Rec. 04. Integers (INT)

- INT00-C. Understand the data model used by your implementation(s)
- INT01-C. Use rsize_t or size_t for all integer values representing the size of an object
- INT02-C. Understand integer conversion rules
- INT04-C. Enforce limits on integer values originating from tainted sources
- INT05-C. Do not use input functions to convert character data if they cannot handle all possible inputs
- INT07-C. Use only explicitly signed or unsigned char type for numeric values
- INT08-C. Verify that all integer values are in range
- INT09-C. Ensure enumeration constants map to unique values
- INT10-C. Do not assume a positive remainder when using the % operator
- INT12-C. Do not make assumptions about the type of a plain int bit-field when used in an expression
- INT13-C. Use bitwise operators only on unsigned operands
- INT14-C. Avoid performing bitwise and arithmetic operations on the same data
- INT15-C. Use intmax_t or uintmax_t for formatted I/O on programmer-defined integer types
- INT16-C. Do not make assumptions about representation of signed integers
- INT17-C. Define integer constants in an implementation-independent manner
- INT18-C. Evaluate integer expressions in a larger size before comparing or assigning to that size

Information for Editors

To have a new guideline automatically listed above be sure to label it int and recommendation.

Risk Assessment Summary

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<tr>
<th>Rule</th>
<th>Severity</th>
<th>Likelihood</th>
<th>Remediation Cost</th>
<th>Priority</th>
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Related Rules and Recommendations

- DCL31-C. Declare identifiers before using them
- FIO09-C. Be careful with binary data when transferring data across systems