

# Eclipse SequenceWebService Driver

<b>File Name</b>	SequenceWebService.dll
<b>Manufacturer</b>	Eclipse Software
<b>Devices</b>	N/A
<b>Protocol</b>	HTTP, XML, and JSON
<b>Version</b>	1.0.2
<b>Last Update</b>	06/13/2025
<b>Platform</b>	Win32
<b>Dependencies</b>	.NET Framework 4.0 or later
<b>Superblock Readings</b>	No
<b>Level</b>	32001

## Introduction

The Eclipse SequenceWebService Driver enables integration between **Eclipse Software** applications and other applications using a .NET Web Service.

This Driver hosts a Web Service with a method capable of sending different types of data to an **Eclipse E3**, **Eclipse Power**, or **Eclipse Water** application. Depending on the operation, this method updates the reserved I/O Tag or Block Tag with the request parameters.

## Request to the Web Service

HTTP requests to the Web Service must use the **POST** method and include the required parameters **Operation**, **Entity**, and **Data**. The **Data** parameter must be in **XML** or **JSON** format, according to the next specification.

### General Structure

Except for the **UPDATE TAG** operation, the request parameters are encapsulated in a reserved Block Tag called **OperationBlock**. For requests with the **UPDATE TAG** operation, the Block Tag **OperationBlock** is not used, since this operation is intended for updating specific PLC or Block Tags. In this case, the **Entity** parameter represents the Tag's **Item** property to update and the **Data** parameter must follow the formats described next.

### For PLC Tag Updates

**XML** format:

```
<TagData>
  <Value>XXX</Value>
  <Quality>XXX</Quality>
  <Time>XXX</Time>
</TagData>
```

**JSON** format:

```
{
  "Value": "XXX",
  "Quality": XXX,
  "Time": "XXX"
}
```

## For Block Tag Updates

**XML** format:

```
<TagData>
  <Values>
    <Value>XXX</Value>
    <Value>XXX</Value>
    <Value>XXX</Value>
  </Values>
  <Quality>XXX</Quality>
  <Time>XXX</Time>
</TagData>
```

### NOTE

The **<Values>** section can contain as many **<Value>** elements as needed.

**JSON** format:

```
{
  "Value": ["XXX", "XXX", "XXX"],
  "Quality": XXX,
  "Time": "XXX"
}
```

### NOTE

The **Value** array can include as many values as needed.

## Rules for Values

- **Value:** The values sent are interpreted by the application as **Strings**, integer, or floating point values, depending on the most appropriate format
- **Quality:** Must be an integer value representing the quality of a Tag, such as 192 for good quality
- **Time:** Must be a **String** in **ISO 8601** format, using the pattern **YYYY-MM-DDTHH:MM:SS**, such as "2025-06-13T17:25:55"

## Specific Behavior

If a **POST** request to update a Block Tag is sent, but the **Entity** parameter refers to a PLC Tag in the application, only the first value from the array or list of values is considered for updating that Block Tag.

## Example of a Request Using the curl Program

```
curl -X POST http://localhost:5050/ \
  -H "Content-Type: application/json" \
  -H "Operation: XXX" \
  -H "Entity: XXX" \
  -d "XXX"
```

The value of the **Content-Type** header must match the format of data sent in the body, that is, the **-d** parameter. Use "application/json" if data is in **JSON** format and "application/xml" if data is in **XML** format.

The request's response is a **String** in **JSON** format with the **Err** field, an integer representing the error code, and the **ErrMsg** field, a **String** containing a description of the error.

### Example of a Response

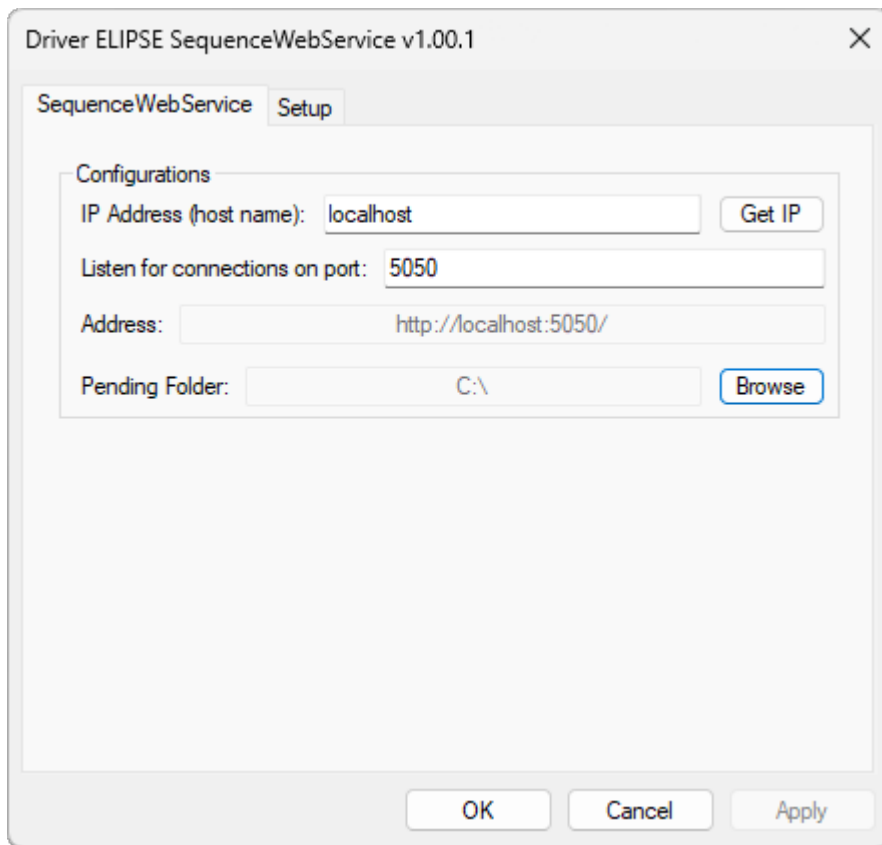
```
{"Err":3,"ErrMsg":"Invalid XML or JSON data"}
```

## Driver Configuration

This Driver's [P] parameters are not used. All configurations are performed on this Driver's configuration dialog box.

### Configuring Properties

The **SequenceWebService** tab contains settings specific to this Driver.



**SequenceWebService tab**

The available options on this tab are described on the next table.

**Available options on the SequenceWebService tab**

OPTION	DESCRIPTION
<b>IP Address (host name)</b>	IP address or name of the local machine where the Web Service is hosted. The default value for this option is "localhost"
<b>Get IP</b>	Click to configure the <b>IP Address</b> option with the IP address of the local computer
<b>Listen for connections on port</b>	TCP/IP port used for connecting to the Web Service. The default value for this option is 8080

OPTION	DESCRIPTION
<b>Address</b>	Address of the Web Service address, automatically filled in
<b>Pending Folder</b>	Path to the folder where the file SequenceWebServicePending.json is saved when stopping this Driver, if there are requests received but not yet processed, so that they are processed upon restarting this Driver. The default value for this option is "C:\\"

## Tag Reference

This section contains information about the configuration of this Driver's **[N/B]** Tags.

### OperationBlock

#### Read-Only (via Callback)

Reads information sent to the Web Service for requests with the **Operation** parameter different from "UPDATE TAG".

<b>Device</b>	Not used
<b>Item</b>	OperationBlock
<b>B1</b>	Not used
<b>B2</b>	Not used
<b>B3</b>	Not used
<b>B4</b>	Not used
<b>Size</b>	3 (three)

#### Structure of a Block Tag

NAME	INDEX	DESCRIPTION
<b>Operation</b>	0 (zero)	The <b>Operation</b> parameter from the request
<b>Entity</b>	1 (one)	The <b>Entity</b> parameter from the request
<b>Data</b>	2 (two)	Data from the request, with no additional parsing

### PLC Tag or Block Tag

#### Read-Only (via Callback)

Reads information sent to the Web Service for requests with the **Operation** parameter equal to "UPDATE TAG".

<b>Device</b>	Not used
<b>Item</b>	Same as the <b>Entity</b> parameter from the request
<b>N1/B1</b>	Not used
<b>N1/B2</b>	Not used
<b>N1/B3</b>	Not used
<b>N1/B4</b>	Not used

## Driver Revision History

VERSION	DATE	AUTHOR	COMMENTS
1.0.2	06/13/2025	M. Ludwig A. Fetzner	<ul style="list-style-type: none"><li>• Driver updated to <b>IOKit</b> library version <b>3.0</b> and Visual Studio 2022 (<i>Case 37966</i>).</li><li>• Initial version of this Driver (<i>Case 37872</i>).</li></ul>

**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](mailto: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](mailto:evan@elipse.com.br)**

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

**[www.elipse.com.br](http://www.elipse.com.br)**

**[kb.elipse.com.br](http://kb.elipse.com.br)**

**[forum.elipse.com.br](http://forum.elipse.com.br)**

**[www.youtube.com/elipsesoftware](http://www.youtube.com/elipsesoftware)**

**[elipse@elipse.com.br](mailto: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)