
EOS2 - Hello World application

Author: Stefan Ehrlich

HELLO WORLD APPLICATION

This application note describes how to generate a simple application driving a LED to blink with a frequency of 1 Hz using a periodically called function.

The LED is connected to the output pin Pin13.

GENERATION OF A TASK

To drive the LED you need an instance of a class with a function, which is called periodically.

In this example the function `void CMyTask::blinkIt()` is used.

```
#include "EOS.h"
class CMyTask
{
    void blinkIt();
};
```

The periodic function will change the LED every time it is called:

```
void CMyTask::blinkIt()
{
    static bool bLEDon = false;
    Pin13 = bLEDon;
    bLEDon = !bLEDon;
};
```

CONSTRUCTOR

In the constructor the IO pin is set to be an output and the scheduler is requested to call the `blinkIt` function every 500 ms.

```
CMyTask::CMyTask()
{
    Pin13.toDigitalOutput();
    schedule(this, &CMyTask::blinkIt, 500);
};
```

INSTANCE OF THE CLASS

The class `CMyTask` does not have any instance, so this needs to be added to the code:

```
CMyTask MyTask;
```

FULL LISTING

```
#include "EOS.h"

class CMyTask
{
public:
    CMyTask();
    void blinkIt();
};

// An instance of the class
CMyTask MyTask;

// For having access to pin 13:
#include "Pin13.h"

CMyTask::CMyTask()
{
    Pin13.toDigitalOutput();
    schedule(this, &CMyTask::blinkIt, 500);
}

void CMyTask::blinkIt()
{
    static bool bLEDon = false;
    Pin13 = bLEDon;
    bLEDon = !bLEDon;
}
```