by analyzing sensor data
- create its own timeline

Terminology explained

- user-friendly — consulting and managing the roller data is easy to use and intuitive
- all-in-one — all roller data, timeline and documents are centralized in 1 system
- industrial IOT — industrial internet of things = a system of interrelated software and hardware that are provided with unique identifiers and the ability to transfer data without requiring human interactions
- platform — the cloud-based system for processing and storing roller data and handling user requests (e.g.: give me info about roller AR15, process rotational data of sensor 7, …)
- web portal — the website to return roller data requested by the user in an interactive and uniform way
- mobile application — the software application designed to run on an android device to return roller data requested by the user

countroll® terminology

- **countroll®** the text countroll is always written in lowercase followed by the registered trademark symbol

- **software**

countroll® (mobile) app

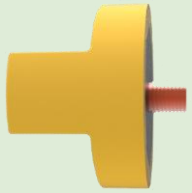
countroll® web portal

- **hardware**

countroll® QR label

countroll® TAG (=NFC tag, not used anymore)

countroll® sensor



countroll® NIP

Identification of rollers (1)

- To be able to consult, manage, analyze and monitor roller data, you need to know which roller exactly you are talking about
- To identify a roller, a unique number is given to it: the countroll® ID
- Once each roller has been identified, roller data and documents can be linked to this countroll® ID
- All this information is stored in a database structure: the countroll® platform
- All roller data can be retrieved from the platform by providing the countroll® ID

Identification of rollers (2)

- The countroll® ID has this format: Cxxxxx
  - prefix “C” referring to countroll®
  - followed by a unique number (incremental)

- To identify the roller, a QR label to stick on the roller
- The QR-label is also unique but different from the countroll® ID
- The QR-label has this format: CLxxxxxxxxx
  - prefix “CL” referring to countroll® label
  - followed by a unique number (incremental, 9 digits)

- The QR-label is linked to the countroll® ID (see image)
  - when scanning the QR label CL000010645, the data of roller C1234 will be returned

Roller data (1)

The roller data is coming from different resources:

- **Hannecard**:
  - data is uploaded from the ERP (=Data-M) to the countroll® platform: roller properties, documents, …
  - the internal sales can manually add extra info/documents into the countroll® platform

- **Customer**:
  - can add his own events/pictures/documents to the timeline
  - can modify incomplete/incorrect roller info
  - can manage his rollers by assigning them to a company level, physical location, …
  - can keep track of the quality
  - sensor data gets uploaded automatically, NIP data manually

Roller data (2)

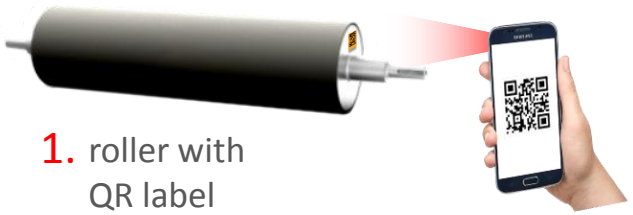
Roller data is split up into several parts:

- **Info & documents**: contains all static roller core data
  - roller properties/description & roller core documents
  - latest location/company level/recover event/quality event

- **Timeline**: contains all dynamic roller & roller covering data stored in events
  - recover & regrinding info & documents
  - change of location/company level/quality

- **(Raw) Sensor data**: contains data and graphs of sensor(s) linked to this roller

How does everything interact (1)



1. roller with QR label

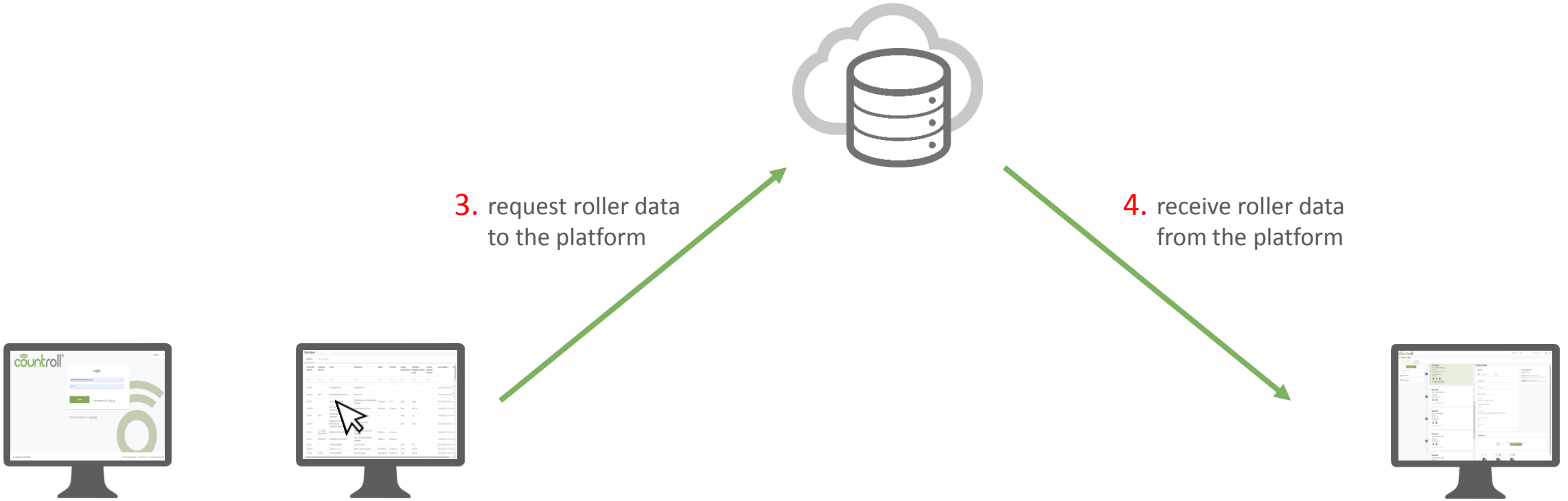
2. scan QR label with countroll® app

3. request roller data to the platform

4. receive roller data from the platform

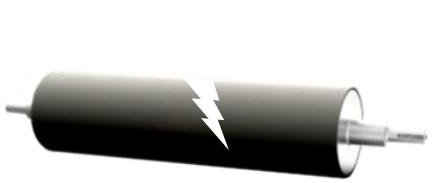
5. show roller data on the smartphone

How does everything interact (2)



How does everything interact (3)

1. take picture with smartphone which will be transfered to the platform

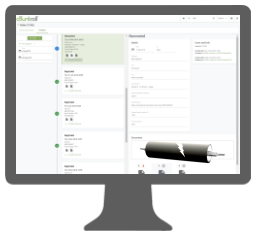


5. receive roller data from the platform

4. request roller data to the platform

2. browse to web portal

3. select a specific roller



6. show roller data with picture on the computer

How does everything interact (4)

1. roller with sensor

2. transfer sensor data via BLE to smartphone

3. transfer data via Wifi/4G/… to the platform

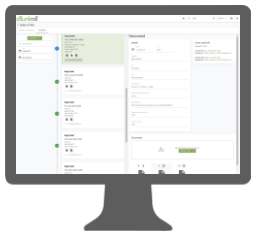
4. data processing on the platform

8. receive sensor data from the platform

7. request sensor data to the platform

5. browse to web portal

6. select a specific roller



9. show sensor data on the computer

How does everything interact (5)

1. Measure NIP between 2 rollers and transfer data to smartphone

2. transfer NIP data via Wifi/4G/… to the platform

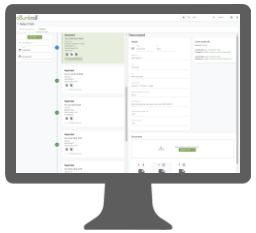
3. create timeline events on the platform

7. receive NIP data from the platform

6. request NIP data to the platform

4. browse to web portal

5. select a specific roller



8. show NIP data on the computer

Thanks for your attention

countroll®

smart monitoring system for rollers