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## 1. Summary

These drivers can change the setting of MEMORY HiCORDER and read from MEMORY HiCORDER. These drives are divided into some VI according to function. In this version, these drivers can't deal with all control commands of MEMORY HiCORDER INTERFACE.

- The driver can control the settings of MR8875 MEMORY HiCORDER through TCP/IP (LAN) and USB [Communication Device Class (CDC)].
- COM that ties TCP/IP (LAN) and USB "Communication Device Class (CDC)" can be selected as VISA resource.

## 2. Prerequisite condition

The following is the prerequisite condition of using the driver.

- Knows LabVIEW.

## 3. How to use driver

Searches for the VI (driver) that deals with the control command of MEMORY HiCORDER from program library, Connects the VISA session opened. Sets the Set/query. It is necessary to select the right parameters when performing setting.

All of the drivers have 2 common inputs and 2 common outputs as the following.

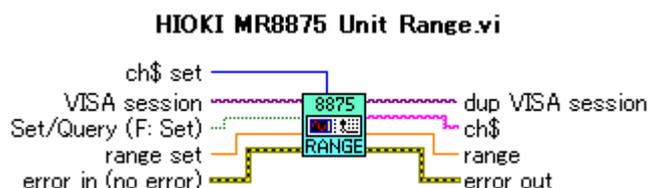
### Input

VISA session	on the top-left
error in (no error)	on the bottom-left

### Output

dup VISA session	on the top-right
error out	on the bottom-right

Example: HIOKIMR8875 Unit Range.vi.



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#### 4. Direction for driver use

##### 4-1. Sort of Vi

The following is about drivers that are in program library.

	Name	Function / Communication command
1	HIOKI MR8875 IDN.vi	Queries device ID. *IDN?
2	HIOKI MR8875 OPT.vi	Queries device option provision. *OPT?
3	HIOKI MR8875 Reset.vi	Initializes the unit. *RST
4	HIOKI MR8875 TST.vi	Queries the result of ROM/RAM check. *TST?
5	HIOKI MR8875 OPC.vi	Replies with ASCII [1] after execution is completed. *OPC *OPC?
6	HIOKI MR8875 WAI.vi	After the execution of the command is completed, subsequently performs the following command. *WAI
7	HIOKI MR8875 CLS.vi	Clears the status bytes and associated queues (except for the output queue). *CLS
8	HIOKI MR8875 ESE.vi	Writes or reads the standard event status enable register (SESER). *ESE *ESE?
9	HIOKI MR8875 ESR.vi	Reads out and clears the contents of the standard even status register (SESR). *ESR?
10	HIOKI MR8875 STB.vi	Reads the status byte and MSS bit. *STB
11	HIOKI MR8875 ESE0.vi	Writes or reads the event status enable register 0 (ESER0). :ESE0 :ESE0?
12	HIOKI MR8875 ESR0.vi	Reads event status register 0 (ESR0). :ESR0?
13	HIOKI MR8875 Start.vi	Performs starting. :START
14	HIOKI MR8875 Stop.vi	Performs stopping. :STOP

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	Name	Function / Communication command
15	HIOKI MR8875 Abort.vi	Aborts processing. :ABORT
16	HIOKI MR8875 Conf Clock.vi	Changes or queries the sampling clock. :CONFigure:CLOCK :CONFigure:CLOCK?
17	HIOKI MR8875 Conf Tdiv.vi	Sets or queries the timebase. :CONFigure:TDIV :CONFigure:TDIV?
18	HIOKI MR8875 Conf Shot.vi	Sets or queries the recording length. :CONFigure:SHOT :CONFigure:SHOT?
19	HIOKI MR8875 Conf Chenable.vi	Sets or queries the ON/OFF status of the measurement channels. :CONFigure:CHENable :CONFigure:CHENable?
20	HIOKI MR8875 Trig Mode.vi	Sets or queries trigger mode. :TRIGger:MODE :TRIGger:MODE?
21	HIOKI MR8875 Trig Pretrigger.vi	Sets or queries pre-trigger. :TRIGger:PRETrig :TRIGger:PRETrig?
22	HIOKI MR8875 Trig Source.vi	Sets or queries the trigger logical operator (AND/OR). :TRIGger:SOURce :TRIGger:SOURce?
23	HIOKI MR8875 Trig Kind.vi	Sets or queries the kind of trigger. :TRIGger:KIND :TRIGger:KIND?
24	HIOKI MR8875 Trig Level.vi	Set or queries the trigger level of the level trigger. :TRIGger:LEVEL :TRIGger:LEVEL?
25	HIOKI MR8875 Trig Slope.vi	Sets or queries the trigger direction (slope). :TRIGger:SLOPe :TRIGger:SLOPe?
26	HIOKI MR8875 Trig Detecttime.vi	Queries the time point for trigger detection. :TRIGger:DETECTTime?
27	HIOKI MR8875 Trig Detectdate.vi	Queries the date for trigger detection. :TRIGger:DETECTDate?
28	HIOKI MR8875 Unit Range.vi	Sets or queries the measurement range of an input channel. :UNIT:RANGe :UNIT:RANGe?
29	HIOKI MR8875 Unit Coupling.vi	Sets or queries input coupling for an input channel. :UNIT:COUPling :UNIT:COUPling?

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	Name	Function / Communication command
30	HIOKI MR8875 Unit Position.vi	Sets or queries input channel origin position. :UNIT:POSItng :UNIT:POSItng?
31	HIOKI MR8875 Unit Sensor.vi	Sets or queries the type of the voltage/temperature unit sensor. :UNIT:SENSor :UNIT:SENSor?
32	HIOKI MR8875 Disp Draw.vi	Sets or queries waveform display color. :DISPlay:DRAWing :DISPlay:DRAWing?
33	HIOKI MR8875 Memo Point.vi	Sets or queries the point in memory for input/output. :MEMory:POINt :MEMory:POINt?
34	HIOKI MR8875 Memo Maxpoint.vi	Queries the number of data samples stored. :MEMory:MAXPoint?
35	HIOKI MR8875 Memo Adata.vi	Reads the stored data (AD) from the memory. :MEMory:ADATa?
36	HIOKI MR8875 Memo Vdata.vi	Reads the physical data from the memory. :MEMory:VDATa?
37	HIOKI MR8875 Memo Getreal.vi	Captures real time data. :MEMory:GETReal
38	HIOKI MR8875 Memo Real.vi	Reads real time data. :MEMory:REAI?
39	HIOKI MR8875 Memo Ratio.vi	Query the ratio and offset coefficients for converting stored data into physical values. :MEMory:RATIo?

The following is about other than the drivers that are in program library.

	Name	Function
1	HIOKI MR8875 Initialize.vi	Opens the VISA session, Initializes the interface or the MEMORY HiCORDER.
2	HIOKI MR8875 Close.vi	Closes the VISA session.
3	Wait.vi	Sets the waiting time
4	HIOKI MR8875 DEMO.vi	Demo program for MR8875 MEMORY HiCORDER

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#### 4-2. The common input and common output of drivers

All of the drivers have common inputs and outputs. The following is the explanation.

##### 4-2-1. The common input of driver.

Name	Data type	Explanation
VISA Session		VISA session
error in (no error)		The input of error (refer to the manual of LabVIEW to get details). Initialized value: no error.

##### 4-2-2. The common output of driver

Name	Data type	Explanation
dup VISA Session		The copy of VISA session.
error out		The output of error (refer to the manual of LabVIEW to get details).

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#### 4-3. Details of VI

##### 4-3-1. HIOKI MR8875 IDN.vi

Queries device ID.



Name	Data type	Explanation
Instrument ID		The result of querying the device ID *

- \* First field: Manufacturer's name
- Second field: Model name
- Third field: Serial number
- Fourth field Software version

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#### 4-3-2. HIOKI MR8875 OPT.vi

Queries device option provision.



Name	Data type	Explanation
Option	<span style="border: 1px solid pink; padding: 2px;">abc</span>	The result of querying the device option provision *

\* Returns unit type for each unit

0: NOT PRESENT

1: MR8901 (voltage unit)

2: MR8903 (strain unit)

3: MR8902 (voltage / temperature unit)

4: MR8904 (CAN unit)

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4-3-3. HIOKI MR8875 Reset.vi

Initializes the unit.

**HIOKI MR8875 Reset.vi**

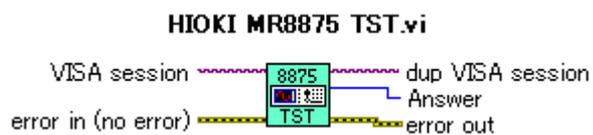


Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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#### 4-3-4. HIOKI MR8875 TST.vi

Queries the result of ROM/RAM check.



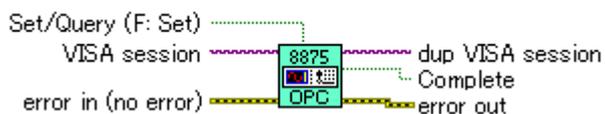
Name	Data type	Explanation
Answer	<span style="border: 1px solid blue; padding: 2px;">I32</span>	The result of ROM/RAM check. Output: (0: normal), (1: failure)

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#### 4-3-5. HIOKI MR8875 OPC.vi

Replies with ASCII [1] after execution is completed.

#### HIOKI MR8875 OPC.vi



Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
Complete		The result of querying Output range: False (=All action has not been completed during execution, or, error) True (=All action has not been completed during execution)

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#### 4-3-6. HIOKI MR8875 WAI.vi

After the execution of the command is completed, subsequently performs the following command.

#### HIOKI MR8875 WAI.vi



Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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#### 4-3-7. HIOKI MR8875 CLS.vi

Clears the status bytes and associated queues (except for the output queue).

#### HIOKI MR8875 CLS.vi

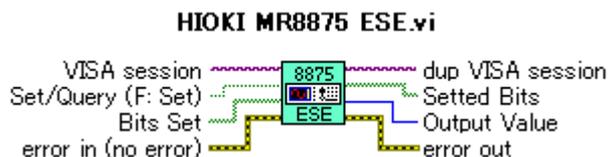


Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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#### 4-3-8. HIOKI MR8875 ESE.vi

Writes or reads the standard event status enable register (SESER).

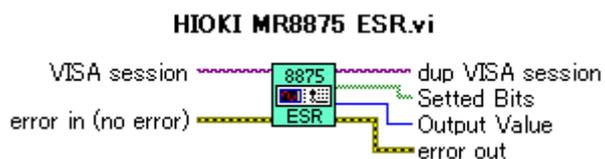


Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
Bits Set		The array of bit for setting Valid range: False (=0), True (=1)
Set Bits		The result (bit array) of querying the SESER Output range: False (=0) True (=1)
Output Value		The result (value) of querying the SESER Output range: 0 - 255

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4-3-9. HIOKI MR8875 ESR.vi

Reads out and clears the contents of the standard even status register (SESR).

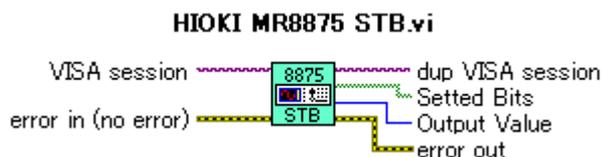


Name	Data type	Explanation
Set Bits	[TF]	The result (bit array) of querying the SESR Output range: False (=0) True (=1)
Output Value	[I32]	The result (value) of querying the SESR Output range: 0 - 255

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4-3-10. HIOKI MR8875 STB.vi

Reads the status byte and MSS bit.



Name	Data type	Explanation
Set Bits	[TF]	The result (bit array) of querying the status byte and MSS. Output range: False (=0) True (=1)
Output Value	[I32]	The result (value) of querying the status byte and MSS. Output range: 0 - 255

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#### 4-3-11. HIOKI MR8875 ESE0.vi

Writes or reads the event status enable register 0 (ESER0).

#### HIOKI MR8875 ESE0.vi



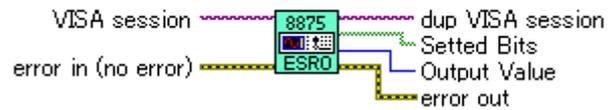
Name	Data type	Explanation
Set/Query (F:Set)	[TF]	Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
Bits Set	[TF]	The array of bit for setting. Valid range: False (=0), True (=1)
Set Bits	[TF]	The result (bit array) of querying the ESER0 Output range: False (=0) True (=1)
Output Value	[I32]	The result (value) of querying the ESER0 Output range: 0 - 255

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#### 4-3-12. HIOKI MR8875 ESR0.vi

Reads event status register 0 (ESR0).

#### HIOKI MR8875 ESR0.vi



Name	Data type	Explanation
Set Bits	[TF]	The result (bit array) of querying the ESR0 Output range: False (=0) True (=1)
Output Value	[I32]	The result (value) of querying the ESR0 Output range: 0 - 255

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4-3-13. HIOKI MR8875 Start.vi

Performs starting.

**HIOKI MR8875 Start.vi**



Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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4-3-14. HIOKI MR8875 Stop.vi

Performs stopping.

**HIOKI MR8875 Stop.vi**



Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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4-3-15. HIOKI MR8875 Abort.vi  
Aborts processing.

**HIOKI MR8875 Abort.vi**



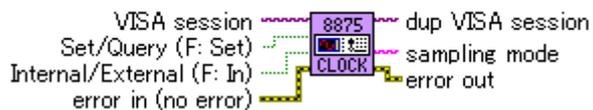
Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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4-3-16. HIOKI MR8875 Conf Clock.vi

Set or query the sampling clock..

**HIOKI MR8875 Conf Clock.vi**



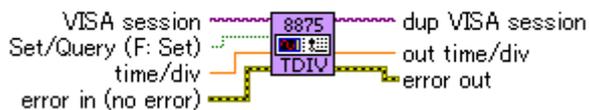
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
Internal/External (F: Internal)		Selects the sampling clock. Valid range; False (=Internal), True (=External)
Sampling mode		The result of querying the sampling mode.

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#### 4-3-17. HIOKI MR8875 Conf Tdiv.vi

Sets or queries the timebase.

#### HIOKI MR8875 Conf Tdiv.vi



Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
time/div		Sets the numerical value of the axis range (unit: s) *
out time/div		The result of querying the time axis range (unit: s)

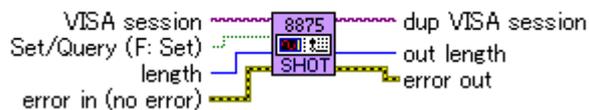
\* If an attempt is made to set the time axis range to a non-permitted value, and there is a range above that value, that range will be selected.

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4-3-18. HIOKI MR8875 Conf Shot.vi

Sets or queries the recording length.

**HIOKI MR8875 Conf Shot.vi**



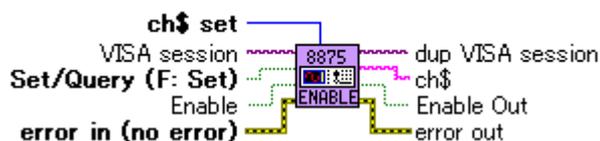
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
length		Sets the numerical value of the recording length (unit: DIV)
out length		The result of querying the numerical value of the recording length (unit: DIV)

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#### 4-3-19. HIOKI MR8875 Conf ChEnable.vi

Sets or queries the ON/OFF status of the measurement channels.

#### HIOKI MR8875 Conf ChEnable.vi



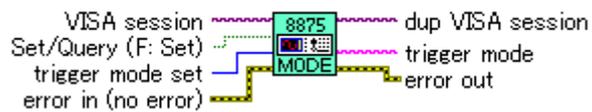
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function. Valid range; False (=set: Default), True (=Query)
Enable		Selects on/off status of the measurement channel. Valid range; False (= off), True (= on)
ch\$ set		Specifies the channel Valid range:        0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
ch\$		Specified channel
Enable OUT		The result of querying the on/off status.

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#### 4-3-20. HIOKI MR8875 Trig Mode.vi

Sets or queries trigger mode.

#### HIOKI MR8875 Trig Mode.vi



Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
trigger mode set		Specifies the trigger mode Valid range: 0 (=SINGLE: Default), 1 (=REPEAT)
trigger mode		The result of querying the trigger mode

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#### 4-3-21. HIOKI MR8875 Trig Pretrigger.vi

Sets or queries pre-trigger.

##### HIOKI MR8875 Trig Pretrigger.vi



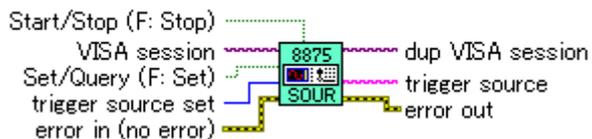
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
pretrigger set		Specifies the pre-trigger value Valid range: 0 (=0: Default), 1 (=2), 2 (=5), 3(=10), 4 (=20), 5 (=30), 6 (=40), 7 (=50) 8 (=60), 9 (=70), 10 (=80), 11 (=90), 12 (=95), 13(=100) (unit: %)
output pretrigger		The result of querying the pre-trigger (unit : %)

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4-3-22. HIOKI MR8875 Trig Source.vi

Sets or queries the trigger logical operator (AND/OR)

**HIOKI MR8875 Trig Source.vi**



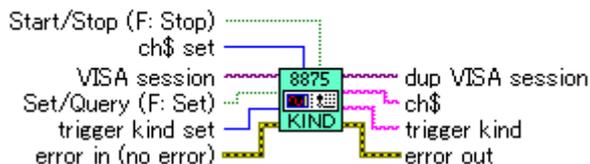
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
Start/Stop (F:Stop)		Selects the trigger timing, "start" or "stop". Valid range; False (=Stop), True (=Start)
trigger source set		Specifies the trigger logical operator (AND/OR) Valid range: 0 (=OR : Default), 1 (=AND)
trigger source		The result of querying the trigger logical operator

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#### 4-3-23 HIOKI MR8875 Trig Kind.vi

Sets or queries the kind of trigger.

#### HIOKI MR8875 Trig Kind.vi



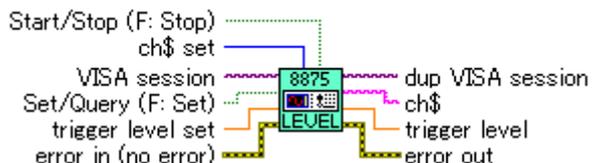
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
Start/Stop (F:Stop)		Selects the trigger timing, "start" or "stop". Valid range; False (=Stop), True (=Start)
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
trigger kind set		Specifies the kind of trigger Valid range: 0 (=OFF: Default), 1 (=LEVEL), 2 (=IN), 3 (=OUT)
ch\$		Specified channel
trigger kind		The result of querying the kind of trigger

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#### 4-3-24 HIOKI MR8875 Trig Level.vi

Set or queries the trigger level of the level trigger.

#### HIOKI MR8875 Trig Level.vi



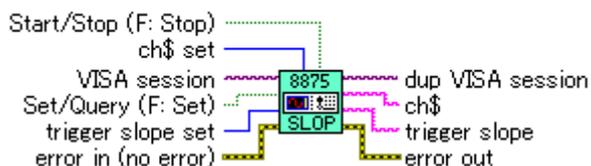
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
Start/Stop (F:Stop)		Selects the trigger timing, "start" or "stop". Valid range; False (=Stop), True (=Start)
ch\$ set		Specifies the channel Valid range:           0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
trigger level set		Sets the trigger level (unit: V)
ch\$		Specified channel
trigger level		The result of querying the trigger level (unit: V)

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#### 4-3-25 HIOKI MR8875 Trig Slope.vi

Sets or queries the trigger direction (slope).

#### HIOKI MR8875 Trig Slope.vi



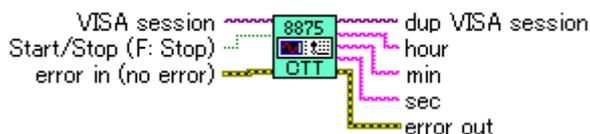
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
Start/Stop (F:Stop)		Selects the trigger timing, "start" or "stop". Valid range; False (=Stop), True (=Start)
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
trigger slope set		Specifies the kind of trigger slope Valid range: 0 (=UP: Default), 1 (= DOWN)
ch\$		Specified channel
trigger slope		The result of querying the kind of trigger slope

DOCUMENT No.	TITLE <b>MR8875 MEMORY HiCORDER</b>	PAGE <b>32</b>
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4-3-26. HIOKI MR8875 Trig Detecttime.vi

Queries the time point for trigger detection.

**HIOKI MR8875 Trig Detecttime.vi**

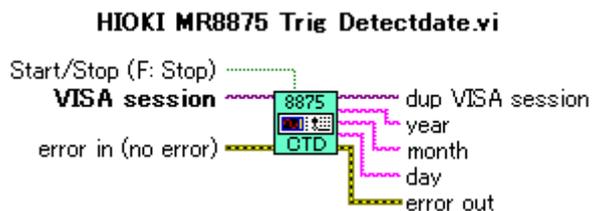


Name	Data type	Explanation
Start/Stop (F:Stop)		Selects the trigger timing, "start" or "stop". Valid range; False (=Stop), True (=Start)
hour		The result of querying the time(hour) for trigger detection
min		The result of querying the time(minute) for trigger detection
sec		The result of querying the time(second) for trigger detection

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4-3-27. HIOKI MR8875 Trig Detectdate.vi

Queries the date for trigger detection.



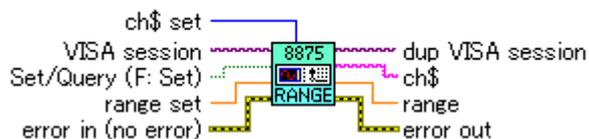
Name	Data type	Explanation
Start/Stop (F:Stop)		Selects the trigger timing, "start" or "stop". Valid range; False (=Stop), True (=Start)
year		The result of querying the date(year) for trigger detection
month		The result of querying the date(month) for trigger detection
day		The result of querying the date(day) for trigger detection

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#### 4-3-28. HIOKI MR8875 Unit Range.vi

Sets or queries the measurement range of an input channel.

#### HIOKI MR8875 Unit Range.vi



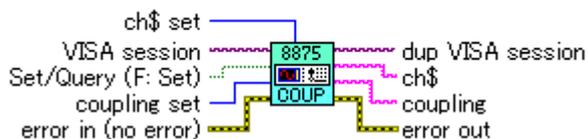
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
range set		Specifies the measurement range
ch\$		Specified channel
range		The result of querying the measurement range

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#### 4-3-29. HIOKI MR8875 Unit Coupling.vi

Sets or queries input coupling for an input channel.

#### HIOKI MR8875 Unit Coupling.vi

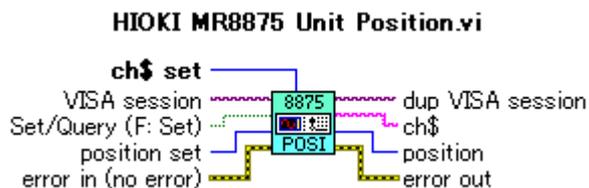


Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
coupling set		Specifies the kind of input coupling Valid range: 0 (=GND: Default), 1 (=DC), 2 (=AC)
ch\$		Specified channel
coupling		The result of querying the kind of coupling

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4-3-30. HIOKI MR8875 Unit Position.vi

Sets or queries input channel origin position.



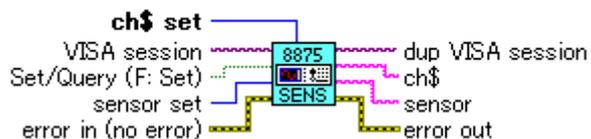
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
ch\$ set		Specifies the channel Valid range:       0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
position set		Specifies the input channel origin position (%)
ch\$		Specified channel
position		The result of querying the input channel origin position (%)

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	<b>MR8875 MEMORY HiCORDER</b>	<b>37</b>
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4-3-31. HIOKI MR8875 Unit Sensor.vi

Sets or queries the type of the voltage/temperature unit sensor.

**HIOKI MR8875 Unit Sensor.vi**



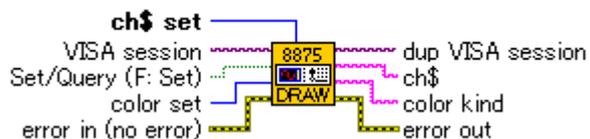
Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
ch\$ set		Specifies the channel Valid range:       0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
sensor set		Specifies the type of sensor Valid range: 0 (=K: Default), 1 (=E), 2 (=J), 3 (=T), 4 (=N), 5 (=R), 6 (=S), 7 (=B), 8 (=OFF)
ch\$		Specified channel
sensor		The result of querying the type of sensor

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4-3-32. HIOKI MR8875 Disp Draw.vi

Sets or queries waveform display color.

**HIOKI MR8875 Disp Draw.vi**



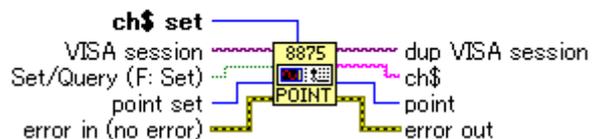
Name	Data type	Explanation
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
color kind set		Specifies the waveform display color Valid range: 0 (=OFF: Default), 1 (=C1), 2 (=C2), ... 24 (=C24)
ch\$		Specified channel
color kind		The result of querying the waveform display color

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#### 4-3-33. HIOKI MR8875 Memo Point.vi

Sets the point in memory for output.

#### HIOKI MR8875 Memo Point.vi

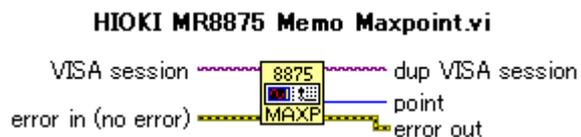


Name	Data type	Explanation
Set/Query (F:Set)		Selects the setting or the querying function Valid range; False (=set: Default), True (=Query)
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
point set		Specifies the number of points in memory for output. (can be set only to a value less than that returned by the HIOKI MR8875 Memo Maxpoint.vi)
ch\$		Specified channel
point		The result of querying the point in memory for output.

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4-3-34. HIOKI MR8875 Memo Maxpoint.vi

Queries the number of data samples stored.



Name	Data type	Explanation
point		The result of querying the number of data samples stored

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4-3-35. HIOKI MR8875 Memo Adata.vi

Reads the stored data from the memory as an A/D value.

**HIOKI MR8875 Memo Adata.vi**



Name	Data type	Explanation
output number	<b>U8</b>	The number of data to output Valid range: 1-2000
adata array	<b>I32</b>	The output of stored data *1

\*1 Refer to MEMORY HiCORDER manual to get details.

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#### 4-3-36. HIOKI MR8875 Memo Vdata.vi

Reads the stored data from memory as a physical value.

##### HIOKI MR8875 Memo Vdata.vi



Name	Data type	Explanation
output number		The number of voltage data to output Valid range: 1-2000
vdata array		The output of stored data

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BACKGROUND	<b>LabVIEW Driver Manual (English)</b>	

4-3-37. HIOKI MR8875 Memo Getreal.vi

Captures real time data.

**HIOKI MR8875 Memo Getreal.vi**

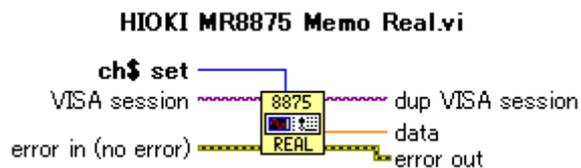


Name	Data type	Explanation
		There is no input and output except common inputs and common outputs

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4-3-38. HIOKI MR8875 Memo Real.vi

Reads real time data.



Name	Data type	Explanation
ch\$ set	<b>U16</b>	Specifies the channel Valid range:      0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
vdata	<b>I32</b>	The output of real time data

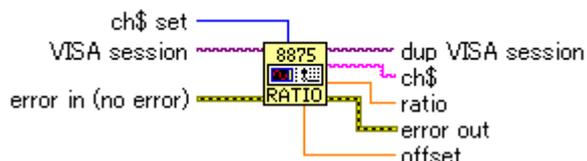
\* When the [Captures real time data.] command is not executed before this command, the returned value is not fixed.

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BACKGROUND	<b>LabVIEW Driver Manual (English)</b>	

4-3-39. HIOKI MR8875 Memo Ratio.vi

Query the ratio and offset coefficients for converting stored data into physical values

**HIOKI MR8875 Memo Ratio.vi**



Name	Data type	Explanation
ch\$ set		Specifies the channel Valid range: 0 (= CH1-1), 1 (= CH1-2), ... 14 (= CH1-15) 15 (= CH2-1), 16(=CH2-2), ... 29 (= CH2-15) ... 59 (= CH4-15)
ch\$		Specified channel
ratio		Ratio
offset		Offset

As for "HIOKI MR8875 Memo Adata.vi", the physical value is available by using following equation.

$$(\text{Physical value}) = \text{ratio} * (\text{Data}) + \text{offset}$$

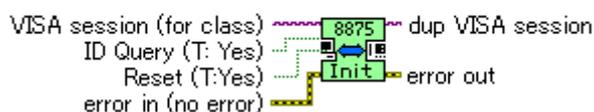
DOCUMENT No.	TITLE <b>MR8875 MEMORY HiCORDER</b>	PAGE <b>46</b>
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#### 4-4. The VI (except program library)

##### 4-4-1. HIOKI MR8875 Initialize.vi

Opens the VISA session, initializes the interface or the MEMORY HiCORDER.

#### HIOKI MR8875 Initialize.vi



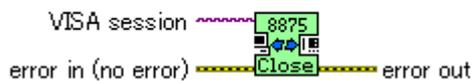
Name	Data type	Explanation
dup VISA session error in error out		The inputs and output are the same as the ones of the VI which is in the program library.
Instrument Descriptor (GPIP...		Specifies the resource name of unit.  The form: TCP/IP TCPIP[number]::ip address::port number::SOCKET USB COM[number]
ID Query		Identifies the ID of unit.  Valid range: False, True (Default).
Reset		Resets the unit.  Valid range: False, True (Default).

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#### 4-4-2. HIOKI MR8875 Close.vi

Closes the VISA session.

#### HIOKI MR8875 Close.vi



Name	Explanation
dup VISA session error in error out	The inputs and output are the same as the ones of the VI which is in the program library.

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#### 4-4-3. Wait.vi

Sets the waiting time.



Name	Data type	Explanation
Times (ms)		Specifies the waiting time (unit: ms)

4-4-4. HIOKI MR8875 DEMO.vi

This is a demonstration program for MR8875 MEMORY HiCORDER.

**HIOKI MR8875 Demo.vi**



The screenshot shows the HIOKI MR8875 Demo.vi LabVIEW interface. It features a central waveform display area and several control panels. Numbered callouts (1-22) point to various UI elements:

- 1:** Title bar of the software window.
- 2:** Channel selection dropdown menu.
- 3:** Color selection dropdown menu.
- 4:** Channel list (CH1-1 to CH1-15) with checkboxes.
- 5:** VISA resource selection dropdown (COM3).
- 6:** Timebase and Length settings.
- 7:** EXIT button.
- 8:** Module selection grid (Module 1-4).
- 9:** Module configuration panel (Module type, Range, Coupling, Position).
- 10:** Control buttons: ABORT, STOP, START, TRAN., CANCEL.
- 11:** TOP and POINT input fields.
- 12:** FILE SAVE button.
- 13:** FILE LOAD button.
- 14:** OK button.
- 15:** START button.
- 16:** TRAN. button.
- 17:** STOP button.
- 18:** ABORT button.
- 19:** Cursor X-axis input field.
- 20:** Cursor Y-axis input field.
- 21:** Cursor icon.
- 22:** Zoom and pan controls.

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No	Function
1	Title.
2	Specifies the channel. (Waveform color only)
3	Shows or sets the color of wave.
4	Sets the color of wave, and so on. Note: It is a standard function of LabVIEW
5	Selects the interface (USB(COM) or TCPIP(LAN))
6	(1) Timebase: Shows and sets the time axis ranges. (2) Length: Shows and sets recording length. (3) Mode: Shows and sets the trigger mode.
7	Exits this program
8	1. Specified the channels from which the data will be transmitted. 2. Shows the channels when the saved data were read note: The channel whose input unit is not present can not be specified.
9	Sets and queries items for the channel. (1) Channel: Specified the channel. (2) Module type: Shows the type of unit. (3) Range: Shows and specifies measurement range. (4) Coupling: Shows and specifies the channel coupling. (5) Position: Shows and specifies the origin position the channel. (6) Sensor: Shows and specifies the type of the voltage/temperature unit sensor. (7) SET : Sets the (3)-(7) items (It is necessary to press the "SET" button if the items through (3)-(9) have been specified.)
10	Cancels transmission.
11	Set the transmitting points of data
12	Reads saved data from a file.
13	Saves data in a file. Note: It is invalid when there is no data in the graph.
14	Transmits data
15	Shows the performing condition of this program.
16	Performs starting.
17	Performs stopping.
18	Sets start point for transmitting
19	Aborts processing
20	Sets the kind of cursor, and so on. Note: It is a standard function of LabVIEW.
21	Moves the cursor. Note: It is a standard function of LabVIEW.
22	Changes the graph (enlargement, and so on) Note: It is a standard function of LabVIEW

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The process of transmitting data from unit.

1. Opens the HIOKI MR8875 DEMO.vi.
2. Sets the COM or TCP/IP(LAN) address.
3. Runs the HIOKI MR8875 DEMO.vi.
4. Sets necessary items for MR8875 MEMORY HiCORDER.
5. Sets transmitting channel.
6. Presses the START button and Presses the STOP button, then presses the TRAN. Button.

Note:

- Closes the other applications before running HIOKI MR8875 DEMO.vi.
- The maximum transmitting points of data is set to 10001 for avoiding swapping.
- The minimum transmitting points of data is 1.
- All the button are invalid except for FILE LOOD button/FILE SAVE button/EXIT button, when there is a error in communication.
- All the button are invalid except for CANNEL button, when the No15 shows "Transmitting".
- All the button are invalid except for ABORT button/STOP button/EXIT button, when the No10 shows "Storing".
- The FILE SAVE button is invalid when there is no data in the graph.
- It can be aborted if the "Ctrl" and the "." keys are pressed at the same time.
- It is necessary to close LabVIEW then perform 1-6 if the HIOKI MR8875 DEMO.vi is aborted or the VISA of LabVIEW is in error, before running the HIOKI MR8875 DEMO.vi again.