



## Nebenläufige Programmierung

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Wintersemester 2004/05

### Serie 4

8. November 2004

**Thema:**

**Ausgabetermin:** 8. November 2004

**Abgabe:** 15. November 2004 (12:00)

**Aufgabe 1 (2 Punkte)** Exercise 2.15 aus Andrews.

**Aufgabe 2 (6 Punkte)** Consider the following program:

```
int x = 0;  
co <await (x != 0) x = x - 2;>  
// <await (x != 0) x = x - 3;>  
// <await (x == 0) x = x + 5;>  
oc
```

Does there exist a proof outline that demonstrates that the final value of  $x$  is 0 if the technique of weakend assertion is used? Either present a proof outline (where the critical assertions should be identified and it should be shown that they are not interfered with) or argue why none exists.

**Aufgabe 3 (4 Punkte)** Exercise 2.23 aus Andrews.