TDDI07 Lab Report

Lab 1

Student Name:

Group:

Date:

Lab questions

1. A nesC application is not started and running like a regular C application.
2. What correspond to the main() function in a nesC application?
3. Which interface and which component is used to start an application?
4. The starting point in a nesC application is supposed to be short and return fast. What "drives" the application after it is initiated/started?

2) Find and have a look at the source code for the Blink application. Find the interface specification for the used interfaces.

1. How many commands are provided by the Leds interface?
2. Which commands and events are provided by the Timer interface?

3) A certain interface *Foo* provides command A and an event B. The interface *Foo* is implemented by the component *FooC*. The configuration *FooAppC* wires a module *BarC* to use *FooC*. Assume B is defined in both *FooC* and *BarC*.

1. Which definition of B is used when the application is run?
2. Optional question: What is the purpose of the other definition?  (Hint: The answer to b. can be found in the nesC reference.)

4) Your application is executing a process *A*. It is interrupted by an event, *dataReady*, signaling requested data is available from a sensor. The event handler read the data and post a new process, *B*, to evaluate it. During the execution of *dataReady* a timer fires an interrupt. Assume that A, B and the timer event are synchronous code and the dataReady even is synchronous.

1. In which order do A, B, dataReady and the timer event finish execution?
2. Advised by the example, why is it important to keep event handlers short and fast?

Application operation

How does the application work? Explain it here.