

Weather Forecast Library

With the Weather Forecast Library, current weather data and forecasts can be queried for any city by means of the "OpenWeatherMap" online service.

Product description

Licensing:

No license is required.

"OpenWeatherMap" (https://openweathermap.org) is an online service that provides an open API for weather data and forecasts. With the Weather Forecast Library, weather data of "OpenWeatherMap" can be queried for any city. Using "OpenWeatherMap" requires an API key (APPID). To get the free API key, go to https://openweathermap.org/appid.

Range of Functions

The CODESYS package "Weather Forecast Library" includes the following components:

- Weather Forecast Library
- Sample "WeatherForecastExample.project"
- Description of the library as a CHM help file

The library can be used for querying the following data:

Current weather data:

- Date and time
- Name of city
- Time of sunrise
- Time of sunset
- Humidity
- Wind velocity
- Cloudiness
- Temperature
- Air pressure

Five-day weather forecast in three-hour intervals:

- Date and time
- Description
- Temperature
- Humidity
- Wind velocity
- Cloudiness

Functional description

With the WeatherForecast function block, weather data can be queried for a specific city. The name of the city is set over the sCity input. The language can be set over the sLanguage input.

Using "OpenWeatherMap" requires an API key (APPID). To get the free API key, go to https://openweathermap.org/appid. The API key must be passed over the sAppId input.

Note: Unlocking the API key can take several minutes.

A rising edge at xExecute starts the query. The current weather data is available at the weatherData output. The weather forecast is stored at the aForecast output as an array of structures of type weatherData. Each element of the array corresponds to a forecast for a specific time of day. The five-day weather forecast is in three-hour intervals.

Screenshots

		W	leather Fo	orecast E	Example		
Ple	ease enter the name of	of the city: Ke	mpten		GetWeather	Request Successful	
Curren	nt Weather Data ——					Temperature:	
		10/30/2018 Kempten	Humidity: Wind Speed:	81.0 %		67.°C 140.0 135.0 125.0 120.0 10	
Desr		CH	Cloudiness: Minimum Temperature:	.00	0 %) *C	15.0 5.0 0.0	(12.17) (12.17) (12.17)
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General information

Supplier:

CODESYS GmbH Memminger Strasse 151 87439 Kempten Germany

Support:

https://support.codesys.com

Item: Weather Forecast Library Item number: 000090 Sales:

CODESYS Store https://store.codesys.com

Included in delivery:

CODESYS Package with library and sample project

System requirements and restrictions

Programming System	CODESYS Development System V3.5.10.0 or higher			
Runtime System	CODESYS Control V3.5.10.0			
Supported Platforms/ Devices	All			
	Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.			
Additional Requirements	"OpenWeatherMap" requires an API key (APPID). To get the free API key, go to https://openweathermap.org/appid.			
Restrictions	-			
Licensing	No license is required.			
Required Accessories	-			

Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact sales@codesys.com.

Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.