PSP2.1 Project Plan Summary

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| Student | Diego Andrés Montealegre García | Date | 03-03-2015 |
| Program | PSP 2.1 | Program # | 6 |
| Instructor | Luis Daniel Benavides Navarro | Language | Java |

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| **Summary** | | **Plan** | | |  | **Actual** | | |  | **To Date** | | |
| Size/Hour | | 1.6331193 | | |  | 2.3571 | | |  | 6.4666039 | | |
| Planned Time | | 90 | | |  |  | | |  | 1150 | | |
| Actual Time | |  | | |  | 112 | | |  | 875 | | |
| CPI (Cost-Performance Index) | |  | | |  |  | | |  | 1.314285 | | |
|  | |  | | |  |  | | |  | (Planned/Actual) | | |
| % Reuse | | 67.3527% | | |  | 54.9242% | | |  | 13.4674% | | |
| % New Reusable | | 32.6427% | | |  | 17.4242% | | |  | 4.72% | | |
| Test Defects/KLOC or equivalent | | 4 | | |  | 1 | | |  | 1 | | |
| Total Defects/KLOC or equivalent | | 16 | | |  | 4 | | |  | 4 | | |
| Yield % | | 0% | | |  | 0% | | |  | 0% | | |
| ***% Appraisal COQ*** | | 3.33% | | |  | 13.39% | | |  | 13.39% | | |
| ***% Failure COQ*** | | 71.11% | | |  | 41.96% | | |  | 41.96% | | |
| ***COQ A/F Ratio*** | | 0,046828856700 | | |  | 0.319113 | | |  |  | | |
| ***PQI*** | | 0,010202 | | |  | 0,62794349 | | |  | 0,62794349 | | |
|  | |  | | |  |  | | |  |  | | |
| **Program Size** | | **Plan** | | |  | **Actual** | | |  | **To Date** | | |
| Base (B) | | 99 | | |  | 0 | | |  |  | | |
|  | | (Measured) | | |  | (Measured) | | |  |  | | |
| Deleted (D) | | 0 | | |  | 0 | | |  |  | | |
|  | | (Estimated) | | |  | (Counted) | | |  |  | | |
| Modified (M) | | 0 | | |  | 0 | | |  |  | | |
|  | | (Estimated) | | |  | (Counted) | | |  |  | | |
| Added (A) | 47.98073361 | | | |  | 119 | | |  |  | | |
|  | (A+M − M) | | | |  | (T − B + D − R) | | |  |  | | |
| Reused (R) | 99 | | | |  | 145 | | |  | 174 | | |
|  | (Estimated) | | | |  | (Counted) | | |  |  | | |
| Added and Modified (A+M) | 47.98073361 | | | |  | 46 | | |  | 949 | | |
|  | (Projected) | | | |  | (A + M) | | |  |  | | |
| Total Size (T) | 146.9807336 | | | |  | 264 | | |  | 1292 | | |
|  | (A+M + B − M − D + R) | | | |  | (Measured) | | |  |  | | |
| Total New Reusable | 47.98073361 | | | |  | 46 | | |  | 61 | | |
|  |  | | | |  |  | | |  |  | | |
| Estimated Proxy Size (E) | 165 | | | |  |  | | |  |  | | |
|  | |  | | |  |  | | |  |  | | |
| ***Upper Prediction Interval (70%)*** | | 275.9688 | | |  |  | | |  |  | | |
| ***Lower Prediction Interval (70%)*** | | 48.70037 | | |  |  | | |  |  | | |
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| **Time in Phase (min.)** | **Plan** |  | | **Actual** | | | | |  | | **To Date** | | |  | | **To Date %** | |
| Planning | 6 |  | | 15 | | | | |  | | 70 | | |  | | 8,13953488 | |
| Design | 4 |  | | 10 | | | | |  | | 50 | | |  | | 5,81395349 | |
| Design Review | 1 |  | | 10 | | | | |  | | 14 | | |  | | 1,62790698 | |
| Code | 52 |  | | 35 | | | | |  | | 459 | | |  | | 53,372093 | |
| Code Review | 2 |  | | 5 | | | | |  | | 20 | | |  | | 2,3255814 | |
| Compile | 0 |  | | 0 | | | | |  | | 0 | | |  | | 0 | |
| Test | 12 |  | | 12 | | | | |  | | 107 | | |  | | 12,4418605 | |
| Postmortem | 13 |  | | 25 | | | | |  | | 140 | | |  | | 16,2790698 | |
| Total | 90 |  | | 112 | | | | |  | | 860 | | |  | | 8,13953488 | |
| ***Total Time UPI (70%)*** | 275,9688 |  | |  | | | | |  | |  | | |  | |  | |
| ***Total Time LPI (70%)*** | 48,70037 |  | |  | | | | |  | |  | | |  | |  | |
|  |  | |  | |  | | |  | |  | | | | |  | |  |
| **Defects Injected** | **Plan** | |  | | **Actual** | | |  | | **To Date** | | | | |  | | **To Date %** |
| Planning | 0 | |  | | 0 | | |  | | 0 | | | | |  | | 0% |
| Design | 2 | |  | | 1 | | |  | | 1 | | | | |  | | 11.11% |
| Design Review | 2 | |  | | 1 | | |  | | 1 | | | | |  | | 11.11% |
| Code | 4 | |  | | 1 | | |  | | 6 | | | | |  | | 66.66% |
| Code Review | 4 | |  | | 0 | | |  | | 0 | | | | |  | | 0% |
| Compile | 0 | |  | | 0 | | |  | | 0 | | | | |  | | 0% |
| Test | 4 | |  | | 1 | | |  | | 1 | | | | |  | | 11.11% |
| Total Development | 16 | |  | | 4 | | |  | | 9 | | | | |  | | 100% |
|  |  | |  | |  | | |  | |  | | | | |  | |  |
| **Defects Removed** | **Plan** | |  | | **Actual** | | |  | | **To Date** | | | | |  | | **To Date %** |
| Planning | 0 | |  | | 0 | | |  | | 0 | | | | |  | | 0% |
| Design | 2 | |  | | 1 | | |  | | 1 | | | | |  | | 11.11% |
| Design Review | 2 | |  | | 1 | | |  | | 1 | | | | |  | | 11.11% |
| Code | 4 | |  | | 1 | | |  | | 6 | | | | |  | | 66.66% |
| Code Review | 4 | |  | | 0 | | |  | | 0 | | | | |  | | 0% |
| Compile | 0 | |  | | 0 | | |  | | 0 | | | | |  | | 0% |
| Test | 4 | |  | | 1 | | |  | | 1 | | | | |  | | 11.11% |
| Total Development | 4 | |  | | 3 | | |  | | 9 | | | | |  | | 100% |
| After Development | 0 | |  | | 0 | | |  | | 0 | | | | |  | |  |
|  |  | | | | |  |  | | | | |  |  | | | | |
| **Defect Removal Efficiency** | **Plan** | | | | |  | **Actual** | | | | |  | **To Date** | | | | |
| Defects/Hour − Design Review | 2 | | | | |  | 1 | | | | |  | 1 | | | | |
| Defects/Hour − Code Review | 4 | | | | |  | 0 | | | | |  | 0 | | | | |
| Defects/Hour − Compile | 0 | | | | |  | 0 | | | | |  | 0 | | | | |
| Defects/Hour − Test | 4 | | | | |  | 1 | | | | |  | 1 | | | | |
| DRL (DLDR/UT) | 0 | | | | |  | 0 | | | | |  | 0 | | | | |
| DRL (Code Review/UT) | 0 | | | | |  | 0 | | | | |  | 0 | | | | |
| DRL (Compile/UT) | 0 | | | | |  | 0 | | | | |  | 0 | | | | |

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| **PSP2.1 Plan Summary Instructions** | |  |
| **Purpose** | To hold the plan and actual data for programs or program parts | |
| **General** | * Use the most appropriate size measure, either LOC or element count. * “To Date” is the total actual to-date values for all products developed. * A part could be a module, component, product, or system. | |
| **Header** | * Enter your name and the date. * Enter the program name and number. * Enter the instructor’s name and the programming language you are using. | |
| **Summary** | * Enter the added and modified size per hour planned, actual, and to-date. * Enter the planned and actual times for this program and prior programs. * For planned time to date, use the sum of the current planned time and the to-date planned time for the most recent prior program. * CPI = (To Date Planned Time)/(To Date Actual Time). * Reuse % is reused size as a percentage of total program size. * New Reusable % is new reusable size as a percentage of added and modified size. * Enter the test and total defects/KLOC or other appropriate measure. * Enter the planned, actual, and to-date yield before compile. | |
| ***Quality Indicators*** | * ***Appraisal COQ: the percentage of development time in reviews.*** * ***Failure COQ: the percentage of development time in compile and test.*** * ***A/FR: the ratio of appraisal to failure COQ.*** * ***Enter the planned, actual, and to-date PQI (the process quality index)*** | |
| **Program Size** | * Enter plan base, deleted, modified, reused, new reusable, and total size from the Size Estimating template. * Enter the plan added and modified size value (A+M) from projected added and modified size (P) on the Size Estimating template. * Calculate plan added size as A+M – M. * Enter estimated proxy size (E) from the Size Estimating template. * Enter actual base, deleted, modified, reused, total, and new reusable size from the Size Estimating template. * Calculate actual added size as T-B+D-R and actual added and modified size as A+M. * Enter to-date reused, added and modified, total, and new reusable size. | |
| **Time in Phase** | * Enter plan total time in phase from the estimated total development time on the Size Estimating template. * Distribute the estimated total time across the development phases according to the To Date % for the most recently developed program. * Enter the actual time by phase and the total time. * To Date: Enter the sum of the actual times for this program plus the to-date times from the most recently developed program. * To Date %: Enter the percentage of to-date time in each phase. | |
| ***Prediction Interval*** | * ***Enter the 70% UPI and LPI total size and time ranges.*** | |

**(continued)**

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| **PSP2.1 Plan Summary Instructions (continued)** | |  |
| **Defects Injected** | * Enter the total estimated defects injected. * Distribute the estimated total defects across the development phases according to the To Date % for the most recently developed program. * Enter the actual defects by phase and the total actual defects. * To Date: Enter the sum of the actual defects injected by phase and the to-date values for the most recent previously developed program. * To Date %: Enter the percentage of the to-date defects injected by phase. | |
| **Defects Removed** | * Enter the estimated total defects removed. * Distribute the estimated total defects across the development phases according to the To Date % for the most recently developed program. * To Date: Enter the actual defects removed by phase plus the To Date values for the most recent previously developed program. * To Date %: Enter the percentage of the To Date defects removed by phase. * After development, record any defects subsequently found during program testing, use, reuse, or modification. | |
| **Defect-Removal Efficiency** | * Calculate and enter the defects removed per hour in design review, code review, compile, and test. * For DRL, take the ratio of the review and compile rates with test. * Where there were no test defects, use the to-date test defect/hour value. | |