Elipse VBScript Driver

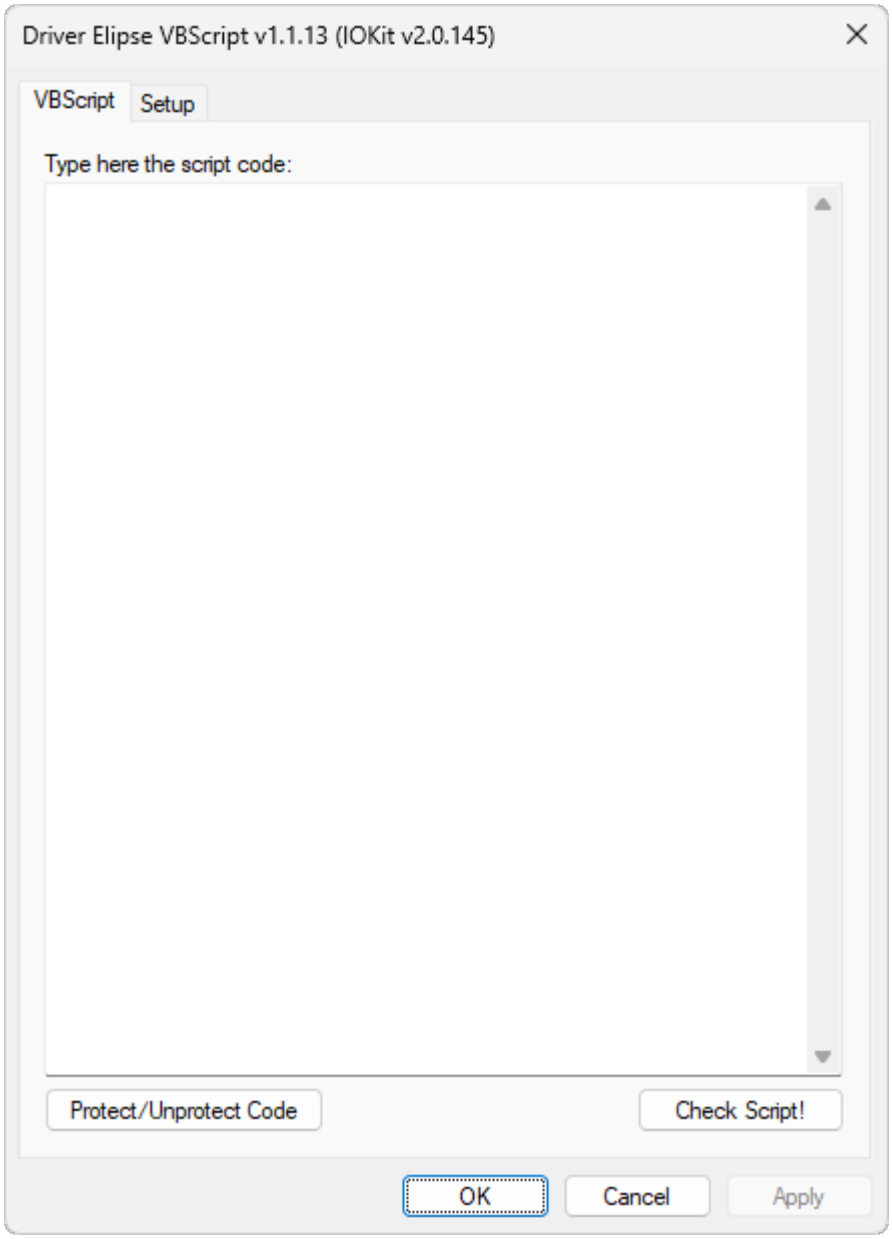
File Name	VBScriptDriver.dll
Manufacturer	Elipse Software
Devices	Not applicable
Protocol	Not applicable
Version	1.1.15
Last Update	01/04/2026
Platform	Win32
Dependencies	None
Superblock Readings	No
Level	0

Introduction

This Driver allows users to implement a script in VBScript language, which is executed at each reading or writing of a Tag. This Driver does not use **IOKit** library's communication layer.

Driver Configuration

Users are responsible for editing the script executed by this Driver on the **VBScript** tab, shown on the next figure.



VBScript tab

Click **Check Script!** to compile the code informed in the **Type here the script code** option. If there is any error in that script, a dialog box is displayed indicating the line in which this error occurs.

Click **Protect/Unprotect Code** to encrypt an unprotected code by using a password. Once protected, this code cannot be viewed or edited anymore on this tab, but the scripts can be executed normally at run time. To view or edit a code again, click **Protect/Unprotect Code** and type the password used to encrypt that code.

OnStart and OnStop Events

When this Driver starts, the script on the **OnStart** event is executed. When this Driver stops, the script on the **OnStop** event is executed, according to the next example.

```
Sub OnStart()
  'Executed when this Driver starts
End Sub

Sub OnStop()
  'Executed when this Driver stops
End Sub
```

Global Variables

To store any temporary value during the execution of this Driver, users can declare global variables in a script, according to the next example.

```
' Declares a global variable
Dim gDict

Sub OnStart()
  'Initializes global variables
  Set gDict = CreateObject("Scripting.Dictionary")
  gDict.Add "BR", "Portuguese"
  gDict.Add "US", "English"
End Sub

Sub OnStop()
  'Clears global variables
  Set gDict = Nothing
End Sub
```

Reading and Writing Tags

This Driver identifies each Tag by the **ParamItem** property, that is, the **Item** column on **Elipse E3**'s, **Elipse Power**'s, or **Elipse Water**'s Tag editor.

For example, if the **ParamItem** property is equal to "Tag", then this Driver's reading function is **OnRead_Tag** and its writing function is **OnWrite_Tag**. These functions must be implemented in a script, according to the next example.

```
Dim gTag

Sub OnRead_Tag(r, v)
  v.Value = gTag
End Sub

Sub OnWrite_Tag(r, v)
  gTag = v.Value
End Sub
```

If users do to implement functions **OnRead_xxx** or **OnWrite_xxx** for a certain Tag, then this Driver executes generic functions **OnRead** and **OnWrite**, according to the next example.

```
Dim gTag

Sub OnRead_Tag(r, v)
  v.Value = gTag
End Sub

Sub OnWrite_Tag(r, v)
  gTag = v.Value
End Sub

'Returns an error String
'on readings of all other Tags
Sub OnRead(r, v)
  v.Value = "ERROR!"
  v.Quality = 20
End Sub
```

These reading and writing functions have the parameters described next.

- **r (*Request Object*)**: Identifies this request and contains the properties described on the next table

Properties of the Request Object parameter

PROPERTY	DESCRIPTION
r.ParamDevice	The **ParamDevice** property of a Tag, with a **String** data type
r.ParamItem	The **ParamItem** property of a Tag, with a **String** data type
r.N1	The **N1** property of a Tag, with a **Long** data type
r.N2	The **N2** property of a Tag, with a **Long** data type
r.N3	The **N3** property of a Tag, with a **Long** data type
r.N4	The **N4** property of a Tag, with a **Long** data type
r.Size	Indicates the size of a Tag involved in the current reading or writing operation. For more information, please check table **r.Size, r.Count, and r.Offset properties**
r.Count	Indicates the number of Elements involved in the current reading or writing operation. For more information, please check table **r.Size, r.Count, and r.Offset properties**
r.Offset	Indicates, starting from the first Element or value 0 (zero), the index of the nth Element involved in an operation. For more information, please check table **r.Size, r.Count, and r.Offset properties**
r.FailRequest()	This function must be used to cause a failure in the current reading or writing
r.IsSucceeded()	This function indicates whether the current request was successful or failed, so far

r.Size, r.Count, and r.Offset properties

READ OR WRITE	R.SIZE	R.COUNT	R.OFFSET
PLC Tag (one Element)	1 (one)	1 (one)	0 (zero)
Block Tag (n Elements)	Size of a Block Tag	Size of a Block Tag	0 (zero)
Block Element Tag (one Element)	Size of a Block Tag	1 (one)	Index of an Element of a Block Tag. Possible values are **Element 1**: Offset is equal to 0 (zero), **Element 2**: Offset is equal to 1 (one), **Element 3**: Offset is equal to 2 (two), and **Element N**: Offset is equal to *N* - 1

- **v (*Value Object*)**: Contains the value, the quality, and the timestamp of a Tag. Contains the properties described on the next table, which allow reading and writing

Properties of the Value Object parameter

PROPERTY	DESCRIPTION
v.Value	Value of a Tag, with a **Variant** data type. **NOTE**: Any attribution of value adjusts the quality to **Good** (192) and timestamp to the computer's current time
v.Timestamp	Timestamp of a Tag, with a **Date** data type
v.Quality	Quality of a Tag in OPC standard, ranging between 0 (zero) and 255, with a **Byte** data type. When reading, this property is already set with a **Good** (192) quality. To indicate reading errors, configure quality to **Bad**, such as a value equal to 20. **NOTE**: Quality and timestamp must be set **after** the value
v.DimAsList()	Sets this value as a list of values. This allows a reading function to return 0 (zero) or more values to the same Tag in a single operation
v.AddToList(Variant)	Adds a value at the end of the list of values to return to a Tag

The next code contains an example of reading a list of values.

```
Sub OnRead_List(r, v)
  v.DimAsList()
  v.AddToList("List")
  v.AddToList("of")
  v.AddToList("values")
End Sub
```

The next code contains an example of reading with access to Elements of a Block Tag. In this example the Block Tag contains 5 (five) Elements.

```
Sub OnRead_Tag(r, v)
  v.value = Array(1,2,25,4,33)
End Sub
```

The next code contains an example of writing with access to Elements of a Block Tag. In this example the Block Tag contains 5 (five) Elements.

```
Sub OnWrite_Tag(r, v)
  v.value = Array(1,2,25,4,33)
End Sub
```

Global Functions

In addition to pre-defined functions of VBScript language, such as **CreateObject**, **Chr**, **CLng**, and **Replace**, among others, this Driver defines the global functions described on the next table.

Global functions

FUNCTION	DESCRIPTION
NewValue(*Value*, *Quality*, *TimeStamp*)	Creates an object with a **Value** (*Value Object*) type, which contains a value, a quality, and a timestamp. The *Quality* and *TimeStamp* parameters are optional and, if not specified, assume the values 192 and **Now()**, respectively
Trace(*String*)	Writes a message to this Driver's log file

FUNCTION	DESCRIPTION
CreateDotNetObject(*String*, *String*)	Creates an object with a **.NET** type. The first parameter corresponds to the full path of a .NET assembly and the second parameter refers to the name available in that assembly, including its Namespace, separated by a dot, such as "Namespace.Class". The return of this function is the object created. **NOTE**: The .NET assembly created must be configured to communicate via COM interface, that is, with the **ComVisible** attribute enabled. The **CreateDotNetObject** function supports assemblies compiled using .NET framework version **3.5** or earlier

The next code contains an example of using global functions.

```
Dim obj

Sub OnStart()
  Set obj = CreateDotNetObject("C:\MyAssembly.dll", "MyNamespace.MyClass")
  obj.MyClassMethod()
End Sub

Sub OnRead_List(r, v)
  v.DimAsList()

  Dim tStamp
  tStamp = Now() - 2 'The day before yesterday

  Trace "Returning a list of values"
  v.AddToList(NewValue("Yesterday", 192, Now() - 1))
  v.AddToList(NewValue("Today"))
  v.AddToList(NewValue("Tomorrow", 192, Now() + 1))
End Sub

Sub OnStop()
  Set obj = Nothing
End Sub
```

Documentation of I/O Interfaces

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

Configuration of a Driver

I/O Interface configuration is performed on a Driver's configuration dialog box. To access the configuration of this dialog box in **Elipse E3** in version 1.0, follow these steps:

1. Right-click a Driver object (IODriver).
2. Select the **Properties** item on the contextual menu.
3. Select the **Driver** tab.
4. Click **Other parameters**.

In **Elipse E3** version 2.0 or later, click **Configure driver** on a Driver's toolbar. In **Elipse SCADA**, follow these steps:

1. Open the Organizer.
2. Select a Driver on Organizer's tree.

3. Click **Extras** on the **Driver** tab.

Currently, an I/O Interface allows opening only one connection for each Driver. This means that, if users want to access two serial ports, they must add two Drivers to an application and then configure each one of these Drivers for each serial port.

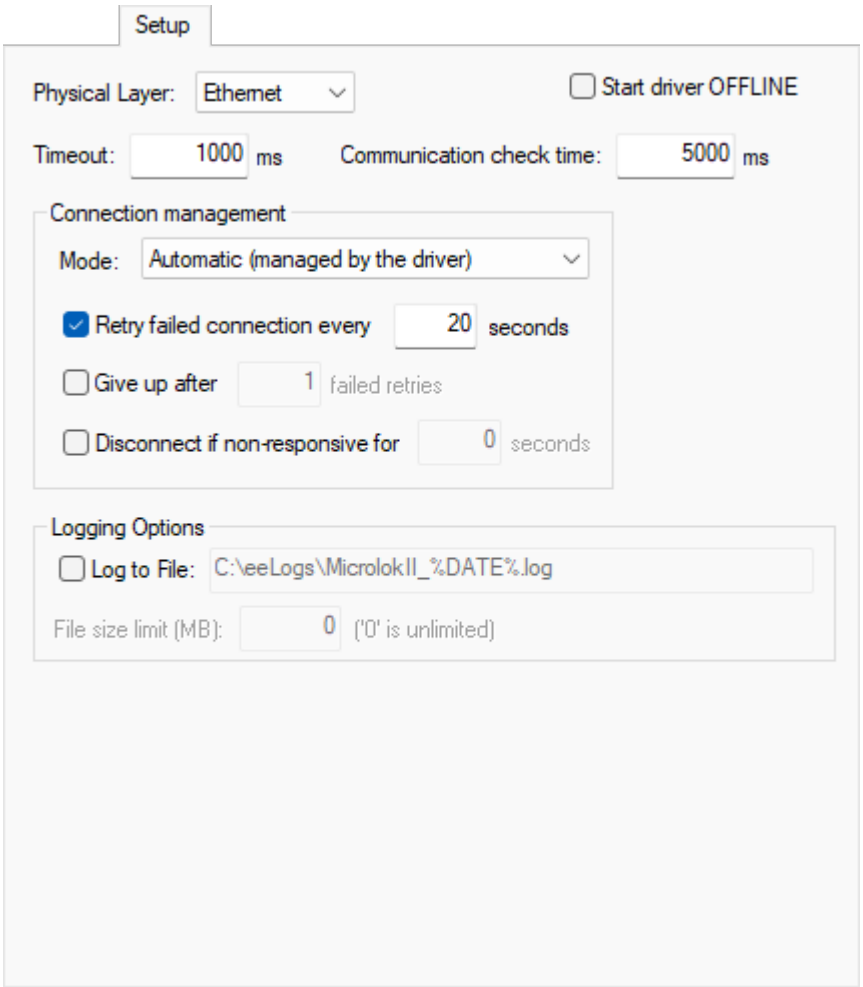
Configuration Dialog Box

The dialog box of I/O Interfaces allows configuring the I/O connection used by a Driver. This dialog box contains the **Setup**, **Serial**, **Ethernet**, **Modem**, and **RAS** tabs, described on the next topics. If a Driver does not implement a specific I/O connection, its corresponding tab is not available for configuration. Some Drivers may contain additional tabs, specific for that Driver, on the configuration dialog box.

Setup Tab

The **Setup** tab contains general configurations of a Driver. This tab is divided into the following groups:

- **General configurations**: Configurations of a Driver's physical layer, time-out, and initialization mode
- **Connection management**: Configurations on how the I/O Interface keeps a connection and which recovery policy is used on failure
- **Logging options**: Controls the generation of log files



Setup tab

General options on the Setup tab

OPTION	DESCRIPTION
Physical Layer	Select the physical layer on a list. Available options are **Serial**, **Ethernet**, **Modem**, and **RAS**. The selected interface must be configured on its specific tab
Timeout	Configure a time-out, in milliseconds, for the physical layer. This is the amount of time an I/O interface waits to receive any byte from the reception's buffer
Communication check time	Set the time, in milliseconds, to define the interval at which communication is considered to be in an inactive state. As long as an I/O Driver receives valid data, its communication state is considered active. However, if during operation an I/O Driver does not receive valid data inside this period of time, the state is considered inactive. The communication state is shown in the **IO.CommunicationStatus** Tag
Start driver OFFLINE	Select this option so that a Driver starts in **Offline** mode or stopped. This means that the I/O interface is not created until this Driver is configured to **Online** mode by using a Tag in an application. This mode enables a dynamic configuration of an I/O interface at run time

Options on the Connection management group

OPTION	DESCRIPTION
Mode	Selects a management mode of a connection. Selecting the **Automatic** option allows a Driver to manage the connection automatically, as specified in the next options. Selecting the **Manual** option allows an application to fully manage a connection
Retry failed connection every ... seconds	Select this option to enable a Driver's connection retry in a certain interval, in seconds. If the **Give up after failed retries** option is not selected, this Driver keeps retrying until a connection is performed, or until the application is stopped
Give up after ... failed retries	Enable this option to define a maximum number of connection retries. When the specified number of consecutive connection retries is reached, a Driver goes to the **Offline** mode, assuming that a hardware problem was detected. If a Driver establishes a successful connection, the number of unsuccessful retries is cleared. If this new connection is lost, then the retry counter starts at zero
Disconnect if non-responsive for ... seconds	Enable this option to force a Driver to disconnect if no byte was received by the I/O interface during the specified time-out, in seconds. This time-out must be greater than the time-out configured in the **Timeout** option

Options on the Logging Options group

OPTION	DESCRIPTION
Log to File	Enable this option and configure the name of a file to write a log. Log files can be large, so use this option for short periods of time, only for testing and debugging purposes. If the **%PROCESS%** macro is used in the log file name, it is replaced by the identifier of the current process. This option is particularly useful when using several instances of the same Driver in **Elipse E3**, thus allowing each instance to generate a separate log file. For example, when configuring this option with value "c:\e3logs\drivers\sim_%PROCESS%.log", it generates a file named c:\e3logs\drivers\sim_00000FDA.log for process **0FDAh**. Users can also use the **%DATE%** macro in the file name. In this case a log file is generated every day, in the format **aaaa_mm_dd**. For example, when configuring this option with value "c:\e3logs\drivers\sim_%DATE%.log", it generates a file named c:\e3logs\drivers\sim_2005_12_31.log in 12/31/2005 and a file named c:\e3logs\drivers\sim_2006_01_01.log in 01/01/2006. Similarly, the **%DATE_HOUR%** macro generates one log file per hour, in the format **aaaa_mm_dd_hh**
File size limit (MB)	Configure the log file size limit, in megabytes. A value equal to 0 (zero) means that there is no size limit for the log file

General Configurations

This section contains information about the configuration of general **I/O Tags** and **Properties** of I/O Interfaces.

I/O Tags

General I/O Interfaces Tags (N2/B2 = 0)

The Tags described next are provided for all supported I/O Interfaces.

IO.CommunicationStatus

Type of Tag	I/O Tag
Type of Access	Reading
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	6 (six)
String Configuration	IO.CommunicationStatus

This Tag informs the communication status of a Driver. It indicates how communication works relative to receiving valid data within a time period arbitrated in the configuration. For more information, please check topic **Setup Tab**. Possible values are **0 - Inactive communication**: The Driver did not receive valid data or stopped receiving data after *n* milliseconds, as configured in the properties window, or **1 - Active communication:** The Driver is receiving valid data.

IO.IOKitEvent

Type of Tag	Block Tag
Type of Access	Read-Only
B1 Parameter	-1 (minus one)
B2 Parameter	0 (zero)
B3 Parameter	0 (zero)
B4 Parameter	1 (one)
Size Property	4 (four)
ParamItem Property	IO.IOKitEvent

This Block returns Driver events generated by several sources in I/O Interfaces. The **TimeStamp** property of this Block represents the moment this event occurred. The Block Elements are the following:

- **Element 0**: Type of event. Possible values are **0**: Information, **1**: Warning, or **2**: Error
- **Element 1**: Source of an event. Possible values are **0**: Driver (specific of a Driver), **-1**: IOKit (generic events of I/O Interfaces), **-2**: **Serial** Interface, **-3**: **Modem** Interface, **-4**: **Ethernet** Interface, or **-5**: **RAS** Interface
- **Element 2**: Error number, specific for each source of event
- **Element 3**: Message of an event, a **String** specific for each event

NOTE

A Driver keeps a maximum number of 100 events internally. If additional events are reported, older events are discarded.

IO.PhysicalLayerStatus

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	2 (two)
String Configuration	IO.PhysicalLayerStatus

This Tag indicates the status of a physical layer. Possible values are the following:

- **0**: Physical layer stopped, that is, a Driver is in **Offline** mode, the physical layer failed when initializing, or exceeded the maximum number of reconnection attempts
- **1**: Physical layer started but not connected, that is, a Driver is in **Online** mode but the physical layer is not connected. If the **Connection management** option is configured with the value **Automatic**, the physical layer can be connecting, disconnecting, or waiting for a reconnection attempt. If the **Connection management** option is configured with the vlaue **Manual**, then the physical layer remains in this status until forced to connect
- **2**: Physical layer connected, that is, the physical layer is ready for use. This **DOES NOT** mean a device is connected, only that the access layer is working

IO.SetConfigurationParameters

Type of Tag	Block Tag
Type of Access	Read-Only
B1 Parameter	-1 (minus one)
B2 Parameter	0 (zero)
B3 Parameter	0 (zero)
B4 Parameter	3 (three)
Size Property	2 (two)
ParamItem Property	IO.SetConfigurationParameters

Use this Tag to change any property of a Driver's configuration dialog box at run time.

This Tag works only while a Driver is in **Offline** mode. To start a Driver in **Offline** mode, select the **Start driver OFFLINE** option on that Driver's configuration dialog box. Users can write to a PLC Tag or to a Block Tag containing the parameters to change. Writing individual Block Elements is not supported, the whole Block must be written at once.

In **Elipse SCADA**, users must use a Block Tag. Every parameter to configure uses two Block Elements. For example, if users want to configure 3 (three) parameters, then the size of the Block must be 6 (six, 3 × 2). The first Element is the property's name, as a **String**, and the second Element is the property's value, according to the next example.

```
// 'Block' must be a Block Tag with automatic reading,
// scan reading, and automatic writings disabled.
// Configure all parameters
Block.element001 = "IO.Type" // Parameter 1
Block.element002 = "Serial"
Block.element003 = "IO.Serial.Port" // Parameter 2
Block.element004 = 1
Block.element005 = "IO.Serial.BaudRate" // Parameter 3
Block.element006 = 19200
// Writes the whole Block
Block.Write()
```

When using **Elipse E3**, the ability to create arrays at run time allows using an I/O Tag as well as a Block Tag. Users can use the **Write** method of a Driver to send the parameters directly to that Driver, without creating a Tag, according to the next example.

```
Dim arr(6)
' Configure all array elements
arr(1) = "IO.Type"
arr(2) = "Serial"
arr(3) = "IO.Serial.Port"
arr(4) = 1
arr(5) = "IO.Serial.BaudRate"
arr(6) = 19200
' There are two methods to send parameters
' Method 1: Using an I/O Tag
tag.WriteEx arr
' Method 2: Without using a Tag
Driver.Write -1, 0, 0, 3, arr
```

A variation of the previous example uses a bidimensional array.

```
Dim arr(10)
' Configure all array elements. Notice the array was resized
' to 10 elements. Empty array elements are ignored by a Driver
arr(1) = Array("IO.Type", "Serial")
arr(2) = Array("IO.Serial.Port", 1)
arr(3) = Array("IO.Serial.BaudRate", 19200)
Driver.Write -1, 0, 0, 3, arr
```

A Driver does not validate parameter names or passed values, therefore be careful when writing parameters and values. The **Write** method fails if the configuration array is incorrectly created. Users can check the log of a Driver or use the *writeStatus* parameter of the **WriteEx** method to find out the exact cause of an error.

```
Dim arr(10), strError
arr(1) = Array("IO.Type", "Serial")
arr(2) = Array("IO.Serial.Port", 1)
arr(3) = Array("IO.Serial.BaudRate", 19200)
If Not Driver.WriteEx -1, 0, 0, 3, arr, , , strError Then
  MsgBox "Failed configuring Driver parameters: " + strError
End If
```

IO.WorkOnline

Type of Tag	I/O Tag
Type of Access	Reading or Writing
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	4 (four)
String Configuration	IO.WorkOnline

This Tag informs the current status of a Driver and allows starting or stopping the physical layer. Possible values are the following:

- **0 - Driver Offline**: Physical layer is closed or stopped. This mode allows a dynamic configuration of a Driver's parameters using the **IO.SetConfigurationParameters** Tag
- **1 - Driver Online**: Physical layer is open or executing. While in **Online** mode, the physical layer can be connected or disconnected and its current status can be checked using the **IO.PhysicalLayerStatus** Tag

In the next example, using **Elipse E3**, a Driver is configured to **Offline** mode, its COM port is changed, and then configured to **Online** mode again.

```
'Configure to Offline mode
Driver.Write -1, 0, 0, 4, 0
'Change port to COM2
Driver.Write -1, 0, 0, 3, Array("IO.Serial.Port", 2)
'Configure to Online mode
Driver.Write -1, 0, 0, 4, 1
```

The **Write** method may fail when configuring a Driver to **Online** mode, that is, writing the value 1 (one). In this case, this Driver remains in **Offline** mode. The cause of failure can be:

- Type of physical layer incorrectly configured, probably an invalid value was configured in the **IO.Type** property
- This Driver may have run out of memory
- Physical layer probably did not create its working thread. Search the log file for a message "Failed to create physical layer thread!"
- Physical layer could not start. The cause of this failure depends on the type of physical layer. It can be an invalid serial port number, a failure when starting Windows Sockets, or a failure when starting TAPI (modem), among others. This cause is recorded on the log file

IMPORTANT

Even if the configuration of a Driver to **Online** mode is successful, this does not necessarily mean the physical layer is ready to use, that is, ready to execute input and output operations with an external device. The **IO.PhysicalLayerStatus** Tag must be checked to ensure the physical layer is connected and ready for communication.

Properties

These are general properties of all supported I/O Interfaces.

IO.ConnectionMode

9 Controls the management mode of a Connection. Possible values are **0**: Automatic mode, in which a Driver manages the connection or **1**: Manual mode, in which an application manages the connection.

IO.GiveUpEnable

◩ When configured to True, defines a maximum number of reconnection attempts. If all reconnection attempts fail, a Driver enters the **Offline** mode. When configured to False, a Driver tries until a reconnection is successful.

IO.GiveUpTries

9 Number of reconnection attempts before this one is aborted. For example, if the value of this property is equal to 1 (one), a Driver tries only one reconnection when the connection is lost. If this one fails, this Driver enters the **Offline** mode.

IO.InactivityEnable

◩ Configure to True to enable and to False to disable inactivity detection. The physical layer is disconnected if inactive for a certain period of time. The physical layer is considered inactive only if it is capable of sending data but not capable of receiving it back.

IO.InactivityPeriodSec

9 Number of seconds to check for inactivity. If the physical layer is inactive for this period of time, it is then disconnected.

IO.RecoverEnable

Configure to True to enable a Driver to recover lost connections and to False to leave a Driver in **Offline** mode when a connection is lost.

IO.RecoverPeriodSec

Delay time between two connection attempts, in seconds.

NOTE

The first reconnection is executed immediately after a connection is lost.

IO.StartOffline

Configure to True to start a Driver in **Offline** mode and to False to start a Driver in **Online** mode.

NOTE

It is pointless to change this property at run time, as it can only be changed when a Driver is already in **Offline** mode. To configure a Driver in **Online** mode at run time, write the value 1 (one) to the **IO.WorkOnline** Tag.

IO.TimeoutMs

Defines a time-out for the physical layer, in milliseconds. One second is equal to 1000 milliseconds.

IO.Type

Defines the type of physical interface used by a Driver. Possible values are the following:

- **N or None**: Does not use a physical interface, that is, a Driver must provide a customized interface
- **S or Serial**: Uses a local serial port (COM*n*)
- **M or Modem**: Uses a local modem, internal or external, accessed via TAPI (*Telephony Application Programming Interface*)
- **E or Ethernet**: Uses a TCP/IP or UDP/IP socket
- **R or RAS**: Uses a **RAS** (*Remote Access Server*) Interface. A Driver connects to a RAS device using the **Ethernet** Interface and then sends an **AT** (*dial*) command

Statistical Configuration

This section contains information about the configuration of **I/O Tags** and **Properties** of I/O Interfaces statistics.

I/O Tags

Tags of I/O Interface Statistics (N2/B2 = 0)

The Tags described next display statistics for all I/O Interfaces.

IO.Stats.Partial.BytesRecv

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1101
Configuration by String	IO.Stats.Partial.BytesRecv

This Tag returns the number of bytes received in the current connection.

IO.Stats.Partial.BytesSent

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1100
Configuration by String	IO.Stats.Partial.BytesSent

This Tag returns the number of bytes sent through the current connection.

IO.Stats.Partial.TimeConnectedSeconds

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1102
Configuration by String	IO.Stats.Partial.TimeConnectedSeconds

This Tag returns the number of seconds a Driver is connected in the current connection or 0 (zero) if a Driver is disconnected.

IO.Stats.Partial.TimeDisconnectedSeconds

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1103
Configuration by String	IO.Stats.Partial.TimeDisconnectedSeconds

This Tag returns the number of seconds a Driver is disconnected since the last connection ended or 0 (zero) if a Driver is connected.

IO.Stats.Total.BytesRecv

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1001
Configuration by String	IO.Stats.Total.BytesRecv

This Tag returns the number of bytes received since a Driver was loaded.

IO.Stats.Total.BytesSent

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1000
Configuration by String	IO.Stats.Total.BytesSent

This Tag returns the number of bytes sent since a Driver was loaded.

IO.Stats.Total.ConnectionCount

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1004
Configuration by String	IO.Stats.Total.ConnectionCount

This Tag returns the number of connections a Driver already established, successfully, since it was loaded.

IO.Stats.Total.TimeConnectedSeconds

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1002
Configuration by String	IO.Stats.Total.TimeConnectedSeconds

This Tag returns the number of seconds a Driver remained connected since it was loaded.

IO.Stats.Total.TimeDisconnectedSeconds

Type of Tag	I/O Tag
Type of Access	Read-Only
N1 Parameter	-1 (minus one)
N2 Parameter	0 (zero)
N3 Parameter	0 (zero)
N4 Parameter	1003
Configuration by String	IO.Stats.Total.TimeDisconnectedSeconds

This Tag returns the number of seconds a Driver remained disconnected since it was loaded.

Properties

Currently, there are no properties defined specifically to display I/O Interface statistics at run time.

Driver Revision History

VERSÃO	DATA	AUTOR	COMENTÁRIOS
1.1.15	04/01/2026	C. Mello	• Adjustments to correctly execute the content of a user-defined VBScript code when password protected (*Case 39496*).
1.1.14	09/16/2025	M. Ludwig	• Driver updated to **IOKit** library version **3.0** and Visual Studio 2022 (*Case 37969*).
1.1.13	12/16/2024	F. Englert	• Additional adjustments to prevent issues with handling the **ParamDevice** and **ParamItem** properties of the Tags (*Case 36703*).
1.1.8	09/30/2024	F. Englert	• Added the **Count** and **Offset** properties to the Request object (*Case 36703*).
1.1.7	01/18/2024	M. Salvador	• Updates to the **VBScriptDriver** documentation (*Case 34408*).
1.1.6	01/18/2024	M. Salvador	• Created an option to protect a code from viewing or editing, although it allows executing that code even when protected (*Case 34408*).
1.1.5	03/30/2023	M. Ludwig	• Fixed a sporadic issue with empty **Strings** (*Case 34049*).
1.1.4	07/31/2019	M. Ludwig	• Driver ported to Visual Studio 2017 (*Case 27083*).
1.1.3	08/16/2013	G. Taschetto	• Final updates for compatibility with the **IOKit** library version **2.0** (*Case 13504*).
1.1.2	06/10/2013	G. Taschetto	• Compatibility updates for the "Logs" section of the **IOKit** library version **2.0** (*Case 14226*).
1.1.1	05/28/2013	G. Taschetto	• Corrections on the documentation of this Driver (*Case 13524*). • Driver updated to **IOKit** library version **2.0** (*Case 13504*).

VERSÃO	DATA	AUTOR	COMENTÁRIOS
1.0.1	03/18/2010	M. Zani	• Added the **CreateDotNetObject** function (*Case 10285*).
0.02 (Beta)	03/10/2009	F. Englert	• Initial version of this Driver (for testing purposes).

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