


Wheel.lvlib:Wheel_Control_POS.vi

Help by FRC 836 - The RoboBees


This VI sets the shooter wheel position using a PID control VI with parameters set by

the tbh (Take Back Half) control VI.



CW is Up 

Wheel DevRef In

Shooter Config reference 

Shooter Data

MotorControlDevRef

DeviceStatus

status code

source

Type Invert OFF/ON

CAN

Device Number

Control Mode

Max Vout Semaphore

TalonSRX Control Mode

PWM

PWM Channel

DeadBand

Name

maxPositivePwm


minPositivePwm


centerPwm

maxNegativePwm

minNegativePwm

angularRange

Set Point 

Actual 

AIDeviceRef

DevStatus

status code

source

Analog Channel

 **Wheel DevRef In**

 **Shooter Config reference**

Shooter Data

MotorControlDevRef

DeviceStatus

status

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



Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

code

code is the error or warning code.



Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

source

source describes the origin of the error or warning.



Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

Type

PWM

 PWM Channel

 DeadBand

 Name

 maxPositivePwm

 minPositivePwm

 centerPwm

 maxNegativePwm

 minNegativePwm

 angularRange

 CAN

 Device Number


 Control Mode

Semaphore

 **semaphore** is a reference to an existing or newly created semaphore.

Max Vout

TalonSRX Control Mode

Control Mode specifies how the Talon SRX will  control the motor. Percent VBus is the standard open-loop mode that is also accessible via the PWM interface on the Talon SRX.


Invert

Set Point

Actual

CW is Up

AIDeviceRef

 **AIDeviceRef** specifies a reference to the analog channel you want to use. Use the Open VI to open this reference.

DevStatus


status

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

Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.


code

code is the error or warning code.

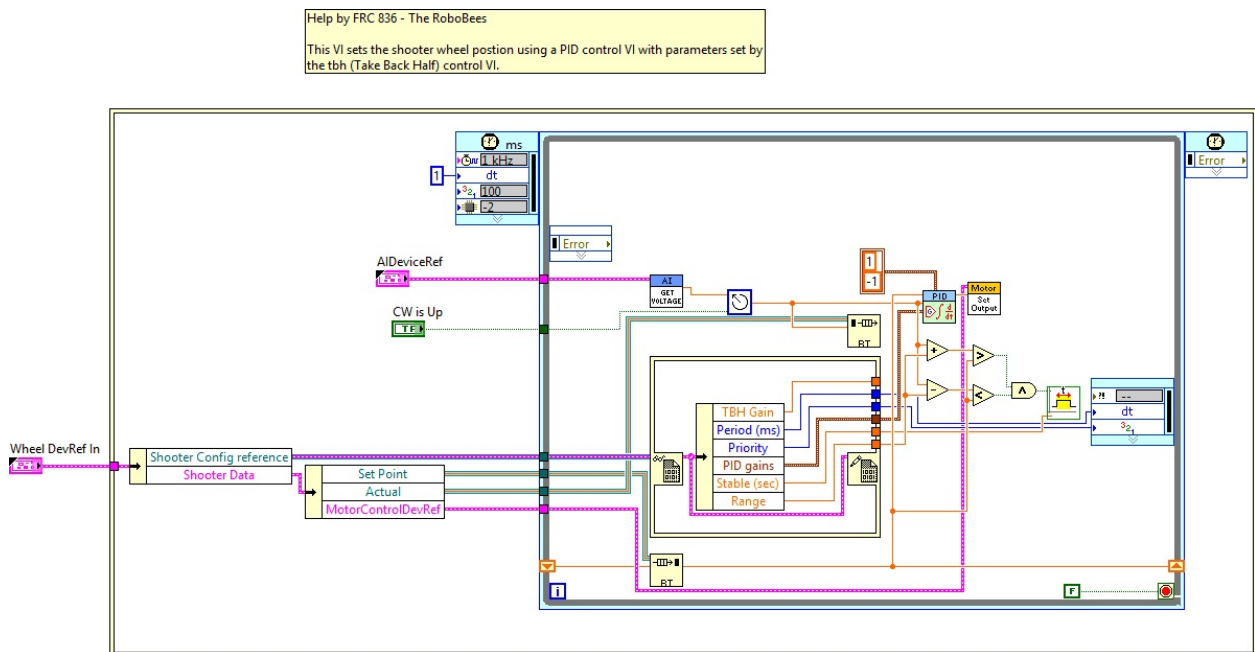
 Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

source

source describes the origin of the error or warning.

 Right-click the **error in** control on the front panel and select **Explain Error** or **Explain Warning** from the shortcut menu for more information about the error.

Analog Channel



WPI_MotorControlDeviceRef.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\MotorControl\WPI_MotorControlDeviceRef.ctl

WPI_CANJaguar_ControlMode.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\CAN\Jaguar\SubVIs\WPI_CANJaguar_ControlMode.ctl

WPI_PWMDeadband.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\PWM\WPI_PWMDeadband.ctl

FPGA_DIOPWMChannel.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\SystemInterfaces\DIO\FPGA_DIOPWMChannel.ctl

WPI_MotorControlSetOutput.vi



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\MotorControl\WPI_MotorControlSetOutput.vi

WPI_CANTalonSRX_APIControlMode.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\CAN\TalonSRX\WPI_CANTalonSRX_APIControlMode.ctl

WPI_MotorControlType.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\MotorControl\WPI_MotorControlType.ctl

Semaphore RefNum



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Utility\semaphor.llb\Semaphore RefNum

FPGA_AIChannel.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\SystemInterfaces\AI\FPGA_AIChannel.ctl

Wheel.lvlib:WheelControl.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\WheelControl.ctl

MA3_Revolutions.vi



C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Sensor\MA3_Analog_Encoder\MA3_Revolutions.vi

Wheel.lvlib:Data.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\Data.ctl

Stable.vi



C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Logic\Stable.vi

WPI_AnalogChannelGetVoltage.vi



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\AnalogChannel\WPI_AnalogChannelGetVoltage.vi

WPI_AnalogChannelDevRef.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\Rock Robotics\WPI\AnalogChannel\WPI_AnalogChannelDevRef.ctl

NI_PID_pid.lvlib:PID.vi



C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\addons\control\pid\pid.llb\PID.vi

Wheel.lvlib:Config.ctl



C:\Program Files (x86)\National Instruments\LabVIEW 2015\user.lib\836-Library\Motion Control\Shooter_Wheel\Config.ctl

NI_PID_pid.lvlib:PID (DBL).vi

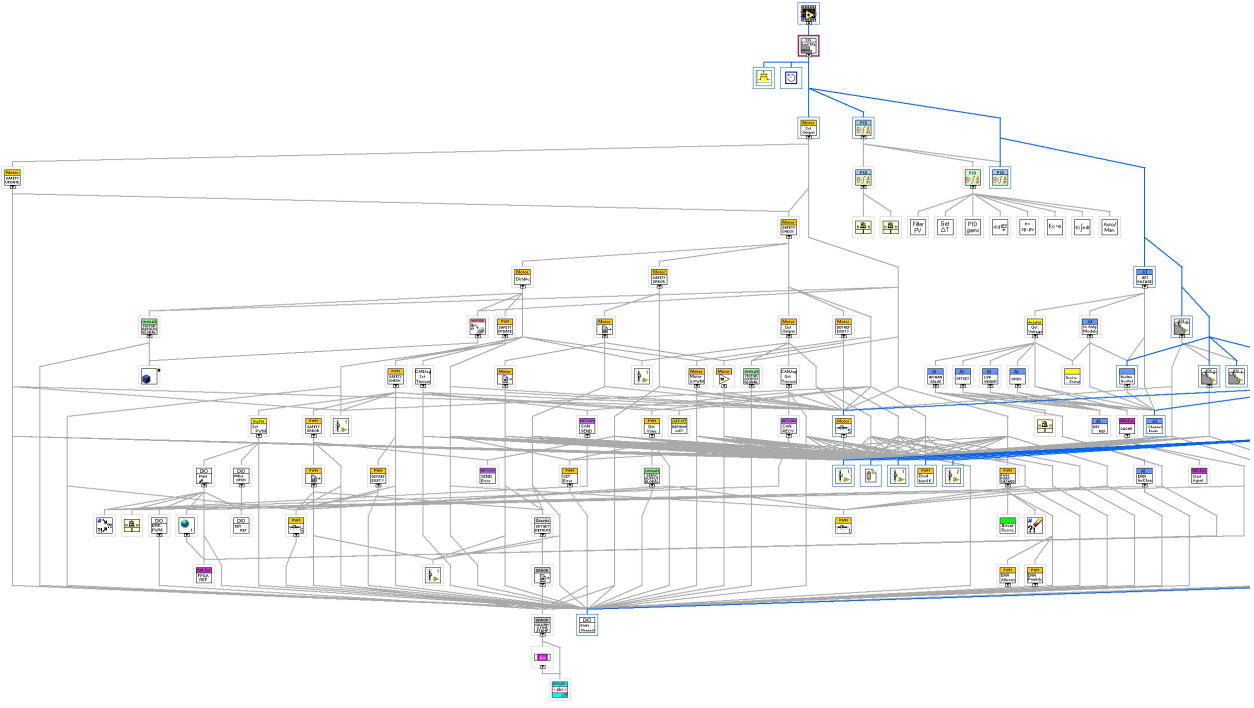


C:\Program Files (x86)\National Instruments\LabVIEW 2015\vi.lib\addons\control\pid\pid.llb\PID (DBL).vi

"Wheel.lvlib:Wheel_Control_POS.vi History"

Current Revision: 27

Position in Hierarchy



Iconified Cluster Constants