



**GrpcService
1.0**

*cs:Sonar way
2020-07-03*

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1. GrpcService

报告提供了项目指标的概要，显示了与项目质量相关的最重要的指标。如果需要获取更详细的信息，请[登陆网站](#)进一步查询。

报告的项目为GrpcService，生成时间为2020-07-03，使用的质量配置为 cs:Sonar way，共计233条规则。


1.1. 概述

编码问题

Bug	可靠性修复工作
0	0min
漏洞	安全修复工作
0	0min
坏味道	技术债务
2	15min
2	开启问题
问题	重开问题
	确认问题
	误判问题
	不修复的问题
	已解决的问题
	已删除的问题
	阻断
	严重
	主要
	次要
	提示
	2
	0
	0
	0
	0
	0
	0
	0
	1
	1
	0

静态分析

项目规模

	GrpcService	Sonar Report
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82	行数	99
代码行数	方法	6
	类	3
	文件	3
	目录	N/A
	重复行(%)	0.0

复杂度

7	类	2.3
复杂度	方法	1.2
	文件	2.3

注释(%)

5.7	注释行数	5
注释(%)		

1.2. 问题分析

违反最多的规则TOP10	
Utility classes should not have public constructors	1
Private fields only used as local variables in methods should become local variables	1

违规最多的文件TOP5	
GreeterService.cs	1
Program.cs	1

复杂度最高的文件TOP5	
Startup.cs	3
GreeterService.cs	2
Program.cs	2

重复行最多的文件TOP5

No duplications

1.3. 问题详情

规则	Utility classes should not have public constructors
规则描述	<p>Utility classes, which are collections of static members, are not meant to be instantiated. C# adds an implicit public constructor to every class which does not explicitly define at least one constructor. Hence, at least one protected constructor should be defined if you wish to subclass this utility class. Or the static keyword should be added to the class declaration to prevent subclassing.</p> <p>Noncompliant Code Example</p> <pre>public class StringUtils // Noncompliant { public static string Concatenate(string s1, string s2) { return s1 + s2; } }</pre> <p>Compliant Solution</p> <pre>public static class StringUtils { public static string Concatenate(string s1, string s2) { return s1 + s2; } }</pre> <p>or</p> <pre>public class StringUtils { protected StringUtils() { } public static string Concatenate(string s1, string s2) { return s1 + s2; } }</pre>
文件名称	违规行
GrpcService:Program.cs	11

规则	Private fields only used as local variables in methods should become local variables
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规则描述	<p>When the value of a private field is always assigned to in a class' methods before being read, then it is not being used to store class information. Therefore, it should become a local variable in the relevant methods to prevent any misunderstanding.</p> <p>Noncompliant Code Example</p> <pre>public class Foo { private int singularField; public void DoSomething(int x) { singularField = x + 5; if (singularField == 0) { /* ... */ } } }</pre> <p>Compliant Solution</p> <pre>public class Foo { public void DoSomething(int x) { int localVariable = x + 5; if (localVariable == 0) { /* ... */ } } }</pre>
文件名称	违规行
GreeterService.cs	12

1.4. 质量配置

质量配置	cs:Sonar way Bug:66 漏洞:10 坏味道:141	
规则	类型	违规级别
Composite format strings should not lead to unexpected behavior at runtime	Bug	阻断
Exception constructors should not throw exceptions	Bug	阻断
Destructors should not throw exceptions	Bug	阻断
"IDisposables" should be disposed	Bug	阻断
Type inheritance should not be recursive	Bug	阻断
Recursion should not be infinite	Bug	阻断
Neither "Thread.Resume" nor "Thread.Suspend" should be used	Bug	阻断
Classes should implement their "ExportAttribute" interfaces	Bug	阻断
"SafeHandle.DangerousGetHandle" should not be called	Bug	阻断
Right operands of shift operators should be integers	Bug	严重

Non-async "Task/Task<T>" methods should not return null	Bug	严重
Shared resources should not be used for locking	Bug	严重
"Shared" parts should not be created with "new"	Bug	严重
Getters and setters should access the expected fields	Bug	严重
"ToString()" method should not return null	Bug	主要
Conditionally executed blocks should be reachable	Bug	主要
Collections should not be passed as arguments to their own methods	Bug	主要
Empty nullable value should not be accessed	Bug	主要
Return values from functions without side effects should not be ignored	Bug	主要
"NaN" should not be used in comparisons	Bug	主要
One-way "OperationContract" methods should have "void" return type	Bug	主要
Related "if/else if" statements should not have the same condition	Bug	主要
Classes directly extending "object" should not call "base" in "GetHashCode" or "Equals"	Bug	主要
"ThreadStatic" should not be used on non-static fields	Bug	主要
Anonymous delegates should not be used to unsubscribe from Events	Bug	主要
Windows Forms entry points should be marked with STAThread	Bug	主要
All branches in a conditional structure should not have exactly the same implementation	Bug	主要
Deserialization methods should be provided for "OptionalField" members	Bug	主要
Serialization event handlers should be implemented correctly	Bug	主要
Values should not be uselessly incremented	Bug	主要
Classes should not have only "private" constructors	Bug	主要
"PartCreationPolicyAttribute" should be used with "ExportAttribute"	Bug	主要
Null pointers should not be dereferenced	Bug	主要
Caller information parameters should come at the end of the parameter list	Bug	主要
Expressions used in "Debug.Assert" should not produce side effects	Bug	主要
Optional parameters should be passed to "base" calls	Bug	主要
Objects should not be created to be dropped immediately without being used	Bug	主要
Types should be defined in named namespaces	Bug	主要
Variables should not be self-assigned	Bug	主要
"Object.ReferenceEquals" should not be used for value types	Bug	主要

"ThreadStatic" fields should not be initialized	Bug	主要
"async" methods should not return "void"	Bug	主要
"=+" should not be used instead of "+="	Bug	主要
The ternary operator should not return the same value regardless of the condition	Bug	主要
"IDisposable" created in a "using" statement should not be returned	Bug	主要
Loops with at most one iteration should be refactored	Bug	主要
Methods with "Pure" attribute should return a value	Bug	主要
Identical expressions should not be used on both sides of a binary operator	Bug	主要
Static fields should appear in the order they must be initialized	Bug	主要
Doubled prefix operators "!!" and "~~" should not be used	Bug	主要
Nullable type comparison should not be redundant	Bug	主要
Collection elements should not be replaced unconditionally	Bug	主要
Delegates should not be subtracted	Bug	主要
Exception should not be created without being thrown	Bug	主要
"ConstructorArgument" parameters should exist in constructors	Bug	主要
Collection sizes and array length comparisons should make sense	Bug	主要
Flags enumerations should explicitly initialize all their members	Bug	次要
"GetHashCode" should not reference mutable fields	Bug	次要
"string.ToArray()" should not be called redundantly	Bug	次要
Property assignments should not be made for "readonly" fields not constrained to reference types	Bug	次要
Results of integer division should not be assigned to floating point variables	Bug	次要
"base.Equals" should not be used to check for reference equality in "Equals" if "base" is not "object"	Bug	次要
Integral numbers should not be shifted by zero or more than their number of bits-1	Bug	次要
Mutable, non-private fields should not be "readonly"	Bug	次要
"Equals(Object)" and "GetHashCode()" should be overridden in pairs	Bug	次要
Empty collections should not be accessed or iterated	Bug	次要
Neither DES (Data Encryption Standard) nor DESede (3DES) should be used	漏洞	阻断

Cryptographic keys should not be too short	漏洞	阻断
Credentials should not be hard-coded	漏洞	阻断
"CoSetProxyBlanket" and "CoInitializeSecurity" should not be used	漏洞	阻断
Generic exceptions should not be ignored	漏洞	严重
"HttpOnly" should be set on cookies	漏洞	严重
LDAP connections should be authenticated	漏洞	严重
Members should not have conflicting transparency annotations	漏洞	主要
Mutable fields should not be "public static"	漏洞	次要
Fields should not have public accessibility	漏洞	次要
Test method signatures should be correct	坏味道	阻断
Type should not be examined on "System.Type" instances	坏味道	阻断
Tests should include assertions	坏味道	阻断
Method overloads with default parameter values should not overlap	坏味道	阻断
"value" parameters should be used	坏味道	阻断
Public methods should not have multidimensional array parameters	坏味道	阻断
Methods named "Dispose" should implement "IDisposable.Dispose"	坏味道	阻断
TestCases should contain tests	坏味道	阻断
Short-circuit logic should be used in boolean contexts	坏味道	阻断
"operator==" should not be overloaded on reference types	坏味道	阻断
"async" and "await" should not be used as identifiers	坏味道	阻断
Exceptions should not be thrown from unexpected methods	坏味道	阻断
Silly bit operations should not be performed	坏味道	阻断
"is" should not be used with "this"	坏味道	阻断
Non-constant static fields should not be visible	坏味道	严重
Flags enumerations zero-value members should be named "None"	坏味道	严重
"default" clauses should be first or last	坏味道	严重
"[Optional]" should not be used on "ref" or "out" parameters	坏味道	严重
Inappropriate casts should not be made	坏味道	严重
Cognitive Complexity of methods should not be too high	坏味道	严重
Instance members should not write to "static" fields	坏味道	严重
Method overrides should not change parameter defaults	坏味道	严重
"IndexOf" checks should not be for positive numbers	坏味道	严重
Methods should not be empty	坏味道	严重

Properties should not make collection or array copies	坏味道	严重
"Explicit" conversions of "foreach" loops should not be used	坏味道	严重
Inner class members should not shadow outer class "static" or type members	坏味道	严重
"[DefaultValue]" should not be used when "[DefaultParameterValue]" is meant	坏味道	严重
parameter names should match base declaration and other partial definitions	坏味道	严重
Exceptions should not be thrown in finally blocks	坏味道	严重
Assemblies should have version information	坏味道	严重
"params" should not be introduced on overrides	坏味道	严重
Inherited member visibility should not be decreased	坏味道	严重
Base class methods should not be hidden	坏味道	严重
Objects should not be disposed more than once	坏味道	严重
Non-flags enums should not be used in bitwise operations	坏味道	严重
Field-like events should not be virtual	坏味道	严重
Overflow checking should not be disabled for "Enumerable.Sum"	坏味道	严重
Exception types should be "public"	坏味道	严重
"GC.Collect" should not be called	坏味道	严重
Threads should not lock on objects with weak identity	坏味道	严重
Constructors should only call non-overrideable methods	坏味道	严重
Conditionals should start on new lines	坏味道	严重
A conditionally executed single line should be denoted by indentation	坏味道	严重
Boolean expressions should not be gratuitous	坏味道	主要
Track uses of "FIXME" tags	坏味道	主要
Parameters should be passed in the correct order	坏味道	主要
Unused private types or members should be removed	坏味道	主要
"abstract" classes should not have "public" constructors	坏味道	主要
Exceptions should not be explicitly rethrown	坏味道	主要
Redundant pairs of parentheses should be removed	坏味道	主要
Local variables should not shadow class fields	坏味道	主要
Utility classes should not have public constructors	坏味道	主要
Unused type parameters should be removed	坏味道	主要
Multiline blocks should be enclosed in curly braces	坏味道	主要
"switch" statements should not have too many "case" clauses	坏味道	主要
"try" statements with identical "catch" and/or "finally" blocks should be merged	坏味道	主要

Assertion arguments should be passed in the correct order	坏味道	主要
"Obsolete" attributes should include explanations	坏味道	主要
Assignments should not be made from within sub-expressions	坏味道	主要
Ternary operators should not be nested	坏味道	主要
Non-flags enums should not be marked with "FlagsAttribute"	坏味道	主要
"ServiceContract" and "OperationContract" attributes should be used together	坏味道	主要
Native methods should be wrapped	坏味道	主要
Dead stores should be removed	坏味道	主要
Unused method parameters should be removed	坏味道	主要
Generic type parameters should be co/contravariant when possible	坏味道	主要
"P/Invoke" methods should not be visible	坏味道	主要
Parameter validation in yielding methods should be wrapped	坏味道	主要
Parameter validation in "async"/"await" methods should be wrapped	坏味道	主要
Collapsible "if" statements should be merged	坏味道	主要
"ISerializable" should be implemented correctly	坏味道	主要
Parameter names used into ArgumentException constructors should match an existing one	坏味道	主要
Composite format strings should be used correctly	坏味道	主要
Empty arrays and collections should be returned instead of null	坏味道	主要
Sections of code should not be commented out	坏味道	主要
Write-only properties should not be used	坏味道	主要
Tests should not be ignored	坏味道	主要
Fields that are only assigned in the constructor should be "readonly"	坏味道	主要
Exceptions should not be thrown from property getters	坏味道	主要
Static fields should not be used in generic types	坏味道	主要
Inheritance tree of classes should not be too deep	坏味道	主要
General exceptions should never be thrown	坏味道	主要
"goto" statement should not be used	坏味道	主要
Methods should not have too many parameters	坏味道	主要
Nested blocks of code should not be left empty	坏味道	主要
Multiple "OrderBy" calls should not be used	坏味道	主要
Enumeration members should not be named "Reserved"	坏味道	主要
Two branches in a conditional structure should not have exactly the same implementation	坏味道	主要
Static fields should not be updated in constructors	坏味道	主要

Events should have proper arguments	坏味道	主要
"new Guid()" should not be used	坏味道	主要
"IEnumerable" LINQs should be simplified	坏味道	主要
Events should be invoked	坏味道	主要
"params" should be used on overrides	坏味道	主要
"Assembly.Load" should be used	坏味道	主要
Types and methods should not have too many generic parameters	坏味道	主要
"IDisposable" should be implemented correctly	坏味道	主要
Methods should not have identical implementations	坏味道	主要
"GC.SuppressFinalize" should not be called	坏味道	主要
Classes implementing "IEquatable<T>" should be sealed	坏味道	主要
Enumeration type names should not have "Flags" or "Enum" suffixes	坏味道	次要
Boolean checks should not be inverted	坏味道	次要
Enumeration types should comply with a naming convention	坏味道	次要
A "while" loop should be used instead of a "for" loop	坏味道	次要
Variables should not be checked against the values they're about to be assigned	坏味道	次要
Interfaces should not simply inherit from base interfaces with colliding members	坏味道	次要
Inheritance list should not be redundant	坏味道	次要
Classes that provide "Equals(<T>)" should implement "IEquatable<T>"	坏味道	次要
Empty statements should be removed	坏味道	次要
Redundant casts should not be used	坏味道	次要
"params" should be used instead of "varargs"	坏味道	次要
Boolean literals should not be redundant	坏味道	次要
Runtime type checking should be simplified	坏味道	次要
Unused local variables should be removed	坏味道	次要
Caller information arguments should not be provided explicitly	坏味道	次要
Duplicate casts should not be made	坏味道	次要
Overriding members should do more than simply call the same member in the base class	坏味道	次要
Methods should not return values that are never used	坏味道	次要
"Any()" should be used to test for emptiness	坏味道	次要
Empty "case" clauses that fall through to the "default" should be omitted	坏味道	次要
Unassigned members should be removed	坏味道	次要
Parameters with "[DefaultParameterValue]" attributes should also be marked "[Optional]"	坏味道	次要
Method calls should not resolve ambiguously to overloads with "params"	坏味道	次要

Literal suffixes should be upper case	坏味道	次要
"static" fields should be initialized inline	坏味道	次要
Member initializer values should not be redundant	坏味道	次要
URIs should not be hardcoded	坏味道	次要
"string.IsNullOrEmpty" should be used	坏味道	次要
Attribute, EventArgs, and Exception type names should end with the type being extended	坏味道	次要
Implementations should be provided for "partial" methods	坏味道	次要
Types should be named in PascalCase	坏味道	次要
Strings should not be concatenated using '+' in a loop	坏味道	次要
"catch" clauses should do more than rethrow	坏味道	次要
Trivial properties should be auto-implemented	坏味道	次要
Namespaces should not be empty	坏味道	次要
"Equals" and the comparison operators should be overridden when implementing "IComparable"	坏味道	次要
Private fields only used as local variables in methods should become local variables	坏味道	次要
Methods should not return constants	坏味道	次要
Jump statements should not be redundant	坏味道	次要
Track uses of "TODO" tags	坏味道	提示