

sa32.vi



The screenshot shows a software interface with several data entry fields and a parameter table.

At the top left, there are two text boxes: "chaîne écrite" containing "0103 001E 0003 65CD" and "chaîne lue" containing "0103 0600 0000 0000 0361 74". Below these are two buttons: "LSB" and "MSB".

To the right of the LSB button are two dropdown menus: "numéro de port" (set to 0) and "Nvoie" (set to 11).

Further right are three more dropdown menus: "code d'erreur" (set to x0), "Valeur" (set to 0,00000), and "Erreur" (set to 0).

In the center-left, there is a section titled "valeur paramètres (16 bits) (décimal)" with a table labeled "Tableau". The table has two columns: "Index" (0 to 15) and "Value" (0 to 23). The value at index 0 is highlighted as 23.

On the far right, there is a "Mode" dropdown set to "debug".

At the bottom center, there is a small status bar with a progress bar and the number "0".

[U16] **Nvoie[Nvoie]**

[I32] **numéro de port[port number] numéro de port** Les paramètres pour les **numéros de ports** série dépendent de la plate-forme que vous utilisez : Windows, Macintosh ou UNIX.

[U16] **Mode**

[EXT] **Valeur[Valeur]**

[I32] **code d'erreur[error code]** Si **code d'erreur** est non nul, une erreur a eu lieu. Vous pouvez câbler **code d'erreur** à l'un des VIs gestionnaires d'erreur, qui décrivent l'erreur et vous donnent des options sur la manière de procéder lorsqu'une erreur survient. Certains codes d'erreur renvoyés par les VIs de port série sont spécifiques à une plate-forme. Veuillez vous reporter à la documentation de votre système pour obtenir une liste des codes d'erreur.

[U8] **LSB[LSB]**

[U8] **MSB[MSB]**

[abc] **chaîne écrite[string to write]** "chaîne à écrire" représente les données à écrire sur le port série. Si le nombre de caractères dans chaîne à écrire est supérieur à la taille du buffer spécifiée dans Initialiser le port série, c'est le nombre de caractères égal à la taille du buffer qui sera écrit.

[u8] **tableau d'octets non signés**

[U8]

[I32] **taille(s)[taille(s)]**

[U16] **Tableau[Tableau]**

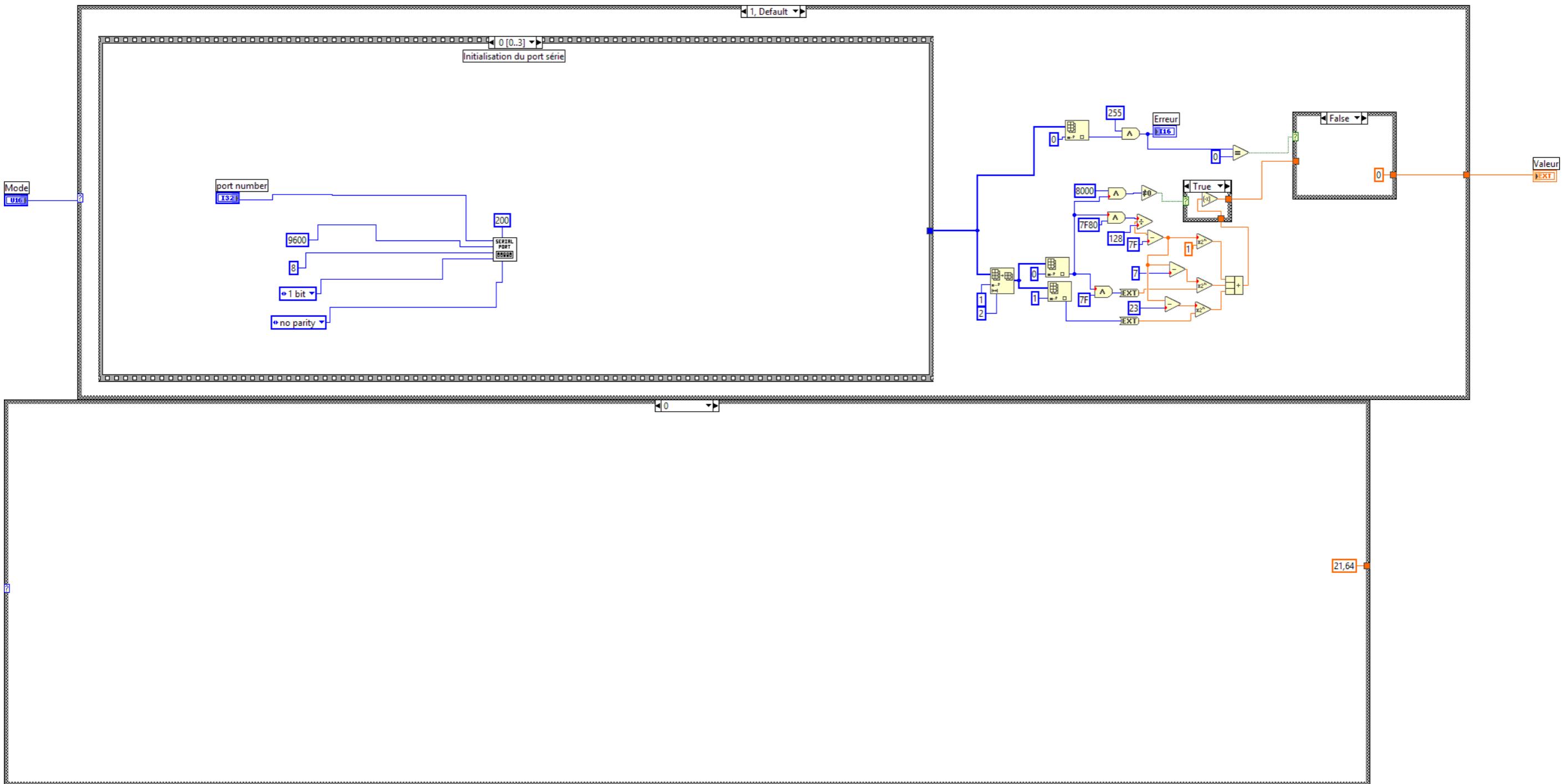
[U16] **Nouvel élément[Nouvel élément]**

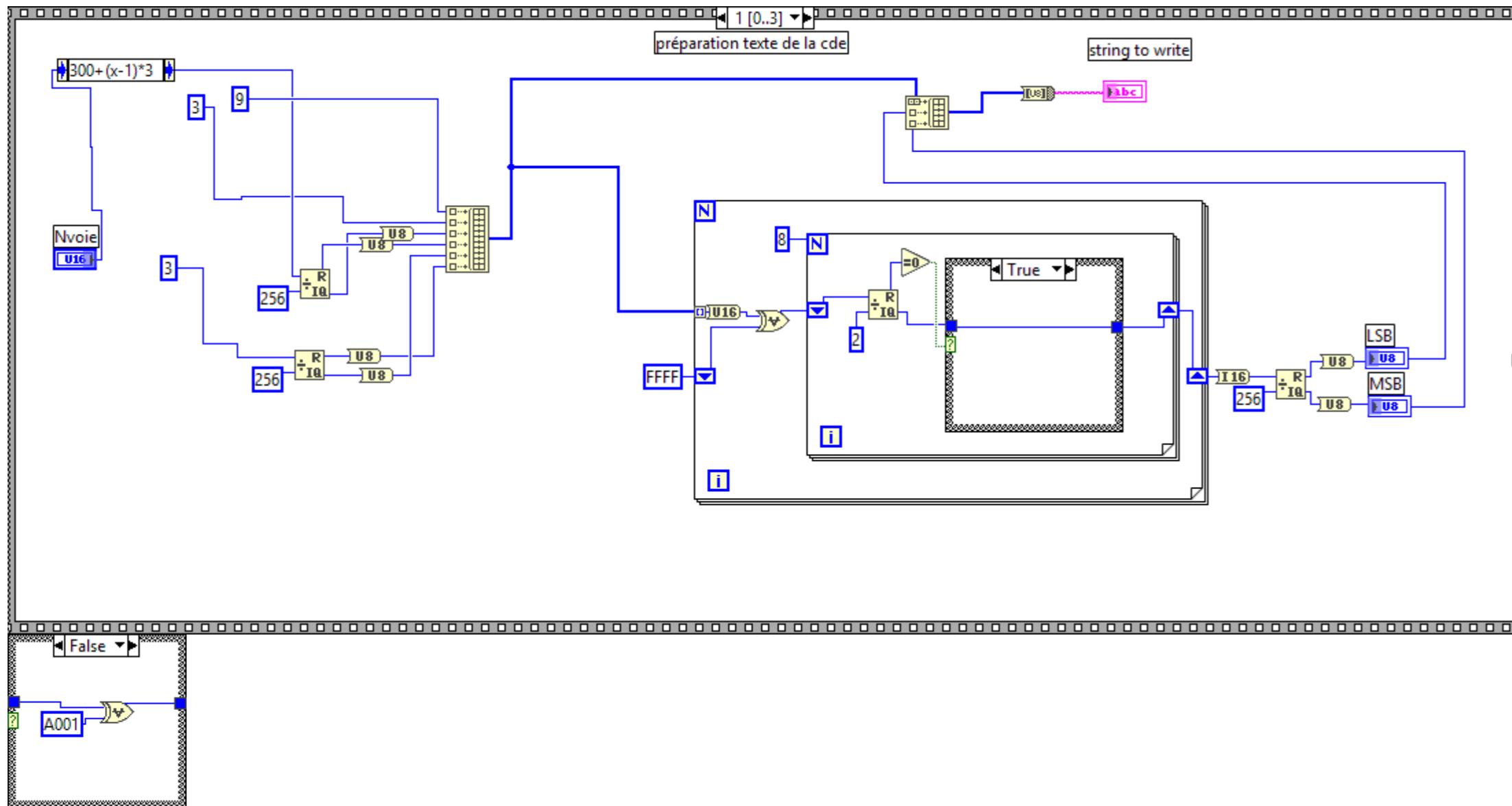
[I16] **valeur paramètres (16 bits) (décimal)[valeur paramètres (16 bits) (décimal)]**

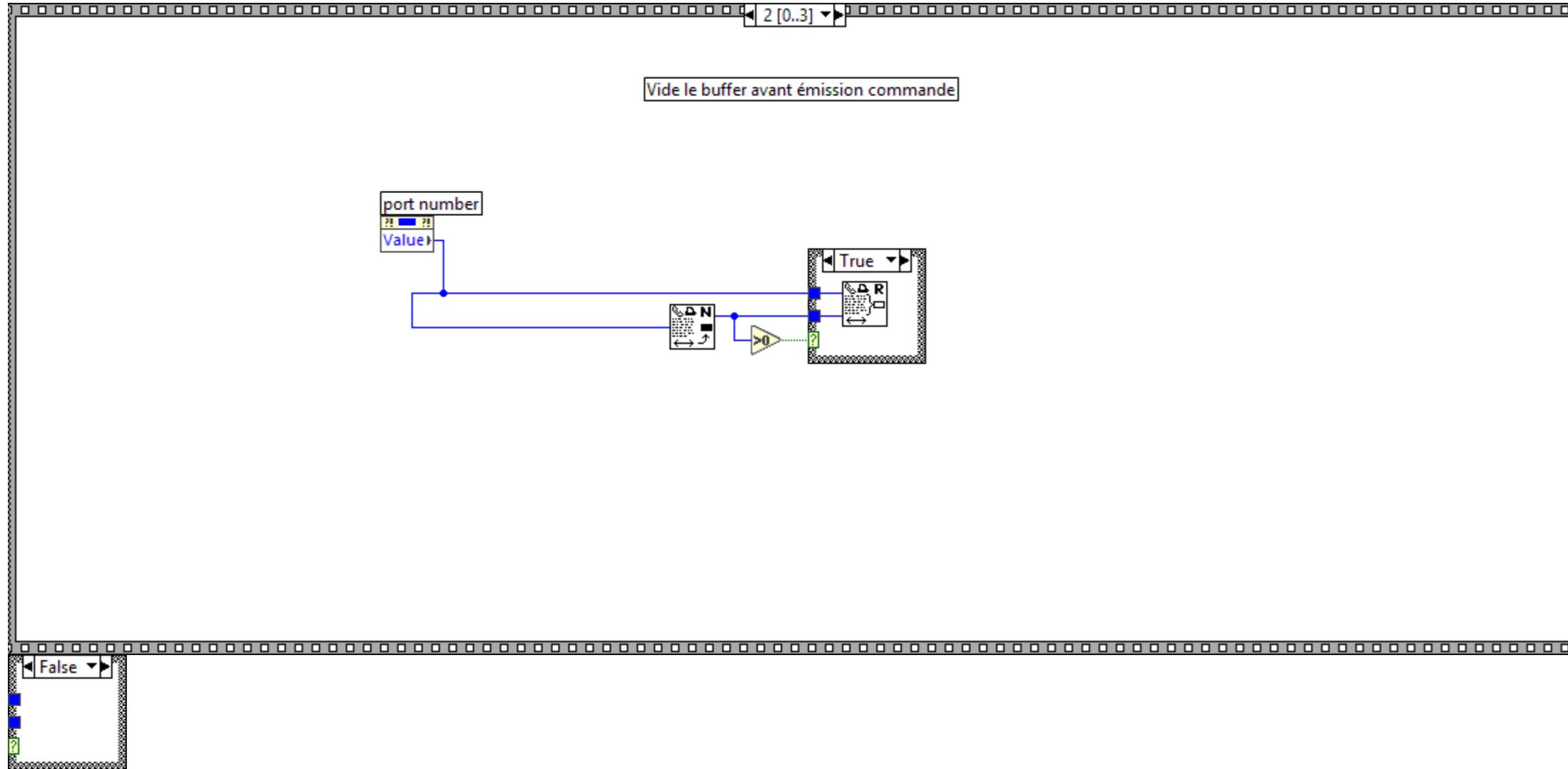
[I16] **[]**

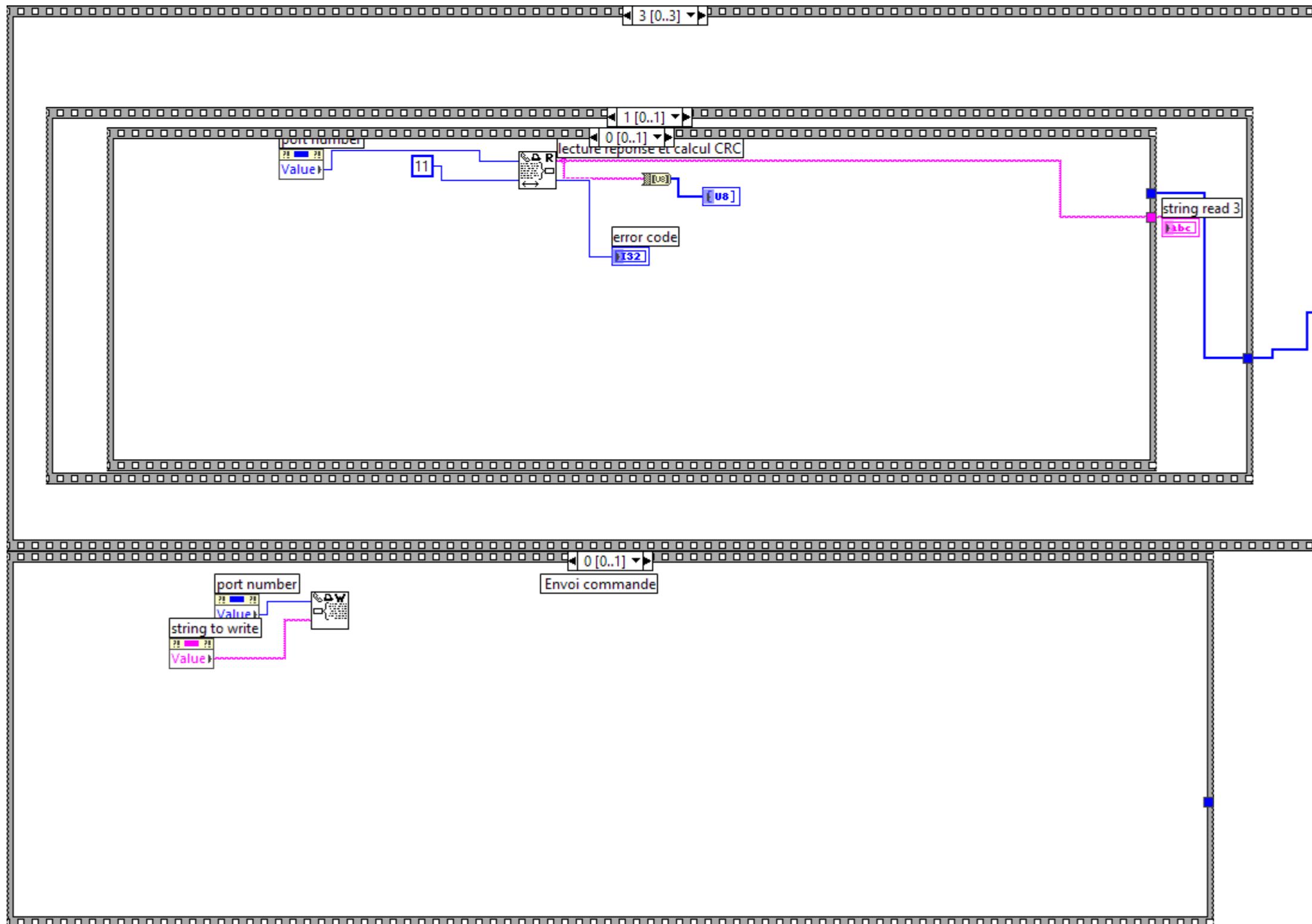
[abc] **chaîne lue[string read 3]** Le VI retourne les octets lus dans chaîne lue.

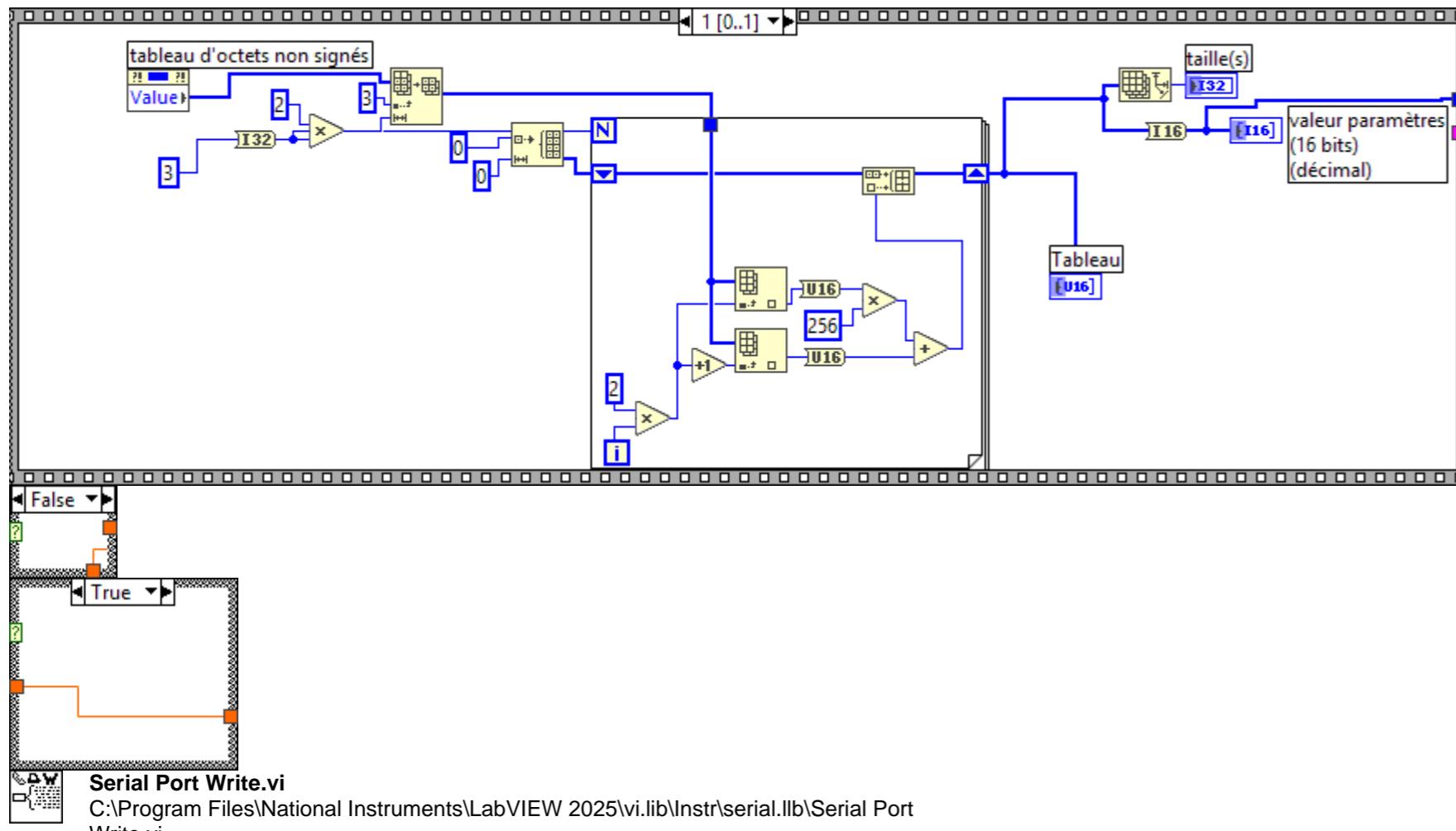
[I16] **Erreur**











Serial Port Write.vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr\serial.llb\Serial Port Write.vi

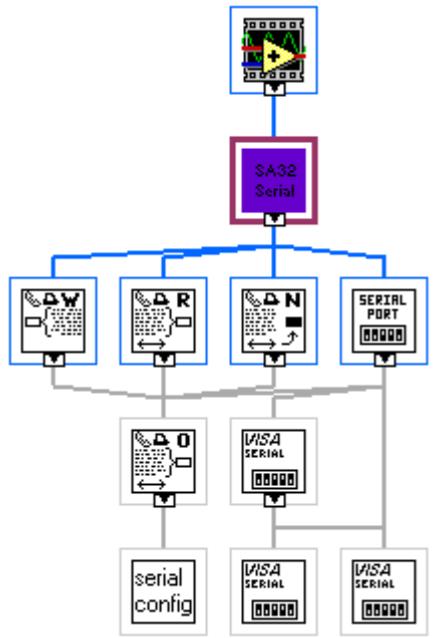
Serial Port Read.vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr\serial.llb\Serial Port Read.vi

Bytes At Serial Port.vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr\serial.llb\Bytes At Serial Port.vi

Serial Port Init.vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr\serial.llb\Serial Port Init.vi

"sa32.vi History"
Current Revision: 7

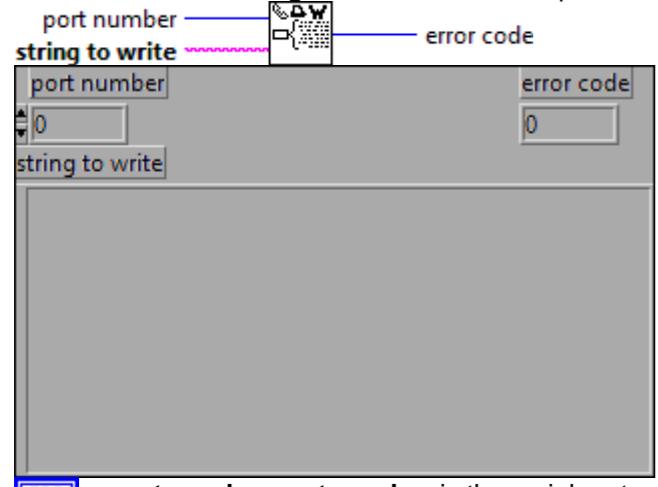
Position in Hierarchy



Iconified Cluster Constants

Serial Port Write.vi

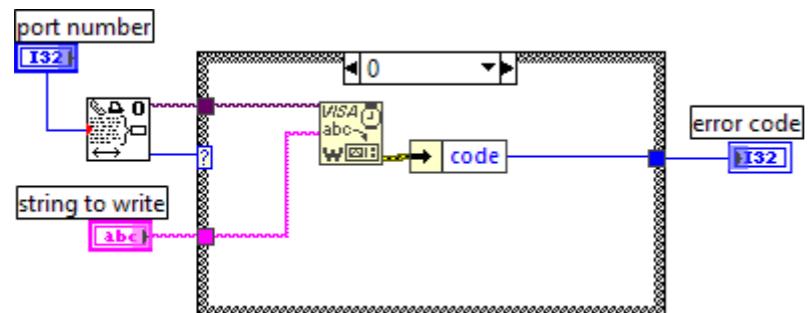
Writes the data in **string to write** to the serial port indicated in **port number**.

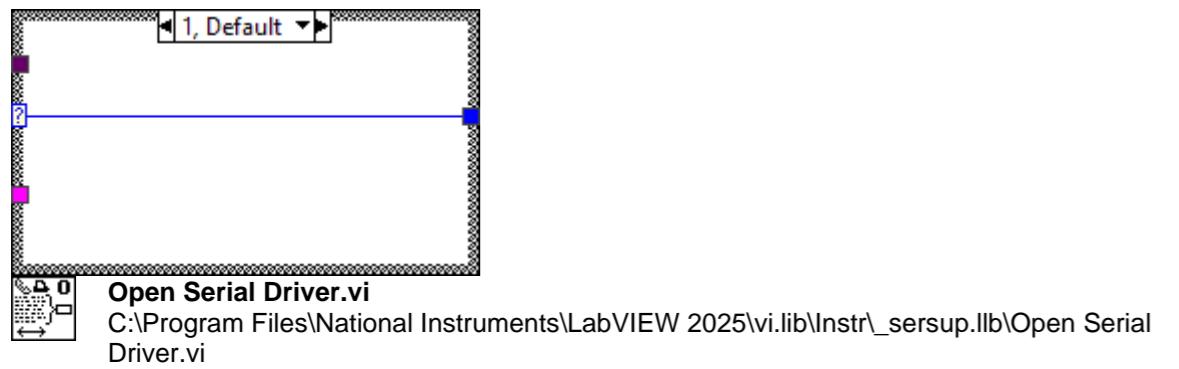


[132] **port number** **port number** is the serial port.

[abc] **string to write** **string to write** is the data to write to the serial port.

[132] **error code** **error code** is the error or warning code. If **error code** is nonzero, an error occurred. You can wire **error code** to one of the error handler VIs, which describe the error and give you options on how to proceed when an error occurs.





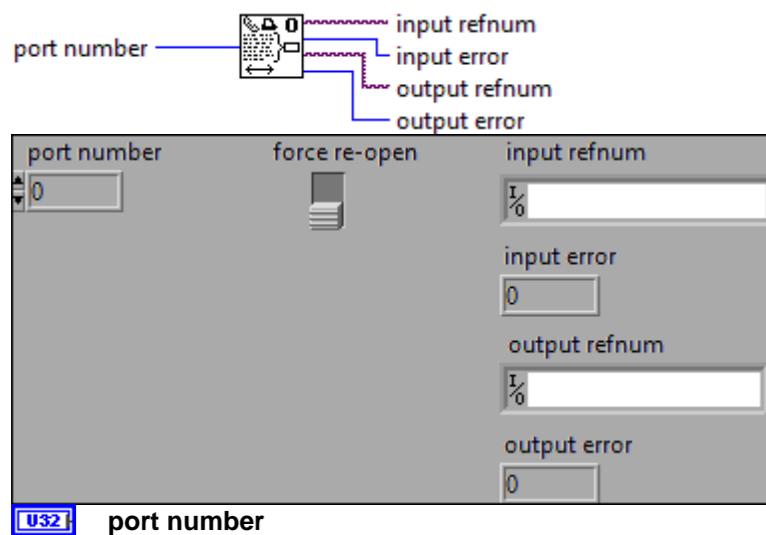
"Serial Port Write.vi History"
Current Revision: 24

Position in Hierarchy

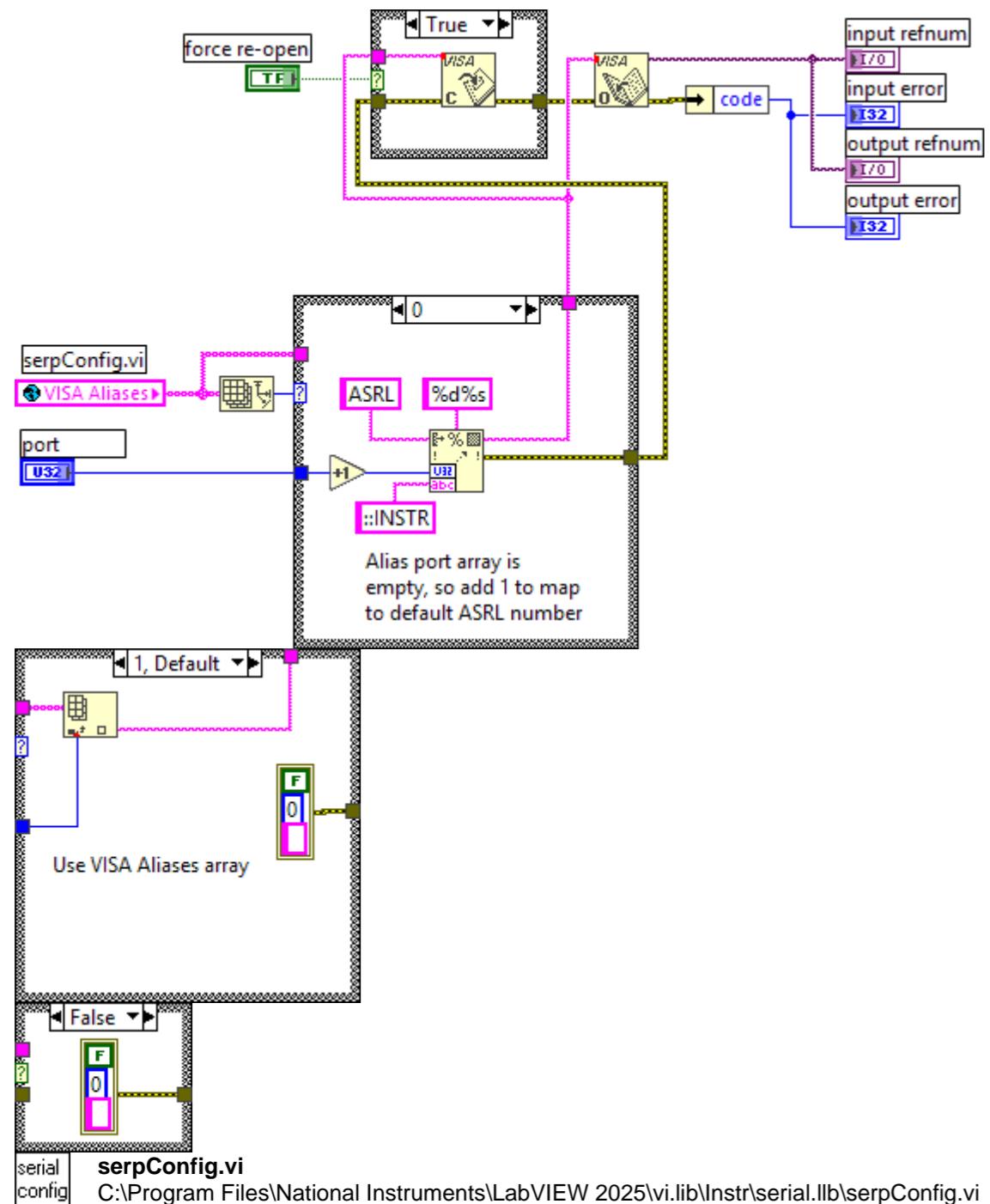


Iconified Cluster Constants

Open Serial Driver.vi

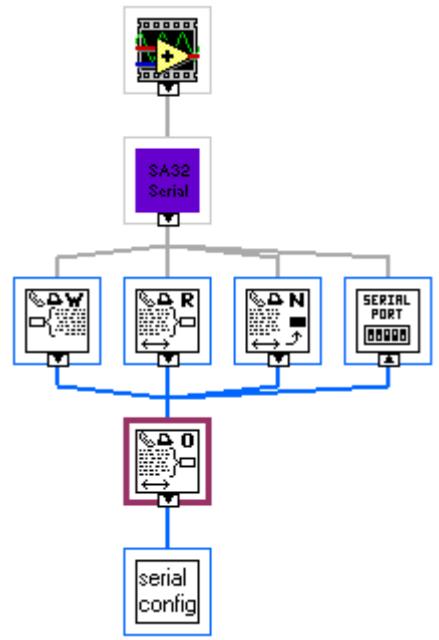


- [TF]** force re-open
- [I/O]** input refnum
- [I/O]** output refnum
- [I32]** input error
- [I32]** output error



"Open Serial Driver.vi History"
Current Revision: 17

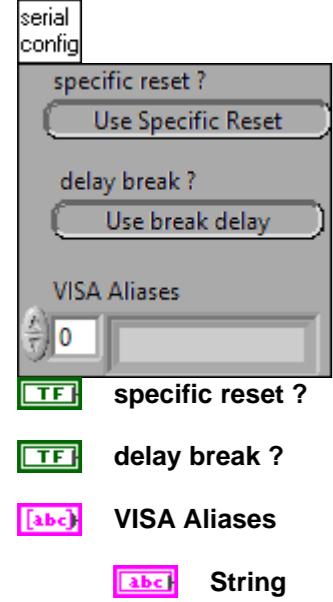
Position in Hierarchy



Iconified Cluster Constants

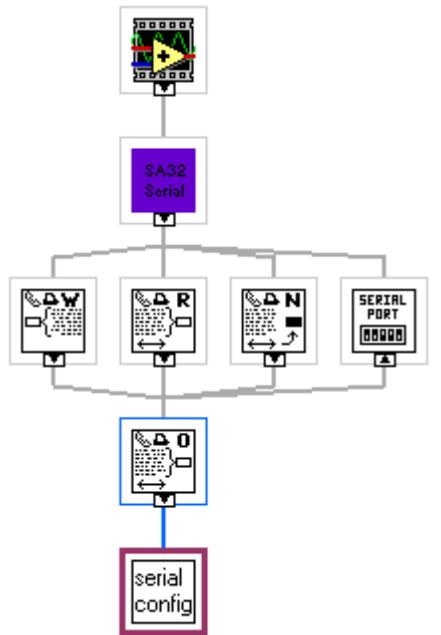
serpConfig.vi

This VI was removed from the Functions palette. Use the VIs and functions on the VISA palette to control serial devices. If you use the LabVIEW PDA Module, use this VI for serial communication.



"serpConfig.vi History"
Current Revision: 5

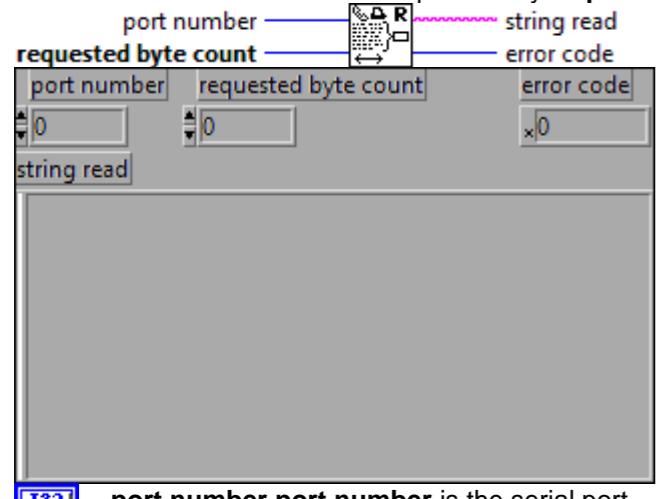
Position in Hierarchy



Iconified Cluster Constants

Serial Port Read.vi

Reads the number of characters specified by **requested byte count** from the serial port indicated in **port number**.

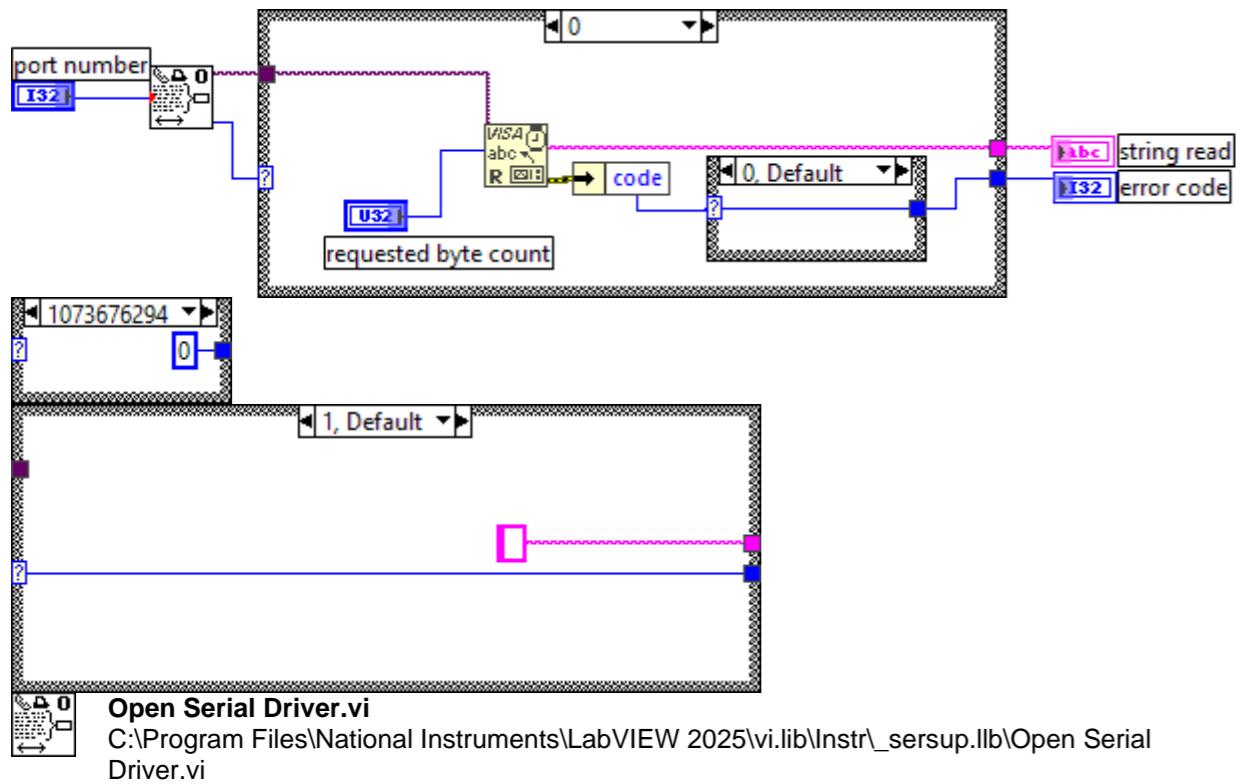


I32 port number **port number** is the serial port.

U32 requested byte count **requested byte count** specifies the number of characters to read.

abc string read **string read** is the bytes read from the serial port.

I32 error code **error code** is the error or warning code. If **error code** is nonzero, an error occurred. You can wire **error code** to one of the error handler VIs, which describe the error and give you options on how to proceed when an error occurs.



Open Serial Driver.vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr\sersup.llb\Open Serial
Driver.vi

"Serial Port Read.vi History"
Current Revision: 24

Position in Hierarchy



Iconified Cluster Constants

Bytes At Serial Port.vi

Returns the number of bytes in the input buffer of the serial port indicated in **port number**.

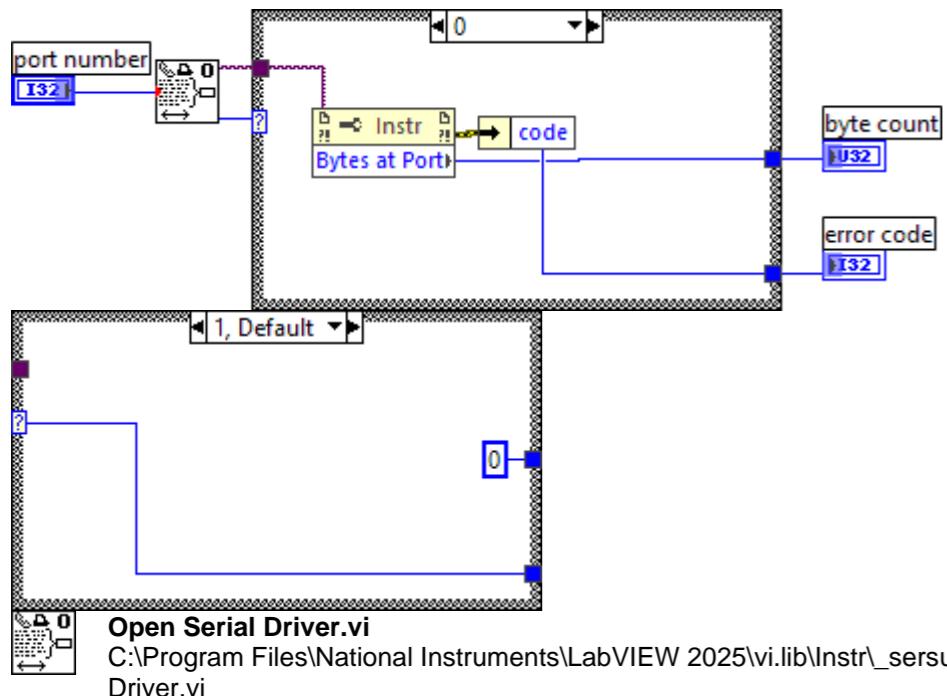


port number	byte count
0	0
error code	0

[I32] port number port number is the serial port.

[U32] byte count byte count is the number of bytes currently in the serial port buffer.

[I32] error code error code is the error or warning code. If error code is nonzero, an error occurred. You can wire error code to one of the error handler VIs, which describe the error and give you options on how to proceed when an error occurs.



"Bytes At Serial Port.vi History"

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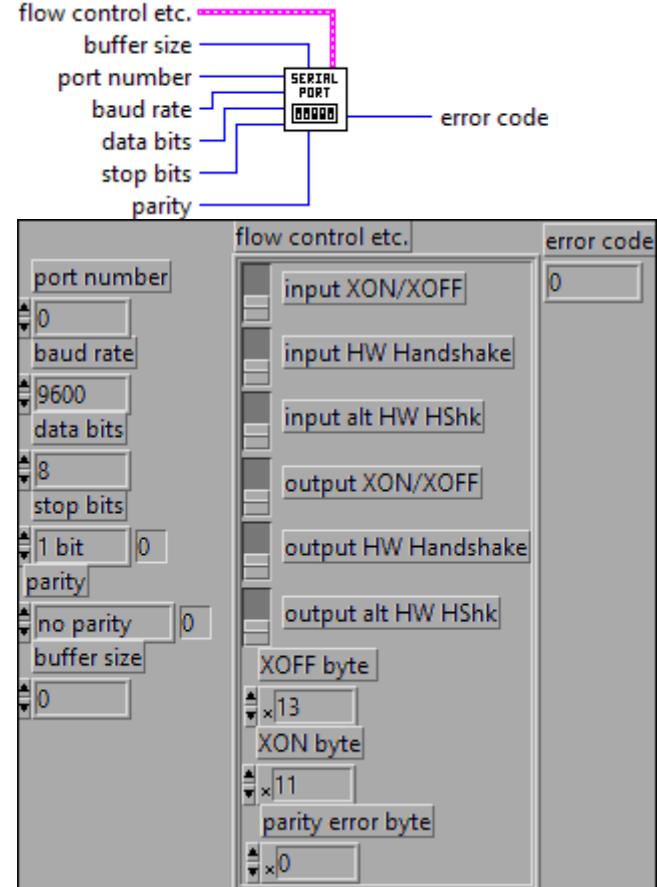
Position in Hierarchy



Iconified Cluster Constants

Serial Port Init.vi

Initializes the selected serial port to the settings you specify.



baud rate baud rate is the rate of transmission. The default is 9600.

stop bits stop bits specifies the number of stop bits used to indicate the end of a frame.

parity parity specifies the parity used to transmit or receive every frame.

U16 **data bits** **data bits** is the number of bits in the incoming data and can be between 5 and 8. The default is 8.

U16 **buffer size** **buffer size** indicates the size of the input and output buffers the VI allocates for communication through the specified port.

I32 **port number** **port number** is the serial port.

F8H **flow control etc.** **flow control etc.** enables you to set options for the serial port.

TF **input XON/XOFF** **input XON/XOFF** is a software handshaking protocol you can use to avoid overflowing the serial port buffers. The default is FALSE.

TF **input HW Handshake** **input HW Handshake** corresponds to Request To Send (RTS) handshaking. The default is FALSE.

TF **input alt HW HShk** **input alt HW HShk** corresponds to Data Terminal Ready (DTR) handshaking. The default is FALSE.

TF **output XON/XOFF** **output XON/XOFF** is a software handshaking protocol you can use to avoid overflowing the serial port buffers. The default is FALSE.

TF **output HW Handshake** **output HW Handshake** corresponds to Clear to Send (CTS) handshaking. The default is FALSE.

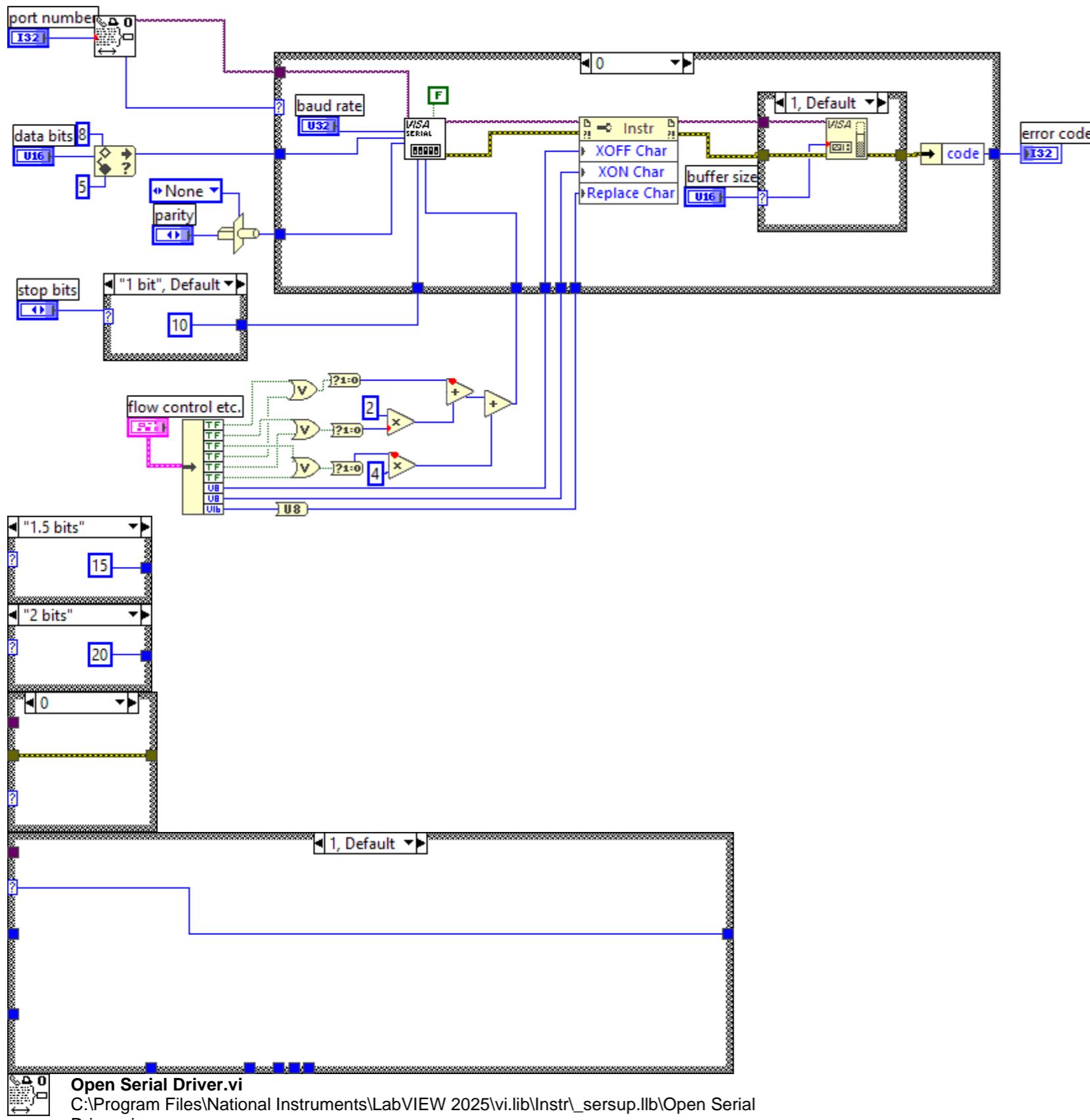
TF **output alt HW HShk** **output alt HW HShk** corresponds to Data Set Ready (DSR) handshaking. The default is FALSE.

U8 **XOFF byte** **XOFF byte** is the byte used for XOFF (^S). The default is 0x13.

U8 **XON byte** **XON byte** is the byte used for XON (^Q). The default is 0x11.

U16 **parity error byte** **parity error byte** determines the behavior when a parity error occurs. If the high byte is nonzero, the low byte is the character that replaces any parity errors found when you enable parity. The default is 0.

I32 **error code** **error code** is the error or warning code. **error code** is -1 if **baud rate**, **data bits**, **stop bits**, **parity**, or **port number** are out of range or if the VI could not initialize the serial port.



Open Serial Driver.vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr\sersup.llb\Open Serial
Driver.vi

VISA Configure Serial Port (Instr).vi
C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr_visa.llb\VISA Configure
Serial Port (Instr).vi



VISA Configure Serial Port

C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr_visa.llb\VISA Configure
Serial Port

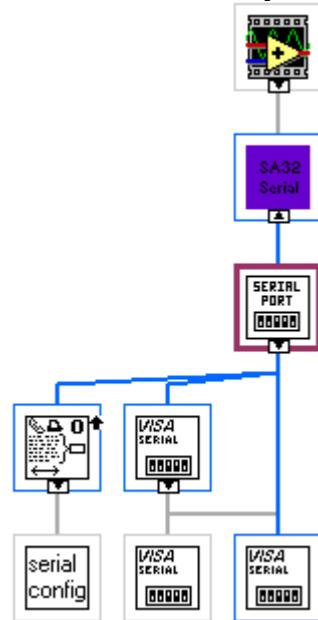
"Serial Port Init.vi History"

Current Revision: 47

rev. 6 lun. 24 févr. 1997 18:01:30 steve

The baud rate parameter has been changed to uint32 for fast ports. This may still be restricted on some platforms by lower level limitations.

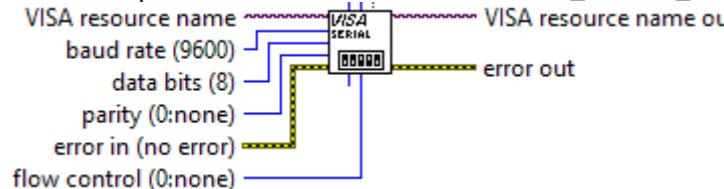
Position in Hierarchy

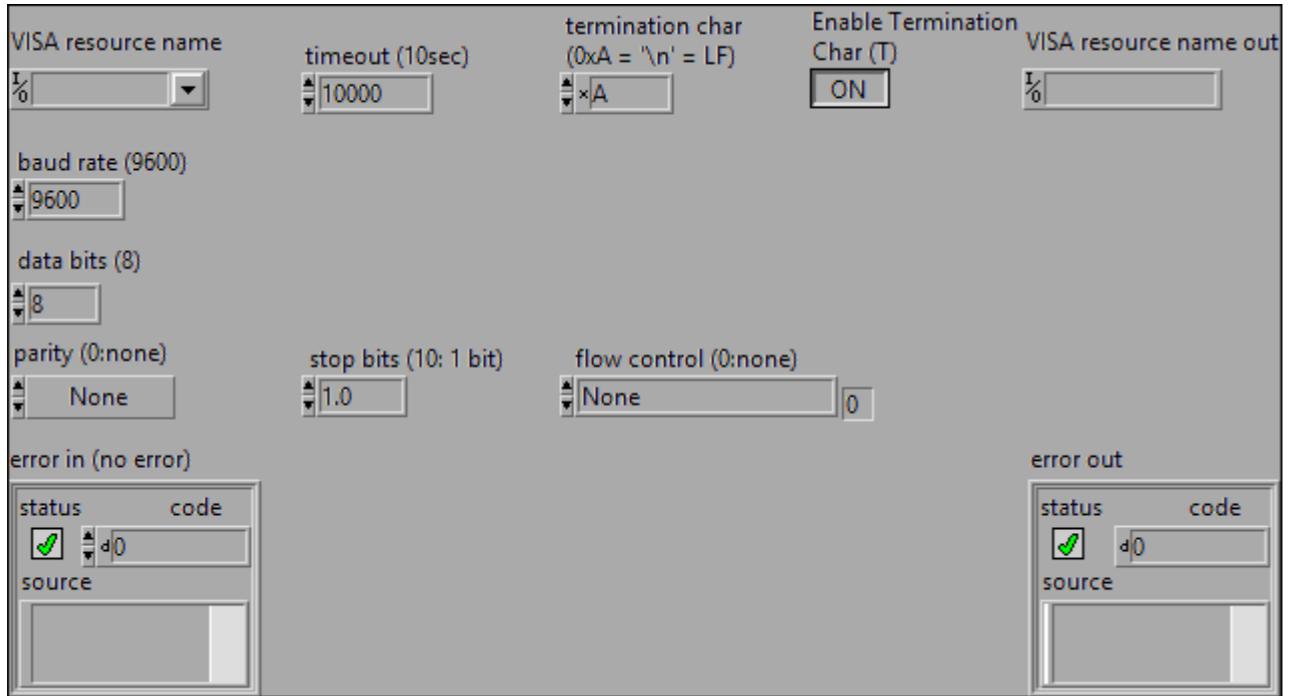


Iconified Cluster Constants

VISA Configure Serial Port (Instr).vi

<p>Initializes the serial port specified by VISA resource name to the specified settings. Wire data to the VISA resource name input to determine the polymorphic instance to use or manually select the instance.</p>





170 **VISA resource name** **VISA resource name** specifies the resource to be opened. The [VISA resource name](nihelplauncher://docs/csh?context=lvcore_lvinstio_visa_resource_name_generic) control also specifies the session and class.

U32 **timeout (10sec)** **timeout** specifies the time, in milliseconds, for the write and read operations.

U32 **baud rate (9600)** **baud rate** is the rate of transmission.

U16 **data bits (8)** **data bits** is the number of bits in the incoming data.

U8 **parity (0:none)** **parity** specifies the parity used for every frame to be transmitted or received.

U8 **termination char (0xA = '\n' = LF)** **termination char** calls for termination of the read operation. The read operation terminates when the **termination char** is read from the serial device.

EI **error in (no error)** **error in** describes error conditions that occur before this node runs. This input provides [standard error in](nihelplauncher://docs/csh?context=lvcore_lvconcepts_using_standard_error_in) functionality.

TF **status** **status** is TRUE (X) if an error occurred before this node ran or FALSE (checkbox) to indicate a warning or that no error occurred before this node ran. The default is FALSE.

I32 **code** **code** is the error or warning code. The default is 0.

abc **source** **source** specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning. The default is an empty string.

U16 **stop bits (10: 1 bit)** **stop bits** specifies the number of stop bits used to indicate the end of a frame.

TF **Enable Termination Char (T)** **Enable Termination Char** prepares the

serial device to recognize termination char.

U16 **flow control (0:none)** flow control sets the type of control used by the transfer mechanism.

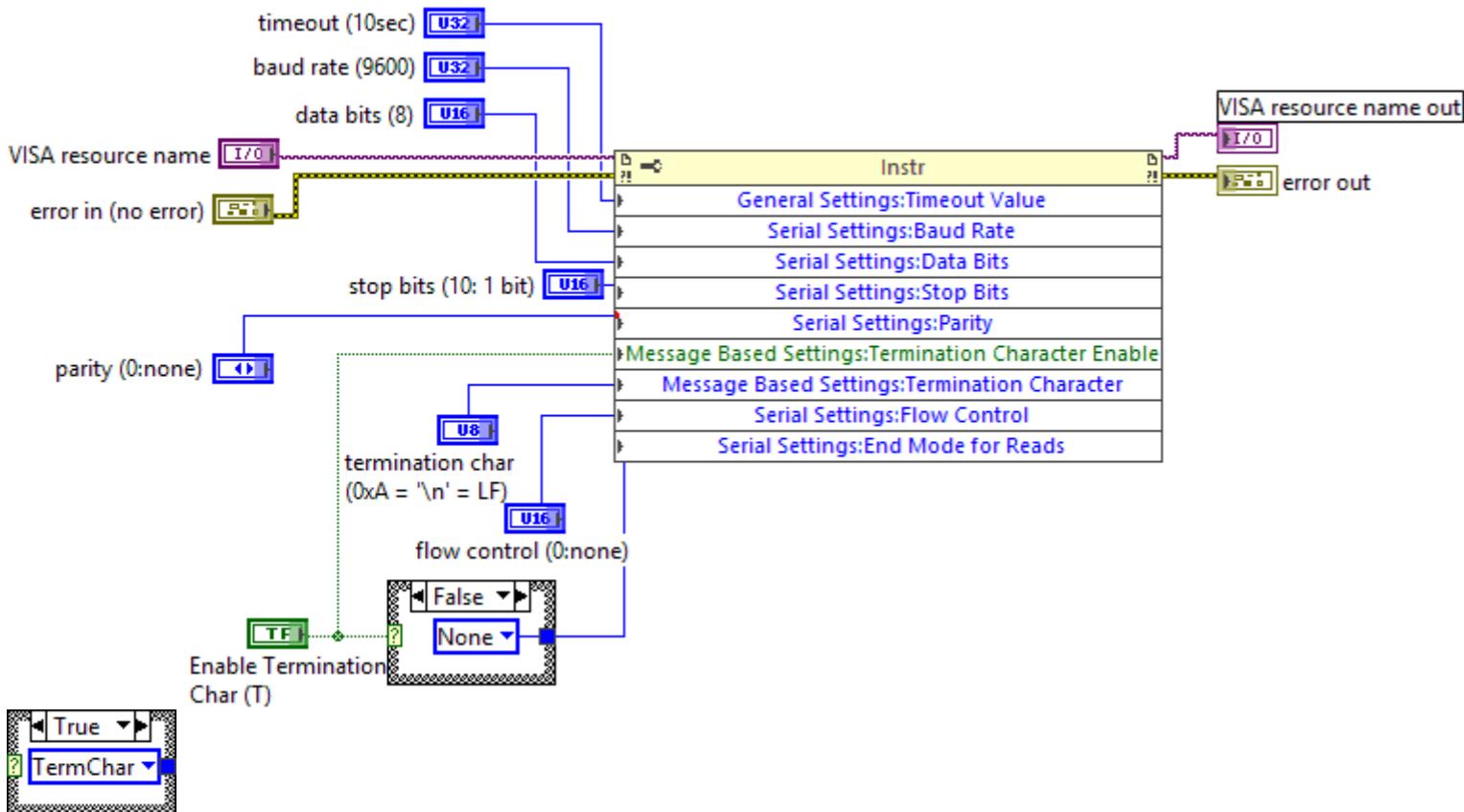
I/O **error out** error out contains error information. This output provides standard error out functionality.

TF **status status** is TRUE (X) if an error occurred or FALSE (checkmark) to indicate a warning or that no error occurred.

I32 **code code** is the error or warning code.

Iabc **source source** describes the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

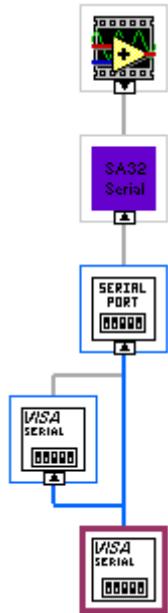
I/O **VISA resource name out** VISA resource name out is a copy of the VISA resource name that VISA functions return.



"VISA Configure Serial Port (Instr).vi History"

Current Revision: 113

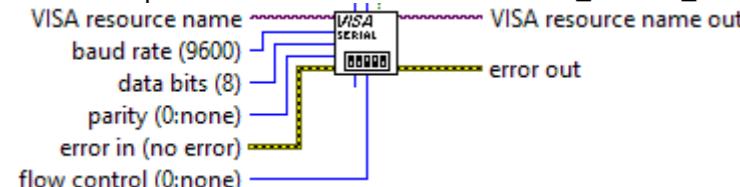
Position in Hierarchy



Iconified Cluster Constants

VISA Configure Serial Port

Initializes the serial port specified by **VISA resource name** to the specified settings. Wire data to the **VISA resource name** input to determine the polymorphic instance to use or [manually select](nihelplauncher://docs/csh?context=lvcore_lvhowto_selectingdefaultinstpolyvi) the instance.



VISA Configure Serial Port (Instr).vi

C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr_visa.llb\VISA Configure Serial Port (Instr).vi

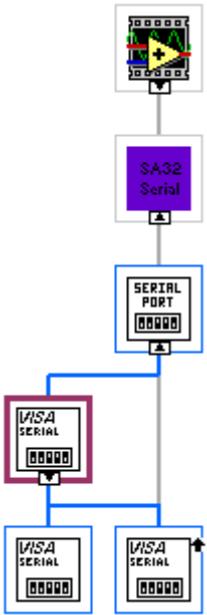
VISA Configure Serial Port (Serial Instr).vi

C:\Program Files\National Instruments\LabVIEW 2025\vi.lib\Instr_visa.llb\VISA Configure Serial Port (Serial Instr).vi

"VISA Configure Serial Port History"

Current Revision: 23

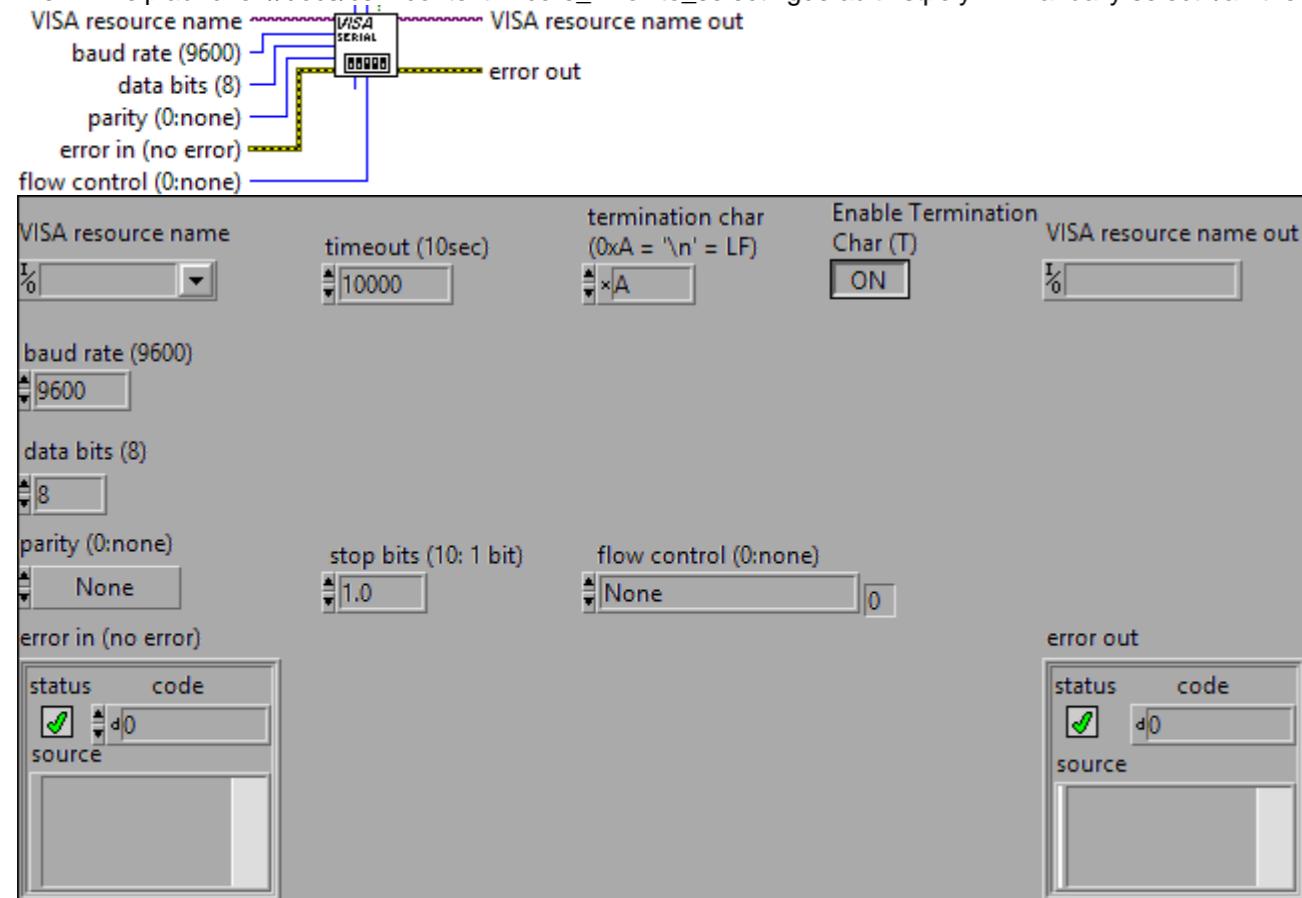
Position in Hierarchy



Iconified Cluster Constants

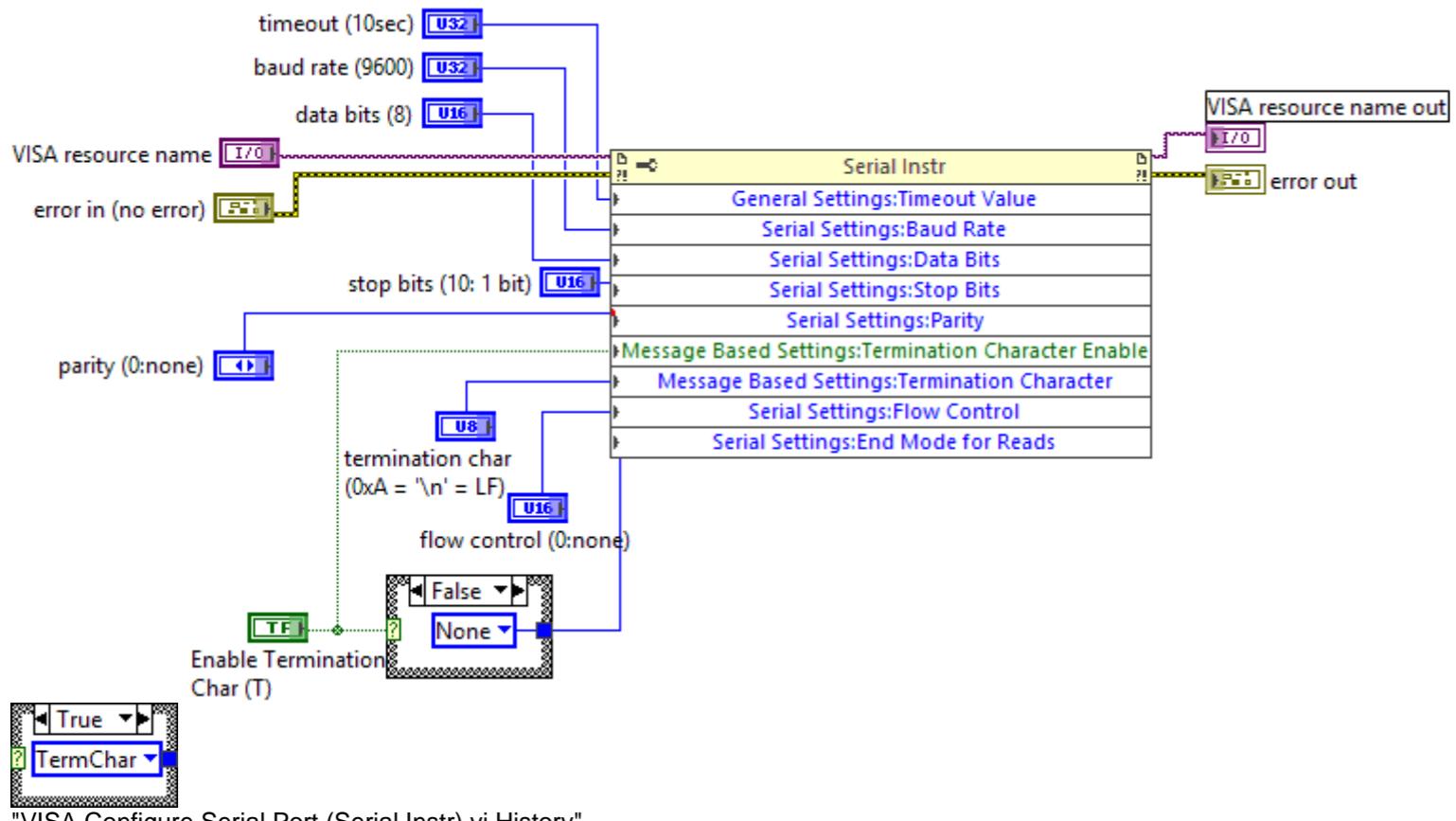
VISA Configure Serial Port (Serial Instr).vi

Initializes the serial port specified by **VISA resource name** to the specified settings. Wire data to the **VISA resource name** input to determine the polymorphic instance to use or [manually select](#) the instance.



I/O **VISA resource name** **VISA resource name** specifies the resource to be opened. The [VISA resource name](#) control also specifies the session and class.

- U32** **timeout (10sec)** `timeout` specifies the time, in milliseconds, for the write and read operations.
- U32** **baud rate (9600)** `baud rate` is the rate of transmission.
- U16** **data bits (8)** `data bits` is the number of bits in the incoming data.
- U16** **parity (0:none)** `parity` specifies the parity used for every frame to be transmitted or received.
- U8** **termination char (0xA = '\n' = LF)** `termination char` calls for termination of the read operation. The read operation terminates when the `termination char` is read from the serial device.
- E&H** **error in (no error)** `error in` describes error conditions that occur before this node runs. This input provides [`standard error in`](#) functionality.
 - TF** **status** `status` is TRUE (X) if an error occurred before this node ran or FALSE (checkbox) to indicate a warning or that no error occurred before this node ran. The default is FALSE.
 - I32** **code** `code` is the error or warning code. The default is 0.
 - abc** **source** `source` specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning. The default is an empty string.
- U16** **stop bits (10: 1 bit)** `stop bits` specifies the number of stop bits used to indicate the end of a frame.
- TF** **Enable Termination Char (T)** `Enable Termination Char` prepares the serial device to recognize `termination char`.
- U16** **flow control (0:none)** `flow control` sets the type of control used by the transfer mechanism.
- E&H** **error out** `error out` contains error information. This output provides [`standard error out`](#) functionality.
 - TF** **status** `status` is TRUE (X) if an error occurred or FALSE (checkbox) to indicate a warning or that no error occurred.
 - I32** **code** `code` is the error or warning code.
 - abc** **source** `source` describes the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.
- I/O** **VISA resource name out** `VISA resource name out` is a copy of the [`VISA resource name`](#) that VISA functions return.



"VISA Configure Serial Port (Serial Instr).vi History"

Current Revision: 115

Position in Hierarchy



Iconified Cluster Constants