 **Software Engineering Institute** | Carnegie Mellon

PSP Advanced

Tutorial:
Process Definition Tool

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PSP Advanced: Tutorial: Process Definition Tool June 2010

Lecture Topics

Understand how to define a new process in the Access Student Workbook



Basic Steps for Defining a Report Process Tutorial

Open computers and:

- Make a backup of your Access Student Workbook
- Open the Student Workbook
- Define a process
- Define a size measure for the process
- Create a new project
- Open the Size Estimating Template in the new project
- Do a conceptual design for the new project
- Enter the objects of the conceptual design in the Size Estimating template
- Estimate size (PROBE method D)
- Estimate effort (PROBE method D)

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Define the Process

PSP Processes

Symbol:

Name:

Purpose:

Type: ☒ RPT ☐ PSP Plan Summary: ☒ PSP1

Phases

ID	Sequence	Phase	Name
51	1	PLAN	Planning
52	2	Analyze	Analyze PSP Data
53	3	Write	Write the report
54	4	Review	Review the report
55	5	PM	Postmortem
<input checked="" type="checkbox"/> (Unlabeled)			

The process example, used in this presentation, is for creating a PSP Final Report. This is a good example of the type of process the students should use for their “Performance Analysis Report.”



Define a Size Measure

Size Measure

Symbol: LOT Name: Lines of text:

Description:

Relative Size Table

Update

Part Type	Description	VS	S	M	L	VL
analyse	analyse paragraph	4	0	15	25	35
		0	0	0	0	0

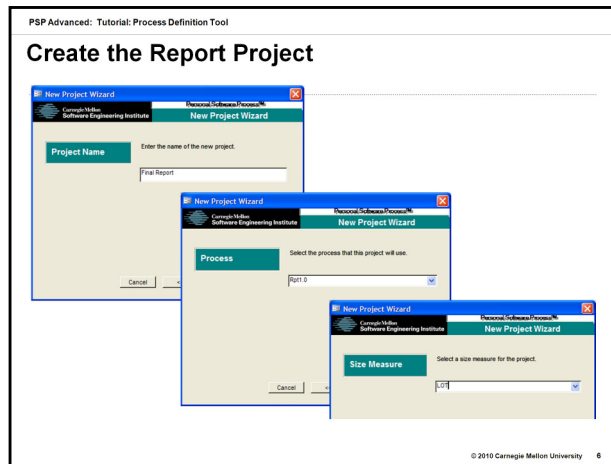
Parts Database

Part ID	Size Measure	LOC Type	Part Type	Name	Size	ContainerName
1	LOT	S	S	1	0	1

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This example uses Lines of Text. They could consider other measures, such as number of words, pages, paragraphs, graphs, etc.





Note: the current version of the access student tool has a limitation of 10 characters for the project name.

If the student uses more than 10 characters for the project name, it will cause a field size error when the student attempts to create an assignment submission file.



Enter the Conceptual Design

Software Engineering Institute PSP Size Estimating Template

Student: db Start Date: 06-Oct-06
 Program: Final Report End Date:
 Instructor: jwo Language: Visual Basic

Parts: Base		Plan			Actual				
ID	Name	Base	Del.	Mod.	Add	Base	Del.	Mod.	Add
1	1	0	0	0	0	0	0	0	0
Base TOTAL		0	0	0	0	0	0	0	0

Parts: Added		Plan			Actual		
ID	Name	Part Type	Items	Ref. S.	Size	Items	Size
1	size analysis	analysis	1	L	25.0	0	0
1	time analysis	analysis	1	M	15.0	0	0
1			0		0.0	0	0
Added Parts TOTAL			40			0	



Estimate Size and Effort

Carnegie Mellon Software Engineering Institute		PSP Size Estimating Template	
PROBE Calculation Worksheet			
Added Size (A):	$A=BA+PA$	40	
Estimated AAM (E):	$E=BA+PA+M$	40	
PROBE method used: (A,B,C,D)		0 <input checked="" type="checkbox"/>	0 <input checked="" type="checkbox"/>
Correlation (R^2):			
Regression Parameter (B0):	Size and Time	0	0
Regression Parameter (B1):	Size and Time	1	1
Projected AAM (P):	$P=B0+B1E$	40	
Estimated Total Size (T):	$T=P+B-D-M+R$	40	
Estimated Total New Reusable (NR):	sum of * items	0	
Estimated Total Development Time:	$Time=B0+B1E$		60
Prediction Range:	Range	0	0
Upper Prediction Interval:	$UPI=P+Range$	0	0
Lower Prediction Interval:	$LPI=P-Range$	0	0
Prediction Interval Percent:		70%	70%



Plan Summary

Carnegie Mellon Software Engineering Institute PSP Project Plan Summary

Student: ds Start Date: 06-Oct-06
 Program: Final Report End Date:
 Instructor: jwb Language: Visual Basic

Summary

	Plan	Actual	To Date
Productivity	40.0	0.0	0.0

Program Size Summary LOT=Lines of text

	Plan Size	Actual Size	To Date
Base (B)	0.00	0.00	
Deleted (D)	0.00	0.00	
Modified (M)	0.00	0.00	
Added (A)	40.00	0.00	
Reused (R)	0.00	0.00	0.00
Added & Modified (A&M)	40.00	0.00	0.00
Total (T)	40.00	0.00	0.00
New Reusable (NR)	0.00	0.00	0.00
Estimated A&M (E)	40.00		

Time in Phase

Phase	Plan	Actual	To Date	To Date%
PLAN	5	0	0	0.0%
Analyze	20	0	0	0.0%
Write	20	0	0	0.0%
Review	10	0	0	0.0%
PM	5	0	0	0.0%
Total	60	0	0	

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Messages to Remember

The Access Student Workbook can be used to:

- Define a non-software process
- Define a non-software size measure
- Create a non-software project
- Plan a non-software project



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Plan Your Performance Analysis Report

Enter the report process you created in the Access Student Workbook:

1. Enter your process
2. Define its measures
3. Create a new project
4. Create a conceptual design for the new project
5. Estimate size and effort for the new project
6. Review Plan Summary

If you have any questions or issues, ask your instructor for assistance.

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You should not spend more than 30-45 minutes on this exercise. Once the majority of the students have completed the exercise, continue with assigning the Performance Analysis Report. You can then work with the students having tool issues, one-on-one, without holding up the rest of the class.



