Class Documentation

pwmBoard Class Reference

Hardware interface class for the **pwmBoard** PCA9634 based PWM dimmer board.
`#include <pwmBoard.h>`

Public Member Functions

- **pwmBoard** (uint8_t, uint8_t)
  Constructor for multiple board setups.
- **pwmBoard** (uint8_t)
  Constructor for single board setups.
- void **start** ()
  Starts the i2c bus and initializes the board. This must be called before any other member functions.
- void **setLevel** (uint8_t, uint8_t)
  Sets the output level of one output channel and if autoUpdate==true, sends the values to the boards.
- void **setLevel** (uint8_t)
  Sets the output level to all outputs and if autoUpdate==true, sends the values to the boards.
- void **setLevelSend** (uint8_t, uint8_t)
  Sets the output level of one output channel and sends the values to the boards. This function is for backward compatibility.
- void **setLevelSend** (uint8_t)
  Sets the output level to all outputs and sends the values to the boards. This function is for backward compatibility.
- byte * **getPtr** ()
  Get a pointer to the output buffer.
- void **send** ()
  *Identical to **send()**, only here for backwards compatibility. Use **send()** for all new code.*
- void **update** ()
  Send the current output buffer to all boards.

Public Attributes

- boolean **autoUpdate**

Detailed Description

Hardware interface class for the **pwmBoard** PCA9634 based PWM dimmer board.

Author:
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Version:
4

Revision history:

r2 - 12/2011 - KM - update for compatibility with arduino 100

r3 - 2/2012 - KM - added support for multiple boards per class instance

r4 - 8/2012 - KM - added **update()** and autoUpdate for similarity with other libraries

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Constructor & Destructor Documentation

pwmBoard::pwmBoard (uint8_t *baseAddress*, uint8_t *numBoards*)

Constructor for multiple board setups.

Parameters:

baseAddress	Address of the first board.
numBoards	Number of boards with sequential addresses.

pwmBoard::pwmBoard (uint8_t *baseAddress*)

Constructor for single board setups.

Parameters:

baseAddress	Address of the board.

Member Function Documentation

byte * pwmBoard::getPtr ()

Get a pointer to the output buffer.

Returns:

Pointer to the output buffer.

void pwmBoard::send ()

Identical to **send()**, only here for backwards compatibility. Use **send()** for all new code.

void pwmBoard::setLevel (uint8_t *index*, uint8_t *level*)

Sets the output level of one output channel and if autoUpdate==true, sends the values to the boards.

Parameters:

index	Output channel to set
level	Level to set the channel to [0..255]

void pwmBoard::setLevel (uint8_t *level*)

Sets the output level to all outputs and if autoUpdate==true, sends the values to the boards.

Parameters:

level	Level to set the outputs [0..255]

void pwmBoard::setLevelSend (uint8_t *index*, uint8_t *level*)

Sets the output level of one output channel and sends the values to the boards. This function is for backward compatibility.

[long description]

Parameters:

index	Output channel to set
level	Level to set the channel to [0..255]

void pwmBoard::setLevelSend (uint8_t *level*)

Sets the output level to all outputs and sends the values to the boards. This function is for backward compatibility.

Parameters:

level	Level to set the outputs [0..255]

void pwmBoard::start ()

Starts the i2c bus and initializes the board. This must be called before any other member functions.

void pwmBoard::update ()

Send the current output buffer to all boards.

Member Data Documentation

boolean pwmBoard::autoUpdate

If autoUpdate is set to true, **update()** is called automatically from **setLevel()**

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

- **pwmBoard.h**
- **pwmBoard.cpp**

File Documentation

pwmBoard.cpp File Reference

```
#include "pwmBoard.h"
```

Macros

- #define **WIRE_WRITE_FUNCTION** send

Macro Definition Documentation

#define WIRE_WRITE_FUNCTION send

pwmBoard.h File Reference

```
#include "WProgram.h"
#include <inttypes.h>
#include "../Wire/Wire.h"
```

Classes

- class **pwmBoard**

Hardware interface class for the pwmBoard PCA9634 based PWM dimmer board.

Macros

- #define **PWMBOARD** 4

Macro Definition Documentation

#define PWMBOARD 4