

PSP Defect Type Classification

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adapted from Watts S Humphrey, *Introduction to the Personal Software Process*, Addison-Wesley 1997, chapter 12.5

TABLE 12.1 Defect Type Standard with additions for Java

Type no.	Type name	Description <i>additions by Chris Johnson</i>
10	Documentation	comments, messages
20	Syntax	spelling, punctuation, typos, instruction formats <i>simplest language errors in program source</i>
30	Build, package	change management, library, version control <i>e.g. use wrong version of code, wrong library, fail to recompile dependents, error in describing build dependency</i>
40	Assignment	declaration, duplicate names, scope, limits <i>in Java source: declarations and resolving correct uses</i>
50	Interface	procedure calls and references, I/O, user formats <i>in Java: inconsistent understanding of effect and order of calls between classes and packages, or in use of standard I/O libraries</i>
60	Checking	error messages, inadequate checks <i>handling exceptional conditions, with or without actual exceptions thrown: end of file, format error, divide by zero, empty list, array bounds error, string bounds error</i>
70	Data	structure, content <i>mismatch between program logic and actual input data formats or output data requirements</i>
80	Function	logic, pointers, loops, recursion, computation, function defects <i>detailed low-level programming</i>
90	System	configuration, timing, memory
100	Environment	design, compile, test, other support system problems <i>e.g. misunderstanding of using JUnit, wrong switches to execution of compiler</i>