**PHP static code analysis**

Unique rules to find Bugs, Vulnerabilities, Security Hotspots, and Code Smells in your PHP code

### [HTTP responses should not be vulnerable to session fixation](https://rules.sonarsource.com/php/RSPEC-6287)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-6287)

### [Include statements should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-5335)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5335)

### [Dynamic code execution should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-5334)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5334)

### [HTTP request redirections should not be open to forging attacks](https://rules.sonarsource.com/php/RSPEC-5146)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5146)

### [Deserialization should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-5135)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5135)

### [Endpoints should not be vulnerable to reflected cross-site scripting (XSS) attacks](https://rules.sonarsource.com/php/RSPEC-5131)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5131)

### [Database queries should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-3649)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3649)

### [XML parsers should not be vulnerable to XXE attacks](https://rules.sonarsource.com/php/RSPEC-2755)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2755)

### [A secure password should be used when connecting to a database](https://rules.sonarsource.com/php/RSPEC-2115)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2115)

### [XPath expressions should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-2091)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2091)

### [I/O function calls should not be vulnerable to path injection attacks](https://rules.sonarsource.com/php/RSPEC-2083)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2083)

### [LDAP queries should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-2078)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2078)

### [OS commands should not be vulnerable to command injection attacks](https://rules.sonarsource.com/php/RSPEC-2076)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2076)

### [Class of caught exception should be defined](https://rules.sonarsource.com/php/RSPEC-5911)

[Bug](https://rules.sonarsource.com/php/RSPEC-5911)

### [Caught Exceptions must derive from Throwable](https://rules.sonarsource.com/php/RSPEC-5708)

[Bug](https://rules.sonarsource.com/php/RSPEC-5708)

### [Raised Exceptions must derive from Throwable](https://rules.sonarsource.com/php/RSPEC-5632)

[Bug](https://rules.sonarsource.com/php/RSPEC-5632)

### ["$this" should not be used in a static context](https://rules.sonarsource.com/php/RSPEC-2014)

[Bug](https://rules.sonarsource.com/php/RSPEC-2014)

### [Hard-coded credentials are security-sensitive](https://rules.sonarsource.com/php/RSPEC-2068)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-2068)

### [Test class names should end with "Test"](https://rules.sonarsource.com/php/RSPEC-3360)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3360)

### [Tests should include assertions](https://rules.sonarsource.com/php/RSPEC-2699)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2699)

### [TestCases should contain tests](https://rules.sonarsource.com/php/RSPEC-2187)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2187)

### [Variable variables should not be used](https://rules.sonarsource.com/php/RSPEC-1599)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1599)

### [A new session should be created during user authentication](https://rules.sonarsource.com/php/RSPEC-5876)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5876)

### [Cipher algorithms should be robust](https://rules.sonarsource.com/php/RSPEC-5547)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5547)

### [Encryption algorithms should be used with secure mode and padding scheme](https://rules.sonarsource.com/php/RSPEC-5542)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5542)

### [Server hostnames should be verified during SSL/TLS connections](https://rules.sonarsource.com/php/RSPEC-5527)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5527)

### [Server certificates should be verified during SSL/TLS connections](https://rules.sonarsource.com/php/RSPEC-4830)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-4830)

### [LDAP connections should be authenticated](https://rules.sonarsource.com/php/RSPEC-4433)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-4433)

### [Cryptographic keys should be robust](https://rules.sonarsource.com/php/RSPEC-4426)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-4426)

### [Weak SSL/TLS protocols should not be used](https://rules.sonarsource.com/php/RSPEC-4423)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-4423)

### [Regular expressions should not be vulnerable to Denial of Service attacks](https://rules.sonarsource.com/php/RSPEC-2631)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2631)

### [Hashes should include an unpredictable salt](https://rules.sonarsource.com/php/RSPEC-2053)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2053)

### [Regular expressions should have valid delimiters](https://rules.sonarsource.com/php/RSPEC-6393)

[Bug](https://rules.sonarsource.com/php/RSPEC-6393)

### [Regex lookahead assertions should not be contradictory](https://rules.sonarsource.com/php/RSPEC-6002)

[Bug](https://rules.sonarsource.com/php/RSPEC-6002)

### [Back references in regular expressions should only refer to capturing groups that are matched before the reference](https://rules.sonarsource.com/php/RSPEC-6001)

[Bug](https://rules.sonarsource.com/php/RSPEC-6001)

### [Regex boundaries should not be used in a way that can never be matched](https://rules.sonarsource.com/php/RSPEC-5996)

[Bug](https://rules.sonarsource.com/php/RSPEC-5996)

### [Regex patterns following a possessive quantifier should not always fail](https://rules.sonarsource.com/php/RSPEC-5994)

[Bug](https://rules.sonarsource.com/php/RSPEC-5994)

### [Assertion failure exceptions should not be ignored](https://rules.sonarsource.com/php/RSPEC-5779)

[Bug](https://rules.sonarsource.com/php/RSPEC-5779)

### [References used in "foreach" loops should be "unset"](https://rules.sonarsource.com/php/RSPEC-4824)

[Bug](https://rules.sonarsource.com/php/RSPEC-4824)

### [Using clear-text protocols is security-sensitive](https://rules.sonarsource.com/php/RSPEC-5332)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-5332)

### [Expanding archive files without controlling resource consumption is security-sensitive](https://rules.sonarsource.com/php/RSPEC-5042)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-5042)

### [Signalling processes is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4828)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4828)

### [Configuring loggers is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4792)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4792)

### [Using weak hashing algorithms is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4790)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4790)

### [Disabling CSRF protections is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4502)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4502)

### [Using pseudorandom number generators (PRNGs) is security-sensitive](https://rules.sonarsource.com/php/RSPEC-2245)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-2245)

### [Dynamically executing code is security-sensitive](https://rules.sonarsource.com/php/RSPEC-1523)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-1523)

### [`str\_replace` should be preferred to `preg\_replace`](https://rules.sonarsource.com/php/RSPEC-5361)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5361)

### ["default" clauses should be first or last](https://rules.sonarsource.com/php/RSPEC-4524)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-4524)

### [A conditionally executed single line should be denoted by indentation](https://rules.sonarsource.com/php/RSPEC-3973)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3973)

### [Conditionals should start on new lines](https://rules.sonarsource.com/php/RSPEC-3972)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3972)

### [Cognitive Complexity of functions should not be too high](https://rules.sonarsource.com/php/RSPEC-3776)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3776)

### [Parentheses should not be used for calls to "echo"](https://rules.sonarsource.com/php/RSPEC-2041)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2041)

### [Functions should not be nested too deeply](https://rules.sonarsource.com/php/RSPEC-2004)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2004)

### [References should not be passed to function calls](https://rules.sonarsource.com/php/RSPEC-1998)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1998)

### ["switch" statements should have "default" clauses](https://rules.sonarsource.com/php/RSPEC-131)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-131)

### [Control structures should use curly braces](https://rules.sonarsource.com/php/RSPEC-121)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-121)

### [String literals should not be duplicated](https://rules.sonarsource.com/php/RSPEC-1192)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1192)

### [Methods should not be empty](https://rules.sonarsource.com/php/RSPEC-1186)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1186)

### [Constant names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-115)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-115)

### [Secret keys and salt values should be robust](https://rules.sonarsource.com/php/RSPEC-6339)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-6339)

### [Authorizations should be based on strong decisions](https://rules.sonarsource.com/php/RSPEC-5808)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5808)

### [Server-side requests should not be vulnerable to forging attacks](https://rules.sonarsource.com/php/RSPEC-5144)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5144)

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[Bug](https://rules.sonarsource.com/php/RSPEC-905)

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[Bug](https://rules.sonarsource.com/php/RSPEC-836)

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[Bug](https://rules.sonarsource.com/php/RSPEC-6328)

### [Alternation in regular expressions should not contain empty alternatives](https://rules.sonarsource.com/php/RSPEC-6323)

[Bug](https://rules.sonarsource.com/php/RSPEC-6323)

### [Unicode Grapheme Clusters should be avoided inside regex character classes](https://rules.sonarsource.com/php/RSPEC-5868)

[Bug](https://rules.sonarsource.com/php/RSPEC-5868)

### [Assertions should not compare an object to itself](https://rules.sonarsource.com/php/RSPEC-5863)

[Bug](https://rules.sonarsource.com/php/RSPEC-5863)

### [Regex alternatives should not be redundant](https://rules.sonarsource.com/php/RSPEC-5855)

[Bug](https://rules.sonarsource.com/php/RSPEC-5855)

### [Alternatives in regular expressions should be grouped when used with anchors](https://rules.sonarsource.com/php/RSPEC-5850)

[Bug](https://rules.sonarsource.com/php/RSPEC-5850)

### [Array values should not be replaced unconditionally](https://rules.sonarsource.com/php/RSPEC-4143)

[Bug](https://rules.sonarsource.com/php/RSPEC-4143)

### [Exceptions should not be created without being thrown](https://rules.sonarsource.com/php/RSPEC-3984)

[Bug](https://rules.sonarsource.com/php/RSPEC-3984)

### [Array or Countable object count comparisons should make sense](https://rules.sonarsource.com/php/RSPEC-3981)

[Bug](https://rules.sonarsource.com/php/RSPEC-3981)

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[Bug](https://rules.sonarsource.com/php/RSPEC-3923)

### [The output of functions that don't return anything should not be used](https://rules.sonarsource.com/php/RSPEC-3699)

[Bug](https://rules.sonarsource.com/php/RSPEC-3699)

### [Unary prefix operators should not be repeated](https://rules.sonarsource.com/php/RSPEC-2761)

[Bug](https://rules.sonarsource.com/php/RSPEC-2761)

### ["=+" should not be used instead of "+="](https://rules.sonarsource.com/php/RSPEC-2757)

[Bug](https://rules.sonarsource.com/php/RSPEC-2757)

### [A "for" loop update clause should move the counter in the right direction](https://rules.sonarsource.com/php/RSPEC-2251)

[Bug](https://rules.sonarsource.com/php/RSPEC-2251)

### [Return values from functions without side effects should not be ignored](https://rules.sonarsource.com/php/RSPEC-2201)

[Bug](https://rules.sonarsource.com/php/RSPEC-2201)

### [Values should not be uselessly incremented](https://rules.sonarsource.com/php/RSPEC-2123)

[Bug](https://rules.sonarsource.com/php/RSPEC-2123)

### [Related "if/else if" statements and "cases" in a "switch" should not have the same condition](https://rules.sonarsource.com/php/RSPEC-1862)

[Bug](https://rules.sonarsource.com/php/RSPEC-1862)

### [Objects should not be created to be dropped immediately without being used](https://rules.sonarsource.com/php/RSPEC-1848)

[Bug](https://rules.sonarsource.com/php/RSPEC-1848)

### [Identical expressions should not be used on both sides of a binary operator](https://rules.sonarsource.com/php/RSPEC-1764)

[Bug](https://rules.sonarsource.com/php/RSPEC-1764)

### [All code should be reachable](https://rules.sonarsource.com/php/RSPEC-1763)

[Bug](https://rules.sonarsource.com/php/RSPEC-1763)

### [Loops with at most one iteration should be refactored](https://rules.sonarsource.com/php/RSPEC-1751)

[Bug](https://rules.sonarsource.com/php/RSPEC-1751)

### [Short-circuit logic should be used to prevent null pointer dereferences in conditionals](https://rules.sonarsource.com/php/RSPEC-1697)

[Bug](https://rules.sonarsource.com/php/RSPEC-1697)

### [Variables should not be self-assigned](https://rules.sonarsource.com/php/RSPEC-1656)

[Bug](https://rules.sonarsource.com/php/RSPEC-1656)

### [Useless "if(true) {...}" and "if(false){...}" blocks should be removed](https://rules.sonarsource.com/php/RSPEC-1145)

[Bug](https://rules.sonarsource.com/php/RSPEC-1145)

### [All "catch" blocks should be able to catch exceptions](https://rules.sonarsource.com/php/RSPEC-1045)

[Bug](https://rules.sonarsource.com/php/RSPEC-1045)

### [Constructing arguments of system commands from user input is security-sensitive](https://rules.sonarsource.com/php/RSPEC-6350)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-6350)

### [Allowing unfiltered HTML content in WordPress is security-sensitive](https://rules.sonarsource.com/php/RSPEC-6348)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-6348)

### [Allowing unauthenticated database repair in WordPress is security-sensitive](https://rules.sonarsource.com/php/RSPEC-6346)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-6346)

### [Allowing all external requests from a WordPress server is security-sensitive](https://rules.sonarsource.com/php/RSPEC-6345)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-6345)

### [Disabling automatic updates is security-sensitive](https://rules.sonarsource.com/php/RSPEC-6343)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-6343)

### [WordPress theme and plugin editors are security-sensitive](https://rules.sonarsource.com/php/RSPEC-6341)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-6341)

### [Allowing requests with excessive content length is security-sensitive](https://rules.sonarsource.com/php/RSPEC-5693)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-5693)

### [Manual generation of session ID is security-sensitive](https://rules.sonarsource.com/php/RSPEC-5328)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-5328)

### [Setting loose POSIX file permissions is security-sensitive](https://rules.sonarsource.com/php/RSPEC-2612)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-2612)

### [Formatting SQL queries is security-sensitive](https://rules.sonarsource.com/php/RSPEC-2077)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-2077)

### ["goto" statement should not be used](https://rules.sonarsource.com/php/RSPEC-907)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-907)

### [Character classes in regular expressions should not contain only one character](https://rules.sonarsource.com/php/RSPEC-6397)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6397)

### [Superfluous curly brace quantifiers should be avoided](https://rules.sonarsource.com/php/RSPEC-6396)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6396)

### [Non-capturing groups without quantifier should not be used](https://rules.sonarsource.com/php/RSPEC-6395)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6395)

### [WordPress option names should not be misspelled](https://rules.sonarsource.com/php/RSPEC-6349)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6349)

### [WordPress options should not be defined at the end of "wp-config.php"](https://rules.sonarsource.com/php/RSPEC-6347)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6347)

### [Constants should not be redefined](https://rules.sonarsource.com/php/RSPEC-6344)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6344)

### [Regular expressions should not contain empty groups](https://rules.sonarsource.com/php/RSPEC-6331)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6331)

### [Regular expressions should not contain multiple spaces](https://rules.sonarsource.com/php/RSPEC-6326)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6326)

### [Single-character alternations in regular expressions should be replaced with character classes](https://rules.sonarsource.com/php/RSPEC-6035)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6035)

### [Reluctant quantifiers in regular expressions should be followed by an expression that can't match the empty string](https://rules.sonarsource.com/php/RSPEC-6019)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6019)

### [Character classes in regular expressions should not contain the same character twice](https://rules.sonarsource.com/php/RSPEC-5869)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5869)

### [Regular expressions should not be too complicated](https://rules.sonarsource.com/php/RSPEC-5843)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5843)

### [PHPUnit assertTrue/assertFalse should be simplified to the corresponding dedicated assertion](https://rules.sonarsource.com/php/RSPEC-5785)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5785)

### [Methods should not have identical implementations](https://rules.sonarsource.com/php/RSPEC-4144)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-4144)

### [Functions should use "return" consistently](https://rules.sonarsource.com/php/RSPEC-3801)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3801)

### [Assertion arguments should be passed in the correct order](https://rules.sonarsource.com/php/RSPEC-3415)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3415)

### [Ternary operators should not be nested](https://rules.sonarsource.com/php/RSPEC-3358)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3358)

### [Reflection should not be used to increase accessibility of classes, methods, or fields](https://rules.sonarsource.com/php/RSPEC-3011)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3011)

### [Multiline blocks should be enclosed in curly braces](https://rules.sonarsource.com/php/RSPEC-2681)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2681)

### [Parameters should be passed in the correct order](https://rules.sonarsource.com/php/RSPEC-2234)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2234)

### [Classes named like "Exception" should extend "Exception" or a subclass](https://rules.sonarsource.com/php/RSPEC-2166)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2166)

### [Two branches in a conditional structure should not have exactly the same implementation](https://rules.sonarsource.com/php/RSPEC-1871)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1871)

### [Unused assignments should be removed](https://rules.sonarsource.com/php/RSPEC-1854)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1854)

### [Method arguments with default values should be last](https://rules.sonarsource.com/php/RSPEC-1788)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1788)

### [A reason should be provided when skipping a test](https://rules.sonarsource.com/php/RSPEC-1607)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1607)

### ["\_\_construct" functions should not make PHP 4-style calls to parent constructors](https://rules.sonarsource.com/php/RSPEC-1605)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1605)

### [PHP 4 constructor declarations should not be used](https://rules.sonarsource.com/php/RSPEC-1603)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1603)

### [Deprecated predefined variables should not be used](https://rules.sonarsource.com/php/RSPEC-1600)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1600)

### ["switch" statements should not have too many "case" clauses](https://rules.sonarsource.com/php/RSPEC-1479)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1479)

### [Classes should not have too many methods](https://rules.sonarsource.com/php/RSPEC-1448)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1448)

### [Functions should not have too many lines of code](https://rules.sonarsource.com/php/RSPEC-138)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-138)

### ["for" loop stop conditions should be invariant](https://rules.sonarsource.com/php/RSPEC-127)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-127)

### [Sections of code should not be commented out](https://rules.sonarsource.com/php/RSPEC-125)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-125)

### [Unused function parameters should be removed](https://rules.sonarsource.com/php/RSPEC-1172)

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### [Unused "private" methods should be removed](https://rules.sonarsource.com/php/RSPEC-1144)

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### [Functions should not contain too many return statements](https://rules.sonarsource.com/php/RSPEC-1142)

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### [Track uses of "FIXME" tags](https://rules.sonarsource.com/php/RSPEC-1134)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1134)

### [Generic exceptions ErrorException, RuntimeException and Exception should not be thrown](https://rules.sonarsource.com/php/RSPEC-112)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-112)

### [Local variables should not have the same name as class fields](https://rules.sonarsource.com/php/RSPEC-1117)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1117)

### [Redundant pairs of parentheses should be removed](https://rules.sonarsource.com/php/RSPEC-1110)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1110)

### [Inheritance tree of classes should not be too deep](https://rules.sonarsource.com/php/RSPEC-110)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-110)

### [Nested blocks of code should not be left empty](https://rules.sonarsource.com/php/RSPEC-108)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-108)

### [Functions should not have too many parameters](https://rules.sonarsource.com/php/RSPEC-107)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-107)

### [Unused "private" fields should be removed](https://rules.sonarsource.com/php/RSPEC-1068)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1068)

### [Collapsible "if" statements should be merged](https://rules.sonarsource.com/php/RSPEC-1066)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1066)

### [OS commands should not be vulnerable to argument injection attacks](https://rules.sonarsource.com/php/RSPEC-5883)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5883)

### [Logging should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-5145)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5145)

### [Repeated patterns in regular expressions should not match the empty string](https://rules.sonarsource.com/php/RSPEC-5842)

[Bug](https://rules.sonarsource.com/php/RSPEC-5842)

### [Function and method parameters' initial values should not be ignored](https://rules.sonarsource.com/php/RSPEC-1226)

[Bug](https://rules.sonarsource.com/php/RSPEC-1226)

### [Having a permissive Cross-Origin Resource Sharing policy is security-sensitive](https://rules.sonarsource.com/php/RSPEC-5122)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-5122)

### [Delivering code in production with debug features activated is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4507)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4507)

### [Creating cookies without the "HttpOnly" flag is security-sensitive](https://rules.sonarsource.com/php/RSPEC-3330)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-3330)

### [Creating cookies without the "secure" flag is security-sensitive](https://rules.sonarsource.com/php/RSPEC-2092)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-2092)

### [Using hardcoded IP addresses is security-sensitive](https://rules.sonarsource.com/php/RSPEC-1313)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-1313)

### [Regular expression quantifiers and character classes should be used concisely](https://rules.sonarsource.com/php/RSPEC-6353)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-6353)

### [Character classes should be preferred over reluctant quantifiers in regular expressions](https://rules.sonarsource.com/php/RSPEC-5857)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5857)

### [A subclass should not be in the same "catch" clause as a parent class](https://rules.sonarsource.com/php/RSPEC-5713)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5713)

### [Jump statements should not be redundant](https://rules.sonarsource.com/php/RSPEC-3626)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-3626)

### ["catch" clauses should do more than rethrow](https://rules.sonarsource.com/php/RSPEC-2737)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2737)

### ["&&" and "||" should be used](https://rules.sonarsource.com/php/RSPEC-2010)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2010)

### [Boolean checks should not be inverted](https://rules.sonarsource.com/php/RSPEC-1940)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1940)

### [Local variables should not be declared and then immediately returned or thrown](https://rules.sonarsource.com/php/RSPEC-1488)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1488)

### [Unused local variables should be removed](https://rules.sonarsource.com/php/RSPEC-1481)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1481)

### ["switch" statements should have at least 3 "case" clauses](https://rules.sonarsource.com/php/RSPEC-1301)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1301)

### [A "while" loop should be used instead of a "for" loop](https://rules.sonarsource.com/php/RSPEC-1264)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1264)

### [Overriding methods should do more than simply call the same method in the super class](https://rules.sonarsource.com/php/RSPEC-1185)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1185)

### ["empty()" should be used to test for emptiness](https://rules.sonarsource.com/php/RSPEC-1155)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1155)

### [Interface names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-114)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-114)

### [Return of boolean expressions should not be wrapped into an "if-then-else" statement](https://rules.sonarsource.com/php/RSPEC-1126)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1126)

### [Boolean literals should not be redundant](https://rules.sonarsource.com/php/RSPEC-1125)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1125)

### [Empty statements should be removed](https://rules.sonarsource.com/php/RSPEC-1116)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1116)

### [A close curly brace should be located at the beginning of a line](https://rules.sonarsource.com/php/RSPEC-1109)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1109)

### [URIs should not be hardcoded](https://rules.sonarsource.com/php/RSPEC-1075)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1075)

### [Class names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-101)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-101)

### [Track uses of "TODO" tags](https://rules.sonarsource.com/php/RSPEC-1135)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1135)

### ["file\_uploads" should be disabled](https://rules.sonarsource.com/php/RSPEC-3338)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3338)

### ["enable\_dl" should be disabled](https://rules.sonarsource.com/php/RSPEC-3337)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3337)

### ["session.use\_trans\_sid" should not be enabled](https://rules.sonarsource.com/php/RSPEC-3336)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3336)

### ["allow\_url\_fopen" and "allow\_url\_include" should be disabled](https://rules.sonarsource.com/php/RSPEC-3334)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3334)

### ["open\_basedir" should limit file access](https://rules.sonarsource.com/php/RSPEC-3333)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3333)

### [Neither DES (Data Encryption Standard) nor DESede (3DES) should be used](https://rules.sonarsource.com/php/RSPEC-2278)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2278)

### ["exit(...)" and "die(...)" statements should not be used](https://rules.sonarsource.com/php/RSPEC-1799)

[Bug](https://rules.sonarsource.com/php/RSPEC-1799)

### [Functions and variables should not be defined outside of classes](https://rules.sonarsource.com/php/RSPEC-2007)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2007)

### [Track lack of copyright and license headers](https://rules.sonarsource.com/php/RSPEC-1451)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1451)

### [Octal values should not be used](https://rules.sonarsource.com/php/RSPEC-1314)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1314)

### [Switch cases should end with an unconditional "break" statement](https://rules.sonarsource.com/php/RSPEC-128)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-128)

### [Session-management cookies should not be persistent](https://rules.sonarsource.com/php/RSPEC-3332)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3332)

### [Cryptographic RSA algorithms should always incorporate OAEP (Optimal Asymmetric Encryption Padding)](https://rules.sonarsource.com/php/RSPEC-2277)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2277)

### [SHA-1 and Message-Digest hash algorithms should not be used in secure contexts](https://rules.sonarsource.com/php/RSPEC-2070)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2070)

### [Assertions should not be made at the end of blocks expecting an exception](https://rules.sonarsource.com/php/RSPEC-5915)

[Bug](https://rules.sonarsource.com/php/RSPEC-5915)

### [Regular expressions should be syntactically valid](https://rules.sonarsource.com/php/RSPEC-5856)

[Bug](https://rules.sonarsource.com/php/RSPEC-5856)

### [Only one method invocation is expected when testing exceptions](https://rules.sonarsource.com/php/RSPEC-5783)

[Bug](https://rules.sonarsource.com/php/RSPEC-5783)

### [Reading the Standard Input is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4829)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4829)

### [Using command line arguments is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4823)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4823)

### [Using Sockets is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4818)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4818)

### [Encrypting data is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4787)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4787)

### [Using regular expressions is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4784)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4784)

### [Deserializing objects from an untrusted source is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4508)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4508)

### [Literal boolean values and nulls should not be used in equality assertions](https://rules.sonarsource.com/php/RSPEC-2701)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2701)

### ["global" should not be used](https://rules.sonarsource.com/php/RSPEC-2011)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2011)

### ["switch" statements should not be nested](https://rules.sonarsource.com/php/RSPEC-1821)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1821)

### [Cyclomatic Complexity of functions should not be too high](https://rules.sonarsource.com/php/RSPEC-1541)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1541)

### [Control flow statements "if", "for", "while", "switch" and "try" should not be nested too deeply](https://rules.sonarsource.com/php/RSPEC-134)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-134)

### [Cyclomatic Complexity of classes should not be too high](https://rules.sonarsource.com/php/RSPEC-1311)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1311)

### ["if ... else if" constructs should end with "else" clauses](https://rules.sonarsource.com/php/RSPEC-126)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-126)

### [Expressions should not be too complex](https://rules.sonarsource.com/php/RSPEC-1067)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1067)

### ["cgi.force\_redirect" should be enabled](https://rules.sonarsource.com/php/RSPEC-3335)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-3335)

### [Files that define symbols should not cause side-effects](https://rules.sonarsource.com/php/RSPEC-2036)

[Bug](https://rules.sonarsource.com/php/RSPEC-2036)

### [Increment (++) and decrement (--) operators should not be used in a method call or mixed with other operators in an expression](https://rules.sonarsource.com/php/RSPEC-881)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-881)

### [Test methods should be discoverable](https://rules.sonarsource.com/php/RSPEC-5899)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5899)

### [Use of namespaces should be preferred to "include" or "require" functions](https://rules.sonarsource.com/php/RSPEC-4833)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-4833)

### [Duplicate values should not be passed as arguments](https://rules.sonarsource.com/php/RSPEC-4142)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-4142)

### [Configuration should not be changed dynamically](https://rules.sonarsource.com/php/RSPEC-2918)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2918)

### [Class constructors should not create other objects](https://rules.sonarsource.com/php/RSPEC-2830)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2830)

### [PHP parser failure](https://rules.sonarsource.com/php/RSPEC-2260)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2260)

### [The names of methods with boolean return values should start with "is" or "has"](https://rules.sonarsource.com/php/RSPEC-2047)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2047)

### ["php\_sapi\_name()" should not be used](https://rules.sonarsource.com/php/RSPEC-2044)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2044)

### [Classes should not have too many lines of code](https://rules.sonarsource.com/php/RSPEC-2042)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2042)

### [Deprecated features should not be used](https://rules.sonarsource.com/php/RSPEC-2001)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2001)

### [Files should not contain inline HTML](https://rules.sonarsource.com/php/RSPEC-1997)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1997)

### [Files should contain only one top-level class or interface each](https://rules.sonarsource.com/php/RSPEC-1996)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1996)

### [Classes should not have too many fields](https://rules.sonarsource.com/php/RSPEC-1820)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1820)

### [Track uses of "NOSONAR" comments](https://rules.sonarsource.com/php/RSPEC-1291)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1291)

### [Statements should be on separate lines](https://rules.sonarsource.com/php/RSPEC-122)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-122)

### [Classes should not be coupled to too many other classes (Single Responsibility Principle)](https://rules.sonarsource.com/php/RSPEC-1200)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1200)

### ["switch case" clauses should not have too many lines of code](https://rules.sonarsource.com/php/RSPEC-1151)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1151)

### [Assignments should not be made from within sub-expressions](https://rules.sonarsource.com/php/RSPEC-1121)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1121)

### [Files should not have too many lines of code](https://rules.sonarsource.com/php/RSPEC-104)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-104)

### [Lines should not be too long](https://rules.sonarsource.com/php/RSPEC-103)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-103)

### [HTTP response headers should not be vulnerable to injection attacks](https://rules.sonarsource.com/php/RSPEC-5167)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-5167)

### ["sleep" should not be called](https://rules.sonarsource.com/php/RSPEC-2964)

[Vulnerability](https://rules.sonarsource.com/php/RSPEC-2964)

### [Static members should be referenced with "static::"](https://rules.sonarsource.com/php/RSPEC-2037)

[Bug](https://rules.sonarsource.com/php/RSPEC-2037)

### ["require\_once" and "include\_once" should be used instead of "require" and "include"](https://rules.sonarsource.com/php/RSPEC-2003)

[Bug](https://rules.sonarsource.com/php/RSPEC-2003)

### [Errors should not be silenced](https://rules.sonarsource.com/php/RSPEC-2002)

[Bug](https://rules.sonarsource.com/php/RSPEC-2002)

### [Files should not contain characters before "<?php"](https://rules.sonarsource.com/php/RSPEC-2000)

[Bug](https://rules.sonarsource.com/php/RSPEC-2000)

### [Method visibility should be explicitly declared](https://rules.sonarsource.com/php/RSPEC-1784)

[Bug](https://rules.sonarsource.com/php/RSPEC-1784)

### [Controlling permissions is security-sensitive](https://rules.sonarsource.com/php/RSPEC-4834)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-4834)

### [Writing cookies is security-sensitive](https://rules.sonarsource.com/php/RSPEC-2255)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-2255)

### [Framework-provided functions should be used to test exceptions](https://rules.sonarsource.com/php/RSPEC-5935)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5935)

### [Unicode-aware versions of character classes should be preferred](https://rules.sonarsource.com/php/RSPEC-5867)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-5867)

### [Alias functions should not be used](https://rules.sonarsource.com/php/RSPEC-2050)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2050)

### [Perl-style comments should not be used](https://rules.sonarsource.com/php/RSPEC-2046)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2046)

### [Superglobals should not be accessed directly](https://rules.sonarsource.com/php/RSPEC-2043)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2043)

### [Colors should be defined in upper case](https://rules.sonarsource.com/php/RSPEC-2038)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2038)

### [String literals should not be concatenated](https://rules.sonarsource.com/php/RSPEC-2005)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-2005)

### ["final" should not be used redundantly](https://rules.sonarsource.com/php/RSPEC-1990)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1990)

### [Source code should comply with formatting standards](https://rules.sonarsource.com/php/RSPEC-1808)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1808)

### ["elseif" keyword should be used in place of "else if" keywords](https://rules.sonarsource.com/php/RSPEC-1793)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1793)

### [PHP keywords and constants "true", "false", "null" should be lower case](https://rules.sonarsource.com/php/RSPEC-1781)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1781)

### [Closing tag "?>" should be omitted on files containing only PHP](https://rules.sonarsource.com/php/RSPEC-1780)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1780)

### [Only LF character (Unix-like) should be used to end lines](https://rules.sonarsource.com/php/RSPEC-1779)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1779)

### [More than one property should not be declared per statement](https://rules.sonarsource.com/php/RSPEC-1766)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1766)

### [The "var" keyword should not be used](https://rules.sonarsource.com/php/RSPEC-1765)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1765)

### ["<?php" and "<?=" tags should be used](https://rules.sonarsource.com/php/RSPEC-1757)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1757)

### [File names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-1578)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1578)

### [Comments should not be located at the end of lines of code](https://rules.sonarsource.com/php/RSPEC-139)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-139)

### [Local variable and function parameter names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-117)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-117)

### [Field names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-116)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-116)

### [Lines should not end with trailing whitespaces](https://rules.sonarsource.com/php/RSPEC-1131)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1131)

### [Files should contain an empty newline at the end](https://rules.sonarsource.com/php/RSPEC-113)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-113)

### [Modifiers should be declared in the correct order](https://rules.sonarsource.com/php/RSPEC-1124)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1124)

### [An open curly brace should be located at the beginning of a line](https://rules.sonarsource.com/php/RSPEC-1106)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1106)

### [An open curly brace should be located at the end of a line](https://rules.sonarsource.com/php/RSPEC-1105)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-1105)

### [Tabulation characters should not be used](https://rules.sonarsource.com/php/RSPEC-105)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-105)

### [Method and function names should comply with a naming convention](https://rules.sonarsource.com/php/RSPEC-100)

[Code Smell](https://rules.sonarsource.com/php/RSPEC-100)

### [Creating cookies with broadly defined "domain" flags is security-sensitive](https://rules.sonarsource.com/php/RSPEC-3331)

[Security Hotspot](https://rules.sonarsource.com/php/RSPEC-3331)