

Memory Based Driver Help

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Table of Contents

Table of Contents	2
Memory Based Driver Help	3
Overview	3
Channel Setup	4
Data Types Description	5
Address Descriptions	6
Error Descriptions	7
Address '<address>' is out of range for the specified device or register	7
Array size is out of range for address '<address>'	7
Array support is not available for the specified address: '<address>'	7
Could not allocate memory for simulated device	7
Could not <load/save> item state data. Reason: <reason>	8
Data Type '<type>' is not valid for device address '<address>'	8
Device address '<address>' contains a syntax error	8
Device address '<address>' is not supported by model '<model name>'	8
Device address '<address>' is Read Only	8
Missing address	8
Index	10

Memory Based Driver Help

Help version 1.017

CONTENTS

[Overview](#)

What is the Memory Based Driver?

[Channel Setup](#)

How do I configure this driver?

[Data Types Description](#)

What data types does this driver support?

[Address Descriptions](#)

How do I address a data location with this driver?

[Error Descriptions](#)

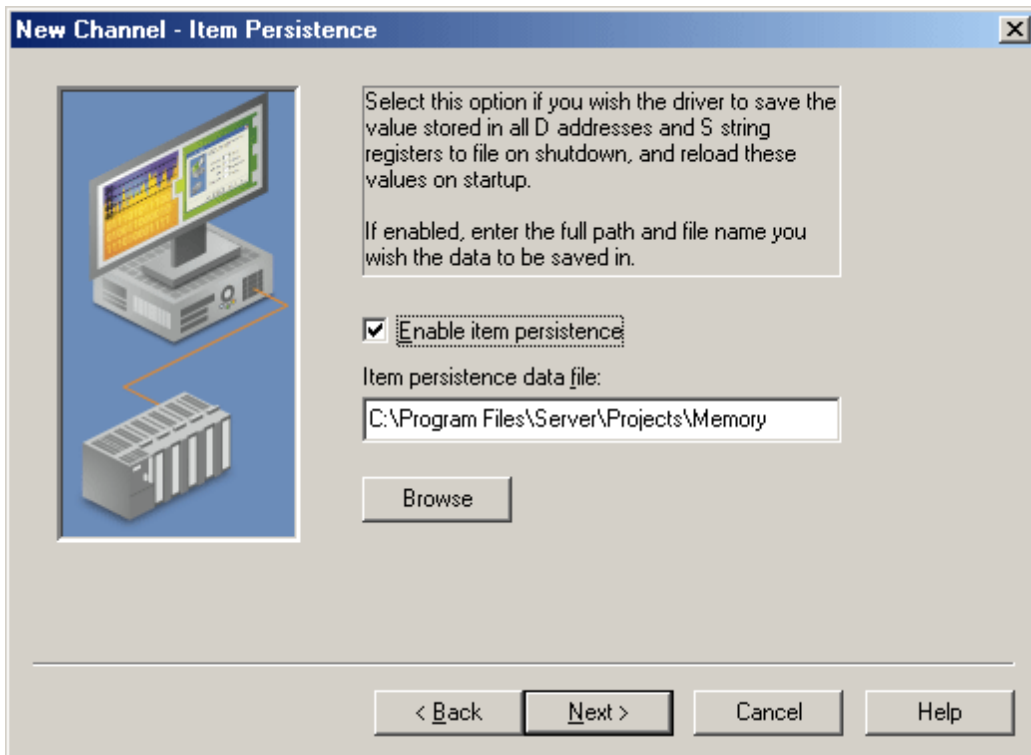
What error messages does this driver produce?

Overview

The Memory Based Device Driver plugs into the industrial-based communications OPC server and acts as a simulated device, which enables users to retain tag values between server runs. For more information, refer to [Channel Setup](#).

Channel Setup

Item Persistence



The Memory Based Driver enables users to retain tag values between server runs. When Item Persistence is activated, all D register addresses and string values for all devices on the channel will be saved upon server shutdown. The values will be restored the next time the OPC server project is opened. Descriptions of the parameters are as follows:

- **Enable item persistence:** When checked, this setting will enable item persistence. The default setting is disabled.
- **Item persistence data file:** This parameter specifies the data file's name and fully-qualified path. This data file (*.dat) will store the address values.

Note: OPC server projects containing more than one channel must have a unique file name for each.

Important: If there is an error in restoring persistent data when an OPC server project is reopened, all data in the driver's registers will be cleared. A message will also be posted to the server's Event Log.

Data Types Description

Data Type	Description
Boolean	Single bit
Byte	Unsigned 8 bit
Word	Unsigned 16 bit value bit 0 is the low bit bit 15 is the high bit
Short	Signed 16 bit value bit 0 is the low bit bit 14 is the high bit bit 15 is the sign bit
DWord	Unsigned 32 bit value bit 0 is the low bit bit 31 is the high bit
Long	Signed 32 bit value bit 0 is the low bit bit 30 is the high bit bit 31 is the sign bit
String	Null terminated ASCII string
Double*	64 bit floating point value
Float*	32 bit floating point value

*The descriptions assume the default setting; that is, first DWord low data handling of 64 bit data types and first word low data handling of 32 bit data types.

Address Descriptions

The address specified must allow for the data type's full size. This means that users cannot write past the end of the data range. Furthermore, all data types (except Boolean and String) support arrays by appending the [r] or [r][c] notation to the address. The default data types are shown in **bold**.

Device Type	Range	Data Type	Access
Constants	D0000-D9999 D0000-D9998 D0000-D9996 D0000-D9992 D0000.0-D9999.7	Byte , Char BCD, Short, Word DWORD, Float, LBCD, Long Double Boolean	Read/Write
Strings	S000-S999	String	Read/Write

Note: This is a byte-based driver. Each register is one byte. For example, if users were to read a single word starting at address D0, the word would consist of addresses D0 and D1.

Error Descriptions

The following error/warning messages may be generated. The messages are listed here in alphabetical order.

[Address '<address>' is out of range for the specified device or register](#)

[Array size is out of range for address '<address>'](#)

[Array support is not available for the specified address: '<address>'](#)

[Could not allocate memory for simulated device](#)

[Could not <load/save> item state data. Reason: <reason>](#)

[Data Type '<type>' is not valid for device address '<address>'](#)

[Device address '<address>' contains a syntax error](#)

[Device address '<address>' is not supported by model '<model name>'](#)

[Device address '<address>' is Read Only](#)

[Missing address](#)

Address '<address>' is out of range for the specified device or register

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically references a location that is beyond the range of supported locations for the device.

Solution:

Verify that the address is correct; if it is not, re-enter it in the client application.

Array size is out of range for address '<address>'

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically is requesting an array size that is too large for the address type or block size of the driver.

Solution:

Re-enter the address in the client application to specify a smaller value for the array or a different starting point.

Array support is not available for the specified address: '<address>'

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically contains an array reference for an address type that doesn't support arrays.

Solution:

Re-enter the address in the client application to remove the array reference or correct the address type.

Could not allocate memory for simulated device

Error Type:

Warning

Possible Cause:

The driver could not acquire memory resources needed for simulated device.

Solution:

1. Close any unneeded applications.
2. Increase the computer's physical or virtual memory.

Could not <load/save> item state data. Reason: <reason>

Error Type:

Warning

Possible Cause:

The driver could not load or save item state data for the specified reason. Possible reasons may include corrupt data files, inadequate disk space, invalid drive in path, or deleted or renamed data files.

Solution:

Solution depends on the reason given in the error message.

Note:

Previous state data will be lost in the case of file corruption or deletion.

Data Type '<type>' is not valid for device address '<address>'

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically has been assigned an invalid data type.

Solution:

Modify the requested data type in the client application.

Device address '<address>' contains a syntax error

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically contains one or more invalid characters.

Solution:

Re-enter the address in the client application.

Device address '<address>' is not supported by model '<model name>'

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically references a location that is valid for the communications protocol but not supported by the target device.

Solution:

Verify that the address is correct; if it is not, re-enter it in the client application.

Device address '<address>' is Read Only

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically has a requested access mode that is not compatible with what the device supports for that address.

Solution:

Change the access mode in the client application.

Missing address

Error Type:

Warning

Possible Cause:

A tag address that has been specified statically has no length.

Solution:

Re-enter the address in the client application.

Index

A

Address '<address>' is out of range for the specified device or register.....	7
Address Descriptions.....	6
Array size is out of range for address '<address>'.....	7
Array support is not available for the specified address: '<address>'.....	7

C

Channel Setup.....	4
Could not <load/save> item state data. Reason: <reason>.....	8
Could not allocate memory for simulated device.....	7

D

Data Type '<type>' is not valid for device address '<address>'.....	8
Data Types Description.....	5
Device address '<address>' contains a syntax error.....	8
Device address '<address>' is not supported by model '<model name>'.....	8
Device address '<address>' is Read Only.....	8

E

Error Descriptions.....	7
-------------------------	---

H

Help Contents.....	3
--------------------	---

M

Missing address.....	8
----------------------	---

O

Overview.....	3
---------------	---