motoman_variables

V1.0

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Contents

Chapter 1

Class Documentation

1.1 motoman_variables Class Reference

This class is used to set, reset and edit network inputs of the FS100 robot controller.

`#include <motoman_variables.h>`

Public Member Functions

- motoman_variables ()
- void turnOn (int variable)
- void turnOff (int variable)
- int status (int variable)
- void setAddressValue (int variable, int val)
- int getAddressValue (int variable)

1.1.1 Detailed Description

This class is used to set, reset and edit network inputs of the FS100 robot controller.

ROS only can write/read network inputs #25xxx. This class uses the ROS services WriteSingleIO and Read↩ SingleIO to access and edit controller's data. To generate an external output it is necessary to edit the ladder program of the controler in order to activate the #30xxx outputs. Currently the 25010, 25012, 25014 and 25016 network inputs are connected to external outputs 30030, 30032, 30034 and 30036 respectively. This class accepts the shorcuts 0, 2, 4, 6 too. This class allso defines the inputs as I0, I2, I3, I4; I6. You can read/write any other network input however currently they are no related to any external output.

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Date

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1.1.2 Constructor & Destructor Documentation

1.1.2.1 motoman_variables::motoman_variables ( )

The constructor initializes two service clients one from WriteSingleIO service and the other from ReadSingleIO. This service uses the messages from the edited version of the motoman_msgs package

1.1.3 Member Function Documentation

1.1.3.1 int motoman_variables::getAddressValue (int *variable*)

Gets a network input current value. You only can pass the address direction.

Parameters

variable	an int that represents the address ID

Returns

0 the address is reset 1 it is set NOTE: if you are trying to get the status of a "favorite" network input, which are the ones connected to an external output, it is recommended to use status() method instead.

1.1.3.2 void motoman_variables::setAddressValue (int *variable,* int *val*)

Sets a network input to false/0 or true/1. You only can pass the address direction.

Parameters

variable	an int that represents the address ID
val	1 for set, 0 for reset NOTE: if you are trying to modify a "favorite" network input, which are the ones connected to an external output, it is recommended to use turnOn() turnOff() methods instead.

1.1.3.3 int motoman_variables::status (int *variable*)

Gets a network input state. You can pass either the address direction, shortcuts (0, 1, 2, 4, 6) or the class definitions I0, I2, I4, I6.

Parameters

variable	an int that represents the address ID

Returns

0 the address is reset 1 it is set NOTE: if you are trying to get the status of a network input that is not connected to an external output use getAdressValue() method instead.

1.1.3.4 void motoman_variables::turnOff (int *variable*)

Sets a network input to false/0. You can pass either the address direction, shortcuts (0, 1, 2, 4, 6) or the class definitions I0, I2, I4, I6.

Parameters

variable	an int that represents the address ID NOTE: if you are trying to set a network input that is not connected to an external output use setAdressValue() method instead.

1.1.3.5 void motoman_variables::turnOn (int *variable*)

Sets a network input to true/1. You can pass either the address direction, shortcuts (0, 1, 2, 4, 6) or the class definitions I0, I2, I4, I6.

Parameters

variable	an int that represents the address ID NOTE: if you are trying to set a network input that is not connected to an external output use setAdressValue() method instead.

The documentation for this class was generated from the following file:

- /home/ctai/catkin_ws2/src/motoman/motoman_variables/include/motoman_variables/motoman_variables.h

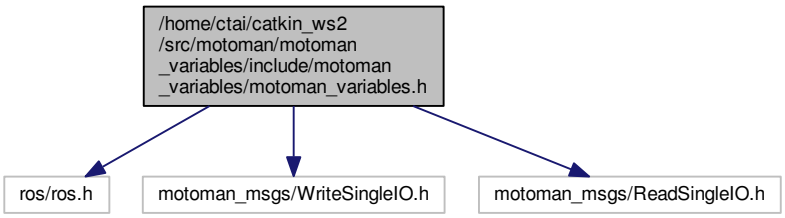
Chapter 2

File Documentation

2.1 /home/ctai/catkin_ws2/src/motoman/motoman_variables/include/motoman_variables/motoman_variables.h File Reference

```
#include <ros/ros.h>
#include <motoman_msgs/WriteSingleIO.h>
#include <motoman_msgs/ReadSingleIO.h>
```

Include dependency graph for motoman_variables.h:



Classes

- class motoman_variables

  This class is used to set, reset and edit network inputs of the FS100 robot controller.

Macros

- #define I0 25010
- #define I2 25012
- #define I4 25014
- #define I6 25016

2.1.1 Macro Definition Documentation

2.1.1.1 #define I0 25010

2.1.1.2 #define I2 25012

2.1.1.3 #define I4 25014

2.1.1.4 #define I6 25016