

CODESYS Sensor App for Android: Erste Schritte



The product "CODESYS Sensor App for Android" consists of an IEC 61131-3 sample project CODESYS and the Android app. The sample project processes the data from the Android app "CODESYS Sensor App for Android".

Installation

This section describes the installation and configuration of the individual components.

Installing the Android app

The product component "CODESYS Sensor App" is installed exclusively from the Google Play Store.

Search for "CODESYS Sensor App" in the Google Play Store and install the app on the Android device.

Installing the CODESYS package

Install the software package "SensorAppForAndroid.package" on the CODESYS Development System by means of the integrated package manager. The sample application "AndroidSensorApp.project" is located then in the installation directory with the Android *.apk file.

Configuration

The Android app sends sensor data from the Android device to the CODESYS controller by means of network variables via UDP to ports 1202 and 1059. The Android device (e.g. smartphone or tablet) and the CODESYS controller can communicate with each other most easily over the Wi-Fi hotspot of the Android device.

Setting up a WiFi hotspot in Android devices

- Set up a Wi-Fi hotspot on the Android device (e.g. Settings -> More -> Tethering & mobile hotspot -> Set up WiFi hotspot)
- Connect the CODESYS controller to the Wi-Fi hotspot and determine the IP address of the controller for the WLAN adapter (e.g. `ipconfig` command).

Preparing the CODESYS Development System

- Open the CODESYS sample project "AndroidSensorApp.project" and start the downloaded application `SensorReceiver` on the controller.

Configuring Android devices

- Start the app "CODESYS Sensor App for Android".
- Specify the IP address of the CODESYS controller in `Target IP address`.
- Switch `Send sensor data to control` to ON.

The current sensor data is sent to the controller and displayed in the visualization.

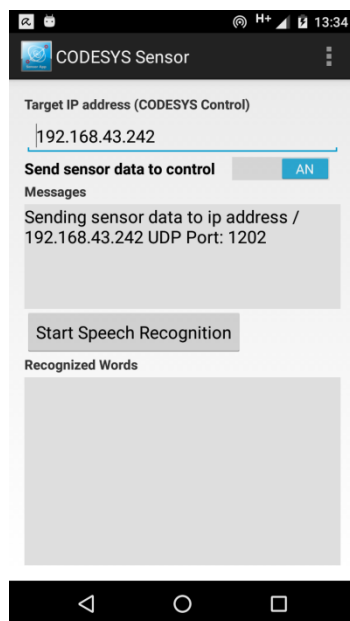
Range of functions

Functions of the Android app "CODESYS Sensor App for Android"

- Target IP address: Set the IP address of the CODESYS controller
- Send sensor data to control: Send the sensor data to the specified IP address
- Messages: Information about the status of the CODESYS app
- Start Voice Recognition: Starts the automatic speech recognition by Google (For existing Internet connection only)
- Recognized Words: List of recognized words

Sample project "AndroidSensorApp.project"

The received sensor data is represented in the visualization of the application `SensorReceiver`. The recognized words of the speech recognition are saved in `String strCommand` of the network variable `NVL`.



Screenshot: CODESYS Sensor App for Android on an Android device



Screenshot: Sample project "AndroidSensorApp.project" – Visualization of sensor data