OS

Operating Systems

Introduction to Lab 7

Synchronization and Mutex

Department of Computer Science & Technology
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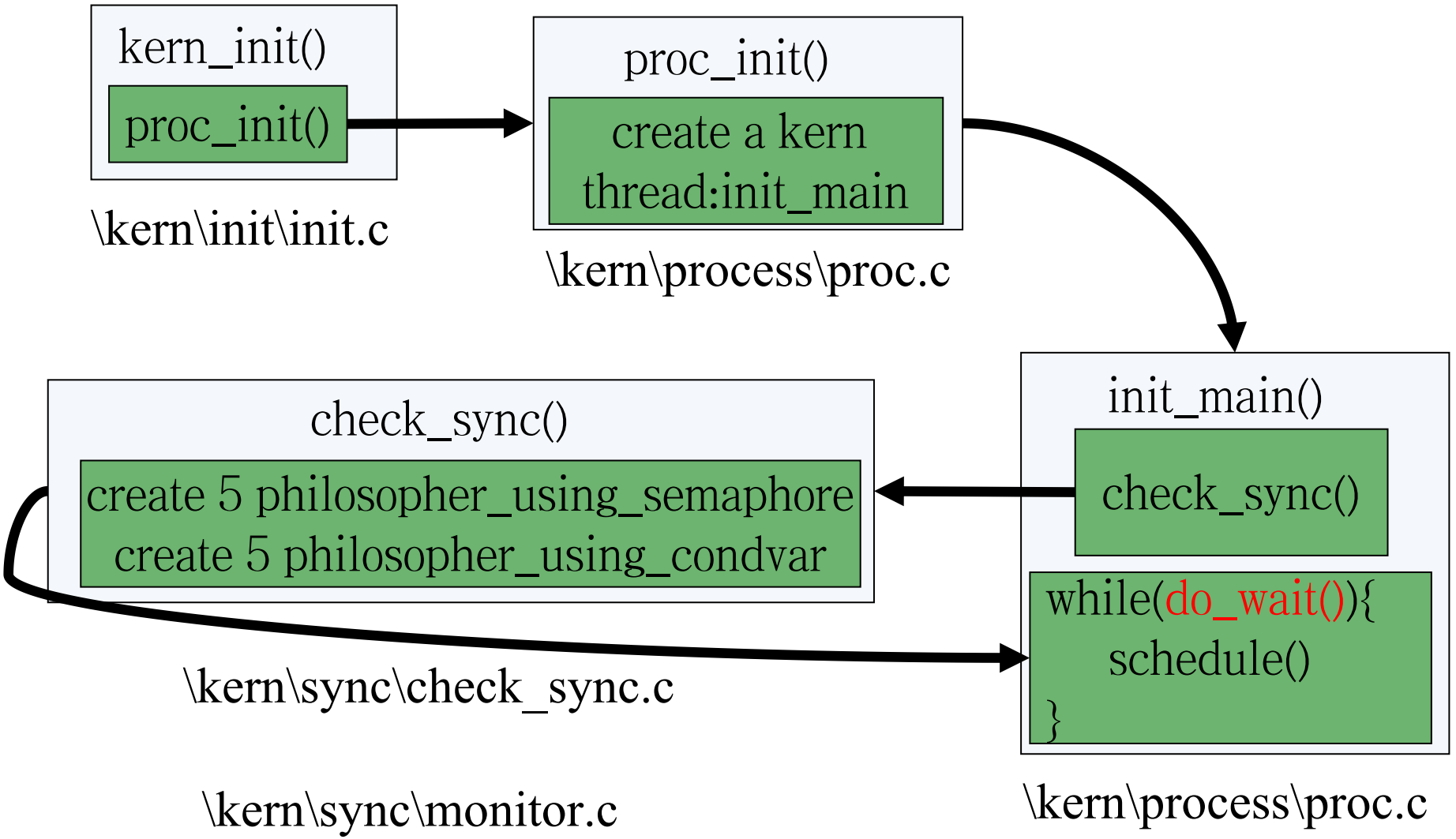
IIIS

Outline

- Work Flow & Key Functions and Data Structures
- The Dining Philosophers Problem via Semaphore
- The Dining Philosophers Problem via Monitor

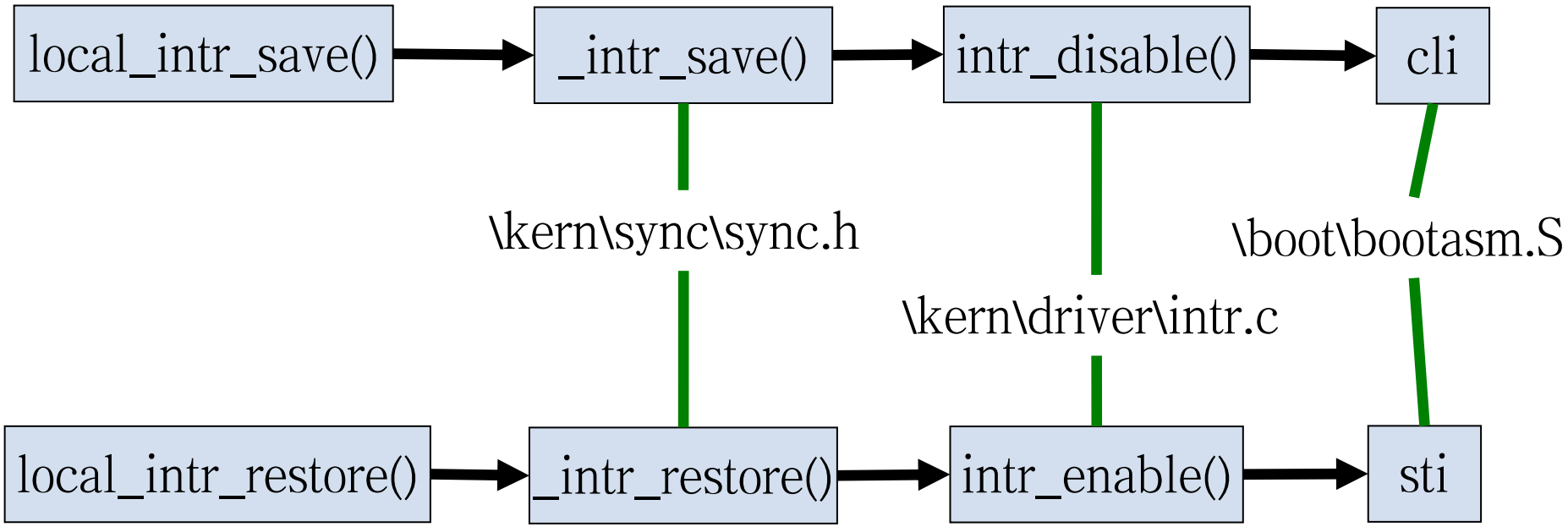
Work Flow & Key Functions and Data Structures

- Work Flow (Exercise 1 & 2)



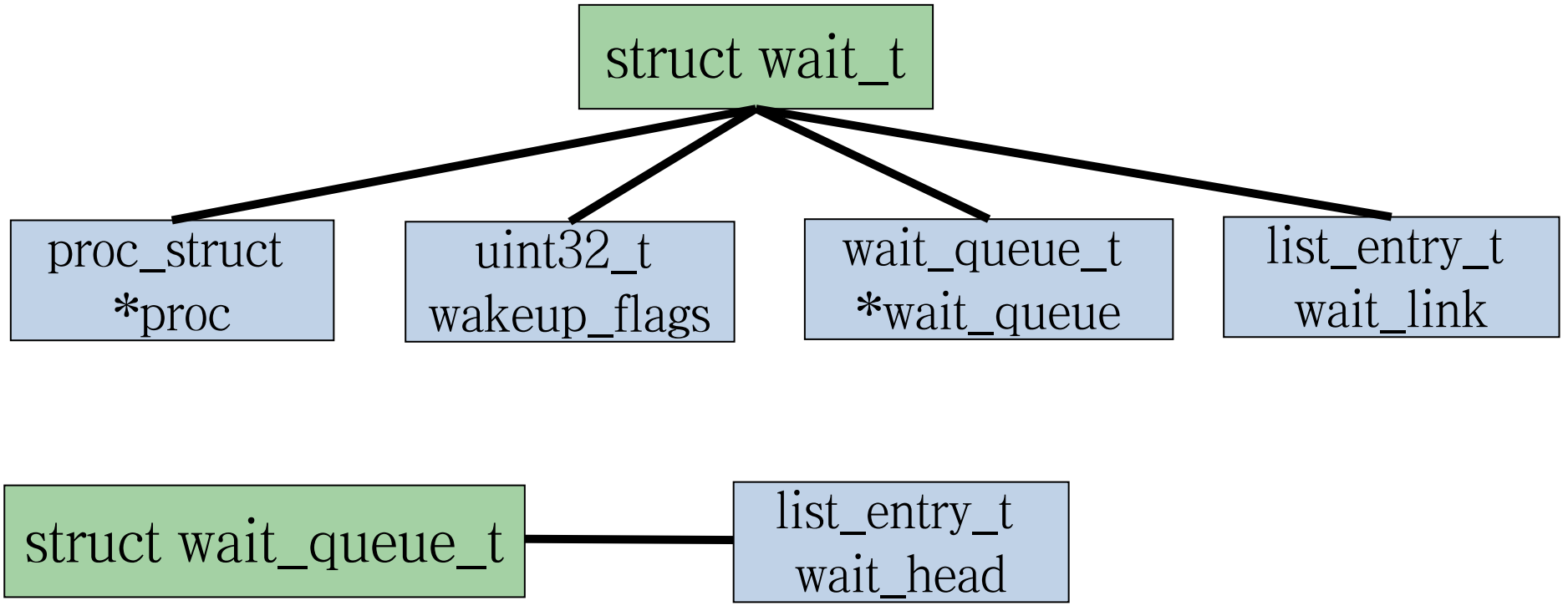
Work Flow & Key Functions and Data Structures

- Key Functions



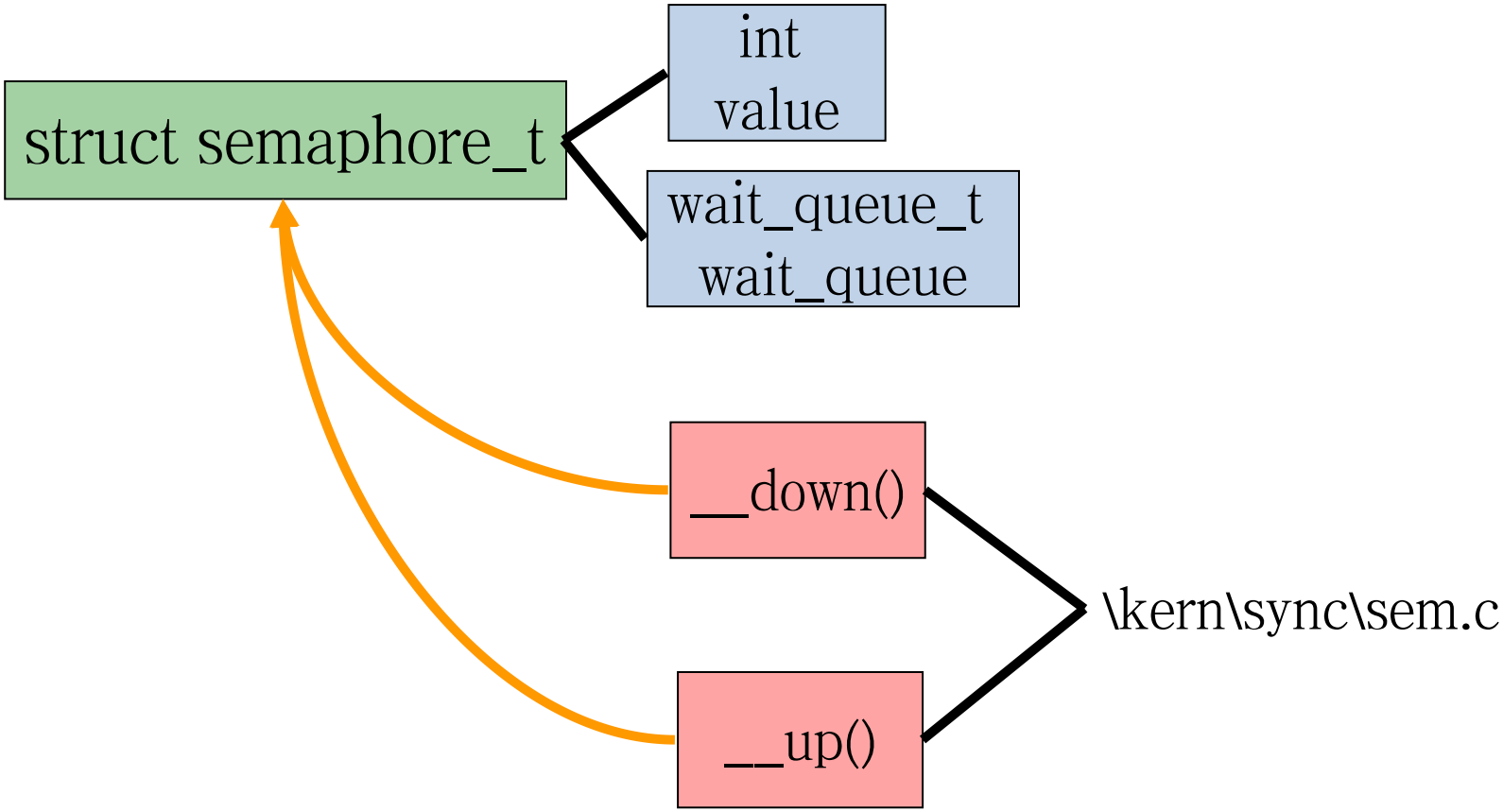
Work Flow & Key Functions and Data Structures

- Key Data Structures



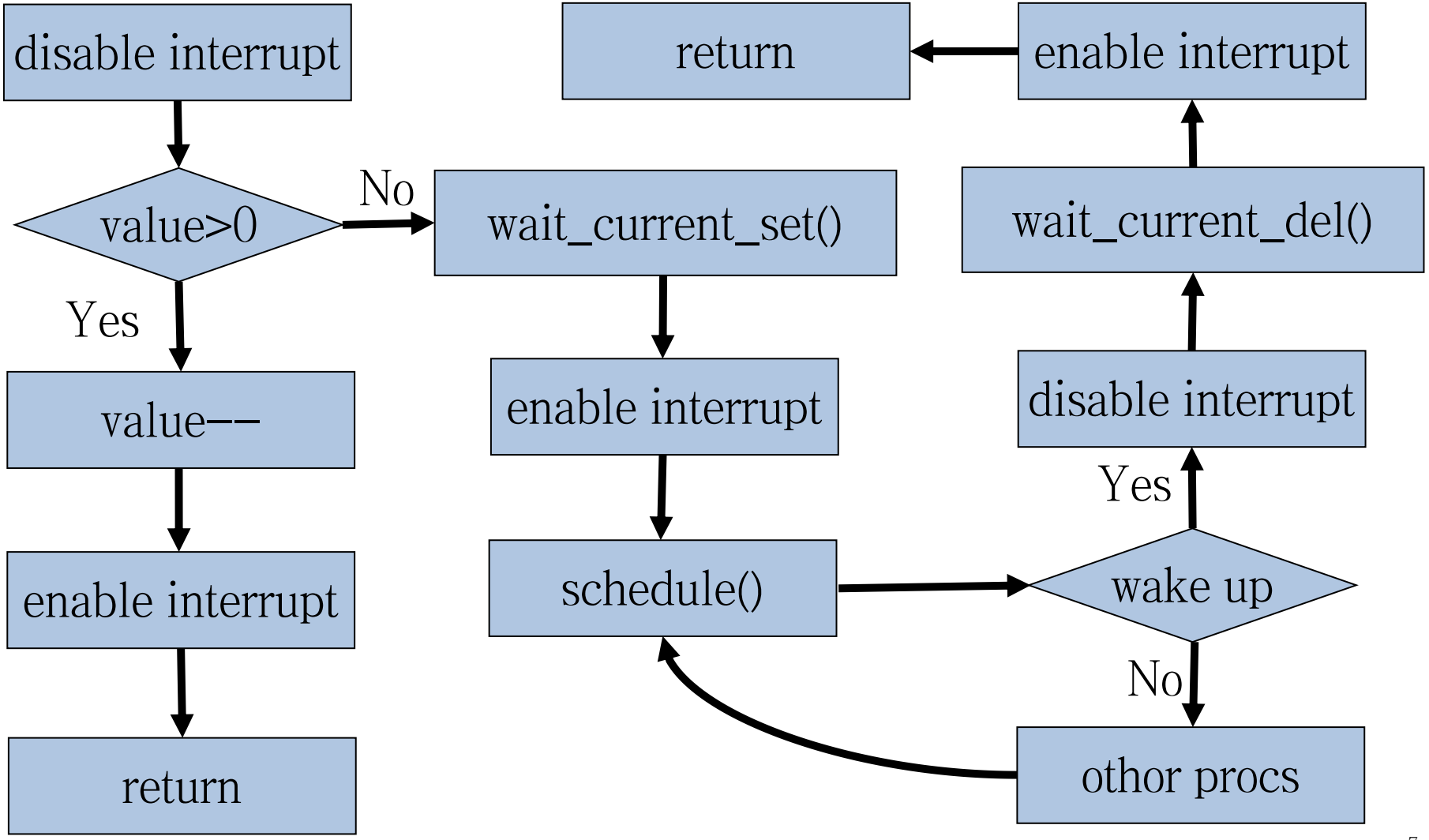
The Dining Philosophers Problem via *Semaphore*

- Semaphore Data Structure and Two Operations



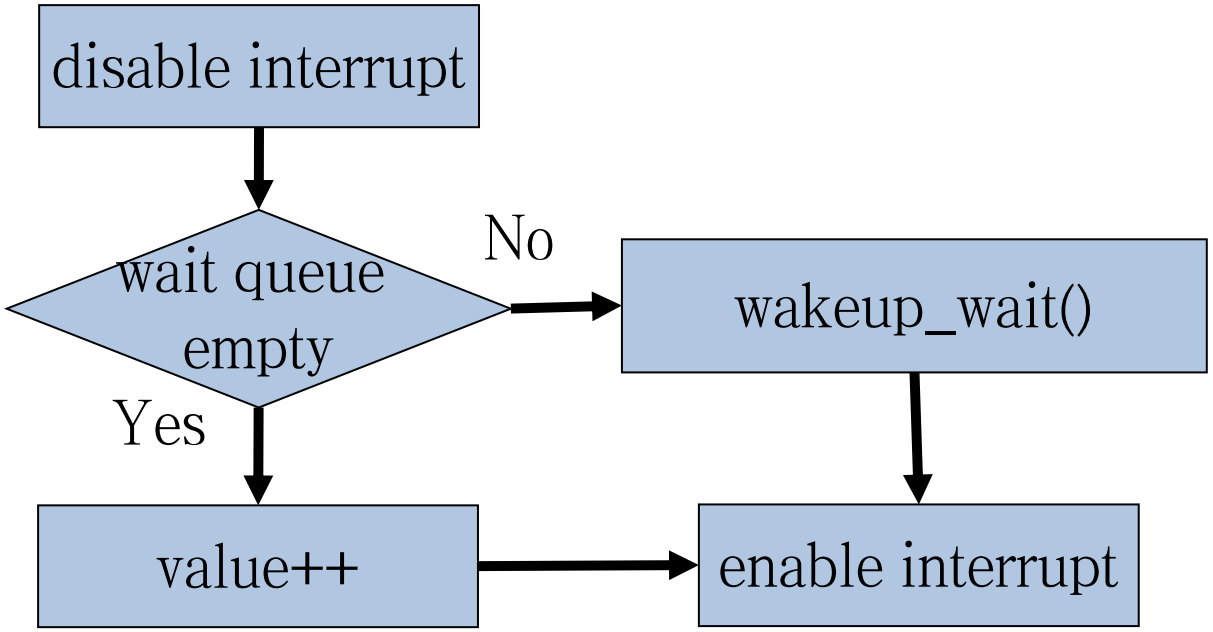
The Dining Philosophers Problem via *Semaphore*

- ***P*** operation: __down()



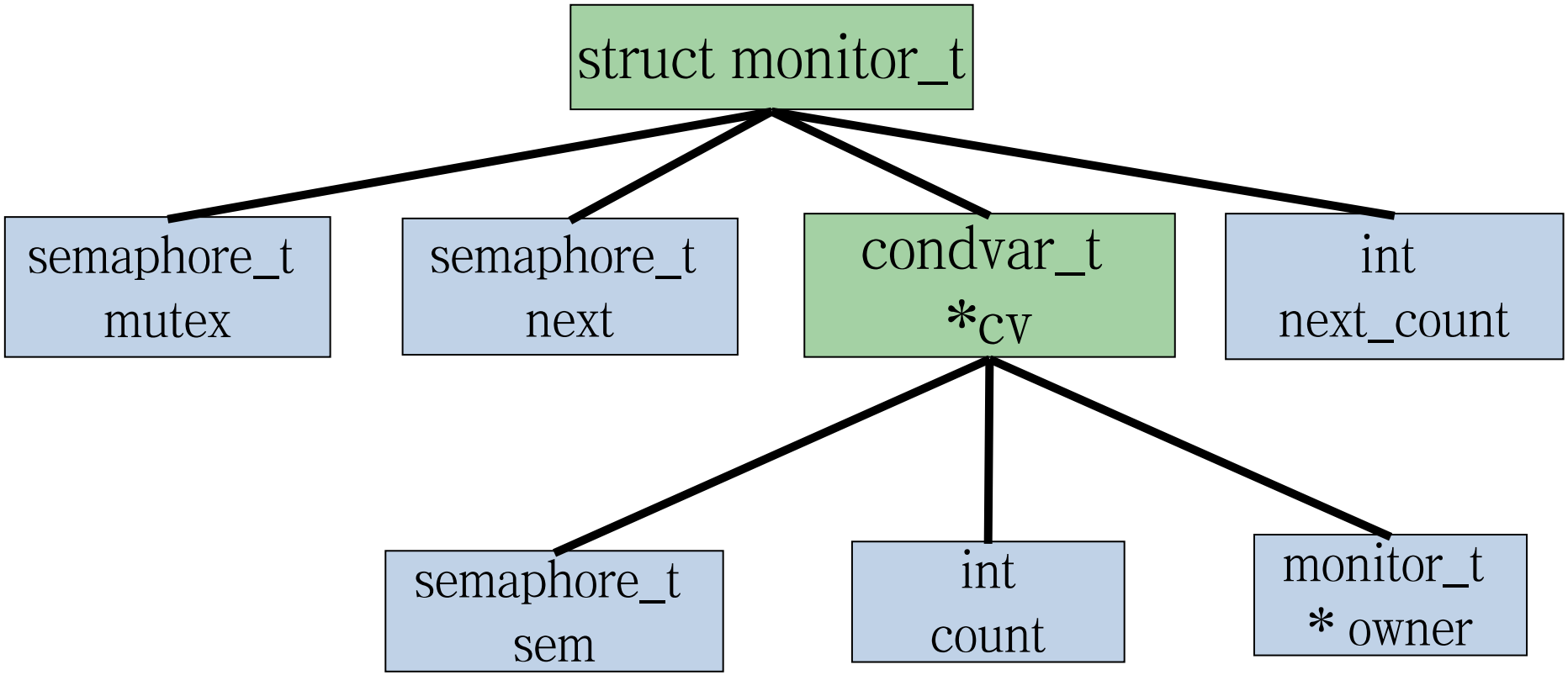
The Dining Philosophers Problem via *Semaphore*

- *V* operation: __up()



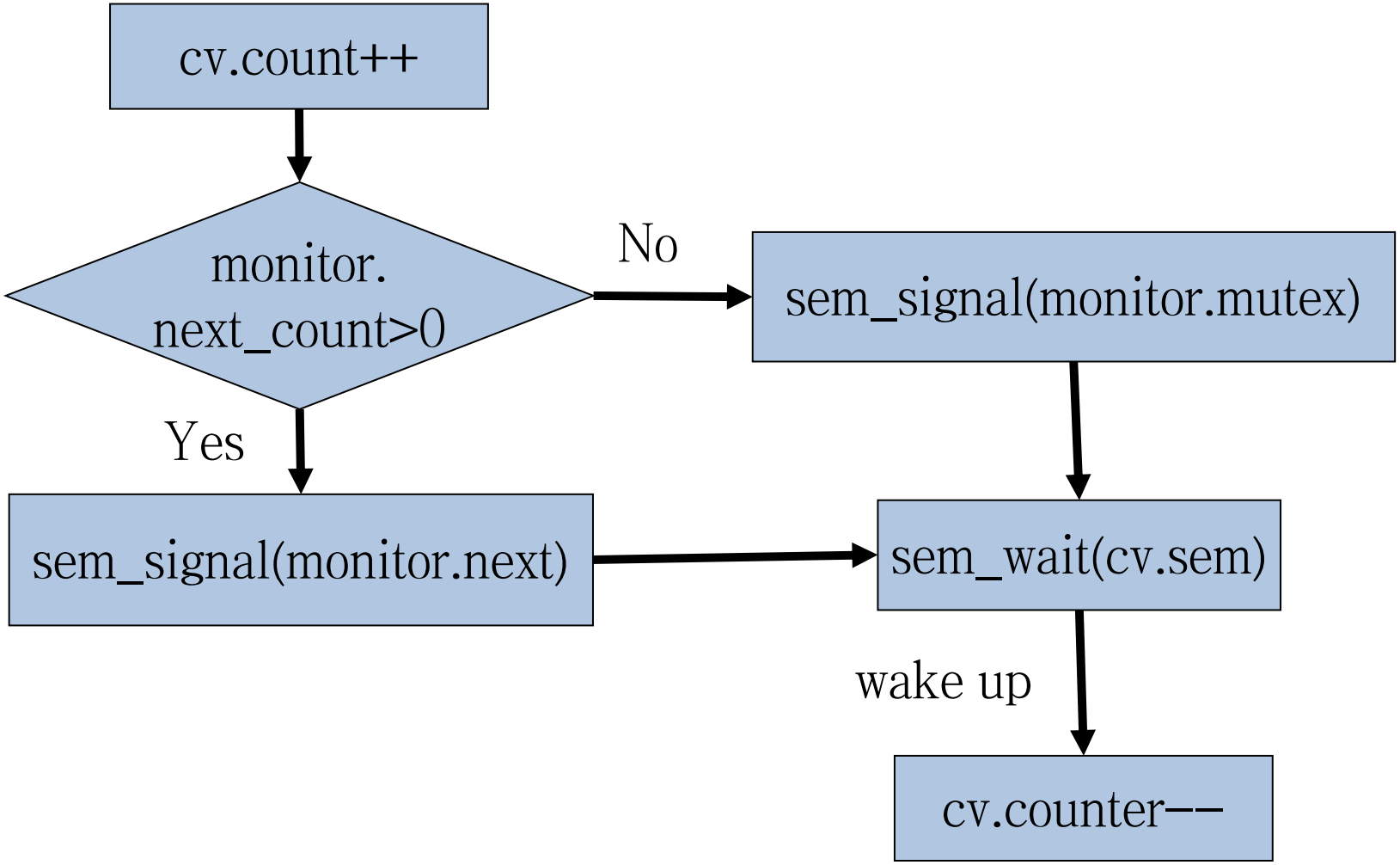
The Dining Philosophers Problem via *Monitor*

- Monitor Data Structures (\kern\sync\monitor.h)



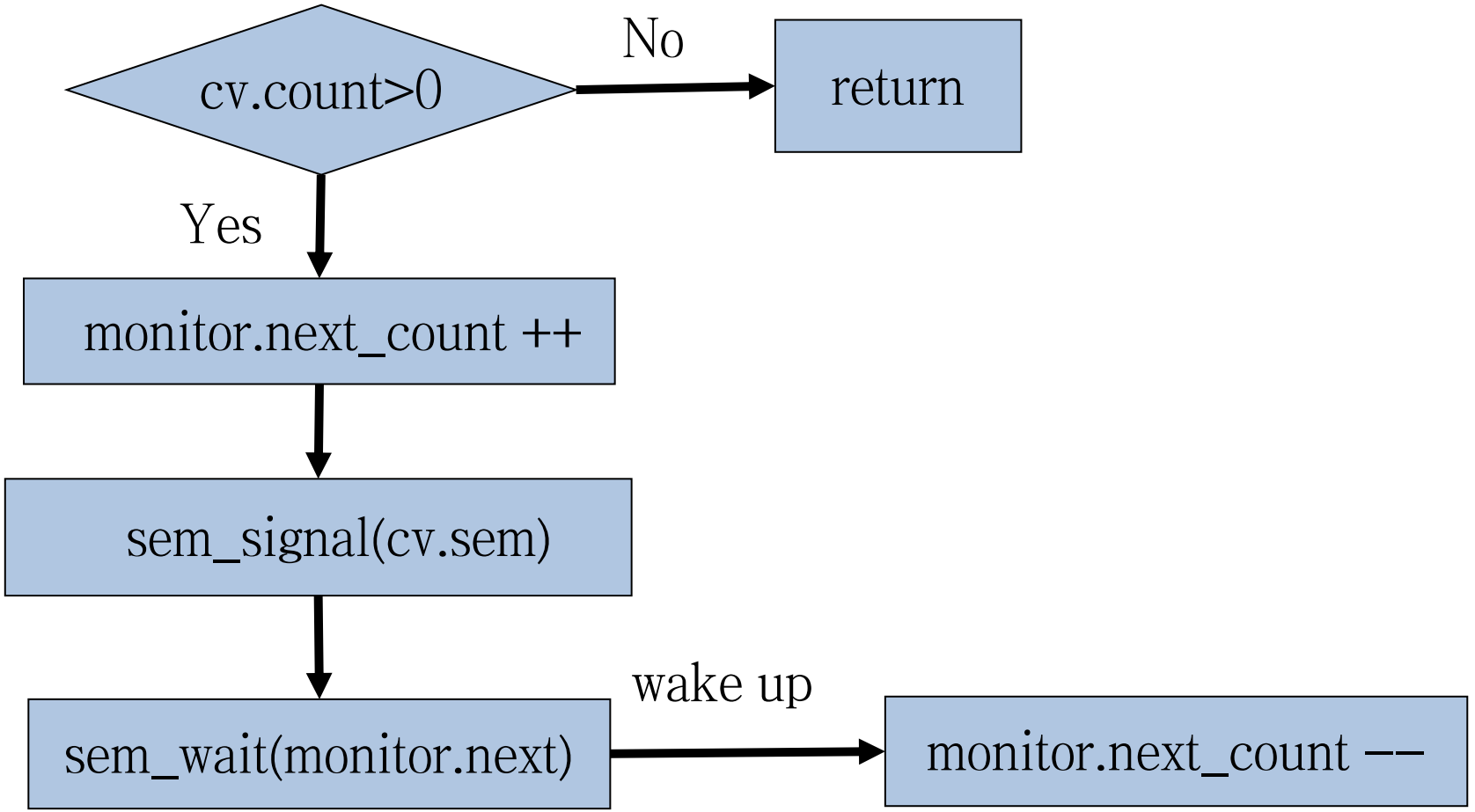
The Dining Philosophers Problem via *Semaphore*

- cond_wait() (\kern\sync\monitor.c)



The Dining Philosophers Problem via *Semaphore*

- cond_signal() (\kern\sync\monitor.c)



That's all. Thanks!