Table C55 PSP2 Project Plan Summary

Student		Date	
Program		Program #	
Instructor		Language	

Summary	Plan	Actual	To Date
LOC/Hour			
Planned Time			
Actual Time			
CPI(Cost-Performance Index)			
			(Planned/Actual)
% Reused			
% New Reused			
Test Defects/KLOC			
Total Defects/KLOC			
Yield %			

Program Size (LOC):	Plan	Actual	To Date
Base(B)	(Measured)	(Measured)	
Deleted (D)	(Estimated)	(Counted)	
Modified (M)	(Estimated)	(Counted)	
Added (A)	(N-M)	(T-B+D-R)	
Reused (R)	(Estimated)	(Counted)	
Total New & Changed (N)	(Estimated)	(A+M)	
Total LOC (T)	(N+B-M-D+R)	(Measured)	
Total New Reused			
Upper Prediction Interval (70%)			
Lower Prediction Interval (70%)			

Time in Phase (min.)	Plan	Actual	To Date	To Date %
Planning				
Design				
Design review				
Code				
Code review				
Compile				
Test				
Postmortem				
Total				
Total Time UPI (70%)				
Total Time LPI (70%)				

(continued)

Table C55 PSP2 Project Plan Summary (continued)

Student _____ Date _____
Program _____ Program # _____
Instructor _____ Language _____

Defects Injected	Plan	Actual	To Date	To Date %
Planning	_____	_____	_____	_____
Design	_____	_____	_____	_____
Design review	_____	_____	_____	_____
Code	_____	_____	_____	_____
Code review	_____	_____	_____	_____
Compile	_____	_____	_____	_____
Test	_____	_____	_____	_____
Total Development	_____	_____	_____	_____

Defects Removed	Plan	Actual	To Date	To Date %
Planning	_____	_____	_____	_____
Design	_____	_____	_____	_____
Design review	_____	_____	_____	_____
Code	_____	_____	_____	_____
Code review	_____	_____	_____	_____
Compile	_____	_____	_____	_____
Test	_____	_____	_____	_____
Total Development	_____	_____	_____	_____
After Development	_____	_____	_____	_____

Defect Removal Efficiency	Plan	Actual	To Date
Defects/Hour - Design review	_____	_____	_____
Defects/Hour - Code review	_____	_____	_____
Defects/Hour - Compile	_____	_____	_____
Defects/Hour - Test	_____	_____	_____
DRL(DLDR/UT)	_____	_____	_____
DRL(CodeReview/UT)	_____	_____	_____
DRL(Compile/UT)	_____	_____	_____

Table C57 C++ PSP2 Design Review Checklist

PROGRAM NAME AND #:

Purpose	To guide you in conducting an effective design review				
General	As you complete each review step, check that item in the box to the right. Complete the checklist for one program unit before you start to review the next.				
Complete	Ensure that the requirements, specifications, and high-level design are completely covered by the design: - all specified outputs are produced - all needed inputs are furnished - all required includes are stated				
Logic	Verify that program sequencing is proper: - that stacks, lists, etc. are in the proper order - that recursion unwinds properly Verify that all loops are properly initiated, incremented, and terminated				
Special Cases	Check all special cases: - empty, full, minimum, maximum, negative, zero - out of limits, overflow, underflow - ensure "impossible" conditions are absolutely impossible - handle all incorrect input conditions				
Functional use	Verify that all functions, procedures, or objects are fully understood and properly used Verify that all externally referenced abstractions are precisely defined				
Names	Verify that: - all special names and types are clear or specifically defined - the scopes of all variables and parameters are self-evident or defined - all named objects are used within their declared scopes				
Standards	Review the design for conformance to all applicable design standards				

Table C58 C++ Code Review Checklist

PROGRAM NAME AND #:

Purpose	To guide you in conducting an effective code review.				
General	As you complete each review step, check that item in the box to the right. Complete the checklist for one program unit before you start to review the next.				
Complete	Verify that the code covers all the design.				
Includes	Verify that includes are complete				
Initialization	Check variable and parameter initialization: - at program initiation - at start of every loop - at function/procedure entry				
Calls	Check function call formats: - pointers - parameters - use of '&'				
Names	Check name spelling and use: - is it consistent? - is it within declared scope? - do all structures and classes use '.' reference?				
Strings	Check that all strings are - identified by pointers and - terminated in NULL.				
Pointers	Check that - pointers are initialized NULL - pointers are deleted only after new, and - new pointers are always deleted after use.				
Output Format	Check the output format: - line stepping is proper - spacing is proper				
{} Pairs	Ensure that the {} are proper and matched				
Logic Operators	Verify the proper use of ==, =, ‖, and so on. Check every logic function for proper ().				
Line by Line Check	Check every LOC for - instruction syntax and - proper punctuation.				
Standards	Ensure that the code conforms to the coding standards.				
File Open and Close	Verify that all files are - properly declared, - opened, and - closed.				

TABLE C39 SIZE ESTIMATING TEMPLATE

Student _____ Date _____

Instructor_____ Program # _____

BASE PROGRAM LOC				ESTIMATE	ACTUAL
BASE SIZE (B) => => => => => => => => =>				_____	_____
LOC DELETED (D) => => => => => => => =>				_____	_____
LOC MODIFIED (M) => => => => => => => =>				_____	_____

OBJECT LOC

BASE ADDITIONS	TYPE[1]	METHODS	REL. SIZE	LOC	LOC
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
TOTAL BASE ADDITIONS (BA)=> => => => => =>				_____	_____

NEW OBJECTS	TYPE	METHODS	REL. SIZE	LOC (New Reused*)	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
TOTAL NEW OBJECTS (NO)=> => => => => => =>				_____	_____

REUSED OBJECTS

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
REUSED TOTAL (R) => => => => => => =>	_____	_____	

		SIZE	TIME
Estimated Object LOC (E):	$E=BA+NO+M$	_____	
Regression Parameters:	β_0 (size and time)	_____	_____
Regression Parameters:	β_1 (size and time)	_____	_____
Estimated New and Changed LOC (N):	$N=\beta_0+\beta_1{}^*E$	_____	
Estimated Total LOC:	$T=N+B-D-M+R$	_____	
Estimated Total New Reuse (sum of * LOC):		_____	
Estimated Total Development Time:	$Time=\beta_0+\beta_1{}^*E$		_____
Prediction Range:	Range	_____	_____
Upper Prediction Interval:	$UPI=N+Range$	_____	_____
Lower Prediction Interval:	$LPI=N-Range$	_____	_____
Prediction Interval Percent:		_____	_____

[1]L=Logic, I=I/O, C=Calculation, T=Text, D=Data, S=Set-up