



This tutorial will cover PSP 2.1

Lecture Topics

Understand the new elements of PSP2.1 and how to use the PSP2.1 scripts and forms.

Please make a copy of your student database,
as you will be exploring the tool and experimenting with the options

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We will go over the PSP 2.1 tool changes.

It may be a good idea to have the students bring up their student tool.

Engaging the class to look at their tool will also help keep the focus on the tutorial and eliminate internet surfing and email correspondence during the lecture.



New Process Elements

PSP2.1 adds the following process elements:

- PSP2.1 design review script
- PSP2.1 design review checklist
- operational specification template
- functional specification template
- state specification template
- logic specification template

We covered these process elements yesterday when we prepared for Program 5. Today our focus will be on the new PSP tool elements used with PSP 2.1



Project Plan Summary Example

We will walk through an example of a PSP2.1 project plan summary.

Only the new items on this form are discussed.



Program Size Prediction Intervals

Program size prediction intervals are automatically calculated using the method described in the text.

1. UPI – upper prediction interval
2. LPI – lower prediction interval

These values are calculated only if PROBE method A or B is used.

Program Size Summary		LOC-Lines of code	
	Plan Size	Actual Size	To Date
Base (B)	0	0	
Deleted (D)	0	0	
Modified (M)	0	0	
Added (A)	0	0	
Reused (R)	0	0	0
Added & Modified (ADM)	0	0	0
Total (T)	0	0	0
New Reusable (NR)	0	0	0
Estimated ADM (E)	0		
UPI			
LPI			

Further Prediction Interval discussion will follow as we discuss PROBE Methods A & B



Development Time Prediction Intervals

Development time prediction intervals are automatically calculated using the method described in the text.

1. UPI – upper prediction interval
2. LPI – lower prediction interval

These values are calculated only if PROBE method A or B is used.

Time in Phase				
Phase	Plan	Actual	ToDate	ToDate%
PLAN	0.0	0	0	0.0%
CLD	0.0	0	0	0.0%
CLDR	0.0	0	0	0.0%
CODE	0.0	0	0	0.0%
CR	0.0	0	0	0.0%
COMPILE	0.0	0	0	0.0%
UT	0.0	0	0	0.0%
PM	0.0	0	0	0.0%
Total		0	0	0
UPI				
LPI				

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Further Prediction Interval discussion will follow as we discuss PROBE Methods A & B



PSP Advanced: Tutorial: PSP2.1 with the Student Workbook

Summary: Percent Appraisal COQ

1. % Appraisal Cost of Quality is the percentage of development time spent in design review and code review.

Summary	Plan	Actual	To-Date
Productivity	0.0	0.0	0.0
Planned Time	0.0		0.0
Actual Time		0.0	0.0
CR			0.0
%Planned	0.0	0.0	0.0
%New Resizable	0.0	0.0	0.0
Test Detects/KLOC	0.0	0.0	0.0
Total Detects/KLOC	0.0	0.0	0.0
Yield%	0.0	0.0	0.0
%Appraisal COQ	0.0	0.0	0.0
%Failure COQ	0.0	0.0	0.0
COQ A/F Ratio	0.0	0.0	0.0
PdI	0.0	0.0	0.0

$$\% \text{ Appraisal COQ} = 100 \cdot \frac{\text{Design Review Time} + \text{Code Review Time}}{\text{Total Development Time}}$$

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We are only pointing out the existence of data in the tool. It will be discussed this topic in more detail when we cover quality.

Summary: Percent Failure COQ

1. % Failure Cost of Quality is the percentage of development time spent in compile and test.

Summary	Plan	Actual	To-Date
Productivity	0.0	0.0	0.0
Planned Time	0.0		0.0
Actual Time		0.0	0.0
CPH			0.0
%Reused	0.0	0.0	0.0
%New Reusable	0.0	0.0	0.0
Test Defects/KLOC	0.0	0.0	0.0
Total Defects/KLOC	0.0	0.0	0.0
Yield%	0.0	0.0	0.0
%Approved COQ	0.0	0.0	0.0
%Failure COQ	0.0	0.0	0.0
COQ A/F Ratio	0.0	0.0	0.0
PdI	0.0	0.0	0.0

$$\% \text{ Failure COQ} = 100 \cdot \frac{\text{Compile Time} + \text{Test Time}}{\text{Total Development Time}}$$

We are only pointing out the existence of data in the tool. It will be discussed this topic in more detail when we cover quality.



COQ A/F Ratio

1. COQ A/F Ratio is the ratio of appraisal costs to failure costs.

Summary	Plan	Actual	To-Date
Productivity	0.0	0.0	0.0
Planned Time	0.0		0.0
Actual Time		0.0	0.0
CPH			0.0
%Reused	0.0	0.0	0.0
%New Reusable	0.0	0.0	0.0
Total Defects/KLOC	0.0	0.0	0.0
Total Defects/KLOC	0.0	0.0	0.0
Yield%	0.0	0.0	0.0
%Appraisal COQ	0.0	0.0	0.0
%Failure COQ	0.0	0.0	0.0
COQ A/F Ratio	0.0	0.0	0.0
PdI	0.0	0.0	0.0

$$\% \text{ COQ A/F Ratio} = \frac{\% \text{ Appraisal COQ}}{\% \text{ Failure COQ}}$$

We are only pointing out the existence of data in the tool. It will be discussed this topic in more detail when we cover quality.



Messages to Remember



PSP2.1 provides data that allows you to manage the cost of improving the quality of the programs you write.



