

# **Yokogawa YS100 Serial Driver Help**

**© 2012 Kepware Technologies**

# Table of Contents

<b>Table of Contents</b> .....	<b>2</b>
<b>Yokogawa YS100 Serial Driver Help</b> .....	<b>3</b>
<b>Overview</b> .....	<b>3</b>
<b>Device Setup</b> .....	<b>4</b>
<b>Modem Setup</b> .....	<b>5</b>
<b>Data Types Description</b> .....	<b>6</b>
<b>Address Descriptions</b> .....	<b>7</b>
<b>YS150 Addressing</b> .....	<b>7</b>
<b>YS170 Addressing</b> .....	<b>9</b>
<b>Automatic Tag Database Generation</b> .....	<b>12</b>
<b>Error Descriptions</b> .....	<b>13</b>
<b>Address Validation</b> .....	<b>13</b>
Missing address.....	13
Device address '<address>' contains a syntax error.....	13
Address '<address>' is out of range for the specified device or register.....	14
Device address '<address>' is not supported by model '<model name>'.....	14
Data Type '<type>' is not valid for device address '<address>'.....	14
Device address '<address>' is Read Only.....	14
<b>Serial Communications</b> .....	<b>14</b>
COMn does not exist.....	14
Error opening COMn.....	15
COMn is in use by another application.....	15
Unable to set communication parameters on COMn.....	15
Communications error on '<channel name>' [<error mask>].....	15
<b>Device Status Messages</b> .....	<b>16</b>
Device '<device name>' is not responding.....	16
Unable to write to '<address>' on device '<device name>'.....	16
<b>YS100 Serial Device Specific Messages</b> .....	<b>16</b>
Received unexpected response for tag in block '<tag name>' on device '<device name>'.....	16
Failed to read static initialization data for device '<device name>'.....	17
No response to watchdog write on device '<device name>'.....	17
<b>Index</b> .....	<b>18</b>

## Yokogawa YS100 Serial Driver Help

---

Help version 1.013

### CONTENTS

#### [Overview](#)

What is the Yokogawa YS100 Serial Driver?

#### [Device Setup](#)

How do I configure a device for use with this driver?

#### [Data Types Description](#)

What data types does this driver support?

#### [Address Descriptions](#)

How do I address a data location on a Yokogawa YS100 Serial device?

#### [Automatic Tag Database Generation](#)

How can I easily configure tags for the Yokogawa YS100 Serial driver?

#### [Error Descriptions](#)

What error messages does the Yokogawa YS100 Serial driver produce?

### Overview

---

The Yokogawa YS100 Serial Driver provides an easy and reliable way to connect Yokogawa YS100 Serial devices to OPC Client applications, including HMI, SCADA, Historian, MES, ERP and countless custom applications. It is intended for use with the Yokogawa YS100 family of serial devices.

## Device Setup

### Supported Devices

YS150  
YS170

### Communication Protocol

YS100 command-response message format

### Supported Communication Parameters\*

Baud Rate: 1200, 2400, 4800, 9600  
Parity: Odd, Even, None  
Data Bits: 8  
Stop Bits: 1,2

\*When using the RS-232 dedicated port with a RJ45 connected to the front of the unit (located beneath the swing out cover), the communication parameters are fixed at 4800 Baud, No Parity, 8 Data Bits, 1 Stop Bit.

### Ethernet Encapsulation

This driver supports Ethernet Encapsulation. Ethernet Encapsulation allows the driver to communicate with serial devices that are attached to an Ethernet network by using a terminal server. Ethernet Encapsulation mode is invoked by selecting it from the COM ID dialog on the Channel Properties page. For more information on Ethernet Encapsulation, refer to the OPC Server help file.

### Device ID (PLC Network Address)

Yokogawa YS100 Serial devices are assigned Device IDs in the range 1 to 16. When communicating with a device in a peer-to-peer mode, by using the RS-232 dedicated port with a RJ45 connected to the front of the unit (located beneath the swing out cover), the fixed address is 0.

### Flow Control

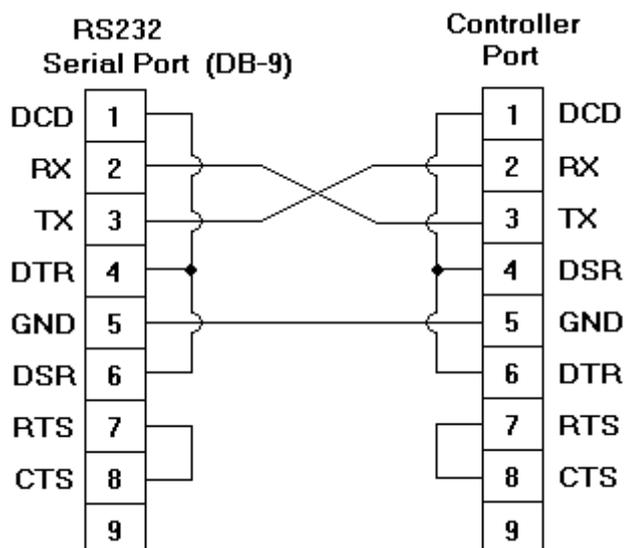
When using a RS232/RS485 converter, the type of flow control that is required will depend upon the needs of the converter. While some converters do not require any flow control, others will require RTS Flow. Consult the converter's documentation in order to determine its flow requirements. We recommend using a RS485 converter that provides automatic flow control.

**Note:** When using the manufacturer's supplied communications cable, it is sometimes necessary to choose a flow control setting of **RTS** or **RTS Always** under the Channel Properties.

The Yokogawa YS100 Serial driver supports the RTS Manual flow control option. This selection is used to configure the driver for operation with radio modems that require special RTS timing characteristics. For more information on RTS Manual flow control see the OPC Server help file topic entitled Channel Wizard.

See Also: [Settings](#)

### Cable Connections



**Note:** The diagram above is a typical cable connection. For connection options, refer to the documentation that came with the device.

## **Modem Setup**

---

This driver supports modem functionality. For more information, please refer to the topic "Modem Support" in the OPC Server Help documentation.

## **Watchdog Timer Settings**

---

### **Enable Watchdog**

When this setting is checked, the watchdog command will be sent based on the configured timer interval. If the device is operating in DDC or SPC mode, it may require the supervisory computer to send a watchdog command to the device at fixed intervals. If the watchdog command is not received by the device from the supervisory computer within the defined Watchdog Timer interval, the device will run in backup mode. This setting can be found under **Device Properties | Settings | Watchdog Timer Settings**.

### **Watchdog Timer (secs)**

The Watchdog Timer value is in seconds and has a valid range of 0 to 9999. The watchdog command will be sent to the device at this specified time interval if the Watchdog is enabled. If the Watchdog Timer value is set to 0 seconds and the watchdog is enabled, the driver will send a watchdog command to the device that will disable the supervisory computer watchdog function in the device. The Watchdog Timer value will only be applicable if the watchdog is enabled. This setting can be found under **Device Properties | Settings | Watchdog Timer Settings**.

## Data Types Description

---

Type	Description
Boolean	Single bit
Byte	8 bit value bit 1 is the low bit bit 8 is the high bit
Word	Unsigned 16 bit value
Short	Signed 16 bit value
Float	32 bit floating point value.
String	Zero terminated character array

## Address Descriptions

Address specifications vary depending on the model in use. Select a link from the following list to obtain specific address information for the model of interest.

[YS150](#)

[YS170](#)

### YS150 Addressing

The Yokogawa YS100 Serial driver automatically generates tags for many of the most important device parameters. Tags can be manually created to access all device parameters listed for the device. The following describes how to specify an address when creating a tag. The default data types for dynamically defined tags are shown in **bold** where appropriate.

**Note:** The full range of addresses accepted by this driver may not be valid for a particular device.

Address	Range	Data Type	Access	Description
PV	1-2	<b>Float</b>	Read Only	Process variable
SV	1-2	<b>Float</b>	Read/Write	Setpoint value
CSV	1-2	<b>Float</b>	Read Only	Cascade setpoint value
DV	1-2	<b>Float</b>	Read Only	Deviation Value
MV	1-2	<b>Float</b>	Read/Write	Manipulated variable
LS	1-2	<b>String</b>	Read/Write	Action mode
SCH	1-2	<b>Float</b>	Read Only	Range high limit <b>1</b>
SCL	1-2	<b>Float</b>	Read Only	Range low limit <b>1</b>
SCDP	1-2	<b>Short, Word, Byte</b>	Read Only	Decimal point position <b>1</b>
PH	1-2	<b>Float</b>	Read/Write	Setpoint for high limit alarm <b>1</b>
PL	1-2	<b>Float</b>	Read/Write	Setpoint for low limit alarm <b>1</b>
DL	1-2	<b>Float</b>	Read/Write	Setpoint for deviation limit alarm <b>1</b>
VL	1-2	<b>Float</b>	Read/Write	Setpoint for velocity limit alarm <b>1</b>
VT	1-2	<b>Short, Word, Byte</b>	Read/Write	Time duration setpoint for velocity limit alarm <b>1</b>
MH	1-2	<b>Float</b>	Read/Write	Setpoint for manipulated variable high limit <b>1</b>
ML	1-2	<b>Float</b>	Read/Write	Setpoint for manipulated variable low limit <b>1</b>
RefreshALM	1-2	<b>Boolean</b>	Write Only	Refreshes the alarm setpoint values (PH, PL, DL, VL, VT, MH, and ML)
PB	1-2	<b>Float</b>	Read/Write	Proportional band <b>2</b>
TI	1-2	<b>Short, Word, Byte</b>	Read/Write	Integral time (seconds) <b>2</b>
TD	1-2	<b>Short, Word, Byte</b>	Read/Write	Derivative time (seconds) <b>2</b>
AG	1-2	<b>Float</b>	Read Only	Variable gain <b>2</b>
GG	1-2	<b>Float</b>	Read/Write	Nonlinear control gain <b>2</b>
GW	1-2	<b>Float</b>	Read/Write	Nonlinear control dead band width <b>2</b>
MR	1-2	<b>Float</b>	Read/Write	Manual reset value <b>2</b>
RB	1-2	<b>Float</b>	Read/Write	Reset bias value <b>2</b>
DM	1-2	<b>Float</b>	Read Only	Input compensation value <b>2</b>
FF	1-2	<b>Float</b>	Read Only	Output compensation value <b>2</b>
TRK	1-2	<b>Float</b>	Read Only	Tracking output value <b>2</b>
PMV	1-2	<b>Float</b>	Read/Write	Preset output value <b>2</b>
PRCA	None	<b>Byte, Short, Word</b>	Read Only	Process alarm
PRCA.1	None	<b>Boolean</b>	Read Only	High limit alarm <b>1</b>
PRCA.2	None	<b>Boolean</b>	Read Only	Low limit alarm <b>1</b>
PRCA.3	None	<b>Boolean</b>	Read Only	Deviation alarm <b>1</b>
PRCA.4	None	<b>Boolean</b>	Read Only	Velocity alarm <b>1</b>
PRCA.5	None	<b>Boolean</b>	Read Only	High limit alarm <b>2</b>
PRCA.6	None	<b>Boolean</b>	Read Only	Low limit alarm <b>2</b>
PRCA.7	None	<b>Boolean</b>	Read Only	Deviation alarm <b>2</b>
PRCA.8	None	<b>Boolean</b>	Read Only	Velocity alarm <b>2</b>
SYSA	None	<b>Byte, Short, Word</b>	Read Only	System alarm

SYSA.1	None	<b>Boolean</b>	Read Only	Input open alarm
SYSA.2	None	<b>Boolean</b>	Read Only	Output current open alarm
SYSA.3	None	<b>Boolean</b>	Read Only	Invalid data
SYSA.4	None	<b>Boolean</b>	Read Only	Invalid data
SYSA.5	None	<b>Boolean</b>	Read Only	Computed overflow alarm
SYSA.6	None	<b>Boolean</b>	Read Only	RAM contents volatized alarm
SYSA.7	None	<b>Boolean</b>	Read Only	EEPROM contents volatized alarm
SYSA.8	None	<b>Boolean</b>	Read Only	Invalid data
CNT<x>.1	1-2	<b>Short, Word, Byte</b>	Read Only	Control type setting <b>1</b>  (0=Standard PID, 1=Sample PI, 2=Batch PID, 3=Proportional PD)
CNT<x>.2	1-2	<b>Short, Word, Byte</b>	Read Only	Control computation setting <b>1</b>  (0=PV proportional type, 1=PV derivative type, 2=Adjustable filter type)
CNT<x>.3	1-2	<b>Short, Word, Byte</b>	Read Only	Control action direction setting <b>1</b>  (0=Reverse, 1=Direct)
CNT<x>.4	1-2	<b>Short, Word, Byte</b>	Read Only	Open valve direction setting <b>1</b>  (0=C-O, 1=O-C)
CNT<x>.5	1-2	<b>Short, Word, Byte</b>	Read Only	C mode setting <b>1</b>  (0=Off, 1=Cascade, 2=Computer)
CNT<x>.6	1-2	<b>Short, Word, Byte</b>	Read Only	Backup mode setting <b>1</b>  (0=Manual, 1=Auto)
CNT<x>.7	1-2	<b>String</b>	Read Only	Engineering unit <b>1</b>
CNT<x>.8	1-2	<b>String</b>	Read Only	Tag number <b>1</b>
RefreshCNT	1-2	<b>Boolean</b>	Write Only	Refreshes the CNT1 or CNT2 setting values
SYS1.1	None	<b>Short, Word, Byte</b>	Read Only	Control mode <b>1</b>  (0=Programmable, 1=Multifunction type single-loop, 2=Multifunction type cascade, 3=Multifunction type selector)
SYS1.2	None	<b>Short, Word, Byte</b>	Read Only	Recovery from power failure <b>1</b>  (0=TIM1, 1=AUT, 2=TIM2)
SYS1.3	None	<b>Short, Word, Byte</b>	Read Only	Settable by comm. <b>1</b>  (0=Enabled, 1=Inhibited)
SYS2.1	None	<b>Short, Word, Byte</b>	Read Only	PF key definition <b>1</b>  (0=None, 2=STC ON/OFF)
SYS2.2	None	<b>Short, Word, Byte</b>	Read Only	DI1 function definition <b>1</b>  (0=None, 1=A/M Toggle, 2=C/A Toggle, 3=Preset MV, 4=Tracking Toggle, 5=STC Toggle, 6=Internal CAS Toggle, 7=Selector Secondary Loop C/A Toggle)
SYS2.3	None	<b>Short, Word, Byte</b>	Read Only	DI1 set active <b>1</b>  (0=Open for ON, 1=Closed for ON)
SYS2.4	None	<b>Short, Word, Byte</b>	Read Only	Alarm output status <b>1</b>  (0=Open, 1=Closed)
SYS2.5	None	<b>Short, Word, Byte</b>	Read Only	SV tracking definition <b>1</b>  (0=None, 1=SV, 2=PV)
SYS2.6	None	<b>Short, Word, Byte</b>	Read Only	Selector definition <b>1</b>

				(0=Low selector, 1=High Selector)
RefreshSYS	None	<b>Boolean</b>	Write Only	Refreshes the SYS1 and SYS2 setting values
Model	None	<b>String</b>	Read Only	Model name <b>1</b>
X*	01-05	<b>Float</b>	Read Only	Analog input register
Y**	01-06	<b>Float</b>	Read Only	Analog output register
DI	01-06	<b>Boolean</b>	Read Only	Status input register
DO	01-16	<b>Boolean</b>	Read Only	Status output register
P	01-30	<b>Float</b>	Read/Write	Computation parameter register <b>3</b>
T	01-30	<b>Float</b>	Read Only	Temporary storage register <b>3</b>
K	01-30	<b>Float</b>	Read Only	Constant register <b>3</b>

\*Memory address X05 is only valid in Program Mode.

\*\*Memory addresses Y04-Y06 are only valid in Program Mode.

### Notes:

#### 1 Static Data

The data is read once at start up to initialize the value. The data can be refreshed by using the applicable refresh tag for all static data with the exception of 'Model'.

#### 2 Tuning Parameters

For speed optimization, the address for this data should only be referenced if needed. The inclusion of tuning data in the application requires scanning of this data between reads of the loop variable data.

#### 3 Computation Temporary, and Constant Registers

Register data is not generated during automatic tag generation to optimize the project, however it can be added if needed. The inclusion of register data in an application, results in scanning of data between reads of the loop variable data.

## YS170 Addressing

The Yokogawa YS100 Serial driver automatically generates tags for many of the most important device parameters. Tags can be manually created to access all device parameters listed for the device. The following describes how to specify an address when creating a tag. The default data types for dynamically defined tags are shown in **bold**.

**Note:** The full range of addresses accepted by this driver may not be valid for a particular device.

Address	Range	Data Type	Access	Description
PV	1-2	<b>Float</b>	Read Only	Process variable
SV	1-2	<b>Float</b>	Read/Write	Setpoint value
CSV	1-2	<b>Float</b>	Read Only	Cascade setpoint value
DV	1-2	<b>Float</b>	Read Only	Deviation Value
MV	1-2	<b>Float</b>	Read/Write	Manipulated variable
LS	1-2	<b>String</b>	Read/Write	Action mode
SCH	1-2	<b>Float</b>	Read Only	Range high limit <b>1</b>
SCL	1-2	<b>Float</b>	Read Only	Range low limit <b>1</b>
SCDP	1-2	<b>Short, Word, Byte</b>	Read Only	Decimal point position <b>1</b>
PH	1-2	<b>Float</b>	Read/Write	Setpoint for high limit alarm <b>1</b>
PL	1-2	<b>Float</b>	Read/Write	Setpoint for low limit alarm <b>1</b>
DL	1-2	<b>Float</b>	Read/Write	Setpoint for deviation limit alarm <b>1</b>
VL	1-2	<b>Float</b>	Read/Write	Setpoint for velocity limit alarm <b>1</b>
VT	1-2	<b>Short, Word, Byte</b>	Read/Write	Time duration setpoint for velocity limit alarm <b>1</b>
MH	1-2	<b>Float</b>	Read/Write	Setpoint for manipulated variable high limit <b>1</b>
ML	1-2	<b>Float</b>	Read/Write	Setpoint for manipulated variable low limit <b>1</b>
RefreshALM	1-2	<b>Boolean</b>	Write Only	Refreshes the alarm setpoint values (PH, PL, DL, VL, VT, MH, and ML)
PB	1-2	<b>Float</b>	Read/Write	Proportional band <b>2</b>
TI	1-2	<b>Short, Word, Byte</b>	Read/Write	Integral time (seconds) <b>2</b>
TD	1-2	<b>Short, Word, Byte</b>	Read/Write	Derivative time (seconds) <b>2</b>
AG	1-2	<b>Float</b>	Read Only	Variable gain <b>2</b>

GG	1-2	<b>Float</b>	Read/Write	Nonlinear control gain <b>2</b>
GW	1-2	<b>Float</b>	Read/Write	Nonlinear control dead band width <b>2</b>
MR	1-2	<b>Float</b>	Read/Write	Manual reset value <b>2</b>
RB	1-2	<b>Float</b>	Read/Write	Reset bias value <b>2</b>
DM	1-2	<b>Float</b>	Read Only	Input compensation value <b>2</b>
FF	1-2	<b>Float</b>	Read Only	Output compensation value <b>2</b>
TRK	1-2	<b>Float</b>	Read Only	Tracking output value <b>2</b>
PMV	1-2	<b>Float</b>	Read/Write	Preset output value <b>2</b>
PRCA	None	<b>Byte, Short, Word</b>	Read Only	Process alarm
PRCA.1	None	<b>Boolean</b>	Read Only	High limit alarm <b>1</b>
PRCA.2	None	<b>Boolean</b>	Read Only	Low limit alarm <b>1</b>
PRCA.3	None	<b>Boolean</b>	Read Only	Deviation alarm <b>1</b>
PRCA.4	None	<b>Boolean</b>	Read Only	Velocity alarm <b>1</b>
PRCA.5	None	<b>Boolean</b>	Read Only	High limit alarm <b>2</b>
PRCA.6	None	<b>Boolean</b>	Read Only	Low limit alarm <b>2</b>
PRCA.7	None	<b>Boolean</b>	Read Only	Deviation alarm <b>2</b>
PRCA.8	None	<b>Boolean</b>	Read Only	Velocity alarm <b>2</b>
SYSA	None	<b>Byte, Short, Word</b>	Read Only	System alarm
SYSA.1	None	<b>Boolean</b>	Read Only	Input open alarm
SYSA.2	None	<b>Boolean</b>	Read Only	Output current open alarm
SYSA.3	None	<b>Boolean</b>	Read Only	Invalid data
SYSA.4	None	<b>Boolean</b>	Read Only	Invalid data
SYSA.5	None	<b>Boolean</b>	Read Only	Computed overflow alarm
SYSA.6	None	<b>Boolean</b>	Read Only	RAM contents volatized alarm
SYSA.7	None	<b>Boolean</b>	Read Only	EEPROM contents volatized alarm
SYSA.8	None	<b>Boolean</b>	Read Only	Invalid data
CNT<x>.1	1-2	<b>Short, Word, Byte</b>	Read Only	Control type setting <b>1</b>  (0=Standard PID, 1=Sample PI, 2=Batch PID, 3=Proportional PD)
CNT<x>.2	1-2	<b>Short, Word, Byte</b>	Read Only	Control computation setting <b>1</b>  (0=PV proportional type, 1=PV derivative type, 2=Adjustable filter type)
CNT<x>.3	1-2	<b>Short, Word, Byte</b>	Read Only	Control action direction setting <b>1</b>  (0=Reverse, 1=Direct)
CNT<x>.4	1-2	<b>Short, Word, Byte</b>	Read Only	Open valve direction setting <b>1</b>  (0=C-O, 1=O-C)
CNT<x>.5	1-2	<b>Short, Word, Byte</b>	Read Only	C mode setting <b>1</b>  (0=Off, 1=Cascade, 2=Computer)
CNT<x>.6	1-2	<b>Short, Word, Byte</b>	Read Only	Backup mode setting <b>1</b>  (0=Manual, 1=Auto)
CNT<x>.7	1-2	<b>String</b>	Read Only	Engineering unit <b>1</b>
CNT<x>.8	1-2	<b>String</b>	Read Only	Tag number <b>1</b>
RefreshCNT	1-2	<b>Boolean</b>	Write Only	Refreshes the CNT1 or CNT2 setting values
SYS1.1	None	<b>Short, Word, Byte</b>	Read Only	Control mode <b>1</b>  (0=Programmable, 1=Multifunction type single-loop, 2=Multifunction type cascade, 3=Multifunction type selector)
SYS1.2	None	<b>Short, Word, Byte</b>	Read Only	Recovery from power failure <b>1</b>  (0=TIM1, 1=AUT, 2=TIM2)
SYS1.3	None	<b>Short, Word, Byte</b>	Read Only	Settable by comm. <b>1</b>

				(0=Enabled, 1=Inhibited)
SYS2.1	None	<b>Short</b> , Word, Byte	Read Only	PF key definition <b>1</b>  (0=None, 2=STC ON/OFF)
SYS2.2	None	<b>Short</b> , Word, Byte	Read Only	DI1 function definition <b>1</b>  (0=None, 1=A/M Toggle, 2=C/A Toggle, 3=Preset MV, 4=Tracking Toggle, 5=STC Toggle, 6=Internal CAS Toggle, 7=Selector Secondary Loop C/A Toggle)
SYS2.3	None	<b>Short</b> , Word, Byte	Read Only	DI1 set active <b>1</b>  (0=Open for ON, 1=Closed for ON)
SYS2.4	None	<b>Short</b> , Word, Byte	Read Only	Alarm output status <b>1</b>  (0=Open, 1=Closed)
SYS2.5	None	<b>Short</b> , Word, Byte	Read Only	SV tracking definition <b>1</b>  (0=None, 1=SV, 2=PV)
SYS2.6	None	<b>Short</b> , Word, Byte	Read Only	Selector definition <b>1</b>  (0=Low selector, 1=High Selector)
RefreshSYS	None	<b>Boolean</b>	Write Only	Refreshes the SYS1 and SYS2 setting values
Model	None	<b>String</b>	Read Only	Model name <b>1</b>
X*	01-05	<b>Float</b>	Read Only	Analog input register
Y**	01-06	<b>Float</b>	Read Only	Analog output register
DI	01-06	<b>Boolean</b>	Read Only	Status input register
DO	01-16	<b>Boolean</b>	Read Only	Status output register
P	01-30	<b>Float</b>	Read/Write	Computation parameter register <b>3</b>
T	01-30	<b>Float</b>	Read Only	Temporary storage register <b>3</b>
K	01-30	<b>Float</b>	Read Only	Constant register <b>3</b>

\*Memory address X05 is only valid in Program Mode.

\*\*Memory addresses Y04-Y06 are only valid in Program Mode.

## Notes:

### 1 Static Data

The data is read once at start up to initialize the value. The data can be refreshed by using the applicable refresh tag for all static data with the exception of 'Model'.

### 2 Tuning Parameters

For speed optimization, the address for this data should only be referenced if needed. The inclusion of tuning data in the application requires scanning of this data between reads of the loop variable data.

### 3 Computation Temporary, and Constant Registers

Register data is not generated during automatic tag generation to optimize the project, however it can be added if needed. The inclusion of register data in an application, results in scanning of data between reads of the loop variable data.

## Automatic Tag Database Generation

### Overview

The Yokogawa YS100 Serial driver utilizes the OPC Server's Automatic Tag Database Generation feature once a device model is selected. This feature enables drivers to automatically create tags by using a fixed database.

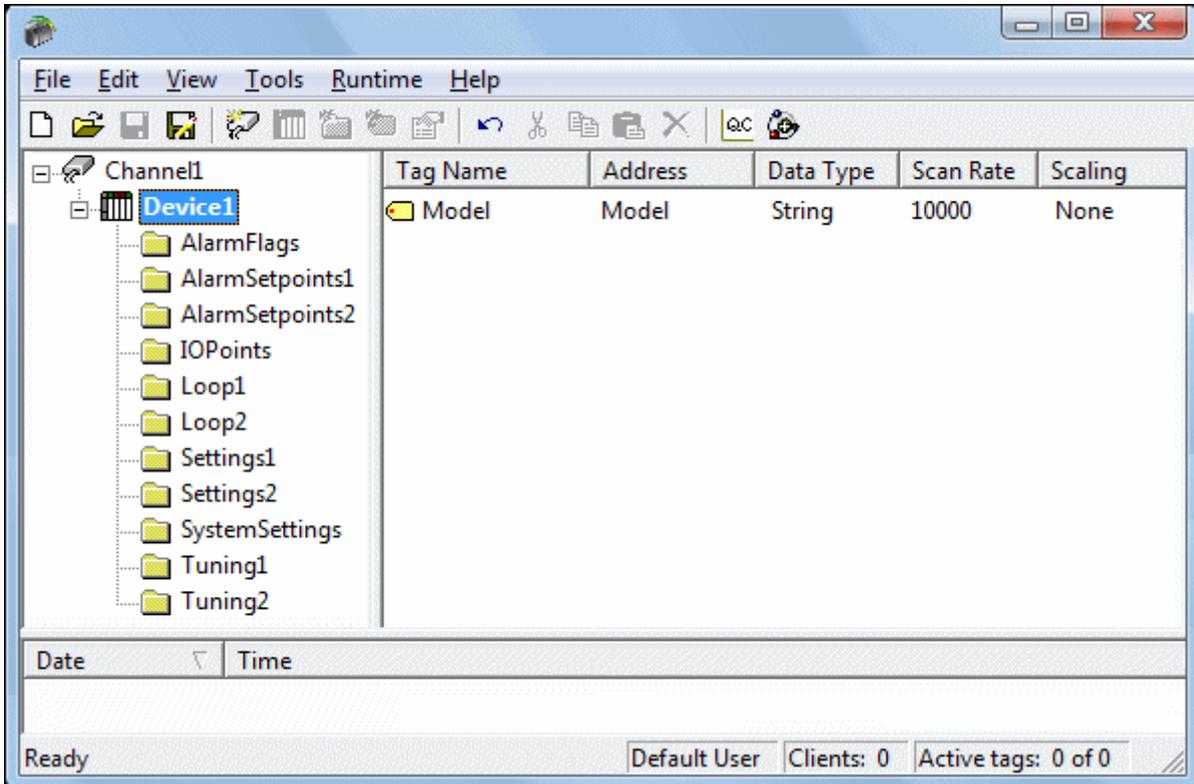
### Operation

Automatic Tag Database Generation occurs when a device model is selected.

### Group and Tag Naming

A tag group is created for each of the groups listed in [Address Descriptions](#).

**Note:** The following screenshot illustrates the results of Automatic Tag Database Creation for a YS150 device.



## Error Descriptions

---

The following error/warning messages may be generated. Click on the link for a description of the message.

### Address Validation

#### [Missing address](#)

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

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

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

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

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

### Serial Communications

#### [COMn does not exist](#)

[Error opening COMn](#)

[COMn is in use by another application](#)

[Unable to set comm parameters on COMn](#)

[Communications error on '<channel name>' \[<error mask>\]](#)

### Device Status Messages

[Device '<device name>' is not responding](#)

[Unable to write to '<address>' on device '<device name>'](#)

### Yokogawa YS100 Serial Device Specific Messages

[Received unexpected response for tag in block '<tag name>' on device '<device name>'](#)

[Failed to read static initialization data for device '<device name>'](#)

[No response to watchdog write on device '<device name>'](#)

## Address Validation

---

The following error/warning messages may be generated. Click on the link below for a description of the message.

### Address Validation

#### [Missing address](#)

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

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

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

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

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

### Missing address

---

#### **Error Type:**

Warning

#### **Possible Cause:**

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

#### **Solution:**

Verify the address is correct; if it is not, re-enter it 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:**

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

---

**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 the address is correct; if it is not, re-enter it 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 the address is correct; if it is not, re-enter it in the client application. Also verify that the selected model name for the device is correct.

---

**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>' 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.

---

**Serial Communications**

---

The following error/warning messages may be generated. Click on the link below for a description of the message.

**Serial Communications**[COMn does not exist](#)[Error opening COMn](#)[COMn is in use by another application](#)[Unable to set comm parameters on COMn](#)[Communications error on '<channel name>' \[<error mask>\]](#)

---

**COMn does not exist**

---

**Error Type:**

Fatal

**Possible Cause:**

The specified COM port is not present on the target computer.

**Solution:**

Verify that the proper COM port has been selected in the Channel Properties.

**Error opening COMn**

---

**Error Type:**

Fatal

**Possible Cause:**

The specified COM port could not be opened due to an internal hardware or software problem on the target computer.

**Solution:**

Verify that the COM port is functional and may be accessed by other Windows applications.

**COMn is in use by another application**

---

**Error Type:**

Fatal

**Possible Cause:**

The serial port assigned to a channel is being used by another application.

**Solution:**

1. Verify that the correct port has been assigned to the channel.
2. Close the other application that is using the requested COM port.

**Unable to set communication parameters on COMn**

---

**Error Type:**

Fatal

**Possible Cause:**

The serial parameters for the specified COM port are not valid.

**Solution:**

Verify the serial parameters and make any necessary changes.

**Communications error on '<channel name>' [<error mask>]**

---

**Error Type:**

Warning

**Error Mask Definitions:**

**B** = Hardware break detected.

**F** = Framing error.

**E** = I/O error.

**O** = Character buffer overrun.

**R** = RX buffer overrun.

**P** = Received byte parity error.

**T** = TX buffer full.

**Possible Cause:**

1. The serial connection between the device and the host PC is bad.
2. The communication parameters for the serial connection are incorrect.
3. There is a noise source disrupting communications in the cabling path between the PC and the device.

**Solution:**

1. Verify the cabling between the PC and the device.
2. Verify that the specified communication parameters match those of the device.
3. Re-route cabling to avoid sources of electrical interference; such as motors, generators or high voltage lines.

## Device Status Messages

---

The following error/warning messages may be generated. Click on the link below for a description of the message.

### Device Status Messages

[Device '<device name>' is not responding](#)

[Unable to write to '<address>' on device '<device name>'](#)

### Device '<device name>' is not responding

---

**Error Type:**

Serious

**Possible Cause:**

1. The serial connection between the device and the host PC is broken.
2. The communication parameters for the serial connection are incorrect.
3. The named device may have been assigned an incorrect Network ID.
4. The response from the device took longer to receive than the amount of time specified in the "Request Timeout" device setting.

**Solution:**

1. Verify the cabling between the PC and the device.
2. Verify that the specified communication parameters match those of the device.
3. Verify that the Network ID given to the named device matches that of the actual device.
4. Increase the Request Timeout setting so that the entire response can be handled.

### Unable to write to '<address>' on device '<device name>'

---

**Error Type:**

Serious

**Possible Cause:**

1. The serial connection between the device and the host PC is broken.
2. The communication parameters for the serial connection are incorrect.
3. The named device may have been assigned an incorrect Network ID.

**Solution:**

1. Verify the cabling between the PC and the device.
2. Verify that the specified communication parameters match those of the device.
3. Verify that the Network ID given to the named device matches that of the actual device.

## YS100 Serial Device Specific Messages

---

The following error/warning messages may be generated. Click on the link below for a description of the message.

### YS100 Serial Device Specific Messages

[Received unexpected response for tag in block '<tag name>' on device '<device name>'](#)

[Failed to read static initialization data for device '<device name>'](#)

[No response to watchdog write on device '<device name>'](#)

### Received unexpected response for tag in block '<tag name>' on device '<device name>'

---

**Error Type:**

Serious

**Possible Cause:**

1. An attempt has been made to reference a nonexistent location in the specified device.
2. If there was a break in connection between the driver and the device, the device may respond with a buffered response before responding to the current request.

**Solution:**

1. Verify the tags assigned to addresses in the specified range on the device and eliminate those that reference invalid locations.

2. If there was a cable disconnect, the driver will resynch with the device.

---

**Failed to read static sinitialization data for device '<device name>'**

---

**Error Type:**

Serious

**Possible Cause:**

1. The serial connection between the device and the host PC is broken.
2. The communication parameters for the serial connection are incorrect.
3. The named device may have been assigned an incorrect Network ID.

**Solution:**

1. Verify the cabling between the PC and the device.
2. Verify that the specified communication parameters match those of the device.
3. Verify that the Network ID given to the named device matches that of the actual device.

---

**No response to watchdog write on device '<device name>'**

---

**Error Type:**

Serious

**Possible Cause:**

The driver did not receive a response to the watchdog timer command. Either the device is unable to accept the watchdog timer command or the device is not responding.

**Solution:**

Check communication parameters and cabling then restart the server.

# Index

## A

Address '<address>' is out of range for the specified device or register.....	14
Address Descriptions.....	7
Address Validation.....	13
Automatic Tag Database Generation.....	12

## B

Boolean.....	6
--------------	---

## C

Communications error on '<channel name>' [<error mask>].....	15
COMn does not exist.....	14
COMn is in use by another application.....	15

## D

Data Type '<type>' is not valid for device address '<address>'.....	14
Data Types Description.....	6
Device '<device name>' is not responding.....	16
Device address '<address>' contains a syntax error.....	13
Device address '<address>' is not supported by model '<model name>'.....	14
Device address '<address>' is Read Only.....	14
Device ID.....	4
Device Setup.....	4
Device Status Messages.....	16

## E

Error Descriptions.....	13
Error opening COMn.....	15

**F**

Failed to read SM100 decimal placement data.....	17
Float .....	6
Framing.....	15

**M**

Mask .....	15
Missing address.....	13
Modem Setup.....	5

**N**

Network.....	4
No response to watchdog write on device '<device name>'.....	17

**O**

Overrun.....	15
Overview.....	3

**P**

Parity.....	15
-------------	----

**R**

Received unexpected response for tag in block '<tag name>' on device '<device name>'....	16
--	----

**S**

<b>Serial Communications</b> .....	<b>14</b>
<b>Settings</b> .....	<b>5</b>
<b>Short</b> .....	<b>6</b>
<b>String</b> .....	<b>6</b>

**U**

<b>Unable to set comm parameters on COMn</b> .....	<b>15</b>
<b>Unable to write to '&lt;address&gt;' on device '&lt;device name&gt;'</b> .....	<b>16</b>

**W**

<b>Word</b> .....	<b>6</b>
-------------------	----------

**Y**

<b>YS100 Serial Device Specific Messages</b> .....	<b>16</b>
<b>YS150 Addressing</b> .....	<b>7</b>
<b>YS170 Addressing</b> .....	<b>9</b>