

Cumulocity Connector App

PLCnext App



Automotive | Automation
Green Energy

The Cumulocity Connector App is a device agent in the sense of the Internet of Things (IoT), as it **connects PLCnext devices from Phoenix Contact with the Cumulocity IoT platform, a product of Software AG.**

Therefore, on one hand, the app communicates with the PLCnext device via the device-specific protocol, and on the other hand, the app forwards and retrieves data to Cumulocity via HTTPS. For this data exchange the Cumulocity data model is used, so the app will transform the device specific data.

How to start

The App is available for free in the **PLCnext Store**. It is **easy to install and to configure**, so the device integration can be done within minutes. The internal communication of the App and the PLCnext device is done over the **RSC protocol**.



Figure 1: App Concept Overview

After a successful device integration on the Cumulocity platform, the Cumulocity Connector App provides the standardized device management features from the platform, so **tracking device information** (like hardware model, serial number or version), **monitoring the device availability, defining a geographical position, acquiring specific device data** or **sending control commands** is immediately available.

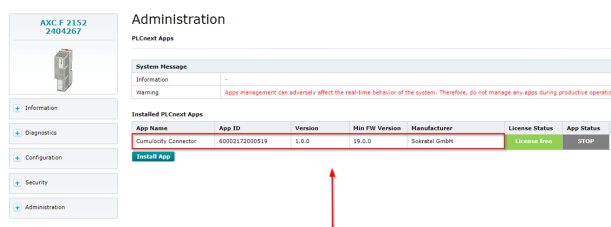


Figure 2: Installed App in Phoenix Web Interface

Configuration

The device configuration panel on Cumulocity allows defining signals from the PLCnext device's **Global Data Space (GDS)** for transfer to Cumulocity. This requires defining the signal's port name, **transformation mapping**, and sample rate in the **JSON configuration file**. Transformation mapping determines how the GDS signal is converted for Cumulocity, with three standardized data object types options available: **Measurement, Event, or Alarm**.

Configuration changes are managed through **Cumulocity operations**; invalid requests, such as syntax errors, result in failed updates. Valid changes are marked successful upon completion.

Additionally, **device restart** can be initiated via Cumulocity's device info page, restarting the entire PLCnext device. The **Cumulocity device control page** offers an **overview of all device operations**, facilitating tracking and identification of past executions.

Links:

<https://www.plcnextstore.com/permalinks/apps/latest/60002172000519>
<https://www.softwareag.cloud/site/product/cumulocity-iot.html>



Tim Krause
Sokratel GmbH
Head of Division Automation



Thomas Frei
Sokratel GmbH
Managing Director

Contact: contact-automation@sokratel.com



You want to learn more?

Scan the QR-Code to explore our website or contact us!