Grading Information

- Exam grades will be final on 04/16/2008.
- Please discuss any questions about the grading of a question with the person who graded that question.
- Question 1: Scott
- Question 2: Scott
- Question 3: Steve
- Question 4: Anthony
Statistics

- Class average is 64.

Class Histogram

Approximate grade breakdown

- This will give you an idea of how you scored although 5780 and 6780 are graded on different curves.

74-80   A
69-73   A-
64-68   B+
59-63   B
54-58   B-
49-53   C+
44-48   C
43-0    C-
Question 1a - 1st Option

- 4 points.
  - Read input capture time.
  - Setup for the next capture.
  - Clear the flag register.

Question 1a - 2nd Option

- 4 points.
  - Set TIOS for input capture.
  - Set DDRT to be input for the correct bits.
  - Set TCTL3/4 to setup the edge triggering.
  - Set TIE for interrupts if desired.
  - Set TSCR1/2 for an appropriate TCNT period.
  - Initially clear TFLG1.
Question 1b

- 6 points.
  - Finish the current instruction.
  - Push the registers (A,B,X,Y,CC,PC,SP) on the stack.
  - Disable interrupts.
  - Execute the ISR.
  - Pop the registers from the stack.
  - Begin executing the user code again.

Question 2a

- 10 points.
- Non-blocking scheduler.
- Key: - normal code, * semaphore code, @ waiting for the semaphore

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<thead>
<tr>
<th>Thread</th>
<th>T1</th>
<th>T2</th>
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<tbody>
<tr>
<td>Clock time</td>
<td>20ms</td>
<td>40ms</td>
<td>60ms</td>
<td>80ms</td>
<td>100ms</td>
<td>120ms</td>
<td>140ms</td>
<td>160ms</td>
<td>180ms</td>
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<tr>
<td>T1</td>
<td>T1*</td>
<td>T2</td>
<td>T2@</td>
<td>T3</td>
<td>T3@</td>
<td>T1*</td>
<td>T2*</td>
<td>T3@</td>
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<td>190ms</td>
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<td>210ms</td>
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<td>230ms</td>
<td>240ms</td>
<td>250ms</td>
<td>260ms</td>
<td>280ms</td>
<td>300ms</td>
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Question 2b

- 10 points.
- Blocking scheduler.
- Key: - normal code, * semaphore code, # put onto blocking queue

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<thead>
<tr>
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<th>T1-</th>
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<td>T1-</td>
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<td>T2#</td>
<td>T3-</td>
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<td>270ms</td>
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Question 3

- 30 points.
  - Each part was worth 10 points.
  - Reasonable solutions were given full credit.
Question 4a

10 points.

accessMutex.wait()
   <critical section for modification>
accessMutex.signal()