

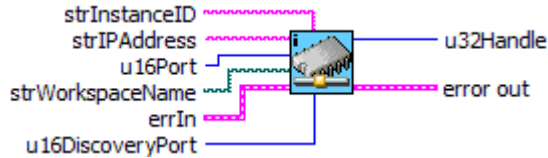
TECHNICAL SPECIFICATION

The iCONNECT for LabVIEW VI Reference Guide

iConnect_CreateInstance.vi


Creates instance of iConnect connection to winIDEA. Must be called before any other iConnect VI.


Connector Pane




Controls and Indicators

 **strIPAddress** IP address of the iConnect server. Leave empty for local machine.


 **u16Port** Port number of the iConnect server. If 0 iCONNECT will automatically find running winIDEAs through UDP discovery service.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **strWorkspaceName** winIDEA workspace filename to be used with this connection.

 **strInstanceID** User defined connection instance ID.

 **u16DiscoveryPort** UDP winIDEA discovery port. Leave 0 for default port number. Used for enumerating running winIDEA instances.

 **u32Handle** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **error out** The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



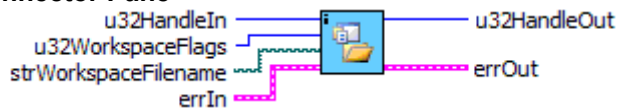
source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

iConnect_IDE_Workspace.vi

Open, close, save, create winIDEA workspace.

Connector Pane



Controls and Indicators



strWorkspaceFilename



u32WorkspaceFlags Type of workspace operation

- 0x0001 Close
- 0x0002 Close all
- 0x0003 Save existing to its original name
- 0x0004 Save existing to new file name
- 0x0005 Save using SaveAs prompt
- 0x0006 Save all
- 0x0007 Create new
- 0x0008 Create new, prompt for name
- 0x0009 Open
- 0x000A Prompt to open



u32HandleIn iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

U32 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

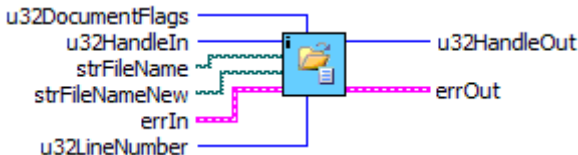
The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

iConnect_IDE_Document.vi
Manages winIIDEA documents.

Connector Pane



Controls and Indicators

U32 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



u32DocumentFlags 0x0001 Close
0x0002 Close all
0x0003 Save existing to its original name
0x0004 Save existing to new file name
0x0005 Save using SaveAs prompt
0x0006 Save all
0x0007 Create new
0x0008 Create new, prompt for name
0x0009 Open
0x000A Prompt to open

0x010000 Put a marker on the requested line

0x020000 Clear the marker

0x040000 Focus the file in winIDEA window

0x01000000 Use analyzer file type



strFileName



u32LineNumber



strFileNameNew



u32HandleOut iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

iConnect_Debug_RunControl.vi

Execution control of the CPU.

Connector Pane



Controls and Indicators

U32 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

Err **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


U32 **u32RunControl 0x0000** Reset the CPU
0x0001 Reset the CPU, then runs immediately
0x0002 Download the executable
0x0003 Stop the CPU
0x0004 Run the CPU
0x0005 Execute a single instruction step or high level step depending on context
0x0006 Step, do not enter subroutine calls
0x0007 Execute a single instruction step (StepInst)
0x0008 StepInst, do not enter subroutine calls
0x0009 Execute a high level step (StepHigh)
0x000A StepHigh, do not enter function calls
0x000B run until Address
0x000C run until current function returns
0x000D Preset execution point to Address

U32 **u32Address** Address value. Use memory area as defined in MemArea.h.


U8 **u8MemArea** Memory area as defined in MemArea.h.

U32 **u32Address** 32 bit address.


U32 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errOut** The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

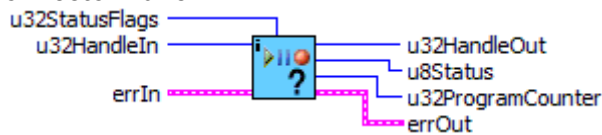
The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


iConnect_Debug_GetStatus.vi
Returns debug status.

Connector Pane




Controls and Indicators


 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

U32 **u32StatusFlags 0x0000** Get CPU flags

U32 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

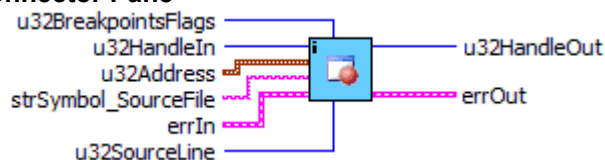
U32 **u32ProgramCounter 0x0000** CPU status

U8 **u8Status** CPU status
0x00 The debug system must be initialized
0x01 CPU is stopped
0x02 CPU is running
0x03 CPU is held in reset
0x04 CPU is halted by target
0x05 CPU is halted by emulator
0x06 Debugger is initialized and waiting for hot attachment on the target
0x07 CPU idle

iConnect_Debug_SetBreakpoint.vi

Sets, clears, enables or disables breakpoints or range of breakpoints.

Connector Pane



Controls and Indicators

U32 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



u32BreakpointsFlags 0x0000 Use address as breakpoint address

0x0001 Use string as breakpoint address

0x0002 Use source file and source line as breakpoint address

0x0000 Set breakpoint

0x0010 Clear breakpoint

0x0020 Enable breakpoint

0x0030 Disable breakpoint

0x0040 Apply flags to all breakpoints



u32Address Address value. Use memory area as defined in MemArea.h.



u8MemArea Memory area as defined in MemArea.h.



u32Address 32 bit address.



u32SourceLine Source file line number.



strSymbol_SourceFile Symbol or source file.



u32HandleOut iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



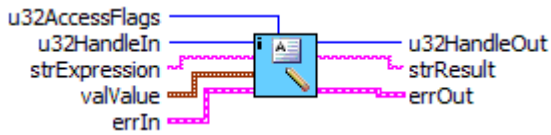
source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


iConnect_Debug_Modify.vi


Modifies string expression with numeric value. Expression should be regular C (C++) expression in the same format as written in winIDEA watch window. Use access flags to set desired type of memory access.


Connector Pane



Controls and Indicators

 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **strExpression** Expression to be modified.

 **valValue** iConnect value. Contains 2 two 32 bit integers representing 64bit value, type and size in bits.

Type

0x00 Undefined

0x01 Unsigned

0x02 Signed

0x03 Float

0x04 Address

0xFF Compound

 **u32Low** Lower 32bits of the value.

 **u32High** Higher 32bits of the value.

 **u16Type** Type of the value.

0x00 Undefined

0x01 Unsigned


0x02 Signed

0x03 Float


0x04 Address

0xFF Compound


 **u16Bitsize** Size of the value in bits.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information

about the error displayed.

 **source** The **source** string describes the origin of the error or warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **u32AccessFlags 0x0000** Use regular memory access
0x0001 Use real time access
0x0003 Memory access mask

0x0000 CPU core register
0x0004 Special function register
0x000C Register mask


0x0000 Do not cache the access
0x0010 Cache according to server settings
0x0020 Cache while the CPU is stopped
0x0030 Get code from cached download
0x0030 Cache mask

0x0040 Do not refresh winIDEA GUI after write operation


 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errOut** The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.

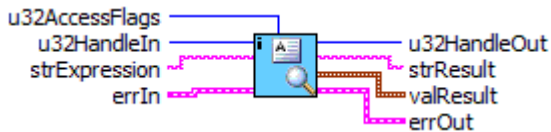
The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **strResult** Result of the modification.

iConnect_Debug_Evaluate.vi

Evaluates string expression to numeric value. Expression should be regular C (C++) expression in the same format as written in winIDEA watch window. Use access flags to set desired type of memory access.

Connector Pane



Controls and Indicators

U32 **u32AccessFlags 0x0000** Use regular memory access
0x0001 Use real time access
0x0003 Memory access mask

0x0000 CPU core register
0x0004 Special function register
0x000C Register mask

0x0000 Do not cache the access
0x0010 Cache according to server settings
0x0020 Cache while the CPU is stopped
0x0030 Get code from cached download
0x0030 Cache mask

U32 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

Err **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **strExpression** Expression to be evaluated.

U32 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

valResult

U32 **u32Low** Lower 32bits of the value.

U32 **u32High** Higher 32bits of the value.

U16 **u16Type** Type of the value.

0x00 Undefined
0x01 Unsigned
0x02 Signed
0x03 Float
0x04 Address
0xFF Compound

U16 **u16Bitsize** Size of the value in bits.

errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

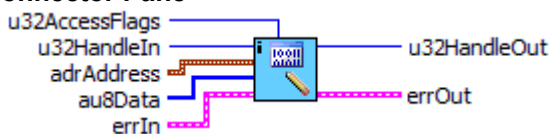
The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **strResult** Evaluated expression. Use valResult to get numerical value.

iConnect_Debug_WriteMemory.vi

Performs CPU memory write. Use access flags to set desired type of memory access. MAU is Minimum Addressable Unit. Number of MAU written is (size_of_au8Data / NumberOfBytesPerMAU).

Connector Pane



Controls and Indicators

U32 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

U8 **au8Data** Byte array to be written. Number of MAU written is (size_of_au8Data / u32BytesPerMAU).

U8 **Numeric**

U32 **u32AccessFlags** **0x0000** Use regular memory access
0x0001 Use real time access

0x0003 Memory access mask

0x0000 CPU core register

0x0004 Special function register

0x000C Register mask

0x0000 Do not cache the access

0x0010 Cache according to server settings

0x0020 Cache while the CPU is stopped

0x0030 Get code from cached download

0x0030 Cache mask

0x0040 Do not refresh winIDEA GUI after write operation



adrAddress Address value. Use memory area as defined in MemArea.h.



u8MemArea Memory area as defined in MemArea.h.



u32Address 32 bit address.



errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



u32HandleOut iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



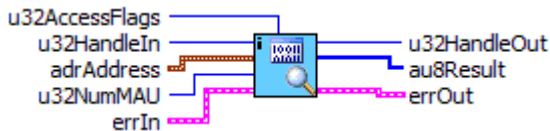
source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


iConnect_Debug_ReadMemory.vi

Performs CPU memory read. Use access flags to set desired type of memory access. MAU is Minimum Addressable Unit. Array size returned is u32NumMAU*NuberOfBytesPerMAU.


Connector Pane



Controls and Indicators

 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.


 **u32NumMAU** Number of Minimum Addressable Units to read.


 **u32AccessFlags** **0x0000** Use regular memory access
0x0001 Use real time access
0x0003 Memory access mask

0x0000 CPU core register
0x0004 Special function register
0x000C Register mask


0x0000 Do not cache the access
0x0010 Cache according to server settings
0x0020 Cache while the CPU is stopped
0x0030 Get code from cached download
0x0030 Cache mask

0x0040 Do not refresh winIDEA GUI after write operation


 **adrAddress** Address value. Use memory area as defined in MemArea.h.

 **u8MemArea** Memory area as defined in MemArea.h.

 **u32Address** 32 bit address.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

au8Result Memory read. Size of the array returned is $u32NumMAU * u32BytesPerMAU$.

Numeric

u32HandleOut iConnect handle. Created by `iConnect_CreateInstance`. Required by all VIs.

errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

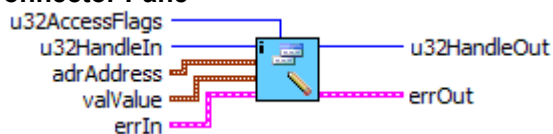
source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

iConnect_Debug_WriteValue.vi

Writes numerical value to the CPU memory address.

Connector Pane



Controls and Indicators

u32HandleIn iConnect handle. Created by `iConnect_CreateInstance`. Required by all VIs.

u32AccessFlags 0x0000 Use regular memory access
0x0001 Use real time access
0x0003 Memory access mask

0x0000 CPU core register
0x0004 Special function register
0x000C Register mask

0x0000 Do not cache the access
0x0010 Cache according to server settings
0x0020 Cache while the CPU is stopped
0x0030 Get code from cached download
0x0030 Cache mask

0x0040 Do not refresh winIDEA GUI after write operation



adrAddress Address value. Use memory area as defined in MemArea.h.



u8MemArea Memory area as defined in MemArea.h.



u32Address 32 bit address.



errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



valValue iConnect value. Contains 2 two 32 bit integers representing 64bit value, type and size in bits.

Type

0x00 Undefined
0x01 Unsigned
0x02 Signed
0x03 Float
0x04 Address
0xFF Compound



u32Low Lower 32bits of the value.



u32High Higher 32bits of the value.





u16Type Type of the value.

0x00 Undefined
0x01 Unsigned
0x02 Signed
0x03 Float
0x04 Address


0xFF Compound

 **u16Bitsize** Size of the value in bits.


 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errOut** The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

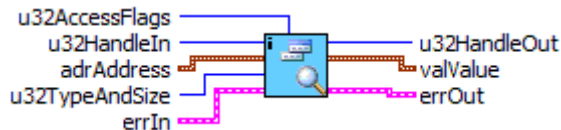
 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


iConnect_Debug_ReadValue.vi


Reads numerical value from the CPU memory address.

Connector Pane



Controls and Indicators


 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **u32AccessFlags** **0x0000** Use regular memory access
0x0001 Use real time access
0x0003 Memory access mask

0x0000 CPU core register
0x0004 Special function register
0x000C Register mask

0x0000 Do not cache the access
0x0010 Cache according to server settings
0x0020 Cache while the CPU is stopped
0x0030 Get code from cached download
0x0030 Cache mask

0x0040 Do not refresh winIDEA GUI after write operation

 **adrAddress** Address value. Use memory area as defined in MemArea.h.

U8 **u8MemArea** Memory area as defined in MemArea.h.

U32 **u32Address** 32 bit address.

errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

U32 **u32TypeAndSize** Lower 16bits represents type
0x00 Undefined
0x01 Unsigned
0x02 Signed
0x03 Float
0x04 Address
0xFF Compound

Higher 16bits is size in bits.

U32 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

abc **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



valValue iConnect value. Contains 2 two 32 bit integers representing 64bit value, type and size in bits.

Type

0x00 Undefined

0x01 Unsigned

0x02 Signed

0x03 Float

0x04 Address

0xFF Compound



u32Low Lower 32bits of the value.



u32High Higher 32bits of the value.



u16Type Type of the value.

0x00 Undefined

0x01 Unsigned

0x02 Signed

0x03 Float

0x04 Address

0xFF Compound

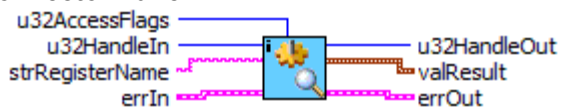


u16Bitsize Size of the value in bits.

iConnect_Debug_ReadRegister.vi

Evaluates register name to numeric value. Use same register names as in winIDEA disassembly window.

Connector Pane



Controls and Indicators



u32AccessFlags 0x0000 Use regular memory access

0x0001 Use real time access

0x0003 Memory access mask

0x0000 CPU core register

0x0004 Special function register

0x000C Register mask

0x0000 Do not cache the access

0x0010 Cache according to server settings

0x0020 Cache while the CPU is stopped

0x0030 Get code from cached download

0x0030 Cache mask

0x0040 Do not refresh winIDEA GUI after write operation



strRegisterName Name of the CPU register to be evaluated. Use same register names as in winIDEA disassembly window.



u32HandleIn iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



u32HandleOut iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



valResult iConnect value. Contains 2 two 32 bit integers representing 64bit value, type and size in bits.

Type

0x00 Undefined

0x01 Unsigned

0x02 Signed

0x03 Float

0x04 Address

0xFF Compound



u32Low Lower 32bits of the value.



u32High Higher 32bits of the value.



u16Type Type of the value.

0x00 Undefined

0x01 Unsigned

0x02 Signed

0x03 Float

0x04 Address

0xFF Compound



u16Bitsize Size of the value in bits.



errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark)

for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


iConnect_Debug_GetSymbol.vi


Evaluates address to symbol C symbol expression.

Connector Pane




Controls and Indicators


 **u32HandleIn** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **adrAddress** Address value. Use memory area as defined in MemArea.h.

 **u8MemArea** Memory area as defined in MemArea.h.

 **u32Address** 32 bit address.

 **u32SymbolFlags** 0x0001 Global variables
0x0002 Global code labels
0x0004 Functions

0x0008 Source lines

0x0010 Constants



u32HandleOut iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

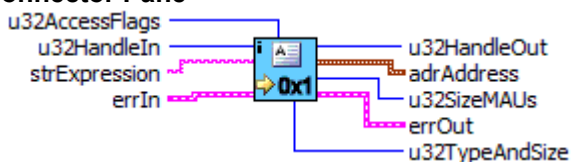


strSymbolName Name of the symbol at adrAddress.

iConnect_Debug_GetAddress.vi

Evaluates expression to address, type info and type size.

Connector Pane



Controls and Indicators



u32HandleIn iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.



strExpression Expression to be evaluated.




errIn The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **u32AccessFlags 0x0000** Use regular memory access
0x0001 Use real time access
0x0003 Memory access mask


0x0000 CPU core register
0x0004 Special function register
0x000C Register mask

0x0000 Do not cache the access
0x0010 Cache according to server settings
0x0020 Cache while the CPU is stopped
0x0030 Get code from cached download
0x0030 Cache mask


0x0040 Do not refresh winIDEA GUI after write operation


 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **u32SizeMAUs** Size of the object in Minimum Addressable Units.


 **u32TypeAndSize** Lower 16bits represents type
0x00 Undefined
0x01 Unsigned
0x02 Signed
0x03 Float
0x04 Address
0xFF Compound

Higher 16bits is size in bits.


 **adrAddress** Address value. Use memory area as defined in MemArea.h.

 **u8MemArea** Memory area as defined in MemArea.h.


 **u32Address** 32 bit address.

 **errOut** The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

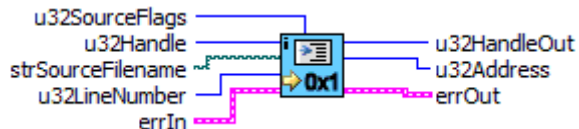
 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

iConnect_Debug_GetSourceAddress.vi


Evaluates source line (strSourceFilename and u32LineNumber) to address.

Connector Pane




Controls and Indicators


 **u32Handle** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **u32SourceFlags** 0x0001 match address or line position exactly
0x0002 strFileName in absolute path

 **strSourceFilename** Path to the source file (absolute or winIDEA workspace relative).


 **u32LineNumber** Line number in strSourceFile.

 **errOut** The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.


 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

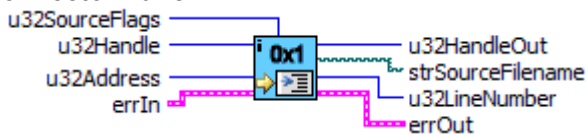
 **u32Address** Address of the line.

 **u32HandleOut** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

iConnect_Debug_GetAddressSource.vi


Evaluates address to source line.

Connector Pane




Controls and Indicators


 **u32Handle** iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

 **errIn** The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **status** The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.


The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **code** The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **source** The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

 **u32SourceFlags** **0x0001** match address or line position exactly
0x0002 strFileName in absolute path

 **u32Address** Address from which source line should be found.



errOut The **error out** cluster passes error or warning information out of a VI to be used by other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.



strSourceFilename Name of the source file.



u32LineNumber Line number in strSourceFilename.



u32HandleOut iConnect handle. Created by iConnect_CreateInstance. Required by all VIs.

Notes:

Notes: