Reading Plus (cont.)

Read process specifications in App. C & D

- PSP1 Process: Appendix C3, pgs 617-623
- PSP1 Process Scripts: Tables C30..C33, pgs. 662..665
- PSP1 Project Plan Summary & Instructions – Table C34..C35, pgs 677..678
- Test Report Template & Instructions – Table C37..C38, pgs 681..682
- Size Estimating Template & Instructions – Table C39..C40, pgs 683..685
- PROBE Estimating Script: Table C36, pgs 679-680
Process Exercise - Assignment Kit 4S

Process version: PSSP1 Lecture Number: 4 Assignment:

**Text**
Read the last half of Chapter 5.

**Spreadsheet 4S**
Use PSSP1 to write spreadsheet 4S to generate a smart LOC/Method DB for Size Estimating

Before writing spreadsheet 4S, read the process specifications in App. C.

<table>
<thead>
<tr>
<th>Assignment Kit 4 Contents</th>
<th>Inst.</th>
<th>Order to submit assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSSP1 Process Scripts</td>
<td>n/a</td>
<td>PSSP1 Project Plan Summary</td>
</tr>
<tr>
<td>PSSP1 Script</td>
<td>n/a</td>
<td>Test Report</td>
</tr>
<tr>
<td>PSSP1 Planning Script</td>
<td>n/a</td>
<td>PIP form, including lessons learned</td>
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<tr>
<td>PSSP1 Development Script</td>
<td>n/a</td>
<td>Size Estimating Template</td>
</tr>
<tr>
<td>PSSP1 Postmortem Script</td>
<td>n/a</td>
<td>Time Recording Log</td>
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<tr>
<td>C36 PROBE Estimating Script</td>
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<td>Defect Recording Log</td>
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<tr>
<td>Forms, Templates, and Standards</td>
<td></td>
<td>Source program listing</td>
</tr>
<tr>
<td><strong>PSSP1 Project Plan Summary</strong></td>
<td>C35</td>
<td>Other requested materials</td>
</tr>
<tr>
<td><strong>C37 Test Report Template</strong></td>
<td>C38</td>
<td></td>
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<tr>
<td><strong>C39 Size Estimating Template</strong></td>
<td>C40</td>
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<tr>
<td>C27 Process Improvement Proposal</td>
<td>C28</td>
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<td>C29 Coding Standard</td>
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<td>C16 Time Recording Log</td>
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<td>C18 Defect Recording Log</td>
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<tr>
<td>C20 Defect Type Standard</td>
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</table>

### Exercise Deliverables

- **PSSP1** Project Plan Summary
- Test Report
- Size Estimating Template
- PIP forms, including a brief statement of lessons learned
- Time Recording Log
- Defect Recording Log
- Source Spreadsheet Listing (as before)
- Other Requested Material
  - Design notes
  - PSSPStu1.XLS with data to date on diskette
Assignment 4 Details

PSSP1 Exercise Report – Exit Criteria

0. The following six items
   (SfA: paragraphs one and two of C3.5)
   • Complete process data
   • Accurate and self-consistent data
   • Process Report in proper order and format
   • *Historical data used planning*
   • Neat and legible; need not be typed
   • NO cover sheets, binders, or written reports other than
     those requested

1. Test Report
   (SfA: per Table C37..C38, pages 681..682).

2. PSSP1 Project Plan Summary (SfA: Table C34 & C35, pages 677..678).

3. PIP forms, including lessons learned
   (SfA: per Table C27..C28, pgs 668..669)

4. Size Estimate
   (SfA: per Table C39..C40, pgs 683..685).

5. Time Recording Log (SfA: Table C17, page 658).

6. Defect Recording Log
   (SfA: Tables C19 and C20, pages 660-661).

7. Source Program Listing
   (SfA: personal coding standard - Exercise R2)

8. Other Requested Material
   • Test Results - Program 4S (Table D9, pg. 756)
   • PSSPStu1.XLS file with data to date
LOC/Method by type "database".

Requirements
1. An entry area for the LOC/Method with type of object.
2. Five Size Range buckets per type: VS, S, M, L, VL.
3. Bucket size calculated and populated with actual data using average and standard deviation in ln space.
4. A table showing the midpoints of size ranges by type.
5. Table augmented by bucket limits (± +/- ½ σ in ln space) "from" & "up to".
6. Frequency graph/chart showing buckets' count

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### Limits for Ranges of Size for 98 C++ Methods

<table>
<thead>
<tr>
<th>Value</th>
<th>In(LOC)</th>
<th>Ln Normalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Small</td>
<td>mean</td>
<td>1.041</td>
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<tr>
<td></td>
<td>up to</td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>mean</td>
<td>1.846</td>
</tr>
<tr>
<td></td>
<td>up to</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>mean</td>
<td>2.651</td>
</tr>
<tr>
<td></td>
<td>up to</td>
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</tr>
<tr>
<td>Large</td>
<td>mean</td>
<td>3.456</td>
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<tr>
<td></td>
<td>up to</td>
<td></td>
</tr>
<tr>
<td>Very Large</td>
<td>mean</td>
<td>4.261</td>
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</table>
Spreadsheet 4S Testing

Thoroughly test the spreadsheet. As one test, use the LOC/Method data in Table D14. While this data does NOT indicate the (true) types of the objects, you can group them by (1+modulo) of the listed object number.

As a second test, use the LOC/Method data in Table A19. As a third and fourth test, repeat the analyses using LnLOC/Method. Submit a test report that includes the test results and used the format in Table D15.

Also, run the spreadsheet on your own Object LOC/method data. If you have less than 50 data points total, do the database for all the data together (as suggested on page 131).