



PSP Advanced

Day Four Agenda

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PSP Advanced: Day Four Agenda      June 2010

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## Class Discussion

Class discussion

Design Templates	Design Verification
PROBE Methods	Correlation & Significance
Prediction Interval	Confidence Interval
Size Estimation	Earned Value
Planning Performance	Leading vs. Lagging Indicators
Quality Performance	

Were you surprised by anything?  
Common process issues

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Discuss any issues the students might be having with the new concepts they learned thus far in the course.

Review the Leading and Lagging Indicators and the Quality Performance metrics. Some of this will be covered as you go through the new Class data graphs. The metrics included:

- Phase & Process Yield
- Defect Removal Leverage (DRL)
- Defect Density
- Appraisal & Failure COQ
- Appraisal to Failure Ratio (A/FR)
- Defect injection & Removal by phase and type
- Review Rates
- Process Quality Profile
- Process Quality Index (PQI)
- Capture – Recapture

PSP2 and PSP2.1 Common Errors:

- Design and Code Reviews
- review rate > 200 LOC/hr
- review time < 50% of development time (e.g. 50 min in code and less than 25 minutes in code review)
- review checklists not detailed enough
- not taking a break before starting a review not reviewing on paper reviewing at the wrong time of day relying on test to remove a high percentage of code defects
- Checklists are not maintained (You could ask them to provide some kind of change log)

Common Errors with PSP2.1 Designs



- not using the templates

## Class Data Review

Number of assignment submitted	Defects found in design review
Actual development time	Defects found in code review
Time estimating error	Defects found in compile
Design time	Defects found in test
Compile time	Yield
Test time	Productivity
Actual size	Yield vs. Productivity
Size estimating error	Yield vs. A/FR
Size vs. development time	Total Quality Costs
Total defects	Appraisal Costs
Defects injected in design	Appraisal to Failure Ratio
Defect injected in coding	Yield vs. COQ
Defect removal rates	A/FR vs. Test Defects
Compile vs. test defects	

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Open the instructor's tool and walk through the graphs of interest. Make sure to cover all the new quality graphs. Don't spend too much time on graphs that haven't really changed since yesterday.

NOTE: You should review these graphs prior to starting the course in order to identify your talking points. Try to point out interesting trends and outliers. Focus on analyzing the graphs, not just reading them to the class. The students will need to understand the difference between just reading a graph and analyzing one in order to create a good Performance Analysis Report at the end of this course.



## Course Agenda - Day 4

- 8:00 Continental breakfast
- 8:15 Class data feedback
- 9:00 L8: Defining and Improving Personal Processes
- 10:00 Break
- 10:15 Performance Analysis Report Assignment
- 10:45 Define Report Process
- 11:15 Process Definition Tool Tutorial
- 12:00 Lunch
- 1:00 Lab session
  - Begin Performance Analysis Report





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