Classification of Fault Types

Logic problem
Forgotten cases or steps
Duplicate logic
Extreme conditions neglected
Unnecessary function
Misinterpretation
Missing condition test
Checking wrong variable
Iterating loop incorrectly
Computational problem
Equation insufficient or incorrect
Missing computation
Operand in equation incorrect
Operator in equation incorrect
Parentheses used incorrectly
Precision loss
Rounding or truncation fault
Mixed modes
Sign convention fault
Interface/timing problem
Interrupts handled incorrectly
I/0 timing incorrect
Timing fault causes data loss
Subroutine/module mismatch
Wrong subroutine called
Incorrectly located subroutine call
Nonexistent subroutine called
Inconsistent subroutine arguments
Data-handling problem
Initialized data incorrectly
Accessed or stored data incorrectly
Flag or index set incorrectly
Packed/unpacked data incorrectly
Referenced wrong data variable
Data referenced out of bounds

Scaling or units of data incorrect
Dimensioned data incorrectly
Variable-type incorrect
Subscripted variable incorrectly
Scope of data incorrect
Data problem
Sensor data incorrect or missing
Operator data incorrect or missing
Embedded data in tables incorrect or missing
External data incorrect or missing
Output data incorrect or missing
Input data incorrect or missing
Documentation problem
Ambiguous statement
Incomplete item
Incorrect item
Missing item
Conflicting items
Redundant items
Confusing item
Illogical item
Non-verifiable item
Unachievable item
Document quality problem
Applicable standards not met
Not traceable
Not current
Inconsistencies
Incomplete
No identification
Enhancement
Change in program requirements
Add new capability
Remove unnecessary capability
Update current capability
Improve comments
Improve code efficiency
Implement editorial changes

Improve usability
Software fix of a hardware problem
Other enhancement

Source: IEEE Standard 1044-2009, Standard Classification for Software Anomalies, IEEE Computer Society Press, 2009.