in.hub

NUMCORDER 1.0

User Manual

Valid SIINEOS version: from 2.9.0
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Legal information

Safety information

This documentation contains information that you must observe for your personal safety and to prevent material damage. Read the safety information carefully and always keep this documentation within easy reach.

The safety information is presented in descending order of hazard level as follows:

DANGER

Indicates an immediate hazard to humans. Failure to comply will lead to irreversible injuries or death.

WARNING

Indicates an identifiable hazard to humans. Failure to comply may lead to irreversible injuries or death.

CAUTION

Indicates an identifiable hazard to humans or potential material damage. Failure to comply may lead to reversible injuries or material damage.

ATTENTION

This gives you information that may lead to material damage if not complied with.

NOTE

A note gives you useful information on specific actions and issues.

TIP

A tip gives you tips, tricks or recommendations from in.hub that have proven to be helpful in handling the products.

Qualified personnel

The product associated with this documentation may only be handled by personnel qualified for the respective task. The device may only be installed, commissioned and operated in compliance with the associated documentation and the safety information contained therein.

Based on their training and experience, qualified personnel are able to recognize risks and avoid potential hazards when handling these products.

Knowledge of PCs, operating systems and web applications is a prerequisite. General knowledge in the field of automation technology is recommended.

Intended use

in.hub products may only be used for the applications specified in the corresponding technical documentation.

If third-party products and components are used, they must be recommended or approved by in.hub.

Proper storage, set-up, assembly, installation, commissioning, operation and maintenance are essential for the correct and safe operation of the products.

The permissible ambient conditions must be complied with. Instructions in the associated documentation must be followed.

Brands

All designations marked with the “®” symbol are registered trademarks. The other designations in this document may be trademarks whose use by third parties for their own purposes may infringe the rights of the owner.

Disclaimer

in.hub accepts no liability for product malfunctions resulting from improper handling, mechanical damage, incorrect application and improper use.

The contents of this document have been checked for conformity with the product described. However, deviations cannot be ruled out, so that we cannot guarantee complete conformity. The information in this publication is regularly reviewed. Necessary corrections are included in subsequent editions.

1. General information

This document contains all the information you need to commission and use the device/software.

The document is intended for service technicians, system administrators and installers who connect the product with other units, configure it and commission it.

1.1. Scope of delivery

1× User Manual as a PDF

1.2. Other applicable documents

In addition to this document, please observe the following documents. You can find these in the in.hub download portal at https://download.inhub.de/:

- User Manual for the IoT (Internet of Things) operating system SIINEOS

1.3. Network security

Please bear in mind that the product does not communicate in encrypted form within the internal network. Therefore, protect your network from unauthorized access from outside! Any integration into a network with Internet access must be undertaken with great caution. It is imperative to speak with your system administrator in advance.

2. Working with NumCorder

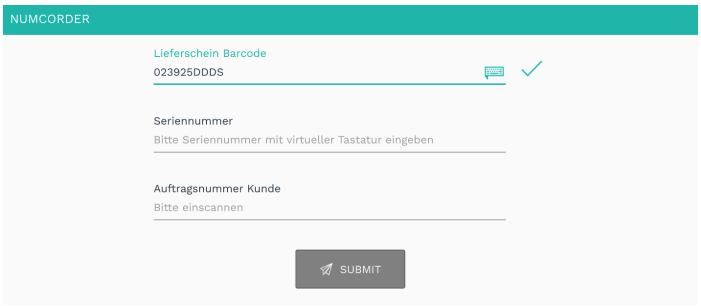
NumCorder is user software (an app) in SIINEOS that allows you to scan in barcodes or enter serial numbers. This allows you to make any type of input and freely configure input fields.

Before you start, make sure that the system administrator has activated the **NumCorder** app in SIINEOS: **SIINEOS > Apps > NumCorder > Manage app**

2.1. Open NumCorder and make entries

1. Navigate to **SIINEOS > Apps > NumCorder**.
2. Open NumCorder by clicking on **Open app**.

   You can only start collecting data directly if input sources, fields and data submission targets have already been configured in the NumCorder administration.
3. Fill in all the displayed input fields using the configured input sources (e.g. the keyboard or a barcode scanner).



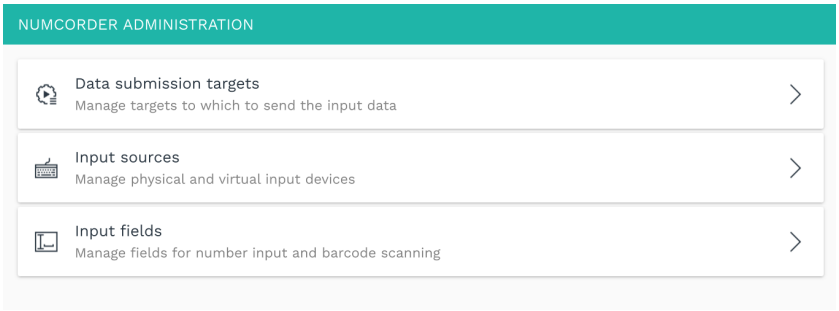
Example of input fields created in administration

If an input meets the specifications (character length, allowed characters, etc.), a green checkmark will appear.

The **Submit** button is only activated when all fields are filled in and you can send the entries to the specified data submission target.

3. Administrating NumCorder

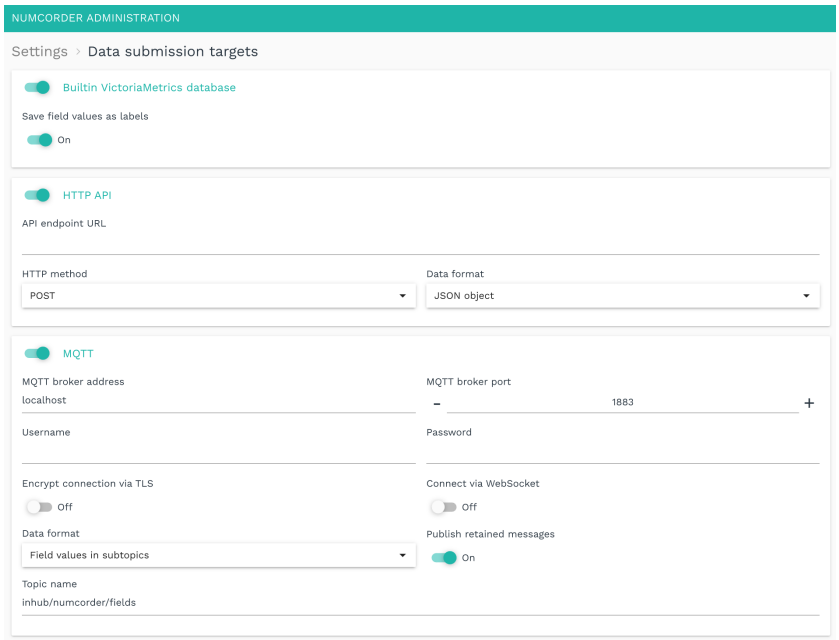
1. Navigate to **SIINEOS > Apps > NumCorder**.
2. Open NumCorder administration by clicking on **Manage app**.
3. Select what you want to configure.



NumCorder administration

3.1. Configuring data submission targets

You can submit the entered data either to the VictoriaMetrics database, to an HTTP API or to an MQTT interface. To do this, activate the corresponding slider.



Settings for data submission targets (example)

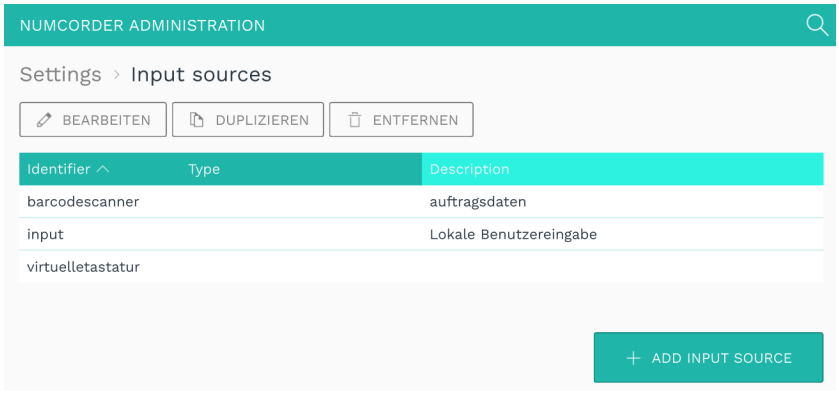
1. If you have selected **Built-in VictoriaMetrics database**:
   Set the **Save field values as labels** slider to **On** if not only numbers but also input values containing letters and special characters are to be saved.

Then the field value is not stored in the metric value itself, but in the label of the metric and the query must be adjusted accordingly, e.g. in Grafana.

2. If you have selected **HTTP API**:
   Enter the URL of the API endpoint to which the data is to be sent.
   From the drop-down list, select the **HTTP method** to be used to send data.
   In the **Data format** drop-down list, you can also specify whether the data should be sent/transmitted as a **JSON object** or as **Comma-separated values**.
3. If you have selected **MQTT**:
   Enter all connection details, such as the **MQTT broker address** and the **MQTT broker port**, **Username** and **Ppassword** to send the NumCorder data via the MQTT protocol.
   You can **Encrypt this connection via TLS** (organization CA must be uploaded). Communication via WebSockets can also be activated if the broker only allows WebSocket connections. To do this, set the respective slider to **On**.
   In the **Data format** drop-down menu, you can also specify whether the data should be published as a **JSON object** or as **Field values in subtopics**.
   Set the **Publish retained messages** slider to **On** if you want the broker to send the last value published regarding this topic to all new clients.
   In the **Topic name** field, enter the topic name under which the data is to be published.
4. Finish your entry with **Save & close**.

3.2. Configuring input sources

Here you can configure the physical and/or virtual input devices that can be used to acquire input.

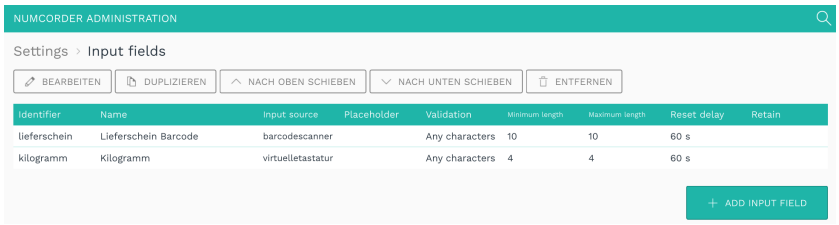


Creating and administering input sources

1. Click on **Add input source**.
   The setup wizard opens to guide you through the rule creation process. In the following, confirm each entry with **Next** or press **Enter**.
2. Enter the **Identifier** of the input source, e.g. “barcodescanner”.
   Only lower-case letters without spaces or special characters are permitted.

3. Select the **Type** of input source.
   You can choose from the preconfigured input sources.
4. Optional: Enter a **Description** for the input device.
5. Click on **Finish**.

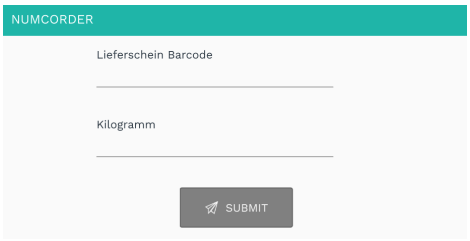
3.3. Creating input fields



Creating and administering input fields (example)

1. Click on **Add input field**.
   The setup wizard opens to guide you through the rule creation process. In the following, confirm each entry with **Next** or press **Enter**.
2. Enter the **Identifier** of the input field, e.g. “deliverynote”.
   Only lower-case letters without spaces or special characters are permitted.
3. Enter the **Name** to be displayed next to the input field.
4. Select the **Input source** from the drop-down list.
   The input sources that you have created yourself are displayed.
5. Optional: Enter a **Placeholder** to be displayed in the input field if empty.
6. Under **Input validation**, you can specify which characters are to be allowed for input.
7. Specify the **Minimum length** in terms of characters.
   The default setting is 10 characters.
   If a field does not have to be filled in, 0 can also be specified as the minimum input length.
8. Specify the **Maximum length** in terms of characters.
   The default setting is 10 characters.
9. Under **Reset delay**, you can specify when the input field is automatically cleared again after inactivity and you have to restart the input.
   The default setting is 60 seconds.
10. Set the slider under **Retain after sending** to **On** if you want the input field to retain its value after it has been sent.

11. Click on **Finish**.
    As soon as you open the **NumCorder** app, the defined input field appears.



Input fields (example)

12. All input fields that you have created are also displayed when you open the app and must be filled in to send the data to the data submission targets.
    If you want to remove a field again, select it in the list and click on **Remove**.
13. If you want to adjust the order of the input fields, select a field in the list and click on **Move up** or **Move down**.
    The order of the list is also the order for entry.

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The original language of this document is German.

Made in Germany.

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