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## [Wim Huiskamp \(/users/wim/\)](#) / [OS 2](#) [MCP test \(/users/wim/code/MCP test/\)](#)

Example of how to use the library for the MCP23017 16 bit expander port for I2C.

**Dependencies:** [\(/users/wim/code/MCP test/dependencies\)](#) [mbed \(/users/mbed\\_official/code/mbed/\)](#) [\(/\)](#)

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## Repository toolbox

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## Revision

[Files at this revision \(/users/wim/code/MCP\\_test//file/88d87b1c1f8b\)](#)

[API Documentation at this revision \(/users/wim/code/MCP\\_test//docs/88d87b1c1f8b\)](#)

0:88d87b1c1f8b, committed 2010-12-18

**Comitter:** wim  
**Date:** Sat Dec 18 19:44:49 2010 +0000  
**Commit message:** Initial version

## Repository details

<b>Type:</b>	Program
<b>Version:</b>	Mbed OS 2
<b>Created:</b>	18 Dec 2010 (18
<b>Imports:</b>	210 <a href="#">(/users/wi</a>
<b>Forks:</b>	1 <a href="#">(/users/wim/</a>
<b>Commits:</b>	1 <a href="#">(shortlog)</a>
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<b>Followers:</b>	4 <a href="#">(/users/wim/code</a>

## Changed in this revision

<a href="#">MCP23017.lib</a> <a href="#">(/users/wim/code/MCP_test//file/88d87b1c1f8b/MCP23017.lib)</a>	<a href="#">Show annotated file</a> <a href="#">(/users/wim/code/MCP_test//annotate/88d87b1c1f8b/MCP23017.lib)</a> <a href="#">Show diff for this revision</a> <a href="#">(/users/wim/code/MCP_test//diff/88d87b1c1f8b/MCP23017.lib)</a> <a href="#">Revisions of this file</a> <a href="#">(/users/wim/code/MCP_test//log/88d87b1c1f8b/MCP23017.lib)</a>	<a href="#">MCP23017 I2C 16 bit I/O expander</a> <a href="#">(/users/wim/code/MCP_test//file/88d87b1c1f8b/mbed.bld)</a>
<a href="#">main.cpp</a> <a href="#">(/users/wim/code/MCP_test//file/88d87b1c1f8b/main.cpp)</a>	<a href="#">Show annotated file</a> <a href="#">(/users/wim/code/MCP_test//annotate/88d87b1c1f8b/main.cpp)</a> <a href="#">Show diff for this revision</a> <a href="#">(/users/wim/code/MCP_test//diff/88d87b1c1f8b/main.cpp)</a> <a href="#">Revisions of this file</a> <a href="#">(/users/wim/code/MCP_test//log/88d87b1c1f8b/main.cpp)</a>	
<a href="#">mbed.bld</a> <a href="#">(/users/wim/code/MCP_test//file/88d87b1c1f8b/mbed.bld)</a>	<a href="#">Show annotated file</a> <a href="#">(/users/wim/code/MCP_test//annotate/88d87b1c1f8b/mbed.bld)</a> <a href="#">Show diff for this revision</a> <a href="#">(/users/wim/code/MCP_test//diff/88d87b1c1f8b/mbed.bld)</a> <a href="#">Revisions of this file</a> <a href="#">(/users/wim/code/MCP_test//log/88d87b1c1f8b/mbed.bld)</a>	

## Components

1 <http://mbed.org/users/wim/code/MCP23017/#5696b886a895> (<http://mbed.org/users/wim/code/MCP23017/#5696b886a895>)

```

1 #include "mbed.h"
2 #include "MCP23017.h"
3
4 DigitalOut myled1(LED1);
5 DigitalOut myled2(LED2);
6
7 Serial pc(USBTX, USBRX);
8 I2C i2c(p9, p10);
9
10 MCP23017 mcp23017 = MCP23017(i2c, 0x40);
11
12 int main() {
13
14     pc.printf("Hello World\n");
15
16     // I2C init
17     i2c.frequency(100000);
18
19     // Port A is databus - Output
20     mcp23017.direction(PORT_A, PORT_DIR_OUT);
21     // Port B is controlbus - Output
22     mcp23017.direction(PORT_B, PORT_DIR_OUT);
23
24     myled2 = 1;
25     pc.printf("MPC Init done\n");
26
27     while(1) {
28         myled1 = 1;
29         mcp23017.write(PORT_A, 0xFF);
30         mcp23017.write(PORT_B, 0xFF);
31         wait(0.2);
32
33         myled1 = 0;
34         mcp23017.write(PORT_A, 0x00);
35         mcp23017.write(PORT_B, 0x00);
36         wait(0.2);
37         pc.printf("*");
38     }
39 }

```

1 [http://mbed.org/users/mbed\\_official/code/mbed/builds/e2ac27c8e93e](http://mbed.org/users/mbed_official/code/mbed/builds/e2ac27c8e93e) ([http://mbed.org/users/mbed\\_official/code/m](http://mbed.org/users/mbed_official/code/m))

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