

Embedded Real-time Systems

Exercise 2. – Implementation of a Command Pattern in concert with the State pattern

Description:

In this exercise you will implement a *GoF Command Pattern* and use it in connection with the State Machine from Exercise 1.

Goals:

When you have completed this exercise, you will

- have experience with implementing the GoF Command pattern
 - have experience with connecting the Command and State pattern
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Exercise 2:

2.1. Design the command hierarchy for the event-commands in exercise 1 using the GoF Command Pattern

2.2. Design the interconnection of the Command pattern and the State Machine from Exercise 1.

2.3. Implement the design and test it on the development host where a simple main program invokes the different commands (events) for the state machine.

Be prepared to present your design with one or more class diagrams on the class.

Hand-in no. 1: The first hand-in includes your solution to exercise 1 + 2.

The hand-in should consist of a short journal (see Journal template), which includes your design of the solution (class diagrams, state diagrams and sequence diagrams) with explanation of the design. Upload your hand-in-no-1-journal as a pdf file via Blackboard.

In addition to this the hand-in includes a Visual Studio project, packed in a zip-file and uploaded via Blackboard.

Deadline: see the Course Schedule on Blackboard.