

Schneider Electric DataLogger4G Driver

File Name	DataLogger4G.dll
Manufacturer	Schneider Electric
Devices	Schneider DataLogger 4G LTE IoT Devices
Protocol	REST API (HTTP and HTTPS)
Version	1.0.1
Last Update	01/24/2024
Platform	Win32
Dependencies	None
Superblock Readings	Not Supported
Level	Level 1

Introduction

This Driver implements the REST API (HTTP and HTTPS) protocol, allowing an application developed by Eclipse Software to communicate with devices Schneider DataLogger 4G LTE IoT Devices by Schneider Electric.

Preparing a Device

The devices shall be previously configured at the Schneider DataLogger 4G platform, with it's Server installed locally (on premises) or at the cloud.

Driver Configuration

This Driver's [P] parameters are not used. All configurations are performed on Driver's configuration dialog box. For more information about the configuration tabs, please check topic **Documentation of I/O Interfaces**.

Property Window

The configuration parameters for device connection are available at the Driver Property Window.

PROPERTY	DESCRIPTION
Server Address	Informs the Schneider Server IP Address or URL. Ex: 10.196.5.4
API Client Key	API Key, shall be defined at the Schneider DataLogger 4G Server Website, through the tab "API Clients - Generate API Key"
API Secret	Secret associated with the API Client Key
New Site/Device Scan (s)	Time interval used to update the driver Sites/Devices internal database, allowing new tags to be added during runtime. Let it 0 to disable.
Max Delay for Bad Quality (s)	Maximum Delay in seconds for a measure reading to be reported with Bad Quality.
Site GPS Scan (s)	In case of usage of special GPS latitude and longitude tags of a site, this field informs the update interval of this information.
Use Secure Connection (HTTPS)	If Schneider Server is on cloud, enable this option to use HTTPS protocol, instead of HTTP, which is used locally.
Read Streams by Site - Scan (ms):	<p>Each device may contain a set of streams, which are the variables historical series. Streams can be read grouped by site or individually. Check this option to read the streams by site, and define an interval in ms for it. In this case, the first read operation after driver startup will request the current day values, and then new data will be requested starting from the newest timestamp received from the previous reading.</p> <p>Let this option unchecked to read the streams individually, requesting in this case just the last (current) value on each tag scan. The reading interval in this case, will follow the scan time defined on each tag.</p>
Apply Local Time Zone for Timestamps	Data received from Schneider Server are at UTC timezone. Check this option to convert to local timezone.

Alternatively to the Property Window, these configurations can also be done in runtime from **E3** or **Elipse Power** applications. For this, start the driver in **Offline** mode, i.e., execute the application with the option **Start driver OFFLINE** enabled, configurable through the **Setup** tab of the Property Window. The configuration options are described below.

Schneider Electric DataLogger4G Driver Configuration Options

PARAMETER	OFFLINE PROPERTY STRING	DATA TYPE
Server Address	DataLogger4G.ServerAddress	String
API Client Key	DataLogger4G.APIClientKey	String
API Secret	DataLogger4G.APISecret	String
New Site/Device Scan (s)	DataLogger4G.NewSiteScanS	Number
Use Secure Connection	DataLogger4G.UseHTTPS	Number (0 or 1)
Read Streams by Site	DataLogger4G.ScanbySite	Number (0 or 1)
Site Scan (ms)	DataLogger4G.SiteScanMS	Number
Apply Local Time Zone	DataLogger4G.ApplyLocalTZ	Number (0 or 1)

All offline properties must be configured via PLC Tags in **String** format, by using parameters *N1* equal to -1 (minus one), *N2* equal to 0 (zero), *N3* equal to 0 (zero), and *N4* equal to 3 (three). For more details and examples, please check topic **Documentation of I/O Interfaces**.

Tag Reference

All tags follow the same setting:

Device: Organization/Site

Item: StreamName

The driver offers the TagBrowser functions, which allows to list the Organizations, Sites and Streams found at the Server (to the right of the window), which can be dragged and dropped to the driver (to the left).

Organizations are site groups, and site is the name of a place where a DataLogger device is installed.

At this driver, the sites that don't belong to an Organization will be placed in a fictitious organization called "NoOrg", just to keep the address format.

Inside a site (device), it will show the streams, which can be associated to IOTags.

Example of a Tag Addressing:

Device: MyOrg/Device1234

Item: Pressure

There are some reserved tags:

Latitude and Longitude: To receive the GPS information of a site (Latitude and Longitude), in this case you need to inform at each tag Item the values "GPSLat" and "GPSLon" respectively. These tags will be updated at the interval defined at the property "Site GPS Scan (s)". The Device field shall be configured the as default (Organization/Site).

Connection Status with Schneider API: You can create a tag with the text "APIStatus" at Item field. The device field shall be empty.

Important notes:

1 - All tags are read-only.

2 - The tags which values are identified as numbers, will be returned as numbers (integers or real doubles). Tags containing alpha-numeric chars will be returned as strings.

I/O Interfaces Documentation

This section contains the I/O Interfaces documentation referring to **DataLogger4G** Driver.

Driver Revision History

VERSION	DATE	AUTHOR	COMMENTS
1.0.1	01/24/2024	M. Salvador C. Mello	First driver version.

Headquarters

**Rua Mostardeiro, 322/Cj. 902, 1001 e
1002**

90510-002 — Porto Alegre — RS

Phone: (+55 51) 3346-4699

Fax: (+55 51) 3222-6226

E-mail: elipse-rs@elipse.com.br

Branch in Taiwan

9F., No.12, Beiping 2nd St., Sanmin Dist.

807 — Kaohsiung City — Taiwan

Phone: (+886 7) 323-8468

Fax: (+886 7) 323-9656

E-mail: evan@elipse.com.br

Check our website for information about a representative in your country.

www.elipse.com.br

kb.elipse.com.br

forum.elipse.com.br

www.youtube.com/elipsesoftware

elipse@elipse.com.br



Gartner, Cool Vendors in Brazil 2014, April 2014.

Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability of fitness for a particular purpose.

Microsoft Partner
Gold Independent Software Vendor (ISV)