System.Runtime.CompilerServices.CompilationRelaxationsAttribute Class

```
[ILAsm]
.class public serializable beforefieldinit
CompilationRelaxationsAttribute extends System.Attribute


[C#]
public class CompilationRelaxationsAttribute: Attribute
```

Assembly Info:

- *Name:* mscorlib
- *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00]
- *Version:* 2.0.x.x
- *Attributes:*
    - CLSCompliantAttribute(true)

Type Attributes:

- AttributeUsageAttribute(AttributeTargets.Assembly | AttributeTargets.Class | AttributeTargets.Struct | AttributeTargets.Constructor | AttributeTargets.Method, AllowMultiple=false, Inherited=false)

Summary

This attribute allows the user to specify whether the ordering of instruction checking is strict or relaxed. It also allows the user to specify whether or not strings are interned.

Inherits From: System.Attribute

Library: RuntimeInfrastructure

Thread Safety: All public static members of this type are safe for multithreaded operations. No instance members are guaranteed to be thread safe.

Description

Optimizers are granted additional latitude for relaxed exceptions. A method is relaxed for certain kinds of exceptions if the innermost custom attribute `System.Runtime.CompilerServices.CompilationRelaxationAttribute` pertaining to that kind of exception is present and specifies to relax those kinds of exceptions. (Here, "innermost" means inspecting the method, its class, and its assembly, in that order.)

[*Note:* For background and implementation information for relaxed exception handling, plus examples, see Annex F of Partition VI.]

[*Note:* See the `System.Runtime.CompilerServices.CompilationRelaxations` enumeration for a description of the kinds of exceptions that can be relaxed or made strict.]

The runtime can create one string object for each unique string literal, rather than making multiple copies. This is called string interning, which internally requires building auxiliary tables that consume memory resources. String interning can be enabled or disabled at the assembly level via this attribute.

CompilationRelaxationsAttribute(System. Runtime.CompilerServices. CompilationRelaxations) Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor(valuetype
System.Runtime.CompilerServices. CompilationRelaxations relaxations)

[C#]
public CompilationRelaxationsAttribute(CompilationRelaxations
relaxations)
```

Summary

Constructs and initializes a new instance of the
`System.Runtime.CompilerServices.CompilationRelaxationsAttribute` class
with the specified
`System.Runtime.CompilerServices.CompilationRelaxations` value.

Parameters

Parameter	Description
relaxations	A a bitwise OR combination of enumeration values from `System.Runtime.CompilerServices. CompilationRelaxations` that specifies the desired ordering of instruction checking and string interning.

Description

The *relaxations* flags describe whether to change exception strictness, or string interning. For exceptions of kind xxx, setting Strictxxx makes those exceptions have strict ordering, and setting Relaxedxxx makes those exceptions have relaxed ordering. Setting neither flag for xxx causes no change for exceptions of kind xxx; i.e., the strictness/relaxation for xxx defaults to what it would be if the attribute were not present. See `System.Runtime.CompilerServices.CompilationRelaxations` for a list of the xxx choices.)

Exceptions

Exception	Condition
System.ArgumentException	For some xxx, *relaxations* has both Strictxxx and Relaxedxx set, or has both StringInterning and NoStringInterning set.

CompilationRelaxationsAttribute(System.Int32) Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor(int32
relaxations)


[C#]
public CompilationRelaxationsAttribute(int relaxations)
```

Summary

Constructs and initializes a new instance of the
`System.Runtime.CompilerServices.CompilationRelaxationsAttribute` class
with the specified
`System.Runtime.CompilerServices.CompilationRelaxations` value.

Parameters

Parameter	Description
relaxations	A bitwise OR combination of enumeration values from `System.Runtime.CompilerServices. CompilationRelaxations` that specifies the desired ordering of instruction checking and string interning.

Description

The *relaxations* flags describe whether to change exception strictness, or string
interning. For exceptions of kind xxx, setting Strictxxx makes those exceptions
have strict ordering, and setting Relaxedxxx makes those exceptions have
relaxed ordering. Setting neither flag for xxx causes no change for exceptions of
kind xxx; i.e., the strictness/relaxation for xxx defaults to what it would be if the
attribute were not present. See
`System.Runtime.CompilerServices.CompilationRelaxations` for a list of the
xxx choices.)

Exceptions

Exception	Condition
System.ArgumentException	For some xxx, *relaxations* has both Strictxxx and Relaxedxx set, or has both StringInterning and NoStringInterning set.

CompilationRelaxationsAttribute.Compilat ionRelaxations Property

```
[ILAsm]
.property int32 CompilationRelaxations { public hidebysig
specialname instance int32 get_CompilationRelaxations() }


[C#]
public int CompilationRelaxations { get; }
```

Summary

Gets the set of values sent to the
System.Runtime.CompilerServices.CompilationRelaxationsAttribute
constructor that specifies the desired ordering of instruction checking and string
interning.

Property Value

The current set of values that specifies the desired ordering of instruction
checking and string interning.

Description

This property is read-only.