

FAST-PS LabVIEW Instrument Driver User's Manual

Overview

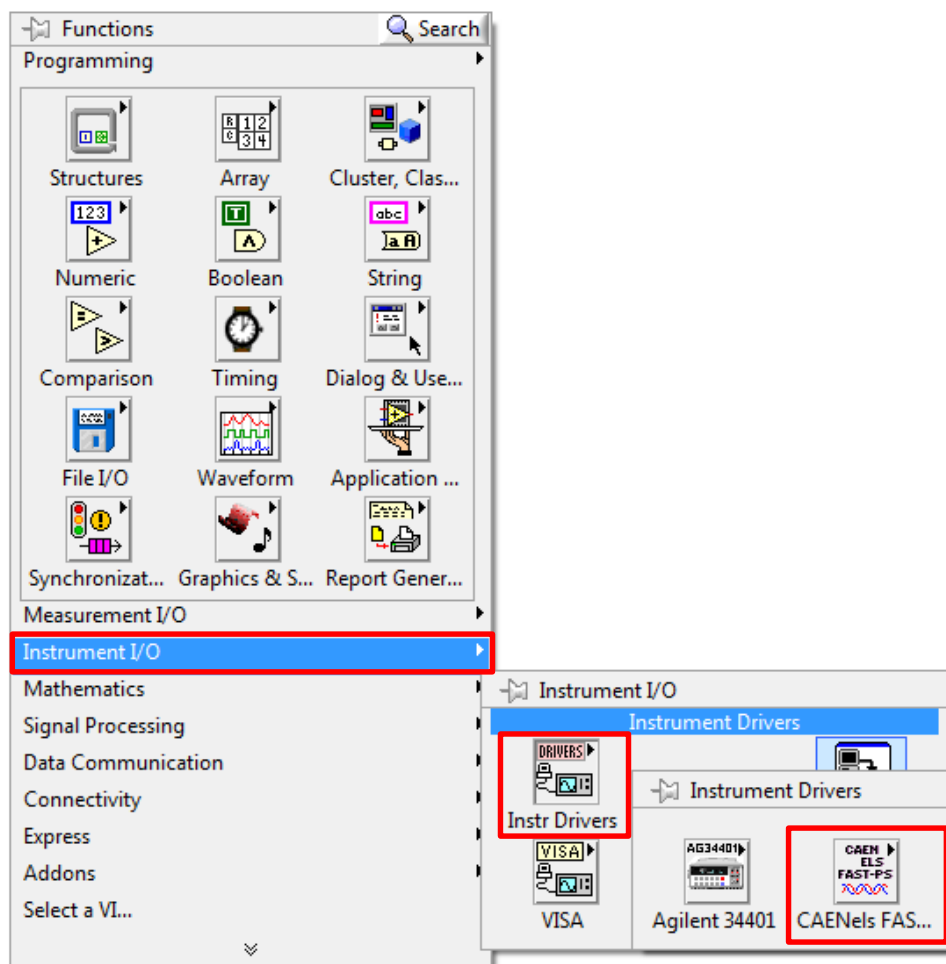
FAST-PS LabVIEW Instrument Driver is a set of VI's, developed for LabVIEW (LabVIEW™ is a Trademark of National Instruments Corp.), that allows to control and monitor the main parameters of the CAEN ELS's FAST-PS Power Supply module.

For detailed information regarding the FAST-PS unit, please refer to the FAST-PS User's manual, which is available from the CAEN ELS web page: <http://www.caenels.com/products/fast-ps/>.

System requirements and installation setup

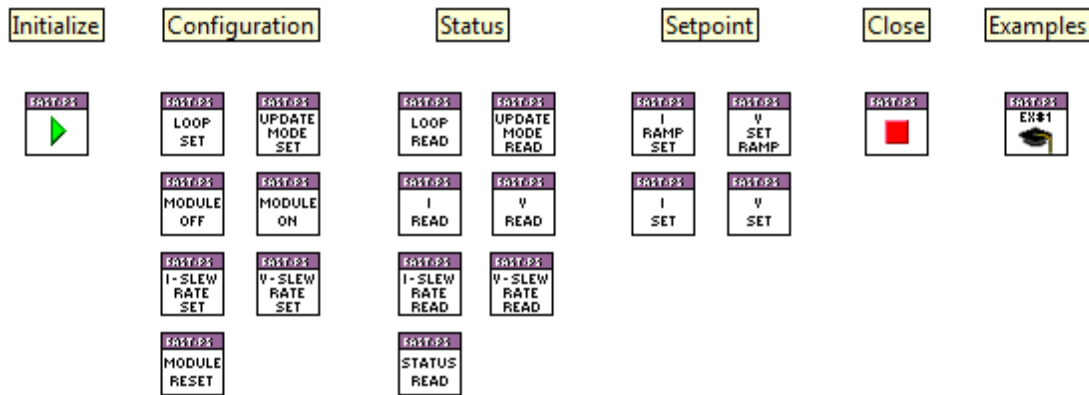
Please follow the installation instructions in order to correctly install the FAST-PS LabVIEW Instrument Driver into your environment:

- copy the "CAENels FAST-PS" folder into your current LabView release path - e.g. for LabVIEW 2014": ...Program Files (x86)\National Instruments\LabVIEW 2014\instr.lib",
- run LabVIEW,
- the FAST-PS LabVIEW Instrument Driver should appear on you "Instrument I/O" -> "Instr Drivers" palette.



Function Classification

FAST-PS LabVIEW Instrument Driver VIs are divided into 5 groups:



Connection Initialization VIs:

- CAENels FAST-PS.lvlib:Initialize.vi

Configuration VIs:

- CAENels FAST-PS.lvlib:LOOP.vi
- CAENels FAST-PS.lvlib:UPMODE.vi
- CAENels FAST-PS.lvlib:MOFF.vi
- CAENels FAST-PS.lvlib:MON.vi
- CAENels FAST-PS.lvlib:MRESET.vi
- CAENels FAST-PS.lvlib:MSRI.vi
- CAENels FAST-PS.lvlib:MSRV.vi
-

Status VIs:

- CAENels FAST-PS.lvlib:LOOP_Read.vi
- CAENels FAST-PS.lvlib:UPMODE_Read.vi
- CAENels FAST-PS.lvlib:MRI.vi
- CAENels FAST-PS.lvlib:MRV.vi
- CAENels FAST-PS.lvlib:MSRI_Read.vi
- CAENels FAST-PS.lvlib:MSRV_Read.vi
- CAENels FAST-PS.lvlib:MST.vi

Setpoint VIs:

- CAENels FAST-PS.lvlib:MWI.vi
- CAENels FAST-PS.lvlib:MWIR.vi
- CAENels FAST-PS.lvlib:MWV.vi
- CAENels FAST-PS.lvlib:MWVR.vi

Connection Close VIs:

- CAENels FAST-PS.lvlib:Close.vi

Example VIs:

- CAENels FAST-PS.lvlib:FAST-PS Example Voltage Loop Control.vi

Data Types



Cluster (error codes)



Connection ID



String



32 bit, integer numeric



Double-precision, floating-point numeric

Function Description

The present sections describe in detail the FAST-PS LabVIEW Instrument Driver; more details about parameters description and ranges can be found in the FAST-PS User's Manual.

Inititalize VIs











CAENels FAST-PS.lvlib:Initialize.vi

Initializes the connection with the FAST-PS module at the specified IP address.

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-  **IP address** is the address with which you want to establish a connection. This address can be in IP dot notation or it can be a hostname.
-  **error in (no error)** describes error conditions that occur before this node runs. This input provides **standard error in** functionality:
 -  **status** is TRUE (X) if an error occurred before this node ran or FALSE (checkmark) to indicate a warning or that no error occurred before this node ran. The default is FALSE.
 -  **code** is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.
 -  **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.
-  **connection ID** is a network connection refnum that uniquely identifies the TCP connection. Use this value to refer to this connection in subsequent VI calls.
-  **error out** contains error information. This output provides standard error out functionality:
 -  **status** is TRUE (X) if an error occurred or FALSE (checkmark) to indicate a warning or that no error occurred.
 -  **code** is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.
 -  **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.

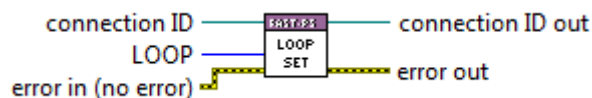
Configuration VIs

CAENels FAST-PS.lvlib:LOOP.vi

The LOOP command can be used in order to select the mode of loop control of the FAST-PS unit. There are two possible modes of operation:

- I for Constant Current (c.c.) mode and
- V for Constant Voltage (c.v.) mode.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



LOOP selects the mode of loop control.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



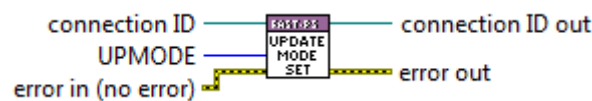
source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:UPMODE.vi

The UPMODE command is used to select the update mode of the set-point. There are two possible mode of operation:

- **NORMAL** - in this mode of operation the power unit works in the standard update mode. The direct set-point or ramp commands are received using the standard Ethernet communication and they are applied immediately when the command is received. The analog input signal is ignored.
- **ANALOG** - in this mode of operation the power unit receives the set-point from its analog input. The analog inputs goes from -10 V up to +10 V. The setting command from the local or remote interface are not accepted. Note: this update mode is available only on units that have the analog input.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



UPMODE selects the update mode of the set-point.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

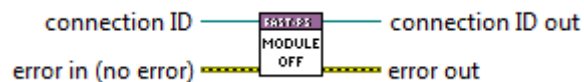


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MOFF.vi

MOFF block turns off the FAST-PS output driver, thus disabling the output terminals. The MOFF command automatically sets output current to 0A or 0V with a ramp before disabling the output drivers. This is done in order to avoid output overshoots (especially in constant current regulation mode).

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

CAENels FAST-PS.lvlib:MON.vi

The MON (Module ON) command turns ON the FAST-PS output driver, thus enabling the output terminals and allowing the power supply to regulate and feed current or voltage to the connected load. After the reception of a "MON" command, the power supply automatically sets output current to 0A or 0V (depending if the module is set in constant current or constant voltage mode).

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

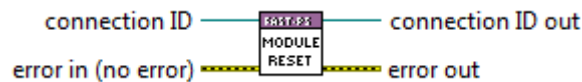


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MRESET.vi

The MRESET block is used to perform a complete reset of the FAST-PS module status register. This is needed, for example, to enable the channel output again after a fault condition has been fixed.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

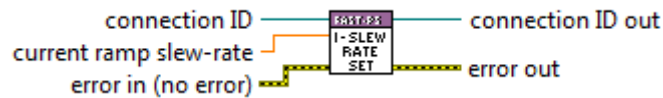


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MSRI.vi

The MSRI block is used to dynamically change the value of the current ramp slew-rate. The default slew-rate, used at start-up of the unit, is the value stored in the parameters table.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



current ramp slew-rate sets the new value of current ramp slew-rate.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

CAENels FAST-PS.lvlib:MSRV.vi

The MSRV block is used to dynamically change the value of the voltage ramp slew-rate. The default slew-rate, used at start-up of the unit, is the value stored in the parameters table.

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Controls and indicators



connection ID is a network connection refnum that uniquely identifies the TCP connection.



voltage ramp slew-rate sets the new value of voltage ramp slew-rate.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



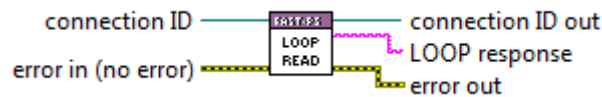
source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

Status VIs

CAENels FAST-PS.lvlib:LOOP_Read.vi

This block performs a LOOP:?? command to check the current setting of control loop mode. The response is I for constant current mode and V for constant voltage mode.

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Controls and indicators



connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



LOOP response is "I" for constant current mode and "V" for constant voltage mode.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

CAENels FAST-PS.lvlib:UPMODE_Read.vi

To read the current update mode of the set-point the query command: "UPMODE:?" has to be used. The response to the "UPMODE:?" query command is:

- NORMAL for normal update mode and
- ANALOG for analog input update.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



UPMODE response is "NORMAL" for normal update mode and "ANALOG" for analog input update.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

CAENels FAST-PS.lvlib:MRI.vi

The MRI block returns the readback value of the power supply actual output current.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



current is readback value of the power supply actual output current.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

CAENels FAST-PS.lvlib:MRV.vi

The MRV block returns the readback value of the power supply actual output voltage.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



voltage is readback value of the power supply actual output voltage.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

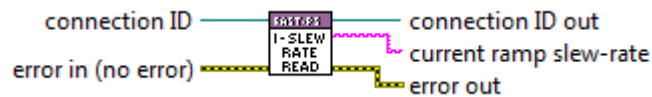


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MSRI_Read.vi

This block performs a MSRI:? command to check the setting of current ramp slew-rate. The response to the query command is current ramp slew-rate expressed in Ampere per second (A/s).

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



current ramp slew-rate is readback value of the setting of current ramp slew-rate.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

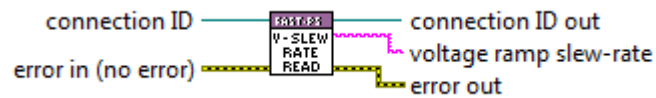


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MSRV_Read.vi

This block performs a MSRV:?
command to check the setting of voltage ramp slew-rate. The response to the query command is voltage ramp slew-rate expressed in Volts per second (V/s).

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



voltage ramp slew-rate is readback value of the setting of voltage ramp slew-rate.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

CAENels FAST-PS.lvlib:MST.vi

The MST block returns the value of the FAST-PS power supply internal status. The internal status register has 32 bits and so its representation is composed by 8 hexadecimal values. For additional information regarding the status register, please refer to the Status Register structure in the User's manual.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



MST response is the value of the FAST-PS power supply internal status register.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



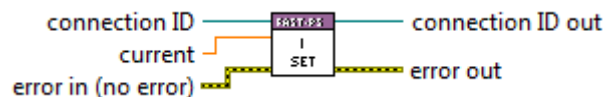
source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

Setpoint VIs

CAENels FAST-PS.lvlib:MWI.vi

The MWI block is used to set the output current value when the module is in the constant current mode (see LOOP Command). This command is usually needed when running feedback-related applications and for small changes in the output current. The use of this command is alternative to the MWIR Command (ramping current command), which is advised for regular use.

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connection ID is a network connection refnum that uniquely identifies the TCP connection.



current sets the new value of current setpoint.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

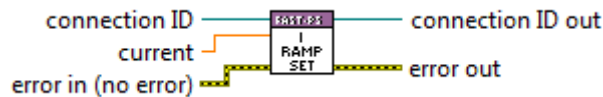


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MWIR.vi

The MWIR block is used to perform a ramp to the given current setpoint. The use of this command is alternative to the MWI command. The default value of the current slew-rate is stored in the parameter table. To dynamically change the slew-rate value it is possible to use the MSRI Command.

Connector Pane



Controls and indicators



connection ID is a network connection refnum that uniquely identifies the TCP connection.



current sets the new value of current setpoint.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

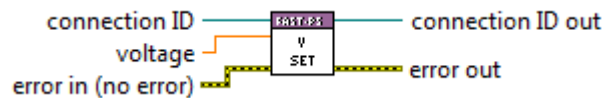


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MWV.vi

The MWV block is used to set the output voltage value when the constant voltage mode is used (see LOOP Command). The use of this command is alternative to the MWVR Command (ramping voltage command).

Connector Pane



Controls and indicators



connection ID is a network connection refnum that uniquely identifies the TCP connection.



voltage sets the new value of voltage setpoint.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.

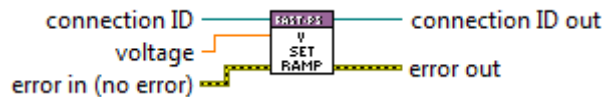


source specifies the origin of the error or warning and is, in most cases, the name of the node that produced the error or warning.

CAENels FAST-PS.lvlib:MWVR.vi

The MWVR block is used to perform a ramp to the given voltage setpoint. The use of this command is alternative to the MWV command. The default value of the voltage slew-rate is stored in the parameter table. To dynamically change the slew-rate value it is possible to use the MSRV Command.

Connector Pane



Controls and indicators



connection ID is a network connection refnum that uniquely identifies the TCP connection.



voltage sets the new value of voltage setpoint.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



connection ID out returns the same value as **connection ID**.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.

Close VIs

CAENels FAST-PS.lvlib:Close.vi

Closes the connection with the FAST-PS module at the specified connection ID.

Connector Pane



Controls and indicators



connection ID is a network connection refnum that uniquely identifies the TCP connection.



error in (no error) describes error conditions that occur before this node runs. This input provides **standard error in** functionality:



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



code is the error or warning code. The default is 0. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.



error out contains error information. This output provides standard error out functionality:



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



code is the error or warning code. If **status** is TRUE, **code** is an error code. If **status** is FALSE, **code** is 0 or a warning code.



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.