

motoman_variables

V1.0

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Contents

1	Class Documentation	1
1.1	motoman_variables Class Reference	1
1.1.1	Detailed Description	1
1.1.2	Constructor & Destructor Documentation	2
1.1.2.1	motoman_variables()	2
1.1.3	Member Function Documentation	2
1.1.3.1	getAddressValue(int variable)	2
1.1.3.2	setAddressValue(int variable, int val)	2
1.1.3.3	status(int variable)	2
1.1.3.4	turnOff(int variable)	3
1.1.3.5	turnOn(int variable)	3
2	File Documentation	5
2.1	/home/ctai/catkin_ws2/src/motoman/motoman_variables/include/motoman_variables/motoman_variables.h File Reference	5
2.1.1	Macro Definition Documentation	6
2.1.1.1	I1	6
2.1.1.2	I2	6
2.1.1.3	I4	6
2.1.1.4	I6	6

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 ReadSingleIO to access and edit controller's data. To generate an external output it is necessary to edit the ladder program of the controller 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 shortcuts 0, 2, 4, 6 too. This class also defines the inputs as I1, 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

<i>variable</i>	an int that represents the address ID
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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

<i>variable</i>	an int that represents the address ID
<i>val</i>	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

<i>variable</i>	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 getAddressValue() 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

<i>variable</i>	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 setAddressValue() 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

<i>variable</i>	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 setAddressValue() method instead.
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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

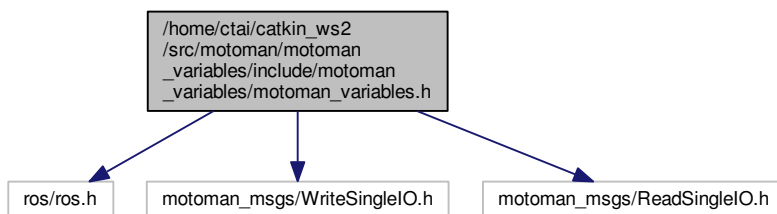
Chapter 2

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 I1 25010`
- `#define I2 25012`
- `#define I4 25014`
- `#define I6 25016`

2.1.1 Macro Definition Documentation

2.1.1.1 `#define I1 25010`

2.1.1.2 `#define I2 25012`

2.1.1.3 `#define I4 25014`

2.1.1.4 `#define I6 25016`